

# Universidad Iberoamericana Generator of Knowledge

*Witnesses and Actors  
Seeking to Attune  
their Polyphony*

Guillermo Fernández Anaya, Alba González Jácome,  
Gloria Prado Garduño, Fernando Rovalo,  
María Cristina Torales Pacheco  
(Editors)



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Universidad Iberoamericana generator of knowledge  
*Witnesses and actors seeking to attune their polyphony*

**General Coordination**

María Cristina Torales Pacheco

**Academic publishers**

Guillermo Fernández Anaya

Alba González Jácome

Gloria Prado Garduño

Fernando Rovalo

María Cristina Torales Pacheco

**Translator**

Adela Irene González Ocampo

**Research and edition assistants**

José Fernando Madrid Quezada

Karen Gen Campos

María José Domínguez Cuevas

María Monserrat Patiño Chávez

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MSc David Fernández Dávalos

**Rector**

Doctor Sylvia Schmelkes del Valle

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*We find wonder and support  
in the universe laws and constants  
that, before the first second, made  
our resources possible;*

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*"You've come a long way, baby".  
Research in and from the Art Department*
- That is perceived, in things and History  
specific of a place,  
with eyes, ears and  
hands, tongue and nose;  
as evidence and invitation;  
where that expressing us, frees us;  
but only the truth expressing us  
offers itself to the knowledge  
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# *Ibero and Research: Thoughts for the Diamond Jubilee<sup>1</sup>*

Alejandro Guevara Sanginés

- 1 Some fragments and ideas portrayed in this text were previously addressed by the author in the article “Academic quality with social relevance” in the special issue of the magazine Ibero: 75 YEARS OF IBERO | EXAM | 2018.
- 2 “The university reconciled source of life”, World Encounter of Universities entrusted to the Society of Jesus, *Transforming our World Together*, Loyola, July 10, 2018.

*“A University under the responsibility of the Society of Jesus is called, therefore, to create. Creative capacity that is shown above all in its ability to anticipate its time, of being several steps ahead of the present moment. A university capable of seeing beyond the present because it cultivates and is nourished by an inspiring and illuminating historical memory.”.*

*Arturo Sosa, S.J.  
Provost General of the Society of Jesus, 2018<sup>2</sup>*

Research, understood as the ability to extend our knowledge horizons, is a substantive function of the university, and to flourish requires an environment of freedom and the search for truth.

In this sense, to be faithful to the investigative tradition of several centuries in the university institutions of the Society of Jesus consists not so much in paying tribute to the rich wealth of accumulated knowledge, as in continuing with the distinctive element that inspires them. Such element consists in reading the signs of the times, that is, in generating novel answers contextualized in eras and territories of different realities that question us.

In a university inspired by the Ignatian spirit, it is understood that the dynamics of knowledge generation, however excellent, is not always relevant if it does not act in pursuit of human fulfillment.

Knowledge generation is essential to suggest changes, small or large, concrete or complex, that allow us to move towards a society like the one we long for. It grants national and international prestige and allows -for its worth- the attraction of funds for its realization. Often, it is a possibility of condition to afford talent formation in our students. It represents an important and instrumental quality standard, because it allows us to enter a virtuous circle of improvement of our teaching and our binding. However, it is a limited standard, since research in an institution like ours can only reach its full potential when it impacts the transformation circuits towards a more prosperous, productive, peaceful, just, equitable and environmentally sustainable society.

All this materializes by traversing a path of strenuous reflection, founding and articulation of ideas, and can be linked to reality through three elements. First, the location on the political agenda of our transformation proposals; second, participation in its design and impulse; and third, our intervention in its realization and continuous assessment<sup>3</sup>.

We must recognize that the great problems of Humanity are complex. And although the disciplinary depth —majority in the life of Ibero— has led us to important achievements, it is unavoidable to recognize its limitations. Thus, it is necessary to notice that academic practices and structures, and the ways in which we address complex problems, do not respond fully to solving them. Today, the challenges of multicausality and multidimensionality of such problems mean that, in these times of celebration for 75 years of path traveled in the university, let's take a break and think about how to approach the future and how to get ahead of the times.

Guiding society toward the desired path requires approaches allowing for knowledge's multiplicity dialogue existing between disciplines and professions, and among other cultures.

In fact, academia, and more specifically our Universidad Iberoamericana, already having a mature position in the research field, with a critical mass of more

3 Summary of learning on Ignatian incidence in Latin America. Roberto Jaramillo, S.J., (2016), available online at: <http://www.cpalsocial.org/documentos/243.pdf>.

than a hundred researchers belonging to the National Researchers System, with its institutes, chairs, departments, transdisciplinary center and with its Research Directorate, has the opportunity to offer answers to this new insight of quality of life improvement. By reformulating its structure, it takes an important step towards an integral vision of world and national problems, from a perspective considering interactions between different spheres or fields, in which the world's complexity has been artificially divided for its study and transformation.

Given the magnitude of this task, it is essential to continue opening our mind and spirit, and to collaborate. That intangible element, that mysticism, is what makes us recognize that only by accompanying mutually can we achieve that our work as researchers has multiplier effects. So has been recognized by the Society of Jesus universities network, making known its "prophetic networks" in the most recent international meeting in our house of studies<sup>4</sup>.

Let us make this path a reality and let the celebrations in this 75th anniversary be one more reason to impulse this collective creative evolution!

Santa Fe, Autumn of 2018 ¶

4 International conference "SJ Universities towards the transformation of the World", held on March 13-16, 2018 in Universidad Iberoamericana, Mexico City.



Doctor Alejandro Guevara Sanginés, Vice rector of the University, 2018

# Introduction

Guillermo Fernández Anaya  
Alba González Jácome  
Gloria Prado Garduño  
Fernando Rovalo  
María Cristina Torales Pacheco

This 2018 our institution commemorates 75 years of the founding of the University Cultural Center, initiative that the Mexican Jesuits of the twentieth century, in collaboration with numerous intellectuals, offered the Mexican youth a humanistic higher education.

In 1968, already with the name Universidad Iberoamericana, the *Institutional Ideology* was enacted in which the purposes of Christian inspiration and commitment were ratified, not only to be transmitters of knowledge, but to become a generating and disseminating University of them, at the service of our country.

Commemorating 75 years of foundation and 50 of the institutional declaration of its principles, is what motivated this book. This forces us to remember and preserve in the collective memory the trajec-

tories, life experiences and successes of the university community.

To commemorate two events so relevant in the history of the Universidad Iberoamericana, from the institutional instance that accompanies and promotes knowledge generation constituted an invitation to researchers and officials with ample experience in research, so that from a historical perspective they would share their experiences and achievements and, from their horizon, as a legacy, offered some prospective to the new academic generations with a research vocation.

Currently, the faculty of the Universidad Iberoamericana is composed of three hundred and eighty-four academic personnel, one hundred and three of which are members of the National Researchers System (SNI). This year the institution fi-

nances one hundred twenty institutional projects.

Although, since its origins, the Iberoamericana has distinguished itself by its humanist stamp and its social relevance, and has promoted research in humanities and social sciences, at the end of 1960s it started research in Chemical Engineering and towards the seventies in Physics and Mathematics. It also took its first steps in the field of technological innovation.

This book is proposed as a starting point of the balance that should be done to conduct research tasks regarding the demands of the global contemporary environment. As the title indicates, the Iberoamericana is an institution with vocation to generate knowledge for the service of society. It is faithful to the Society of Jesus founder's legacy, Ignacio de Loyola, eager for capturing and propagating knowledge. Thus, he showed in his letter of February 24 addressed to Father Gaspar Berceo, resident in India. Ignatius suggests to his brother of religion that in his letters:

... something should be written about the cosmography of the regions where ours are; how would it be, how long are the days of summer and winter, when does summer begin, if the shadows go sinister, or to the right hand. Finally, if other things are that seem extraordinary, give notice, such as animals and plants not known, or not in such greatness, etc.<sup>1</sup>

1 Ignacio de Loyola to Gaspar Berce (Berceo), Roma, February 24, 1554, in Saint Ignatius of Loyola Works (Obras de San Ignacio de Loyola), Madrid, 1991, p. 985

This book highlights the trajectory of research of a community that for several decades has assumed the reaffirmation of disciplines and their interdisciplinary consonance, and even transdisciplinary, in order to contribute to society, as an authoritative concert, an integral knowledge at their service.

Since its inception, our University has made a great effort to strengthen research in science and technology, even when there was no support from Conacyt. In the Iberoamericana, new spaces for diffusion and dissemination of sciences and technologies have been developed, through various programs promoted from divisions, departments, institutes, with the participation of research personnel, academic staff, students and society in general. Research in our University has been the beneficiary of support programs financed by the economic patronage Research and Higher Culture Development A.C. (Fomento de Investigación y Cultura Superior A.C. (FICSAC)) which has helped several researchers in the execution of their projects and stimulated research high performance and quality in the Institution. Currently, there are several research projects linked to postgraduate programs of the National Postgraduate Program in Quality (Programa Nacional de Posgrados de Calidad (PNPC)) of Conacyt and with other national or foreign bodies, which make of the Iberoamericana one of the universities with the greatest impact on research in the country.

The book *Universidad Iberoamericana generator of knowledge* is a starting point for the recovery of testimonies from

the researchers of the Institution, and is proposed as an invitation to the university community to participate in the conservation of the institutional historical memory, essential in the strategic tasks for permanent reflection on the university endeavors and the outline of its prospective. The documents comprising it reveal the universality of cultivated knowledge in the Iberoamericana, the diversity of motivations, methodologies, achievements, etc., and it is possible to appreciate in them, nevertheless, the unity in purposes: research regarding social commitment and relevance.

The work offers a general historical context, and the trajectories and reflections of forty-four academicians. Those profiles refer to their scientific incursions inside and outside the walls of the institution. As complement, three attachments are included that allow configuring a history of research in the Iberoamericana and venturing its prospective.

By way of homage, it was considered essential to incorporate life vignettes of many deceased academicians who were research pioneers. Most of them were Jesuits, who were trained in American and European universities in the first half of the twentieth century; upon their return to their homeland, it corresponded them to draw the educational model of our institution and the placement of the first steps of research. They share their perceptions about them disciples and those who were close to their research tasks. In this line, for example, we include the biographical sketch of Barbara Andrade, the first woman with a Ph.D. in Theology who participated in that discipline as a teacher of

higher education in Mexico, written by her distinguished disciple Carlos Mendoza Álvarez, also a doctor in Theology and a member of the SNI.

In the preparation of the testimonies some University academicians participated, distinguished, among other things, by their extensive experience as researchers whose contributions to the sciences have transcended and have been recognized by the national and foreign scientific communities.

As complement to the book, it was considered relevant to draw a link with the new generations of researchers. For such purpose, some texts were requested from young people who took on the challenge of looking at the past to expose the origins of some of the research lines that drive successfully today in the Iberoamericana.

This space was opened to announce the trajectory of the two institutes that for more than a decade have carried out interdisciplinary research: the Research for the Development of Education Institute (Instituto de Investigaciones para el Desarrollo de la Educación (INIDE)) and the Research for the Development with Equity Institute (Instituto de Investigación para el Desarrollo con Equidad (EQUIDE)).

It should be pointed that some of the researchers who wrote about their own work have recently retired or are close to doing so, therefore we consider it important to preserve and disseminate their written words as motivating testimonies in the investigative work of new generations.

Brief laudatory words open the book with which Dr. Alejandro Guevara Sanginés refers to research as a substantive

function of academic work in the Universidad Iberoamericana and proposes the prospective outlined by the Institution for the promotion of interdisciplinary and transdisciplinary research to answer the big global problems and in particular those that affect our country.

To write the first part of the book, former officials and officials of the Institution linked to research were invited. Guillermo Casas Pérez, thanks to his deep knowledge about the Society of Jesus and his career of over forty years as academic official of the University, offers us important reflections on the history of the Iberoamericana. Two former Research Directors answered the invitation. Luis Vergara, currently a member of the History Department, to whom as Coordinator, first, and later as Postgraduate and Research Director, corresponded defining the institutional guidelines for this function. Alberto Ruiz Treviño, Chemical Engineer who had in his charge the Directorate for a decade, and who was a leading actor in the management of SNI 30 and SNI 100 programs. Both shared with us their experiences in the Research Directorate, as well as their contributions as researchers recognized in their field.

In this first part we agreed to include a brief text by Jorge Ibáñez, Chemical Engineer, first member of the SNI from the Universidad Iberoamericana, who is still active as researcher. It records how Dr. Ernesto Dominguez Quiroga, S.J., in his capacity as Rector of our Institution, who took the first steps before the federal government to obtain entry into the SNI of researchers from private universities.

As conclusion of this first part of the work, the current Research Director, Thomas Legler, points out the research achievements of the last four years and suggests, based on his experience, a prospective for research in the Institution.

In the second part of the book the testimonies gathered offer a synthesis of the development of sciences and engineering, starting with some contributions made at the beginning of the University, which were developed in the departments, since disappeared, of Chemical Engineering, Physics, Mathematics and Engineering, and have continued to date with the most recent research driven in the current departments of Chemical, Industrial and Food Engineering; of Physics and Mathematics, and Studies in Engineering for Innovation.

Most of the texts were written by researchers with the broadest trajectories in the University, however, it was considered relevant to incorporate some testimonies from researchers in some newly created fields in the Iberoamericana. These testimonies reflect the varied points of view and approaches from where each researcher worked and lived his research work in the University in different circumstances and contexts.

The testimony of Francisco Martín del Campo refers to the first shared risk project IBERO-Conacyt, which marks an important milestone in the history of research within the University, as it led to the development of a bio-signal transmitter system, an electrocardioscope with plotter, a digital taximeter and a computer-

ized system for the analysis and control of telephonic traffic. All this took place in the framework of an agreement between the University, the private sector initiative and Conacyt, to help generate attractive technological proposals, both for the national industry as well as for export.

Eduardo Gamaliel Hernández Martínez states how robotics in the Iberoamericana starts in the Engineering Department in 1991, when Sergio Montufar, Engineer, developed a hexapod mobile robot. The course reaches the present moment, in which Eduardo Gamaliel Hernández Martínez and Dr. Guillermo Fernández Anaya lead the research on heterogeneous differential, omnidirectional, quadruped and multi-rotor type drones, built at the University by postgraduate students in multiagent robot platforms, in collaboration with Enrique Ferreira and José Job Flores Godoy of the Universidad Católica del Uruguay, and Sergio Foyo Valdés and Erika Puga Velázquez.

Antonio Gen Mora tells how he started research in the now-defunct Physics Department, in collaboration with Enrique Sánchez y Aguilera, Gabriel Anaya Duarte, S.J., Baldomero Carrera and Alfonso González Quevedo. His testimony of how the Nanotechnology Laboratory was installed and the study of this science in the University is particularly relevant, supported by Dr. Mauricio Terrones Maldonado, former student of Physical Engineering at the Universidad Iberoamericana, and an eminence in that field.

Esther Ramírez Meneses and Felipe Cervantes Sodi narrate how the Nan-

otechnology Laboratory has evolved to this day. Currently, for example, metallic dicalcogenides are produced with the collaboration of Dr. J. A. Reyes Retana. The laboratory supports, also with electronic microscopy, other laboratories within our institution, and collaborations have been set with various national and international institutions. Undergraduate and graduate students have been trained in these fields of knowledge with an interesting scientific production.

Jorge Ibáñez Cornejo, as has already been said, was the first researcher of the University to join the SNI. He began his story in 1985 and describes how he was developing his research linked to national and foreign institutions on topics such as Micro-Scale Chemistry, Synthesis and Characterization with Materials and Electrochemistry, among others. His work has been recognized with national and international awards, and his books have been widely used as texts in Mexico and other countries. He has had multiple collaborators, among them, María del Carmen Doria Serrano, Rosa María Mainero Mancera, Margarita Hernández Esparza and Arturo Fregoso Infante.

Alberto Ruíz Treviño describes his path as researcher. His studies have focused on polymers and has an extensive network of national and international collaborators. He has developed numerous projects backed by Conacyt and the private sector. In its wide trajectory it must be recognized his leadership of Institutional research for ten years in which it is necessary to point out his active participation in managing

private universities to sign SNI 30 and SNI 100 agreements with Conacyt.

Rubén César Vásquez Medrano explains how he began his research in this institution with the project “Monitoring and control of corrosion in process industry”. His work has been developed in corrosion, simulation and battery modeling, design and optimization for the separation of bioethanol topics, among others. He is a researcher with extensive experience in the University, has promoted numerous collaborations within and outside the Institution, as well as linking projects with the productive sector.

Adolfo G. Finck-Pastrana comments on the research projects developed at the Solar Thermal Energy Laboratory, including the indirect solar dryer with variable flow direction, the deconstruction and characterization of a tunnel without structure for drying coffee and the solar dryer of Chile. His work includes kitchens, solar concentrators and distillers, as well as photovoltaic systems. In his long trajectory at the University he has had multiple inside and outside collaborations. Among these, the one with Humberto Mondragón Suárez, Graciela Rojas González and, more recently, the one with Alejandro Ordaz Flores.

Guillermo Fernández Anaya describes how his research was developed in control theory, dynamic systems and applied mathematics in several fields. He has a long career in research with national and international collaborations. Among his collaborators are Eduardo Gamaliel Hernández Martínez, Alejandro Mendoza Álvarez, Leo Diago Cisneros, José Ál-

varez Ramírez, Salvador Carrillo Moreno, José Job Flores Godoy, Enrique Ferreira Vázquez, Rodrigo Muñoz Vega, Oscar Rosas Jaimes and Guillermo Mallén Fullerton, and some of his students such as Luis Alberto Quezada Téllez, Emilio Quiroz Ibarra, Guillermo Nava Antonio, Jack James Galante and Dan Becker Bessudo.

Alfredo Sandoval-Villalazo exposes how his research arose from a phenomenological study aimed at generalizing the Meixner-Prigogine formalism of irreversible processes thermodynamics to the field of relativistic fluids. Subsequently, he remarks on how today his work is developed in Cosmology, Kinetic Theory of gases and other fields, using irreversible processes Thermodynamics and General Theory of Relativity. He is a researcher widely recognized in his field; among his collaborators are doctors Leopoldo García-Colín Scherer and Humberto Mondragón Suárez, and doctors Ana Laura García Perciante and Dominique Brun Battistini.

Salvador Carrillo Moreno tells how his research in Experimental Particle Physics has been developed, thanks to the collaboration of his students and other collaborators within and outside the University. He is a researcher with proven experience in his field. He is a participant in E831-FOCUS experiments, and in CDF, both at Fermi National Laboratory, and in the CMS-Compact Muon Solenoid, of the Large Hadron Collider -LHC- at CERN in Switzerland. Among his collaborators are Elsa Fabiola Vázquez, Cristina Oropeza, Rodolfo Fabián Estrada and Guillermo Fernández Anaya.

Guillermo Mallén Fullerton briefly recounts the contribution of Alejandro León de la Barra, Engineer, to the dissemination of Astronomy in the University and in the country; pioneer in this field in the Iberoamericana. As director of Clavius Center he spilled over many students his passion for astronomy, which motivated some of them to go abroad to study a graduate degree in the subject. Some of his collaborations were with Lorena Arias Montaña, Ignacio Santiago Prieto and Guillermo Mallén Fullerton.

Anabel Arrieta Ostos describes her development as researcher in the Observational Astronomy field. Among her studies are the way in which change in chemical composition affects the evolution of a star and the influence of interstellar medium enrichment on star's rotation. Among her collaborators it is possible to mention doctors L. N. Georgjey, Silvia Torres Peimbert, Leopoldo García-Colín, Alfredo Sandoval-Villalazo and Lorena Arias Montaña.

Ana Bertha Pérez Lizaur describes how the Health Department was born and is formed, and how researchers in that department have contributed to the research in this field chronologically according to their arrival there. Among the aforementioned investigators are Ángel Torreblanca, Héctor Bourges, Felipe Vadillo, César Hernández, José Monroy, Araceli Suverza, Pablo Picardi, Loredana Tavano, Pedro Arroyo, Miriam López Teros, Escalante Izeta, Teresa Ochoa, Sonia Hernández, and Pérez Lizaur herself.

A priority research topic at the Universidad Iberoamericana is education in

Mexico. Academicians of the University, since the 1970s, ventured into educational processes from Psychology, Philosophy, History and Human Development. Others, at the end of the century, influenced by social sciences, from Political Science, Sociology and Economics. The third part of this book is composed of writings revealing the trajectories of researchers and their contributions in education matters. In these it is possible to appreciate the impact of their research in our country, in the organization of basic, secondary and higher education institutions, and in the formation of teachers, as well as in public policies linked to education.

The first text refers to Ernesto Meneses Morales, S.J., who as rector was promoter of academic reform that gave rise to the Universidad Iberoamericana's educational model. His qualities, his concept of university research and his accomplishments as a researcher are pointed out. In particular, reference is made to his already classic books that refer both to education through the understanding of children and his voluminous work of philosophical and historical character referring to the trends of official education in Mexico during the twentieth century.

Silvia Schmelkes del Valle, disciple, colleague and friend of Carlos Muñoz Izquierdo, in an unpublished text that she wrote on 2010 to summon the Educational System Universities granting her a PhD, makes us a punctual assessment of human quality and research career of Muñoz Izquierdo in the Iberoamericana from 1984 to 2010. She describes in detail the acade-

mician who promoted educational research in order to help understand and save the great inequalities that afflict our country. One could thus grade Muñoz Izquierdo as a revolutionary who, from the trenches of educational research, fought for Mexico's social transformation.

Institutional commitment to research in educational materials culmination is research that has been driven in the education field with the creation of INIDE a decade ago. The text by Enrique Pieck Gochicoa offers an account of a decade of assuming the noble task of investigating the problems of education, which are, at the same time, the product and source of the unfair and unequal society prevailing in Mexico. In his text, he explains that his research lines have sought to be faithful to quality and equity in basic and higher education, intercultural education, educational policy, the relationship between education, work and poverty.

One aspect that could not be omitted in this work is the continuous research work that has been carried out since the 1970 decade so that, through innovative processes in the field of didactics of higher education, the quality of the teaching programs of the University is fostered. Of the numerous initiatives in this regard, José Ramón Ulloa, dean and former director of the now defunct Didactic Center, informs us.

Antonio Tena offers us the historical perspective of research in Psychology. Specifically, he mentions three illustrious "psychologists, psychotherapists, former directors of the Psychology Department"

who were distinguished as teachers and promoters of psychology research in Mexico. He referred to Dr. Roberto Navarro, a researcher at the now extinct Center for Psychological Guidance and his contributions to Psicoenergetics, which, among other things, refer to the overcoming of depression, alcoholism and drug addiction. Of Teresa Lartigue highlights her dialogue initiatives with marginalized communities, and her work on psychological care of women: of their sexuality, pregnancy, childbirth and postpartum. In addition, has been involved in researching the psychological conditions of the health sector: nurses, doctors, psychologists, etc. Of Juan Lafarga, highlights his adhesion to proposals from Psychology and Humanism guided to social wellbeing qualified as "Human development". He recalls in his text the words with which Juan wanted them to define him: "He did his part in the integration of Mexican Psychology and in the integration of thought, teaching and research towards human beings wellbeing."

Juan Lafarga also refers to José Gómez del Campo who from 1989 to 1996 led the interdisciplinary program "Transformation and Change, Integral Health and Quality of Life" in the Human Sciences Division, which gave numerous fruits in the research field. Numerous theses, articles in specialized journals, forums for academic dissemination, etc., were executed.

Another discipline of recognized research tradition in the University is Anthropology. In the 1960s, Luis González Rodríguez drove his historical-anthropo-

logical research on the Tarahumaras or Rarámuris and later continued his career at the Universidad Nacional Autónoma de México. He was followed by Dr. Ángel Palerm, the pillar of Social Anthropology in Mexico. One of his closest disciples, Alba González Jácome, exposes to us in detail the Palerm's imprint, not only in anthropologists' formation of the Iberoamericana but in irradiating the discipline in numerous institutions of higher education.

The consolidation of the School of Anthropology in the field of research is manifested in Carmen Viqueira, Palerm's wife, trajectories, who continued Social Anthropology cultivation. Her disciple Carmen Bueno highlights the methodological rigor with which Viqueira assumed her research in a constant dialogue between Psychology and Anthropology. In her last researches she ventured into Industrial Anthropology from a historical perspective.

Of Alba González Jácome, David Robichaux and Carmen Bueno we include the narrations of their trajectories as researchers. The former mentions her first mentors, her field practices in Veracruz and how, motivated by Ángel Palerm, Efraín Hernández X., Agronomist, and numerous foreign Anthropologists, she dominated the Texcoco region, identifying soils, vegetation, cropping systems, etc. It was these first experiences that motivated her to develop her research line: Environment, society and culture, in which she has made countless contributions on the environment in Mexican territory.

David Robichaux, like Alba González Jácome, assumed and carried into

practice the slogan of Ángel Palerm: "to teach anthropology researching". Robichaux leaves proof of his insertion, first as a student and later as an academician, in the School of Anthropology, in the decade of splendor, the seventies of the twentieth century. From his first researches, he assumed as an object of study the Mesoamerican family system. In constant dialogue with other disciplines, he has managed in his forty years as investigator to draw up interdisciplinary theoretical-methodological proposals around Family Anthropology and Historical Demography.

Carmen Bueno, since her first steps as a researcher, has privileged the anthropology of economic corporations. She warns that: "... I have had the privilege of observing the efforts of a variety of social actors, dispersed in big cities or in the countryside, from independent work, small workshops, subsidiaries of large global chains, local companies based on technology, the professional who uses co-working spaces and network connections as his *modus operandi*". It should be said that she also professes to be a disciple of Ángel Palerm and Carmen Viqueira. Her reflections offer us one more facet of the anthropological discipline emerged in the classrooms of the Iberoamericana.

Although some academicians from the departments of Social Sciences and Economics had done research on the great problems of poverty and inequality in Mexico, fifteen years ago the University set out to promote these studies from an interdisciplinary point of view with the creation of the Research on Sustainable Development

and Equity Institute (Instituto de Investigaciones sobre Desarrollo Sustentable y Equidad (IIDSES)), which recently changed its name to the Research for Development with Equity Institute (Instituto de Investigaciones para el Desarrollo con Equidad (EQUIDE)). Its current director, Graciela Teruel, offers an accurate account of the Institute's historical trajectory and its current position as a consolidated interdisciplinary academic model that has managed to have a bearing upon public policies aimed at reducing poverty and improving population health conditions.

Also, this book records the prodigious odyssey of the Luhmann project, conceived and lead by Javier Torres Nafarrate, with almost forty books, which could well give rise to a novel, sometimes drama, other comedy or tragedy, although it can have a happy ending. From the original appreciation for the work of this author came the intention to translate his books; soon, the project became internationalized. From the initial location in the area of Human Development and Education, it passed to the Social Sciences area. Overseas he had to overcome difficult international relations problems. A congress accepted by Conacyt, in 2007, and the continued support of the Iberoamericana with the understanding of the project, has allowed to develop it, albeit with limitations.

Karen Cordero, with more than thirty years as a researcher, offers her look at the Art Department historical trajectory in the field of research. She concludes her text with the description of works that dealt with the theory of aesthetics and culminated with numerous inter and transdis-

ciplinary experiences on the critique of art from the social sciences, and in particular highlights her participation in dialogues and research on gender studies and power and art relations.

In part four of the book, Fernando Rovalo, disciple of Felipe Pardinas Illanes, S.J., refers to the field of art and design, for which he considered it essential to remember the memory of "Don Felipe" who, thanks to his initiative, were founded in the Iberoamericana the careers of Architecture, Industrial Design, Art History and Fine Arts. His personal and academic formation decanted his affinity for research in a time and place that did not favor its flowering. He founded, then, but he also wrote and published successfully. Above all, his way of being, kind and rigorous, pointed the way towards knowledge generation. We will always value his person and work.

From the design, Fernando Rovalo mentions the four ways of research, defined by the academic faculty in the year 2017. Three are familiar to other university disciplines: philosophical, logical and scientific. He calls them research *about, of* and *for* design. The fourth way, which calls research *through* design, constitutes, in itself, a unique cognitive opportunity. Explains how with the Linked Projects the University has constituted bridge- topics towards that fourth way. It also refers to the most recent step towards the dissemination of departmental research with the creation of *DIS Journal*, a digital magazine of its own, started with success and quality.

Gloria Prado then mentions that in the Literature Department research on children's literature and teachers' for-

mation from an intercultural perspective have been constant. It makes reference to the breadth of research topics performed, some strictly literary, others related to multiple disciplines; some in a national horizon, others of an international nature. She points out that research on theater and theatricality has produced over 95 publications. She explains how, since the eighties of the last century, she has carried out research on hermeneutics and gender literature and has participated uninterruptedly for several decades in an inter-institutional seminar with researchers who share their study objects.

In the field of law, it is fair to remember several of its pioneers in the Iberoamericana, for example, Miguel Villoro Toranzo, S.J., a lawyer, yes, but above all a philosopher; first graduate of the career at the Universidad Iberoamericana when it was still called Centro Cultural Universitario. During his formative years as a Jesuit, the teaching stage was held at the unforgettable Instituto Patria. Those who were his students then, remember with appreciation his closeness. By now at the University, he worked intensely for the Law School excellence, inviting extraordinary teachers to collaborate and founding the *Juridical (Jurídica)* yearbook. The adventure of his participation in national and international events occurs in parallel to his long bibliographic production, culminating with *Legal Deontology (Deontología Jurídica)*. Theologian, of course, death prevented the realization of his desire to write *Theology of Law (Teología del Derecho)*.

We must also remember Héctor González Uribe, S.J., renowned interna-

tionalist; finally, a philosopher, doctor by Innsbruck and Vienna. By now a Jesuit, he made his professorship at the Instituto Patria. His former students remember him affectionately, sixty years later, serious and affable, each class prepared with impeccable calligraphy, amazed today to have felt then that a presence of such magnitude was *normal* for the second or third year of secondary school.

He was also director, at different times, of the Philosophy, Letters and Communication Schools and first director of the Humanities Division. In the Studies Plan he opened the neo-scholastic philosophy to other currents of thought and distanced himself from positivist and Marxist-Leninist ideologies. He founded the Journal of Philosophy (*Revista de Filosofía*), although he also published in the *Juridical* yearbook and the Community (*Comunidad*) magazine, among others. He was founder, together with Felipe Pardinas, S.J., of the Political and Social Sciences School. He exercised teaching at undergraduate and postgraduate level, and left four substantive books and innumerable articles, 28 unpublished, that still await publication. Were his disciples really aware of who was in their classrooms?

You can enjoy Jane Dale Lloyd's text, recounting the passage of social movements research to the "history of emotions". The road started years ago with the bibliographic recovery on the anarchist groups in Brazil, Argentina and Uruguay. By now in Mexico, in Coyotepec, the focus was on the social group of ranchers, small agricultural producers, landowners, who together with merchants constituted the

wealthy social strata of the town. This topic became a common thread in subsequent investigations.

Since 2011 in the History Department, he led the research line “Signatures of Memory, spaces of experience and history of emotions. Studies on the History of Present Time” (Signaturas de la Memoria, espacios de experiencia e historia de las emociones. Estudios sobre Historia del Tiempo Presente). The collective fruit of students and academicians integrant of that line is the book: Perspectives in the Archaeology of Emotions (*Perspectivas en la Arqueología de las emociones*), which is in the process of being published.

Following is the testimony of María Cristina Torales who has ventured into agrarian history, the study of elites and their transoceanic interplays as well as the history of the Society of Jesus Mexican Province. She describes in detail some of the Hispanic and Lusitanian Worlds (Mundos Hispánico y Lusitano) research projects line, among which stands out an inter-institutional, interdisciplinary and collective research on Mexico city, to which she dedicated twenty-eight years and in which numerous academicians and students participated; the product: the Guide to the Town Council Minutes of the seventeenth to the twentieth centuries (*Guía de las Actas de Cabildo de los siglos XVII al XX*), which can today be accessed via Internet. She also exposes the appeal of vice-royal history, especially multicultural processes, to unveil some keys to our identity.

Important in the field of philosophy was Roberto Cruz Fuentes, S.J., in whose

first book, *The man Asks (El hombre Preguntado)*, where *Ask* is both verb and noun, indicates the meaning of his philosophical trajectory. He researched a lot, he published little; handwritten pages and pages are unpublished. To go to the originals, he mastered ancient Greek, Latin, English, French, German and some Russian. He created the library of the Iberoamericana in the Campestre Churubusco campus.

The challenge he posed to people was to formulate fundamental questions. He was considered *Heideggerian* or *Bubbe-rian*; he said: “I’m just a *Crucian*.” Later on, it will be possible to approach the reflections of his journey through Greek philosophy and, above all, to the difference that he needs to establish between information science and communication philosophy, where he supports the freedom to be and rejects alienations to enter into an ethical communication stance.

Francisco Galán offers his testimony: how he discovers his vocation as a researcher at the beginning of his research on Bernard Lonergan, and the consequences thereof that have followed to this day. As a student, it seemed to him that the important thing was to find the great teacher and faithfully repeat his wisdom. Ten months in a Lonergan’s Post-doctoral fellowship at Boston College were instrumental in starting to research properly and, in addition, with an interdisciplinary perspective. Later he published the book *A metaphysics for post-metaphysical times: Bernard Lonergan’s proposal of a meta-methodology (Una metafísica para tiempos post-metafísicos: La propuesta de Bernard Lonergan de*

*una meta-metodología*), from this, in 2011, appears a long Lonerganian bibliography. Ontology and epistemology of the new realism (*La ontología y epistemología del nuevo realismo*) is currently under preparation.

Virgilio Ruiz Rodríguez tells us about his experience, first as a student, and then as an academician in the Philosophy Department of the University. He tells that when listening father Rubén Sanabria say that Philosophy is a way of life and science a way of knowing, but that Philosophy is a knowledge to live and to die, moved his life and marked his endeavors in the field of knowledge. Virgilio thanks professor Jaime Ruiz de Santiago for having sown a taste for Aristotelian-Thomistic thought and doctrine, a line of thought that for a long time marked the department, for which he was known and identified. Among his first publications are *Power in Aristotle and Romano Guardini (El poder en Aristóteles y Romano Guardini)* and *Virtue and the golden middle way (La virtud y el justo medio)*, which seek, like his later books, the truth of man from ethics, politics and law, all this, through the figure of human rights.

Víctor Manuel Pérez Valera, S.J. he chronicles his trajectory. A bachelor’s in Philosophy, doctor in Theology, and a bachelor’s and a master’s in law, has dedicated his life to research, showing it with more than 150 papers presented at national and international conferences, with topics ranging from Judaism to Philosophy of Law, in the same way he has dealt with matters of extreme importance—it would be said of urgency—for the contemporary context, such as the lack of ethics, bully-

ing or mobbing and euthanasia. Death and transcendence (*Muerte y trascendencia*) and Integral accompaniment to the dying (*Acompañamiento integral al moribundo*) are books that indicate his dedication to Thanatology. It has produced many texts to date, in addition, that revolve around on theological questions, on religiosity in general and on the Catholic and Jewish religions, this one in particular, with the study of works by Rabbi A.J. Heschel and Martin Buber, who attest to the tireless work of Father Pérez Valera to generate and disseminate knowledge. It is also fair to remember his firm commitment to teaching, between 1978 and 2015 he served as a full-time professor in the Iberoamericana.

About Barbara Anna Max Hoseit (Andrade, married last name), offers, as already said, a life vignette written by Carlos Mendoza. Barbara was the first doctor in Theology, woman and lay who was a professor among others of Jesuits and Dominicans, also in Iberoamerica itself. Philosopher in Heidelberg, she studies the Bible in the Jesuit school of philosophy in Mexico and with a rabbi in New York.

She completed her doctorate in theology at the Jesuit Faculty of Sankt-Georgen in Frankfurt. Her work is an invitation to the incessant question for the person, portrayed, for example, in the memorable lecture she gave when she received the theological merit medal friar Pedro de la Peña, OP, published later as Structures of forgiveness (*Estructuras del perdón*). Her work is a constant

invitation to a learning to become merciful people, like the Father (*Abbá*) of Jesus.

The book is closed with three attachments that offer pointed information contributing to build the history of the Universidad Iberoamericana as a knowledge generating institution. The first constitutes the list of SNI members in 2018. The second was prepared by María Eugenia Ponce Alcocer, academician and researcher of the Historical Collection Area of the Francisco Xavier Clavijero Library, which is about the list of registered and concluded projects at the Universidad Iberoamericana during the period 1976-2018. The third, led by María Cristina Torales Pacheco and carried out by Karen Gen Campos and José Fernando Madrid, consists of some research ephemera in the Iberoamericana. For this purpose, the documentary collections of the collegiate organizations that, since the 1970s, have conducted institutional research with their decisions, were reviewed.

We trust that the testimonies and attachments gathered in this book to celebrate the seventy-five years of life of the Universidad Iberoamericana and fifty years of its Ideology (*Ideario*), will be able to make present, vividly, the already extensive research tradition. Also, by sharing them with all the members of the university community, make it easier for our different voices to hear each other, to fine-tune, with increasing ease and Godspeed, the *polyphonic choir* that, already no longer can be otherwise, together we form.

These pages are closed with a special recognition to each of the researchers who

took on the challenge of, in a short period of time, offering from their horizons the reflection on their investigative endeavors.

*The spontaneous gesture  
of those singing  
polyphony*

*when we watch them  
turn their ear to other's  
voice,*

*recognizing their own  
fine-tuned in as much as  
both can be heard*

Guillermo Casas Pérez\*

*Historical background:  
Universidad Iberoamericana  
early days*

Perhaps the fifteen years of absence from the Ibero, allow me a critical look on the relationship of the two most endearing institutions for me: the Society of Jesus and the very Universidad Iberoamericana. I dare to do it, despite being far from files and people who could have advised me on the task, I only have a few publications and my memories. It is possible that now, many of my statements are not valid. With this intervention, I only intend to provoke questions and approaches for which, surely, I have no answer.

Although the Society gave rise to the University, and since then there has been a close link between both, it is important to point them out as distinct entities in order to be able to notice the development and changes *of their relationship* throughout their respective histories. In a very schematic way, I will try to place some aspects of the Universidad Iberoamericana history, framed in the contexts that have seemed important to me, against which decisions were taken that have shaped

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Was Director of the Service and Social Promotion Center, Academic General Director, General Director of Academic Exchange and Director of University Dissemination.

the character of our university. According to the characteristics of this and without pretending to be exhaustive, I point out to some of the constitutive elements of the context that, in my opinion, have affected and affect it. Some of them I write them down only for certain periods in the history of the UIA, others permanently. These are, in a “vertical” sense:

1. The Society of Jesus, at the Mexican province level and at Universal level.
2. The Mexican Catholic Church, as well as the Universal.
3. Higher Education in Mexico.
4. Significant events of the Mexican socio-cultural life.
5. Regional and/or global events.

Time constitutes the horizontal plane for this count. On this occasion it will be divided into several stages. Frequently, we locate the birth of the Iberoamericana in the images of diluted photographs of the inauguration ceremony of the activities



The Universidad Iberoamericana in its old facilities of Colonia Campestre Churubusco.

in the University Cultural Center (CCU), the afternoon of March 7th, 1943, in the large living room of a very big house, behind the Palace of Fine Arts. In the decades before 1943, the Jesuits did not have, nor could have had, a project of a university of the Society of Jesus for Mexico. We can affirm that, at least, between 1924 and 1942. In our country everything seemed to conspire against the work of the Church and religious institutions. The simple idea that the Company founded a university at that time, would have seemed absolutely absurd.

until 1942 external circumstances provided the opportunity to establish a university institution, which was taken advantage of.

In the periods from 1929 to 1931 and from 1940 to 1942, it seems that significant situations are condensed for our reflection. At the global level, a political struggle was waged to impose different modes of society and culture, such as fascism and communism, which in 1939 triggered the Second World War. In 1929, the United States experienced financial collapse, while by the 1930s Asia experienced Japanese expansionism.

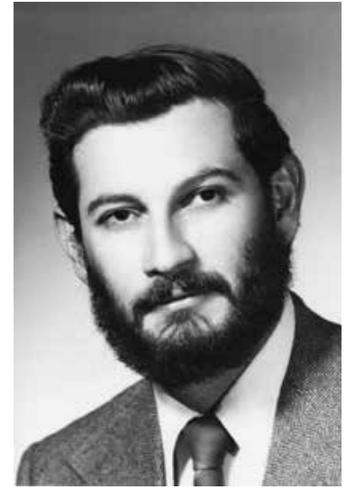
In 1931 the Society of Jesus established an apostolate with university students: the National Catholic Students Union (Unión Nacional de Estudiantes Católicos (UNEC)) and not

On a national level, the Cristero War (1926-1929) was triggered by the regulation of Constitutional Article 130. In 1927 the execution of Father Miguel Agustín Pro took place, and, the following year, the re-election and assassination of Álvaro Obregón. In 1929 the National Revolutionary Party (PNR) was born, at the same time that the economic crisis broke out due to the loss of the value of silver, the Cristero War and the international financial crisis. The same year “The Arrangement” took place between the Episcopate and the Federal Government, to end the Cristero War, which did not satisfy the radicals of both sides. On the one hand, the Church stopped demanding, while the government gave up applying the law. A fundamental change was not achieved, only the end of the armed aspect. A mere change in strategy, because according to many, the Catholics were unable to practice their rights as citizens and the church as an institution.

Also, in 1929 the government granted autonomy to the Universidad Nacional de Mexico, to avoid student support to Vasconcelos in the presidential campaign. In this regard, it should be noted that during the nineteen thirties decade a struggle for the university was established. In spite of the autonomy, factions of all the signs emerged: socialists, communists, pro-government, Catholics, etc.

During the Lázaro Cárdenas’ (1934-1940) government, the principle of Socialist Education (1934), based in Constitutional Article Three, was implemented. Although, said article did not apply to the University, it did not stop being in the sights of the Socialists. Although the government could not act openly on it, it tried by means of a severe budget constraint and by financing antagonistic groups. In parallel, different public institutions were founded at this time: the National Polytechnic Institute (Instituto Politécnico Nacional) (1936), the House of Spain (la Casa de España) (1937), the National Institute of Anthropology and History (1939) and various state universities.

The background to the Jesuit work of the CCU were multiple. As an illustrative note, it should be noted that in those years, a young man who wanted to be a Jesuit, had to leave the country to do his novitiate abroad and return to Mexico, 14 or 15 years later, already an ordained priest to work underground. In any case, around 1931 the Jesuit Father Ramón Martínez Silva, S.J., generated a new and successful apostolate *with* university students: the National Catholic Students Union (Unión Nacional de Estudiantes Católicos (UNEC)) whose purpose was “the coordination of the living forces of the studious youth, to attend to their class interests, according to Catholic principles”. It was organized through a National Executive Committee, as well as through Regional Committees, Committees by schools and faculties in



Guillermo Casas Pérez, Architect.

the UNAM and Committees by region or by city. The Union was characterized by its rigorous discipline towards the inner hierarchy, there was a strict obedience of the orders and a recognition of the ecclesiastical hierarchy, as well as a spirit of body and fight.

The specific actions driven by the Union were to promote the students' Christianization, through the conviction of the value that the supernatural life of Catholicism has for the individual and society, as well as to oppose the dissolving ideas and promote Catholic culture in the philosophical and social terrain. To achieve this, UNEC sought to train Catholic leaders, to seize the power of the student societies of the various schools and faculties, to combat anti-religious, atheist and socialist ideas; likewise, instructing in Catholic doctrine -particularly in the Papal social encyclicals- paying special attention to apologetics and oratory. Likewise, promote community life and piety (Marian Congregations), criticize leftist university authorities and support those of a democratic and open nature. Finally, openly express Catholic thought with the motto: "Discuss, harass, confuse opponents" and "Nothing of passive or shameful Catholics!". From those brave students fight, guided by courageous Jesuits, to my generation in the Instituto Patria, we heard the echoes of the school hymn: *Noble thirds of Christ in battle...*

UNEC was made up of students from most of the existing degrees, in the case of the Universidad Nacional Autónoma de México (UNAM) and other institutions of the capital; in addition, students from other cities within de country. In 1938, Father Jaime Castiello, S.J., visited groups in Guadalajara, Torreón, Chihuahua, Monterrey, Morelia, Pátzcuaro and Tampico. They were young people from different social groups, some from the ranks of the government. Those students coexisted with teachers and classmates of all intellectual streams. They were critical, very critical. The work of UNEC was supported on the centers that Jesuits called "university extension departments", which had been established in several parts of downtown Mexico City: Labor, Lex and Bios. In these "departments" pedagogical and spiritual support was offered to university students.

Against all odds, in 1940 there was a radical political change in Mexico; President Cárdenas, sensitive to the adverse atmosphere towards his leftist government, sacrificed the continuity of his program in exchange for ensuring the permanence in power of the official party, the Partido de la Revolución Mexicana (PRM). Thus, instead of choosing as his successor his friend and ideologist, Francisco G. Múgica -who would have continued his work- opted for one from the "right wing", General Manuel Avila Camacho, who during his presidential campaign declared himself "believer" and that, sometime later, assumed the presidency on December 1st, 1940. For several months he kept some ministers imposed by the previous



The present Installations of Universidad Iberoamericana are located in Santa Fe in Mexico City.

regime, among them the one from the Public Education Secretariat (SEP)<sup>1</sup>, perhaps measuring the reaction of Cárdenas and his group.<sup>2</sup>

Regarding the situation of the UNAM, in December 1940 Dr. Gustavo Baz, left the rector to be appointed Secretary of Health by Ávila Camacho. Mr. Mario de la Cueva was appointed substitute rector and by June 1942, Mr. Rodolfo Brito Foucher - friend and classmate of the Jesuit and lawyer Father Enrique Torroella, S.J.- was elected as the final rector.

In an International Conference of Universities in the city of Washington D.C., Brito Foucher was questioned by the “absence of a Catholic university in Mexico, a country with 98% of Catholics.”<sup>3</sup> Upon his return to Mexico City, the rector commented on his experience with Father Torroella and, also, discussed the matter with the President of the Republic, who told him that he would not oppose the opening of a university institution promoted by the Jesuits, as long as it was very discreet and under the scheme of “incorporation into UNAM.”<sup>4</sup>

### The Society of Jesus Option for the University Apostolate

The Society of Jesus, when opting for the project of a Catholic university, had to leave UNEC,<sup>5</sup> since it could not sustain both works. This decision was painful for the Jesuits who worked in the Union, but above all for the university students, because they were left without their association. Faced with such a decision, students’ opinion would have been taken into account? The Jesuits obeyed, but, and the students? In 1959, Luis Calderón Vega, member of UNEC at the time of “closure”, in

- 1 Luis Sánchez Pontón, appointed by Ávila Camacho as Secretary of Public Education, held the post from December 1940 to September 1941. His appointment was due to pressure from the official left, since Sánchez Pontón, together with Alberto Bremauntz and Ernesto Arreguín, were part of the “Committee for the Advancement of Socialist Education”.
- 2 It replaced the *Organic Law*, approved only in December 1939, by another that considered that: “The education imparted by the State in any of its grades and types, “will be socialist”, understanding by socialist “democratic and patriotic” ideals.
- 3 From a conversation with Father Manuel Acévez Araiza, S.J.
- 4 Under this scheme was high school education of the Jesuits and other schools of secondary level. The Centro Cultural Universitario was the first Higher Education institution incorporated to the UNAM; that is, with academic plans from the UNAM.
- 5 In 1944 the UNEC is dissolved after its conflict with Catholic Action of the Archbishop of Puebla, José Ignacio Márquez. An important figure in university life is Father Ramón Martínez Silva (1890-1957). More on this subject in *Life stories of a teacher* (Semblanzas de un maestro, Mexico, Jus, 1974).

his memoirs, he noted: “In the grave quandary of Catholic University or National Union of Catholic Students, the Society of Jesus, unfortunately, opted for the first ...”<sup>6</sup>

Like all major decisions, the option for the university was made in the midst of uncertainty about fundamental aspects. The panorama was so fragile that the first Jesuits who worked at the Centro Cultural Universitario, their colleagues called them “Kamikazes”<sup>7</sup>, a fashionable term that referred to the Japanese suicide pilots of the Second World War.

As a result of this decision, the Society of Jesus forgo the apostolate with students of all degrees and different social classes of the UNAM, as well as other institutions of the country. The new institution would not have the typical UNEC student: industrious, battle-hardened, that coexisted in the public university with teachers and classmates of all intellectual currents, coming from diverse social classes and that already had solved the personal problem of its vocational election, because the students that integrated to UNEC were of advanced years and not of first admission. Who assured the Jesuits that the official policy of “intolerance” barely three years ago would not be repeated again? The “socialist” ideas still floated in the environment and the groups that promoted them were still inside the government. At first the CCU depended on “the good offices” of the rector in turn (Brito Foucher), but this benevolence was not guaranteed with the rectors of the future, since the UNAM was far from being a politically stable institution, as various groups contested for control. The CCU, being born “incorporated” to the UNAM, was bound to follow the curricula of the National University. How much freedom would such dependency allow to promote the educational and religious purposes of the Society?

The Centro Cultural Universitario was born with different challenges. The available Jesuits had the excellent humanistic formation own of the Society (Philosophy and Letters), some with doctorate, but few with the “university experience”. There was a lack of a university profile: the offer of initial academic programs lacked technical careers to justify the name university. However, already in 1949, Father Felipe Pardini, S.J., imprinted a special stamp to the CCU, by offering new “courses” of Aesthetics and Architecture of the sixteenth century in Mexico. On the other hand, the lack of space in the house of Av. Hidalgo #120 forced to look for other premises. Soon the CCU found itself dispersed over several points of the city.

- 6 Quoted by Ernesto Meneses, S.J. *History of the Universidad Iberoamericana Ideology* (Historia del Ideario de la Universidad Iberoamericana, Mexico, Universidad Iberoamericana, 1998). The foregoing reminds me of the decision, 30 years later, to close the Instituto Patria.
- 7 Fact provided by Father Manuel Acévez Araiza, S.J. in 1983, referring to the risks and comparing them with the Japanese suicide pilots of World War II.

Unlike what happened with UNEC, in the CCU started as model of academic service provision in exchange for payment of a fee by students. The new institution needed to provide a minimum of space, furniture, library and teaching materials. Although Jesuits and some laymen did not charge fees, it was necessary to pay some teachers as well as management and janitorial personnel.

Prudence in the course of action proposed by President Avila Camacho for the foundation of the Jesuit university work, which really claimed the social situation of 1943, was manifested in two facts: the new institution was not called “university”, but “Centro Cultural Universitario”. In addition, the CCU had two rectors simultaneously: the first, a “rector outward”, Mr. Gabriel García Rojas, lawyer, a trusted layman, who gave the official face before UNAM and the civil authorities until 1949; the second, an “inward rector” and the true authority, Father Enrique Torroella, S.J., who was succeeded by other Jesuits.

It is important to point out that, in the decade of 1940s, given the relaxation of the government’s religious intolerance, the Society of Jesus entered into a period of construction and establishment of works: regarding education, it promoted existing schools, such as the one in Puebla and new ones were founded in other cities of the country. Thirty years after the novitiate of the Jesuits in Mexico was closed, in El Llano, Michoacán, in 1943, the novitiate returned to the country to establish itself in a “discreet” manner in the Molino de San Cayetano, next to Santiago Tianguistenco, State of Mexico.

As some feared, the uncertain environment began to falter. Brito Foucher resigned from the rectorship of the UNAM in 1944, due to a conflict derived from the discontent over the appointment of some directors of the institution. From then on, in two years five rectors of several tendencies succeeded one after the other. The left tried to retake the university, until indirectly the Presidency of the Republic intervened in order to achieve the appointment of someone to ensure the stability of the institution, Dr. Salvador Zubirán.

The international context would soon enter a new stage. With the advent of the Cold War, the East-West global confrontation atmosphere reflected in Mexico: support and protection brewed for the nascent national industry; the government party, Institutional Revolutionary Party (Partido Revolucionario Institucional (PRI)), controlled political life. Economic growth and minimal inflation were achieved. The government was open, tolerant and even friendly with the Catholic Church. As for higher education, at this time the inauguration of the University Campus took place, as well as the founding of private Higher Education institutions: Centro Cultural Universitario-Universidad Iberoamericana, CCU-UIA; the Monterrey Institute of Technology and Higher Education (Instituto de Estudios Superiores de Monterrey, ITESM (1943)); the Autonomous Technological Institute of Mexico (Instituto

Tecnológico Autónomo de México, ITAM (1946)) and the Technological Institute and of Higher Studies of the West (Instituto Tecnológico y de Estudios Superiores de Occidente, ITESO (1957)).

In 1950 the first attempt was made to organize the countless nascent universities through the National Association of Universities and Higher Education Institutions (Asociación Nacional de Universidades e Instituciones de Educación Superior, ANUIES), and around the same time the establishment of many state universities also took place.

It was in this context that the transformation of the CCU into Universidad Iberoamericana was conceived, already with 10 years’ experience, with varied and considerable academic offer, established image of excellence, in a tolerant socio-political environment and in agreement with the UNAM. For this, the creation of two civil associations was carried out: the Universidad Iberoamericana Civil Association, UIAC (1954) presided over by trusty and necessary laypersons because the Society of Jesus could not appear as a juristic person, for purposes of liabilities and civil rights (agreements). And the Promotion of Research of Superior Culture, A.C. (Fomento de Investigación de Cultura Superior, A.C., FICSAC (1956)), which answered to the need to gather resources to finance building a campus that could accommodate all academic careers and services, as well as the acquisition of equipment and other material needs.

Year	Rector	Programa	Degree	Founder/Promoter
43	Gabriel García Rojas Enrique Torroella, S.J.	Philosophy	Bachelor’s	Dr. Alfonso Castiello, S.J.
44	Dr. Alfonso Castiello, S.J.			
45 47 48	Dr. Ramón Martínez Silva, S.J.	Chemistry Spanish Literature Philosophy Spanish Literature Esthetics 16th century Architecture in Mexico Modern Literature Psychology	Bachelor’s Bachelor’s Mt/Doc. Mt/Doc. Courses Courses Doc. Bachelor’s	P. Luis Vereá, S.J. Dr. Carlos H. de la Peña, S.J. Dr. Alfonso Castiello, S.J. Dr. Carlos H. de la Peña, S.J. Dr. Felipe Pardiniás, S.J. Dr. Felipe Pardiniás, S.J. Dr. Carlos H. de la Peña, S.J. Dr. Ramón Gómez Ariás, S.J.
50				

51 52	Dr. Félix Restrepo, S.J.	Law		Dr. Mauricio Escardó
53  54  55	Dr. Ignacio Pérez Becerra, S.J.	Art History Catholic Culture Industrial Relations Civil Engineering Electromech. Engineering Psychological Guidance Center Architecture Industrial Design Plastic Arts Vocational Guidance/ Child Therapy (COP)	Bachelor's Course Bachelor's Bachelor's Bachelor's Service  Bachelor's Bachelor's Bachelor's Service	Dr. Felipe Pardinás, S.J. Dr. José Sánchez Villaseñor, S.J. Dr. José Sánchez Villaseñor, S.J. Mtro. Jorge Villalobos, S.J. Mtro. Jorge Villalobos, S.J. Dr. Ramón Martínez Arias, S.J. Dr. Felipe Pardinás, S.J. Dr. Felipe Pardinás, S.J. Dr. Felipe Pardinás, S.J. Dr. Ernesto Meneses, S.J.
56 57  60	Dr. Manuel Pérez Alonso, S.J.	Business Administration  History Film Director Acting, Script Writing, Critic Social Anthropology Ethnology and Applied Anthropology Information Sciences and Techniques	Bachelor's  Bachelor's Bachelor's Bachelor's Bachelor's Bachelor's	Dr. José Sánchez Villaseñor, S.J. Dr. Manuel I. Pérez Alonso, S.J. Lic. Jesús Romero Pérez, S.J. Lic. Jesús Romero Pérez, S.J. Dr. Felipe Pardinás, S.J. Dr. Felipe Pardinás, S.J. Dr. José Sánchez Villaseñor, S.J.

The first years of the Universidad Iberoamericana did not go by without difficulties with UNAM, these revolved around school control of study plans; in some cases, the lack of lab and workshops equipment. And, finally, due to unofficial professional degrees (for example, the ecclesiastical degree of the Jesuits). However, the relation with UNAM became fluid and friendly, thanks to compliance with requirements; to the good offices of the rectors of the Ibero, Ignacio Pérez Becerra and Manuel J. Pérez Alonso, with rector Nabor Carrillo Flores but, above all, the relationship of Father Carlos Hernández Prieto, S.J., with Mr. Javier Barros Sierra, director of the Engineering Faculty of UNAM (who later would be rector of UNAM) and with the same rector Carrillo Flores who, openly, offered all the support to equip the laboratories of the UIA.

Since the creation of the CCU, now converted into a “university”, the Higher Education program was a priority for the Mexican Province of the Society of Jesus. This requested support to other nations provinces. Colombia, Canada and Central America provided support and, the Mexican Province, also promoted the “formation” and transfer of Jesuits to the “university”. Furthermore, the Iberoamericana created unpublished academic programs, according to the social situation and cultural development of the country:

- a. Industrial Relationships.
- b. Business Administration.
- c. History of Art.
- d. Plastic Arts.
- e. Cinematographic Sciences.
- f. Information Sciences and Techniques (Communication).
- g. Social Anthropology.
- h. Open courses of “Catholic Culture”.

Another aspect that is important to point out is that university Jesuits integrated: Felipe Pardinás (already from the CCU), Sánchez Villaseñor, Ernesto Meneses, Jesús María Cortina, Xavier Scheifler, Manuel I. Pérez Alonso, Jesús Romero Pérez, Carlos Palomar, Ernesto Domínguez, Miguel Villoro Toranzo, Héctor González Uribe, Jorge López Moctezuma and Juan Lafraga, among others.

An expansion of the original and novel academic offer took place, as expressed in the following chart:

### The Ideology (Ideario) of the Universidad Iberoamericana

It is worth mentioning some important aspects for the context of the 1961-1978 period. In the Catholic Church the Popes John XXIII and Paulo VI succeeded one another. The Second Vatican Council was the highest religious and cultural event. On the other hand, in the year of 1968 took place CELAM II in Medellín Colombia. Within the Society of Jesus, the election of Pedro Arrupe, S.J., as General (1965-1981) took place. In Mexico there were already countless public and private universities. The Mexican miracle unfolded, contrasting with the repression of the student movement of 1968. The populism of Luis Echeverría and José López Portillo would then trigger a sexennial inflation of 126% and 417%, respectively.

At this time, a very important aspect of the Universidad Iberoamericana emerged, which was the definition of its *Ideario*, Educational Model, Mission and

Prospective. Since its foundation, the purpose was to give shape to the institution as a “Catholic University”, in accordance with the current canonical model, as circumstances would allow. But in 1962 in the socio-cultural context of Mexico, an “event” forced the Jesuit team of the UIA to define the basic ideas of the Iberoamericana. The *Gaudium et Spes* Constitution of the “Vatican Council II (1962-1965), on the Church in today’s world, when defining the relationship between faith and culture, provided the essential bases. From the conciliar proposal, the reflection on the Mexican reality and the university experience (*Ratio Studiorum Societatis Jesu*), the *Ideario* that defines the UIA as a “University of Christian Inspiration” emerged. From this original document, the Ibero was able to clearly define and operate its Mission, its Educational Model, a flexible Academic Curricular Structure, a coherent Statutory Organization, in constant adaptation and, finally, the precise functions and relations with the three associations that support the being and task of the Universidad Iberoamericana: UIAC, FICSAC and PROUNIVAC. That is why I consider the *Ideario* as the declaration that defined the substantive profile of the Ibero.

It is worth mentioning, as background, that in front of the need to make decisions regarding the architectural project, financial investment and transfer to a new campus, many of them practical issues, but also affecting academic aspects, was constituted the “Governing Board of the Universidad Iberoamericana”, integrated and chaired by members of FICSAC (economic patronage) and some Jesuits. The then rector, Carlos Hernández Prieto, S.J., with the leadership and skill that characterized him, guided the decision making of the Board in the right direction. However, by granting authority to said body on academic and educational matters, a precedent was introduced with disastrous consequences for the academic and educational independence of the university, as will be seen later.

Through the intermediation of Carlos Trouyet, a prominent FICSAC member, former President Miguel Alemán Valdés was invited to the new Cerro de las Torres # 395 campus, still unfinished. The purpose was to explore with him the possibility of obtaining, for the Universidad Iberoamericana, the declaration of “free school” (Recognition of Official Validity of Studies) to stop depending on the UNAM. In front of Miguel Alemán, the rector delivered a speech in which he pointed out some humanistic features in the Mexican constitutions of 1857 and 1917. The text had contributions from Father Felipe Pardini, S.J., but fully assumed by rector Hernández Prieto. The speech caused disgust and discomfort among some Jesuits of the Iberoamericana and some of the members of the economic board.

In front of a Jesuit team divided and confronted with its economic patronage, the rector proposed to integrate a commission of Jesuits in charge of initiating the preparation of an *Ideario* in which, unequivocally and officially, the Universidad Iberoamericana expressed its nature and institutional purposes. However, given the

frame of mind, both internal and external, decided to wait for a better time and devote all energy to the imminent move and restructure the Governing Board of the University, now gathered for the first time in a single campus.

In September 1962 the buildings destined to classrooms of all the university were inaugurated, in which provisionally they accommodated offices, library and light workshops and the construction of some workshops and labs began. For a second stage, more labs and workshops were planned, the central library, auditorium, administrative offices, sports area, and the residence for the Jesuits.

Once the moving and reorganization was completed, the Jesuit team came to three postulates as a basis for the future *Ideario*: not to use the Iberoamericana for religious purposes, to define the feature that added to the university being directed by the Society of Jesus, and regarding the “Catholic”, explicitly add its social function.

Unexpectedly, in September 1964, the rector Carlos Hernández Prieto, S.J. died. The aforementioned UIA’s Governing Board appointed as interim rector the secretary of the university, Mr. Xavier Mesa, S.J., and the same Board would ratify Father Mesa as definitive rector in June of the following year. By 1965, the rector formed a commission<sup>8</sup> that developed a first draft of the *Ideario*, in which the Iberoamericana appeared as “catholic”, that is, confessional, which made it dependent on the ecclesiastical hierarchy. Faced with this perspective, said proposal was rejected. In 1966, the rector formed a new commission, now “joint”, integrated of four members of the Ibero: Fathers Ernesto Meneses, S.J., Francisco Migoya, S.J., Felipe Pardini, S.J., and Xavier Scheifler, S.J., and two external: Fathers Enrique Gutiérrez Martín del Campo S.J. (he would be named Provincial the following year) and Pablo Latapí, S.J., (Director of the Educational Center, 1963).

Dr. Pablo Latapí, S.J., delivered a document, illuminated by the first results of the Council on the Church and culture, to help locate the proposals that were being discussed, showing three types of universities.

1. The Pastoral or *Catholic*.
2. The Cultural Apostolic or of *Christian inspiration*.
3. The open or *Christian animation* (the one that proposed Pardini).

The Universidad Iberoamericana opted for the Apostolic Cultural model or of *Christian inspiration*. This type of university is one whose goals and structures are institutionally affected, to some extent, by certain doctrinal principles. Its purpose is to establish a dialogue between science and faith, according to the *Gaudium et Spes*

8 Session Advisers: Jesús María Cortina, S.J., Ernesto Meneses, S.J., Juan Palafox, S.J., and Xavier Scheifler, S.J.

Constitution of the Vatican II. It emphasizes, more than forming Christian professionals, integrate Christian values with the culture of society. The UIA, among other values, explicitly supports the following: Democracy, Humanism, Social Justice and Freedom of Conscience. This type of university is quoted in the document *Gaudium et Spes*, Numbers 21, 22, 24, and 57 to 62, of the Vatican Council II<sup>9</sup>. It upholds the concept of unity of truth to enrich faith and culture.

9 *GAUDIUM ET SPES*: PASTORAL CONSTITUTION ON THE CHURCH IN THE CURRENT WORLD.

21. Attitude towards atheism: collaboration with non-believers in the edification of this world.
22. Christ, the new man: all truths find in Christ their source and crown. In Him human nature has been lifted to the dignity of children of God. The Christian man, shaped to the image of the Son who is the Firstborn among many brothers, receives the firstfruits of this Spirit, which enable him to fulfill the new law of love.
24. Human vocation community nature according to God's plan: God, who cares for all with paternal solicitude, has wanted men to be one family and treat each other with the spirit of brothers. All are called to a single and identical end, that is, God himself. Therefore, love thy neighbor is the first and greatest commandment. Sacred Scripture teaches that the love of God cannot be separated from the love of fellow beings.
57. Faith and culture: Christians, on their way to the celestial city, should seek and like the things above, that nothing diminishes, on the contrary, increases the importance of the mission that concerns them to work with all men in the building a more human world. Culture in the eminent position that corresponds him in the entire human vocation. Man, when cultivating the different disciplines (philosophy, mathematics, arts, etc.) may contribute extremely to elevate human life to the contemplation of its creator; help to differentiate the values of modern culture from its dangers and can prepare to receive the message of the Gospel.
58. Multiple connections between good news and culture: throughout history, the church has used elements from different cultures to manifest the good news and, at the same time, it is not linked to any particular culture. In this way, it fulfills its own mission, as well as contributes to the development of human culture.
59. Different values must be harmonized within cultures. Culture, product of human nature, enjoys a certain autonomy, safeguarding the rights of the individual and a particular society or worldwide, within the limits of common good. Freedom to research the truth, to express one's opinion, to practice any occupation and to be truthfully informed about public events. *Section 3: Urgent Commitments of Christians Regarding Culture*
60. Recognition and effective exercise of the personal right to culture: the effective right for all to access culture, without distinction of race, sex, nationality, social status, etc. Prevent majorities from lacking the cultural asset. That the best gifted can reach higher education, so that each people may develop according to their traditions. Awareness of the duty to cultivate oneself and to serve others. Rights of farmers, workers and women to culture.

*It places special emphasis on research.* It admits students and professors of different confessions. It is independent of the ecclesiastical hierarchy. It offers theology studies in dialogue with the other sciences. Cultivates each discipline, according to its own methods. Defends academic freedom. Tolerates that ideas contrary to dogma are exposed. The presence of the Jesuits is justified in as much as undergraduate students.

In said model the manufacturing of the *Ideario* of the Universidad Iberoamericana was inspired. The following notes define it:

1. Respect for the Individual (Freedom of Conscience).<sup>10</sup>
2. Social Justice.<sup>11</sup>
3. A climate of openness, freedom and respect for all.
4. Special sensitivity for ethical, sociological and political issues (Humanism).
5. Pursues the integration of a democratic community.
6. The existence of an academic department of Religious Sciences.<sup>12</sup>

However, there was difficulty in getting it approved. In 1968, as has been noted, there was suspicion and distrust towards everything that might sound to the left, socialism or communism. We were at the height of the "Cold War". The statements of the *Ideario* regarding "social justice", seemed to some members of the board, out of tune, and asked the rector to remove them from the text before being approved. They were made to see that these ideas and terms appeared in the encyclicals of Popes John XXIII and Paul VI,<sup>13</sup> but those who were part of the Governing Board insisted on removing these expressions from the project.

Under pressure, the rector seemed to agree to the request of the Board, but Provincial Father, Enrique Gutiérrez Martín del Campo, S.J., intervened directly. Mr. Xavier Mesa, SJ, resigned as rector on July 18th, 1968. He did not have the ability of

62. Agreement between human culture and Christian education: the participation of the church in higher education. In the disinterested search for the truth; illuminating science, technology and art with the good news. Participating with research and theological teaching.

<sup>10</sup> *Ideario*, 3.1; 3.2.

<sup>11</sup> Quoted in the *Ideario* and Encyclical "Mater et Magistra" of Pope John XXIII of May, 1961. *Ideario* UIA, 2.4 to 3.5.

<sup>12</sup> Luis Vergara Anderson, "The Universidad Iberoamericana in the context of contemporary Mexican higher education". *The Universidad Iberoamericana and the challenge of contemporary Mexico*. Universidad Iberoamericana: Mexico, 1983.

<sup>13</sup> Paulo VI, *Populorum Progressio*, 1967.

the previous rector (Father Carlos Hernández Prieto, S.J.) to negotiate and lead the Governing Board based on the objectives of the University.<sup>14</sup> Father Ernesto Meneses, S.J., then academic vice rector, assumed the rectory as interim rector and on July 25th the *Ideario*, without amendments, was approved by the University Council and enacted on July 31st, the jubilee year of the 25<sup>th</sup> anniversary of UIA's foundation.

From then on, the relationship of the Universidad Iberoamericana with the economic patronage was very difficult. The construction of the missing facilities was suspended, and the Governing Board of the Universidad Iberoamericana ceased to function and was officially dissolved until 1972. Since 1971 the university had the University Senate, the highest collegiate authority, composed of representatives from all sectors of the university: officials, teachers, students, alumni, employees, the Society of Jesus and FICSAC.

Also in 1968, General Father Pedro Arrupe, S.J., met with the Provincial Fathers of Latin America in Rio de Janeiro, Brazil, so that, in the light of the Vatican Council II and the last papal encyclicals, especially the *Populorum Progressio* of Pope Paul VI (1967), made a "collective conscience examination" in relation to the work developed by the Society of Jesus in the region. The above, to communicate to superiors, fathers and brothers, the orientations and commitments derived thereto. As a result of that meeting, Father General and the Fathers Provincial made a dramatic call to reorient the apostolate, in such a way that the "structural causes of injustice" and those who suffered it were addressed.

In response to the call of the meeting in Rio de Janeiro with General Father, Mexico's Provincial Father, Father Enrique Gutiérrez Martín del Campo, S.J., requested the Center for Educational Studies, whose director was Father Pablo Latapí, S.J., an assessment of the educational works of the Mexican Province. The balance led him to conclude: "We feed the power structures; we contribute to maintaining an unjust social order..."

As a consequence, sometime later, it was decided to close the Instituto Patria, a Jesuit school in Mexico City. The one in the city of Chihuahua<sup>15</sup> was also closed and the others would follow. However, the same reasons that supported the closure of the Instituto Patria also applied to the Universidad Iberoamericana. The Jesuits

14 Father Mesa felt unprotected, both by the Ibero's Jesuits team, who had developed the *Ideario* that he as rector had been willing to modify, as well as by the Provincial authorities (from the Father Provincial, since he had disqualified his performance as rector and had forced him to resign) and retired to live with a brother. Father Felipe Pardinás was also unhappy, whose contributions had been disqualified.

15 Regional Institute of Chihuahua.



Jesuits members of PROUNIVAC the year 1983.

team of the Ibero alleged that the policy was wrong and that, in any case, it was not applicable to the university.

I remember having lived through that time with great anguish. My own formation as a Jesuit student was in question, since it prepared me for the "university apostolate". I had barely finished a bachelor's in Philosophy, continued with a master's degree in Social Anthropology at the Ibero and taught some Architecture classes therein. Together with Pepe Creixell, who was in a situation like mine, we attended meetings of the Jesuit team, also known as the "Community of Zaragoza", since most of the Jesuits who worked at the UIA lived there. As students, Pepe and I witnessed the impassioned and moving discussions of those who had given their greatest effort to the university work. The dilemma was between saving the work and obedience.

Reflections led to the distinction between the Universidad Iberoamericana and the Jesuits team who worked therein, as two distinct identities. Legally, the UIA was a different body from the Society. By "obedience" the Jesuits could leave the university, if so ordered by the senior authorities of the Province. However, *it did not follow that the Iberoamericana had to disappear*. The approach seemed a somewhat "Jesuit" artifice, however, began to be thought upon seriously. But who would be responsible for maintaining the UIA, should the order for the Jesuits to leave it come? Well, in trustworthy laypeople!

To explore the idea, on a Saturday, a meeting of Jesuits with some lay people was organized at the Cerro de las Torres facilities to explain the situation to them. I remember many of them, especially those of proven Christian life, publicly assume the commitment to manage the UIA in case the Jesuits left. Also the response of Dr.

Ángel Palerm, director of Social Anthropology, Spanish republican refugee, agnostic and very close friend of Father Meneses: “If Jesuits leave the Iberoamericana, I leave behind them, because the Society of Jesus is the only institution that can guarantee Academic freedom and of conscience in the university”.

From the meetings of the Community of Zaragoza, the idea of creating a Civil Association, “Profesores Universitarios A.C.” (PROUNIVAC) as educational board. It would be integrated by the Jesuits who worked at the Ibero and some lay people. In the event the first ones had to leave the Iberoamericana, they would leave PROUNIVAC and the lay ones covered by said association, who would continue with the task of keeping alive the UIA’s educational project. In the assumption that the Society would reassume the apostolate of higher education, the Jesuits would resume PROUNIVAC with the rights and obligations derived thereto.

Finally, the order never came for them to withdraw from the Iberoamericana. However, it is important to note the following: PROUNIVAC remained, but in addition to protecting the Jesuits working in the Ibero, it became the legal instrument through which the Society of Jesus keeps, promotes and develops the Educational Model. For some years, the formal education works of the Mexican Province of the Society of Jesus, colleges and universities, ceased to be a priority in the General Plan of the Province. Previously, most of the vocations to enter the Society came from colleges and universities. With the reorientation of the Jesuits formation and their field of apostolate, the process was broken. Hardly young people saw in colleges and universities the destiny of their apostolic work. As a result, both in schools and in the UIA and ITESO, the Jesuit tenure decreased and aged. Also arrived those who did not fit into other plans of the province. Many of them enriched the life of the university, for example, professors of Philosophy and Theology from the Colegio Máximo de Cristo Rey.

As a personal reflection, I want to compare the issue of the objection to the *Ideario* by the financial patronage, with the one of the proposal to close the UIA, by the Provincial. The two cases show different aspects of the relation between the Society of Jesus and the Ibero. Both, from my point of view, had to do with the power of the Universidad Iberoamericana as such, to self-determine. In the first, Provincial Father intervened so that the Board of Government, chaired and integrated almost entirely by members of the financial board, respected the definition that the University has given itself. In the second, the Jesuit team who worked at the Ibero and some lay people, determined their right to exist, in the face of change in educational strategy of the Society of Jesus (or its authorities).

## Statutory organization of the UIA

With the institution of the University Senate as the highest collegiate authority of the University, a reorganization stage began. In 1972, by mutual agreement with FICSAC, the Governing Board instituted in 1961 was dissolved.

To answer to the value of democratic participation proposed in the *Ideario*, functions and integration of the other collegiate bodies of the university (Committees and Academic Councils) were defined. In the same way, the creation of trade associations was encouraged: teachers, students, workers.

An *academic reform* was carried out, in view of the Recognition of Official Validity of Studies by the Federal Government granting, to the Universidad Iberoamericana, by means of which it could design its own curricula and grant, by itself, professional degrees. Said recognition was conferred on it in November of 1973. With this, 30 years of dependence on the UNAM curricula culminated, by the “incorporation” formula.

The possibility of “designing its own study plans” was assumed by the UIA as the opportunity to manifest and promote in them, in an operational manner, its own Educational Philosophy, manifested in its base documents (*Ideario*, etc.) and in the humanist tradition of the Society of Jesus. However, from my point of view, the rush to “get the new undergraduate programs started” left omissions and created serious distortions. The Departmentalization was misleading, because it was defined as “Department” to each of the existing degrees, creating confusion between humanistic and basic training, as well as professional. The definition of “Humanism” and its application to study plans and other academic and educational activities, from my point of view, was deficient. There was a lack of emphasis on substantive aspects of the Educational Model, such as experience and aesthetic expression, among others.<sup>16</sup> And a profound and interdisciplinary reflection on the contribution of the Society of Jesus in this regard, in each of the study plans sciences and disciplines. It was missing designing the means and allocating resources to apply said “Humanism”.

<sup>16</sup> González Morfín, Efraín. “Characteristic notes of Humanism”: Oral Expression. Written expression. Ordered thinking. Critical thinking. Ability to raise and answer the basic questionnaire of man and the world. Historical awareness Aesthetic experience. Congruence between thought and behavior. Social responsibility. Quoted by E. Meneses, *Educational Philosophy of the UIA. The University and the Challenge of Contemporary Mexico*, commemorative edition of the XL anniversary of the Universidad Iberoamericana, Mexico, Universidad Iberoamericana, p. 58

The following aspects stand out:

1. Inspiration in Christian values.
2. Environment of openness, freedom and respect for all.
3. Search for a national culture and identity, adjusted to our problems and historical realities.
4. Social awareness, through direct contact with the reality of the country and the search for peace and justice.
5. Academic freedom of teaching and research, with no limits other than the supreme norms of morality and law, according to a Christian concept of man.
6. Freedom of conscience of all its members, absence of discrimination due to creeds, race or ideology.
7. Autonomy and independence of the university with respect to extra-university economic or political interests.
8. Constant openness and dialogue with all ideological currents, interdisciplinary dialogue aimed at integrating the different types of human knowledge.
9. Objectivity, disinterest and scientific honesty.
10. Academic excellence.

The Iberoamericana, with its defined *Ideario*, Educational, Academic and Statute Model, as well as the Recognition of Official Validity of Studies, initiated a program of expansion to province<sup>17</sup> when, on March 14th, 1979, an earthquake destroyed 60 percent of its facilities, fortunately, without a single drop of blood to regret. In the face of such disaster, the University reacted by developing three feats:

In the first place, the academic activity was suspended only five working days. It was restored in borrowed facilities, such as the College of Mechanical and Electrical Engineering (Escuela Superior de Ingeniería Mecánica y Eléctrica (ESIME)), Culhuacán Unit of the IPN, to return to own campus in a few weeks and continue in temporary facilities.<sup>18</sup> The rapidity of response drew the attention of people far and wide! Few institutions were capable of that! (30 bachelor's degrees with 6,500 students, 15 postgraduate programs with 450 students and about 900 people full time, including professors, employees and officials). In second place, the Ibero continued with the ambitious expansion program. By 1983, it had established four university

17 An Industrial Engineering program started in the autumn of 1978, led by Father Alfonso González de Quevedo, S.J., at the Instituto Lux facilities in León, Guanajuato.

18 Project by architects Ballina, Creixell and Rovalo.

campuses in the cities of León, Tijuana, Torreón and Puebla. When in 1980, Dr. Ernesto Domínguez, S.J., in his inauguration as rector, announced said program, many judged that, at that moment of emergency, to think on expansion was, at least, reckless. In third place, nine years later in 1988, the Universidad Iberoamericana moved to the new campus of Santa Fe, without suspending a single day of academic activities.

The expansion project had at its foundation the *Ideario* itself. The document, in its article 2.2, states: "The Universidad Iberoamericana tries to serve the people of Mexico by collaborating in the disinterested search, without sectarianism, of a culture and a national identity, fully adjusted to our historical realities". The slightest congruence tells us that such service should not and cannot be limited to the capital city, especially when this is the seat of centralism that overwhelms the nation.

The expansion program of the Ibero identified areas or regions in which, somehow, some of the most important problems of the country were represented: Central Region, Northern Border, Southern Border, Arid Zone, Littoral and Tropic. (Remained in the inkwell, the southern border and the tropics, at least). In addition, the following criteria were set:

1. The existence of a group that requested the Iberoamericana to establish a university unit (usually were ex-students, S.J., and UIA) and to commit thereto, integrating an economic board.
2. That there was no objection from the local government.
3. That there was no objection from the local bishop.
4. That there was no objection from the local public university.
5. The existence of a school of the Society was a strong criterion, but not definitive.<sup>19</sup>
6. Development of a feasibility study.
7. Training program (carried out with peer meetings).

Below is a list of people whose work was decisive for the establishment of the Iberoamericana Universities:

In Leon:

- Jorge Vértiz Campero, S.J., as support from the UIA Mexico and later as rector of the Ibero León.
- Agustín Rozada Rebollar, S.J., promoter of the project, later he was rector.

19 LEÓN: PILAC, Javier Pérez Hernández, Jorge Vértiz, S.J., Agustín Rozada, S.J. TIJUANA: Jiménez Codinach, Cautlatohuac. Luz María Palmer, Alfonso González Quevedo, S.J. TORREÓN: Patronato Pereira. Fernando Lazcano S.J., Ricardo García Cervantes. PUEBLA: Patronato Oriente, Manuel Acévez, S.J.

- Alfonso González Quevedo, S.J., as the first director of the first academic programs on the new campus and, later, rector of the Ibero León.
- Ing. Jorge Padilla del Castillo. Layman, first academic general director.
- Ing. David Martínez. Layman, first director of Educational Services In Tijuana:
- Alfonso González Quevedo, S.J. First director and rector of the campus.
- Agustín Rozada Rebollar, S.J. First academic director.
- Manuel Ruíz Ugalde, S.J. Academic of the UIA in the entity.
- Rodolfo Mendoza, S.J. Spiritual father of students in Tijuana.
- Luz María Palmer Director of School Services.

In Torreón:

- Pay Lazcano, S.J. Project Promoter
- Luis González Morfín, S.J. First Rector of the Campus.
- Raúl Durana, S.J. Second Rector.
- Ricardo García Cervantes. Layman and First Academic Director.
- Enrique Macías. Layman and Second Academic Director.

In Puebla:

- Valerio Ortolani, S.J. Project Manager.
- Humberto Posada, S.J. First Director of the Project.
- Manuel Acévez Araiza, S.J. First Rector.
- Anastacio Kalfópolus. Layman. Academic Director.

A little more than nine years later, with dignity, without a decrease in population, without demerit of academic quality and with an increase in programs, the Universidad Iberoamericana concluded its move to the new facilities in Santa Fe. At the same time, a new drive was given to the university project in the Society of Jesus, all amid the worst economic crisis in the country. General Father Peter Hans Kolvenbach, S.J., (1983 CG #33), a university student, promoted the Association of Universities of Latin America: AUSJAL. With this, he renewed the letter of citizenship to the university apostolate in Latin America. AUSJAL- I, 1985, in Rome. II, 1987, in Rio. III, 1990, in Quito. IV, 1996, in Guatemala, etc.

Consistent with the above, in 1994, the integration of Higher Education in Mexico was driven in the General Plan of the Province with the creation of the UIA-ITESO System. Later it would be integrated as a Jesuit higher education system.

## Distinctive notes of the Universidad Iberoamericana

I imagine the Universidad Iberoamericana as a flagpole (or antenna) that, since being so tall, requires four tension rods to stay vertical. The four rods, with a similar tension, enable the UIA to be what it is, saying what it is and what it is meant to be.

The four tension rods pull with the same force. If one of them fails, the flagpole comes down. These are:

### 1. University

It expresses that the Iberoamericana is a *university* and not another type of higher education institution. In a succinct way: it generates and promotes interdisciplinary dialogue in search of truth and develops teaching, research and dissemination functions. Therefore, it is neither technological, nor polytechnic, nor a set of professional schools, in a strict sense.

### 2. In Mexico

Expresses that the Ibero must serve the people of Mexico (from a place or region) as a multicultural country, in a globalized world, to collaborate in the solution of its basic and urgent problems.

### 3. Of Christian inspiration

It expresses that the Iberoamericana, as an essential way of being, promotes the dialogue between faith and culture (*Gaudium et Spes*). The aforementioned manifests in its *Ideario*, in its Educational Model and in its Institutional Structure, in respect for the human person and the freedom of conscience, with no limits other than morality and law, in the search for social justice and in the opening to different thought currents. Special attention is given to the ethical, sociological and political aspects (Humanism), the integration of a democratic community, the faith-culture dialogue and the existence of academic programs of religious sciences.

### 4. In the Ignatian way

This tension rod, which I have mentioned barely, expresses that the Iberoamericana develops all of the above in the Ignatian way. Namely: with the fundamental attitudes that come from living the experience of the exercises of Ignatius of Loyola. The experience of the person who is perceived, knows, thinks and expresses in the world, with all its potentialities. Faced with such experience, formulates radical existential questions about the sense and destiny of oneself as an individual and as a member of the human family. In the same way and with the same urgency, since in it goes the sense and destiny of individual personal life and as a member of the human family

in the world, responds in a perceptible, intelligible, radical, generous and vital way.

It is obvious that, for the believer, the center of the Spiritual Exercises is Jesus, the Word made Flesh, the firstborn of every creature. In Him the question and the answer are incarnated. The expressions that synthesize the earlier, from my point of view could be the “MAGIS”, the “more”, and “IN ALL TO LOVE AND TO SERVE”.

With the words “perception”, to know, to think, etc., in the world, I want to allude to the aspect of the culture of form and of the signs, so abundant in the current world, but that, from my point of view, lack radicality and, therefore, are incapable of being Incarnate Word.

I refer to it because it seems that, on occasions, the “Ignatian” or of the exercises own is reduced to “intellectual” experiences exclusively and that the promotion of the legacy of Ignatius of Loyola is a purely meager conceptual matter, alien to integral experiences that claim the contest of all the human being potentialities. I miss in the humanistic formation that the Ibero says it promotes, the aesthetic experience and the search of the artistic expression as an essential dimension. The one that enlightens and commits to university action, as well as demands a continuous deepening and further explanation. This note is substantive contribution of the Society of Jesus to the Universidad Iberoamericana, of which are also responsible those community members that, one way or another, live and promote this dimension.

Aesthetic experience development, historic conscience, social responsibility, communication ability and agreement between thought and conduct.<sup>20</sup>

Both the third and fourth tension rods are the Society of Jesus contributions to the Universidad Iberoamericana that make it singular.



At center, Mr. Roberto Hernández, President of FICSAC who concluded his stewardship on April 20, 1995.

20 Efraín González Morfín: “humanism”. Oral expression, written expression, orderly thinking, critical thinking, ability to pose the basic questionnaire of man and the world, historical awareness, aesthetic experience, congruence between thought and behavior, as well as social responsibility.

### Associations that agree to establish a structure to the UIA job

Throughout its history, the Ibero created support associations that responded to specific needs and situations. In chronological order, they are: UIAC, FICSAC and PROUNIVAC. Later, once the university model was complete, its nature and function was reviewed and adjusted (as in the case of the provincial Iberoamericanas).

1. **UIAC** is the association that holds the name of Universidad Iberoamericana and gives it legal personality. It receives the Recognition of Official Validity of Studies by the government.<sup>21</sup> In addition, it is the personality that contracts liabilities and rights with students, employees and other people and institutions.
2. **FICSAC** is the association that shelters the economic patronage in charge of providing the university with material resources for its work and development. Its actions are exclusively directed to the Universidad Iberoamericana.
3. **PROUNIVAC** is the Civil Association by which, the Society of Jesus, maintains, promotes and develops the Educational Model.

The experience of several decades has shown it is necessary that each of these associations have clarity about the scope of its own function and its relationship with the other two associations, to serve the Universidad Iberoamericana. When one of these three associations, for any reason, invades the scope of the other, or of the university itself, the mission, the task and the substantive profile of the Universidad Iberoamericana has been blurred. The balance between them is precarious and difficult, since the action of the three affects the university community. Maintaining it requires permanent discernment. Most often it is up to the rector, his team and the collegial authority to promote and maintain this discernment, both in the sphere of authority and in that of the university community. ¶

21 Afterwards, provincial campuses have made separate agreements.

Luis Vergara y Anderson

*Social Research Pertinence  
Imperative at the Universidad  
Iberoamericana: Fragments of a  
Personal History*

I

Now, when the Universidad Iberoamericana marks the seventy-fifth anniversary of its foundation, half a century has gone by since that 1968 when everything changed in the world. It was the year of great public demonstrations of dissent, in the face of what had hitherto been lived (Prague spring, student revolt in Paris, reaction of non-compliance with *Humane vitae* - culmination of the rupture in unity within the Catholic Church in matters of practices and beliefs, a process in which Vatican II consolidated a chapter of special importance - gigantic repudiation manifestations of the Vietnam War in Washington, student movement in Mexico City). It was, also, the year of the promulgation of the *Ideario* of the University.

Finally, 1968 was the year when I had about a year and a half as an academician at the University, I earned my Chemical Engineering degree (fifty years exactly to the day I am writing, May 13th, 2018). In the following period I was appointed director of the Mathematics Department and, at the beginning of the seventies, I

participated intensely in the group responsible for preparing the great academic reform of the University, undertaken by Dr. Ernesto Meneses Morales, S.J. These circumstances gave me the opportunity to treat as peers a great number of academicians - many of them members of the Society of Jesus - more intelligent than me and infinitely more prepared. The innumerable conversations that I had with them at that time, convinced me that the *raison d'être* of the University was to make an effective contribution to the transformation of society into a structurally more just one, through the performance of its inherent duties.

In Latin America, the seventies were the decade of social sciences with a marked Marxist bias. Many members of the Society of Jesus in the Mexican Province and academicians of great prestige of the Iberoamericana took this demeanor with conviction. In 1971 they decided to close the Instituto Patria (considering that it contributed to the reinforcement of unjust social structures), a process that began the following year and concluded in 1976.

In 1975, the Society of Jesus in its General Congregation 32, attended to the historical circumstances in force and proclaimed that its mission consisted in the service of faith and in the promotion of justice required by that same faith. For this reason, in Mexico, the Jesuits found themselves divided into two camps: those who thought that this commission should be carried out through “the conversion of hearts” and those who maintained that it was about the “transformation of structures”.

## II

Thus, being the case. In April 1977, I was appointed Post Graduate Program Affairs Assistant of the Academic General Directorate and research Coordinator, a position I held until September 1979. This Coordination included the promotion, control and dissemination of all the research activity carried out at the institution. I took again charge of the general management of Research and Post Graduate Program in September 1985, now with the category of Director of Postgraduate and Research Programs. I held this position until March 1988, when I was appointed to perform another function. It should be noted, from now, that these positions names communicated the institutional intentionality of linking teaching at graduate level with research.

In the first of the aforementioned periods with the Coordination under my charge, the effort was focused, as far as research is concerned, in establishing and managing a registration, financing and follow up system of the projects undertaken by full time academicians of the University.

COORDINACION DE INVESTIGACION-DGA ASOCIACION DE PROFESORES E INVESTIGADORES, A. C.

**JORNADAS DE DIFUSION DE LA INVESTIGACION UIA**  
Abril 2-5 de 1984 Local de API

HORA	LUNES 2	MARTES 3	MIÉRCOLES 4	JUEVES 5
18:00 HRS.	CEREMONIA INAUGURAL	Depto. de Desarrollo Humano: <u>La Posibilidad del Enfoque Sistemico en las Ciencias Sociales</u> Mtro. Luis Vergara	Depto. de Letras: <u>La Relación de la Novela Contemporánea Latinoamericana con Estructuras Políticas</u> Dra. Vivian Antaki	Depto. de Derecho: <u>JURIDICA: Origen, Evolución y Proyecciones</u> Dr. José de Jesús Ledesma
18:30 HRS.	Depto. de Letras: <u>La Hermenéutica Literaria de Roman Ingarden</u> Mtro. Gerald Nyenhuis	Centro de Servicio y Promoción Social: <u>La Vivienda Rural en México</u> Arq. Patricia Muñoz	Depto. de Historia: <u>Paleografía de la Crónica de Fray Agustín de la Madre de Dios</u> Lic. Manuel Ramos	Depto. de I. y Cs. Químicas: <u>Análisis Comparativo de Dos Sistemas de Enseñanza</u> Mtro. Armando Rugarúa
19:00 HRS.	Depto. de Ingeniería Mecánica y Eléctrica: <u>Sistema de Tráfico Telefónico</u> Mtro. Héctor Peynetti Mtro. Ricardo Corona Mtro. Francisco Martín del Campo	Depto. de Comunicación: <u>El Cambio de Actitud, Conocimiento y Expectativas sobre el Uso y Abuso de Bebidas Alcohólicas</u> Mtra. Gema López Montes	Depto. de Física: <u>Investigación del Posible Uso de la Tecnología de Irradiación en el Tratamiento de Gases</u> Fís. Juan Cristóbal Cárdenas	Depto. de Cs. de la Nut. y Alimentos: <u>Efecto de la Variación de Especies de Pescado en las Características Sensoriales de un Producto Tipo Jamón</u> Mtro. Carlos Lever
19:30 HRS.	Depto. de Ingeniería Mecánica y Eléctrica: <u>Demostración del funcionamiento del Sistema de tráfico telefónico</u>	Depto. de Historia: <u>Traducción de la Obra del Dr. Michel de Certeau</u> Lic. Jorge López Moctezuma	Centro de Didáctica: <u>Evaluación del Sistema de Exámenes Departamentales Empleado por el Departamento de Matemáticas de la UIA</u> Mtro. José R. Ulloa	CEREMONIA DE CLAUSURA

Program of the first days of research 1984.

Before dealing with the second period, in which I oversaw Research and Post Graduate Studies general management, it is necessary to refer to certain events that



Doctor Luis Vergara, Research and Post Graduate Programs Director

took place between one stage and the next. From 1979 to 1983 I was entrusted with the responsibility of institutional planning (from September 1979 to April 1981 as Planning General Coordinator, and, from April 1981 to June of 1983, as Planning General Director). In June 1983, I concluded that practically nothing, from what we did in the Directorate, had any effect on the substantive academic activities carried out at the University and that, consequently, my work was meaningless. Therefore I resigned my position (and the prerogatives that it

implied) despite the opposition of the rector, Dr. Ernesto Domínguez Quiroga, S.J. Additionally, I made the decision to abandon academic work (mainly teaching) that I was developing in the field of the so-called “hard sciences”, to look for my insertion in the “soft sciences”, because I considered that it was a more favorable environment for the performance of an academic work in accordance with what I understood to be the specific vocation of the University.

I took a sabbatical -then, they lasted six months- during which time I devoted myself to studying the systems theory use (field in which I had a master’s degree) in social sciences. At the end of this term I joined the Human Development Department, where I began to give courses and seminars in the Master in Education (then oriented to the education-society relation) and to study the Family Counseling Specialty (since these are likely to be studied and intervened with systemic methods). At that time, 1984, a seminar I lead in the Master’s in Education, whose purpose was to formulate a strategic proposal to contribute to social change through higher education, was of special significance. The above, based on the best available literature on systems theory and social change. From what then took place, I will only say that it was based on the non-acceptance of the dilemma: “conversion of hearts” or “transformation of structures”, but that said strategy had to respond to both objectives at the same time. Although it was never registered as such, this was a real research carried out jointly by the students participating in the seminar and me.

During the second period in which I oversaw the general management of Research and Postgraduate studies at the University, my work was guided, above all,

to the effort to privilege (without exclusivity) those researches that met academic quality and social relevance conditions. Some of the assumptions made during my assignment were the following:

- a. The receiver of the activities carried out at the University was society, not students.
- b. The University could pretend to influence society *indirectly* through its graduates and *directly* through dissemination activities, therefore they should be enhanced to the possible maximum. The latter should be considered of greater strategic value than the former, by virtue whereof: (1) the purpose of training students value wise was, at best, achievable in a rather low degree, since it is in stages prior to higher education when they basically conform what must be their valued framework for all life; and (2) the social extraction of the majority of the students (and of the teaching staff) implied an alignment with conservative interests.
- c. All research carried out at the University and all postgraduate programs taught in it should be characterized by clear academic quality. In this sense, quality should not be inferior to that of any other graduate program in the same field offered in Mexico: “We cannot be good at everything, but we must be good at everything we do”. This quality requirement was a criterion that should operate, both for the approval and for the maintenance of research programs and projects.
- d. One strategy to achieve these quality levels was specificity. It was necessary to specialize, both in postgraduate studies and in research.
- e. Assuming academic quality, the University should preferably support those programs and research that showed greater social relevance.

These assumptions were not received with everybody’s approval. With regard to the first two, it was argued that to assume them was to make the students instruments and not ends in themselves; regarding the third, it was said that it was unrealistic; regarding the last two, it was pointed out that the search for knowledge should not be ideologized (or politicized).

### III

In 1990, after nearly twenty years of combining the discharge of responsibilities inherent in a long succession of management positions with teaching activities (never suspended), I began to devote myself exclusively to substantive academic functions.

In 1992 I started (tardily) a new stage in my academic life: I entered the PhD program in History offered by the University. I obtained the degree in 1999 and in 2002 I joined the faculty of tenured scholars of the History Department. In my doctoral thesis *The textual production of the past* I made an exposition of Paul Ricoeur's history theory (in what had been published before 1999). I developed a different theoretical platform from that from which the philosopher theorized and, from that one, I embarked on a critique about his work. After I got the degree, I started a research program -with the same name as the thesis- oriented to develop more extensively what was treated in it and to extend it in different directions. Fruit of this work were four books and over twenty published articles. A little later, in 2005, I joined the National Researchers System.

In my research work, in the field of the theory of history - focused on what the historian does and what it produces, not on the history that has happened - I have sought to be faithful to the social pertinence imperative. For this reason, the ethical-political responsibilities of the historian as such, and more broadly of the professional in the middle of history (professors, disseminators, museographers, etc.), have played a central role in my publications and in my teaching. I illustrate the above with an example. Unlike some of my colleagues and several front-line history theorists, I am persuaded that different historically mutually exclusive accounts of the same period or event -all true in their data- cannot be compared to each other or valued as a whole with recourse to the truth: they are all equally true. Hence, however, in my opinion a postmodernist relativism is not followed; on the contrary, the different stories can be valued and compared when making use, precisely, of certain ethical-political criteria.

On December 31st, 2016, I reached fifty years (to the day) of work as a full-time academician at the University. I was retired on January 1st, 2017 and that same day I was rehired (for professional fees) as a "distinguished researcher". I still belong to the National Researchers System and I teach a course or seminar every semester.

I am aware, however, that my academic career - like my life - is nearing its end. I look back and wonder if I have been congruent, in my academic work in general and in my research work, with what I have called the social relevance imperative. I answer myself that yes, I have been, *but from the comfort and safety that gives work in the ivory tower that I have never left*. I wonder, too, if that congruence has really been motivated by the good of others or by my desire to be congruent (centered in myself)... and I do not know what to answer. ¶

Jorge G. Ibáñez Cornejo

*The Ibero, Pioneer as Private  
University in the National  
Researchers System (SNI)*

The National Researchers System —SNI— was created by presidential decree on July 26, 1984, to “stimulate the research activity in Mexico and stop the possible disintegration of Mexico’s scientific community”<sup>1</sup>. Such stimulus was translated into setting a series of recognitions and economic incentives destined to researchers, as well as a peer assessment system, to determine who of the applicants were worthy of such benefits, based on their scientific production, their teaching work, scientific infrastructure development, human resources training and research groups creation. Different levels were set to consider: candidate, researchers that are starting in research with a promising production, Level I, those with published articles and research experience, Level II, those that are already consolidated at the national level. And finally, Level III, consolidated researchers at national and international level.

1 Salvador A. Malo, “Academia. National Researchers System Board of Directors Session. Words addressed by Dr. Salvador Malo to the SNI Board of Directors on November 19, 1988”, *Ciencia*, no. 39, Mexico, 1988, p. 311

The idea of the Federal Government was, in part, generated to avoid the called “Brain drain” —that someone re-named as “the hungry stomachs drain”—. However, despite the express mission of providing support to national researchers, at first, this support was granted exclusively to those who were attached to public institutions, leaving out researchers from private universities, such as the Iberoamericana. In this way, the same problem was brewing between public and private institutions, since the researchers of one or the other were in very different conditions to carry out their work. Not having this type of support represented a disadvantage for researchers. Personally, I must confess that since I joined the SNI, the aspect of my family economy was solved. Thus, the situation of the SNI was causing the same “brain drain” that it intended to fight; which, in the end, was to the detriment of the investigation in the country.

As in many other aspects related to academic life in Mexico, Dr. Ernesto Domínguez Quiroga, S.J., then rector of the Iberoamericana, considered that the initial decree of the Federal Government should include researchers from private institutions, since the research products and the training of people benefit the country, regardless of the nature of the institutions. Therefore, he fought to obtain recognition for researchers, regardless of the public or private nature of the institution to which they were attached.



Rector Ernesto Domínguez Quiroga (1980-1988), researchers admission promoter from Private Universities to the National Researchers System

The starting point was an interview that Dr. Domínguez had in 1985, in his capacity as rector and, on behalf of the academicians, María Cristina Torales —then president of the Professors and Researchers Association— with the deputy secretary of Higher Education and Scientific Research of the Public Education Secretariat, Mr. Rafael Velasco Fernández, who had great appreciation for him, because both were from Veracruz. In said interview the interest of the institution, as well as of its academicians, was expressed to be considered in the

National System of Researchers. The Education undersecretary stated that such system responded to the importance of having an economic stimulus, to recognize researchers from public institutions that were distinguished by their productivity, and the SNI was not considered a national research registry. However, the undersecretary expressed his openness for the Iberoamericana to submit a proposal.

The following year, with the SNI call open, on June 30, 1986, the rector proposed to Dr. Velasco Fernández that “the SNI be extended to every researcher who proves to be one with the strictest conditions of quality control and corresponding reports”<sup>2</sup>. In the event that the financial support was not granted to all researchers, or to those of the Iberoamericana, it was requested that, at least, the latter be included in the same system assessment structure, so that the University would compensate them on its own in an equivalent way.

On August 4 of that same year, Velasco Fernández implied that the last option was the most feasible; that is, to include researchers of private institutions within the SNI assessment system and that each institution would cover the corresponding backing. In addition, in order to give strength to the proposal, he suggested that researchers from institutions like the Ibero, those from other private universities, should be added as well. In any case, if the inclusion of these academicians was accepted, it would have to be done until the following year.<sup>3</sup>

On June 1987, thanks to the efforts of the Universidad Iberoamericana, the Rector Domínguez was informed that the Board of Directors of the SNI presented to the Presidency of the Republic a proposal to modify the agreement to create the system, in which, finally, researchers from private universities were included.<sup>4</sup> It was until February 2, 1989, that the agreement entered into between the Universidad Iberoamericana and the SNI was formally communicated, for the incorporation of “Researchers of the Universidad Iberoamericana who deserved such distinction in the 1988 call”.<sup>5</sup>

- 2 Ernesto Domínguez Quiroga, “Letter from Dr. Ernesto Domínguez Q., rector of the Universidad Iberoamericana, to Dr. Rafael Velasco Fernández, undersecretary of Higher Education and Scientific Research”, June 30, 1986, Historical Archive of the Universidad Iberoamericana.
- 3 Rafael Velasco Fernández, “Letter from Dr. Rafael Velasco Fernández, Undersecretary of Higher Education and Scientific Research, to Dr. Ernesto Domínguez Q., rector of the Universidad Iberoamericana”, August 4, 1986, Historical Archive of the Universidad Iberoamericana.
- 4 Salvador A. Malo, “Letter from Dr. Salvador A. Malo, Resolutions Secretary of SNI, to Dr. Ernesto Domínguez Q., rector of the Universidad Iberoamericana”, June 19, 1987, Historical Archive of the Universidad Iberoamericana.
- 5 Salvador A. Malo, “Letter from Dr. Salvador A. Malo, Executive Secretary of SNI, to Dr. Carlos Escandón Domínguez, rector of the Universidad Iberoamericana”, February 2, 1989, Historical Archive of the Universidad Iberoamericana.

Initially, 21 researchers affiliated to private institutions were admitted to the SNI.<sup>6</sup> In this way, the system opening process started, which represented a great advance for research in the country, driven from our house of studies. It should be noted that, despite the success of the inclusion of Iberoamericana researchers in the SNI, at first, the university itself was responsible for covering, with its own resources, the corresponding economic stimuli. The SNI was only responsible for the assessment and acceptance process.

### **The going of the Ibero in the SNI**

Based on the achievements, it fell onto Dr. Luis Vergara Anderson, as Research Director, to be in charge administratively of the insertion of our researchers in the SNI, with the backing of MSc. Lucía Bascuñán Termini, Research Coordinator. The Ibero decided to send two files, to be assessed for the first time, in order to strengthen the possibility of entry: that of Dr. Jorge Ibáñez Cornejo, from Chemical Engineering, who had joined the SNI in the first generation in 1984, when he worked in the Center for Research and Advanced Studies (Centro de Investigación y Estudios Avanzados —Cinvestav—) of the Instituto Politécnico Nacional, and who had been removed for transferring to the Ibero, and that of Dr. Guillermo Zermeño Padilla, from History.

In 1988, after the corresponding agreement was signed by Dr. Carlos Escandón, Dr. Luis Vergara decided to send three more files: MSc. Carlos Muñoz Izquierdo —postgraduate coordinator and head of the Interdisciplinary Research Unit in Education—; MSc. Ruth Pedroza Islas, of Food Technology; and a professor of Mechanical-Electrical Engineering —who soon left the Ibero—. All three were evaluated positively. The following year, it was the turn of MSc. Alberto Ruiz Treviño, from the Engineering and Chemical Sciences Department, whose file was sent and evaluated, also successfully. Five years later, in the month of June 1994, Dr. Carlos Muñoz Izquierdo —ascribed to the Research and Postgraduate Studies Directorate, DIP, in the Institutional Research in Educational Studies Program— became the first researcher of the Ibero with Level III. The numbers of researchers in subsequent years were the following:

<sup>6</sup> Salvador A. Malo, “Academia. Session of the National Researchers System Board of Director. Words addressed by Dr. Salvador Malo to the SNI Board of Directors on November 19, 1988”, *Ciencia*, no. 39, Mexico, 1988, p. 313

- 1994: 18.
- 1997: 20
- 1998: 21
- 1999: 30.
- 2000: 34.

For the year 2001 the entrance of Ibero researchers to the System continued, and under the rectorry of the MSc. Enrique González Torres, S.J., the Crescencio Ballesteros Fund decided to dedicate their contributions to support these researchers, with an annual allocation to support them in their participation in meetings and congresses.

Another very important advance occurred on September 30, 2008, when an agreement was signed between the SNI, the National Association of Universities and Institutes of Higher Education (Asociación Nacional de Universidades e Institutos de Educación Superior —ANUIES—) and the Universidad Iberoamericana, so that Conacyt would pay 30% of the monthly economic stimulus, corresponding to the researchers members of the System, ascribed to the University. This was achieved by the management exercised by the Council of Private Universities and Related Institutions (Consejo de Universidades Particulares e Instituciones Afines —CUPRIA—) and ANUIES. In return, the University signed the commitment to have a certain number of programs in the National Register of Quality Postgraduate Programs (Padrón Nacional de Posgrados de Calidad —PNPC—) and researchers ascribed to the SNI per year, until 2011. The agreement was signed by the rector, Dr. José Morales Orozco, S.J., while the commitments were signed by the Vice rector, Dr. Javier Prado Galán; the director of Research, Dr. Alberto Ruiz Treviño; the Director of Postgraduate Studies, Dr. Valentina Torres Septién Torres and the divisional directors.

On December 10, 2013 an agreement was signed between the SNI and the Universidad Iberoamericana so that, from 2014 until December 2016, Conacyt would pay 100% of the monthly economic stimulus. Additionally, a Single Annex was signed, where an institutional development and research support plan was detailed, in which the total amount of resources to be invested, equivalent to the amount that Conacyt delivered to the researchers. The agreement was signed by Dr. José Morales Orozco, S.J.

Finally, on January 20, 2014, in a meeting with rectors of different private universities in the country, the director of Conacyt, Enrique Cabrero Mendoza, publicly reiterated the Council’s commitment to contribute to the integral development of the country’s scientific and technological research. That is, it took 30 years for

Conacyt to withdraw the distinction between public and private institutions in this area. It is worth mentioning that the backing would be given, provided that previous coverage has been given to the stimuli required by public research. In that year, the Ibero was the third private institution in Mexico in terms of the number of researchers in the SNI —surpassed only by the Monterrey Institute of Technology and Higher Education (Instituto Tecnológico y de Estudios Superiores de Monterrey), in Monterrey, and the Autonomous Technological Institute of Mexico (Instituto Tecnológico Autónomo de México).

At the end of 30 years of the Ibero in the SNI, in 2018, the number of researchers of the Ibero in this system reaches the historic figure of 100. Currently, we have as national researchers in force 102 full-time academicians, eight research and teaching services providers, as well as four researchers conducting their post-doctoral fellowship.

### **The SNI and research produced at the Universidad Iberoamericana**

In my opinion, speaking in a general way, the SNI has been able to intensively promote the realization of more investigations in our country and the one that more people dedicate themselves to this commendable work. At the same time, it has fallen short in promoting that these researches be useful for the country. The SNI has rewarded the amount more than the usefulness; the impact on quotes rather than the social impact. Despite this, I believe that the SNI has evolved for good, because previously the contributions to education, industry and technology were weakly valued.

The possibility of entering the SNI meant a great change for the research produced at the Universidad Iberoamericana. This had been done for a few decades but was still incipient. Entering the system generated the possibility of professionalizing it, of entering networks; that the request for federal backing was considered more legitimately. Conceptually speaking, our research was professionalized. This helped boost the academic level of our researchers, because we had to think more, do things better, documenting us more, write more, compete more. The Ballesteros Fund backing, in addition to making the Universidad Iberoamericana present in national and international academic spaces, has allowed researchers to attend meetings to update us, receive feedback, form networks, and so on.

The internal policy of requesting certain number of hours in front of a group, according to the function of the individuals, seemed right to me. However, given that currently the amount of documents, meetings, reports, verifiable, etc., that a professor in the Ibero has to fulfill/deliver, can become unheard of; the SNI membership generates, in a natural way, a strong tension with the desire to devote more time to

research, sometimes at the expense of teaching, because there is not enough time for everything - unless we dedicate more personal and family time. I remember, with sadness, the comment that a student made in an Educational Process Evaluation System, (Sistema de Evaluación de Procesos Educativos, SEPE), and that it was quite true: “It seems that Dr. Ibáñez always has something to do and does not devote the necessary time to us”.

Research that should interest us in the Ibero is one that always has in its sights —at least in some evident point of its horizon— the marginalized, excluded and unprotected. Otherwise, we could not distinguish whether an investigation was conducted here or in any other institution. We need specificity, we need meaning, we need to keep in mind the mission and prospective that will focus us as an institution entrusted to the Society of Jesus, whose guidelines in this sense are very clear. This should be a key point to dictate approvals, the assessment of reports and personnel promotion.

Finally, history has clearly shown that the best investigations are those that are carried out interactively with other people and research groups. For this reason, the formation of research groups in the Ibero —an idea that has been cherished and proposed *n* times— is still current and little consolidated. The research chairs promoted by the vice-rectory, the Research Directorate, the Research Department, and the Promotion of Research and Higher Culture, A.C. (Fomento de Investigación y Cultura Superior, A.C. FICSAC), are a spearhead in this regard. It is up to each researcher to convince himself/ herself that this is the way in which the Ibero wants and must do research, for a better contribution to this society -so much in need of inputs for decision making- and for the resolution of social, scientific and technological problems to which the Ibero wants to aim.

Congratulations to the researchers and all the academic and administrative authorities that have made possible for Ibero to remain firm in the SNI during all these years! ¶

In collaboration with Dr. Jose Fernando Madrid Quezada.

Alberto Ruiz Treviño

*The Research Directorate:  
February 2005 to September 2014*

The current Research Directorate —hereinafter referred to as DINV— was reborn in February 2005, after a brief period in which the administration and management of lines and research projects were assigned to the Research and Postgraduate Commission —CIP—, a unit dependent on the Academic Vice-rectory. This Directorate resurfaced as a joint initiative from the Rectory and Vice-rectory, to carry out two specific tasks that would be developed with the support of one director and three collaborators. These were: The choice of lines and projects to be approved, which would start from an external evaluation process by disciplinary peers who would value the projects *relevance and quality* and proposed researchers. On the

other hand, results of lines and projects dissemination before the corresponding actors —internally and externally— with the idea that they could have a greater and effective incidence in society's transformation. The foregoing had as main objective that the social actors really appropriated that knowledge and, most importantly, that they assimilated, applied and —in time— innovated it.

As part of binding to the outside world, the rectory also decided to deposit in the DINV tasks inherent to its functions, such as: A) Participate with the Clinton Foundation initiative in Mexico, to support the Ibero's General Management Directorate in the process of evaluating the proposals presented, as well as selecting the company that would develop the Institutional Energy Saving Project of the Institution and B) Participate as meetings representative led by the rectory of the Universidad Nacional Autónoma de México —UNAM—, to formulate and submit candidates for the position of President of the Mexican Republic, senators and the lower chamber (in 2012), the document *Towards a National Agenda in Science, Technology and Innovation*, as a strategic objective for a State Policy 2012-2018.

Within the scope of the period were distinguished: 1) The substantial increase in economic resources, through the SNI 100 Fund, which the University allocated to stimulate, strengthen and consolidate its research; 2) The establishment of a *Research Regulation for Universidad Iberoamericana Ciudad de México*; 3) The creation of a first body, equivalent to CIP, called "Resources Assessment and Allocation Council" (Consejo de Evaluación y Asignación de Recursos —CEAR—) and a second one, called "Institutional Resources Assessment and Allocation Council" (Consejo Institucional para Evaluación y Asignación de Recursos —CIEAR—), to assess institutional and inter-divisional projects; 4) The establishment of the first *Calls for Research Financing*; 5) The stimulus to form, strengthen and consolidate projects and research of interdisciplinary and interdepartmental lines, in close collaboration with Development of Research and Higher Culture (Fomento de Investigación y Cultura Superior, A. C. —FICSAC—); 6) The development and implementation of an electronic system, as a single database, to condense relevant information on projects and researchers, the so-called Research Management System (Sistema de Gestión de la Investigación —SGI—); 7) The emergence of the *Ibero-FICSAC Stimulus to reward balanced productivity*, between teachers training and doctors with the publication of results in journals, congresses and quality forums of Ibero researchers; 8) The creation of the figure *Research Grant*, as a strategy to train our students as researchers and, finally, 9) In conjunction with the Legal Affairs Directorate, the drafting of a document on *Institutional Policies in Relation to Patents and Technological Development*.

## The Fund SNI 100

The Fund SNI 100 is relevant for the development of quality research, since it guarantees the continuity of economic support to lines and projects demonstrating quality, independently of the rector, academic vice-rector and/or research director on duty. Indeed, the SNI 100 has no father and, much less, a mother. It is a product of the quality with which the researchers and the University show their commitment to Mexico. The SNI 100 is a double cushion carambole, sum of two fundamental commitments: In first place that of Conacyt, to directly award 100% of the economic stimulus corresponding to each researcher; and in second place that the University, in the continuous investment of the equivalent amount to stimulate, promotes and consolidates the development of quality research, evidently, whatever it takes.

This double cushion carambole is the result of DINV, rectory and academic vice-rectory strategy in the so-called "gang operation". In one hand, the rector of the Ibero is committed to dialogue with Conacyt directors, and, on the other, DINV (together with Higher Education private Institutions (Instituciones de Educación Superior —IES—) peers) is committed to developing a study that shows, with the quality inherent indicators of Conacyt, the commitment degree that some private IESs have together with teachers and doctors' training that the country needs, through research, generating and disseminating knowledge in journals, congresses and quality forums.

The first major breakthrough was seen on January 1<sup>st</sup>, 2008, with a 30% called SNI 30, consequence of a presentation at Conacyt's Juárez Hall that brought down the three truths —turned into myths— that supported the reason why national researchers of private IESs should not receive economic stimulus from Conacyt. In a second advance on January 1<sup>st</sup>, 2014, it was finally possible to change the SNI regulations so that Conacyt would grant 100%, in parallel to the Ibero's always faithful commitment with its researchers to invest the equivalent amount for research, through the Institutional Fund SNI 100. The foregoing, as a result of the commitment of legislators and the Presidency of the Republic to increase investment in science, technology and innovation, driven by the document *Science, Technology and Innovation National Agenda 2012*.

## Regulation for Research, CEAR and CIEAR

The Research Regulation that is carried out at the *Universidad Iberoamericana Ciudad de México*, Official Communication 398 of June 30<sup>th</sup>, 2006, had as its general objective to define the *relevance* (real impact of projects in the University and in society)

of the lines and individual and/or group projects, as the first seal of quality; but also established as a particular objective the commitment of the University with its researchers and vice versa to give continuity, as another sign of quality. That is to say, that the University would guarantee a multi-year economic support and time for research to all the projects approved by CEAR and CIEAR, demonstrating their relevance and quality before the external evaluation of accredited disciplinary peers; for example, those of Conacyt's Registry of Accredited Evaluators (Registro Conacyt de Evaluadores Acreditados (RCEA)). The basic functions of CEAR and CIEAR consist of assimilating and weighing external assessments, based on an Evaluation Card issued by DINV, as well as using the assessments to classify projects from higher to lower grade and thus define the financial support and time for the approved projects.

### **Calls for Research Funding and Productivity Incentives**

This period was characterized by the resurgence of research funding formal calls. These presented the criteria that a project had to be fulfilled, based on the approved regulation. Basically three calls were highlighted: 1) For *Individual and/or Group Research Projects Funding responding to strategic departmental lines* that, in essence, have promoted the development of basic science and its dissemination that have formed teachers and doctors on their way that society requires; 2) UIA-FICSAC, to finance research projects that have answered to lines of institutional interest, as well as promoted the formation of interdisciplinary teams with the development of an applied research that has offered tangible results due to its level of incidence on the solutions requested by society; and 3) from FICSAC Fund, to stimulate the balanced productivity of UIA researchers and thus recognize the participation of researchers thereof. In this last call it was sought that researchers not only commit themselves to develop research and publish it in high impact journals, but also train teachers and doctors of the National Postgraduate Quality Program —PNPC-Conacyt—, and of course, to reward their efforts getting external economic support to help consolidate departmental and institutional lines and projects.

### **Other aspects**

This period was also characterized by the excellent and close research collaboration between FICSAC and DINV; for the increase in the dissemination of Ibero's research results in high-impact journals; by the incorporation of several postgraduate programs to PNPC-Conacyt, thanks to the participation of researchers in the

training of teachers and doctors; for the participation of researchers in applied research projects promoted by Conacyt to stimulate the link between researchers and their universities in projects proposed by society, the company and/or different state Secretariats; and finally, for the visit of important Nobel prizes, thanks to Science and Innovation Weeks organized by the Institute of Science and Technology of the Federal District Government.

To close this brief historical description of DINV (period 2005-2014), inserted within the great commitment to education, research and dissemination of knowledge that the Ibero initiated 75 years ago -and that will surely continue to drive with high octane energy for a long time in its transition to consolidation- is inserted, following, the final message with which the Research Director, responsible for the period ends its administration and management in the DINV.

### **Message from Alberto Ruiz Treviño**

**October 1st, 2014**

- a. To my collaborators and friends, Patricia Escalona Lima, Gerardo Gómez-Farías Pimentel and Juan José Solís Delgado (at the time, Alberto de la Paz de León), my sincere thanks for your loyalty and commitment to the efficient development of the tasks inherent to the DINV. An invaluable support.
- b. My acknowledgment and gratitude to Fernando Chico Pardo, Marcela Arregui and Dina Mejía, for the trust and approval of the proposals of this Directorate for Balanced Productivity, Research Fellows and Call for Applied Research UIA-FICSAC. In fact, this month they started eight new projects that will end in 2016, in which date will be 10 years of this initiative. This time is statistically reliable as to assess and conclude on the performance of the call; but not necessarily of the projects. That's another history.
- c. To Doctors José Morales Orozco and Javier Prado Galán I send my deep appreciation for having honored me with the invitation to direct the newly born Research Directorate more than nine years ago. This invitation expired on June 30<sup>th</sup> and was extended for three months, until the appointment of Dr. Thomas Legler, to whom I wish much success.

1 Message of end period of DINV in which I was director, delivered at the ceremony of change of directors that took place in the Aula Magna Saint Ignatius of Loyola on October 1<sup>st</sup>, 2014.

- d. Obviously, I am deeply grateful to the Ibero researchers for their always positive and quick response to answer the call to research through the calls issued. Particularly I would like to leave three very clear messages:
- e. The distribution of the annual finite funds for research has always been and still is this 2014, very balanced among the three divisions;
- f. We have a regulation that, on the one hand, clearly defines what the Ibero understands as quality and, on the other, guarantees the continuity of good projects, so that the Ibero honors its commitment to its researchers and its students, and vice versa;
- g. We have guaranteed economic resources, through the Fund SNI 100, to support quality research, thanks to the institutional commitment of having to invest for the development of research, at least an amount equivalent to what our researchers receive through federal resources.
- h. Finally, MSc. David Fernández, I wish you and your collaborators the best success ever in the design and implementation of a great project. A project that gives a strong boost to Ibero research in its transition to consolidation.

Thank you! ¶

Thomas Legler

*At Ibero's Research Directorate  
service, 2014-2018*

**Introduction: a golden age of research.<sup>1</sup>**

It results very appropriate that on the occasion of the 75th Anniversary of the Universidad Iberoamericana Mexico City —Ibero— this enjoys what could be called a golden age of research. Although without a doubt -and as illustrated in this collection— the Ibero has a long and distinguished tradition of research dating from the sixties, the period 2014-2018 is experienced as dynamic and unprecedented in the growth in these activities. During this stage, as Research Director, my reading of

<sup>1</sup> I would like to thank Ornela Garelli-Ríos for translating this text, as well as Karla Contreras and Óscar Hernández for their support in the preparation of this chapter.

the environment is that the Directorate has been favored by the fortuitous convergence of two factors opening new possibilities for research at the Ibero: the dramatic increase in the financing of the University, thanks to a historic agreement with the National Council of Science and Technology —Conacyt— and the arrival of a new administration, in 2014, under the leadership of the rector, MSc. David Fernández Dávalos, S.J., and the Vice rector, Dr. Alejandro Guevara Sanginés.

Following, I divide my analysis into three parts: in the first section I summarize the situation existing when I became Research Director in September 2014; in the second section I outline the main achievements of the research administration of the Ibero under my responsibility, during the period 2014-2018; finally, in the concluding section I explore the tasks that lie ahead in terms of consolidating important advances over the past four years.

### The state of research at the Ibero in 2014



FICSAC Ibero Quality Research recognition awards ceremony. From left to right: Dr. Thomas Legler, MSc Pedro Padierna, President of FICSAC, MSc David Fernández, rector of the university and Dr. Alejandro Guevara, vice rector. October 2018.

The state of research at the Ibero that I inherited in October 2014 can best be described as one of modest but important achievements, of significant promises and a potential to be exploited. As the chapters in this collection highlight, at least since the 1960s, in the Ibero has existed a distinguished tradition of excellence in research.

It is also worth mentioning and, as Dr. Alberto Ruíz Treviño details in his chapter an important milestone in this period was Conacyt’s decision to establish an agreement with the Ibero on December 2013 that would mark off a divide at the University. Thus, together with other private universities throughout the country, the Ibero signed an unprecedented agreement with Conacyt that

produced a dramatical increase in research financing levels within the University. As part of the agreement, Conacyt undertook to increase its participation from 30 to 100 per cent of the monthly benefit cost received by university academicians that are part of the National Researchers System —SNI—, in return, the Ibero undertook to deposit monthly an equivalent amount to the new 100 per cent commitment from Conacyt, in what is called today Fund SNI 100 and invest that sum into research

activities within the University. For every new SNI member, the Ibero in consonance must increase its deposits to the Fund SNI 100. With the growing number of SNI researchers this unexpected benefit has provided the basis for an expansion in research expenses in the Ibero without any historical comparison.

However, for a long time, research had been considered the junior partner of teaching at the University. In fact, the Ibero community in general perceived as its main mission being a professionalizing university, with an operational focus mainly placed on the undergraduate level and with a strong emphasis on preparing graduates with a set of professional skills, as well as humanistic values to function successfully in the workplace and in the service to the others. In a revealing way, the same word “investigation” appeared only a couple of times in the Strategic Plan for 2013-2020. Consequently, it is not surprising that, in general, Ibero was not perceived by outsiders as a research power, as was the case of public universities such as the Universidad Nacional Autónoma de México, the Instituto Politécnico Nacional, the Centro de Investigación y Docencia Económica or private institutions as the Tecnológico de Monterrey.

Although the Research Directorate —DINV— offered significant funding for full-time researchers to develop their work, such as the Annual Call for Departmental Research, as well as UIA projects and the Promotion of Research and Higher Culture, (Fomento de Investigación y Cultura Superior, A.C., — FICSAC—) with social projection, its operations sometimes were not coordinated adequately with other units of the University that promoted or conducted research. This was the case, for example, between DINV, the Research Institute on Sustainable Development and Social Equity (Instituto de Investigaciones sobre Desarrollo Sustentable y Equidad Social —IIDSES—) and the Research Institute for the Development of Education (Instituto de Investigaciones para el Desarrollo de la Educación —INIDE—), as well as with the Postgraduate Directorate, whose students were potential beneficiaries and participants in research projects.

In addition to the above, the ability of full-time academicians to reach their maximum research potential faced several important obstacles. For example, the annual backing received by professors, members of SNI, from the Ballesteros Fund, to finance the presentation of their research results in national and international academic events, had been undermined by the combination of the effects of the Mexican peso devaluation and inflation. Likewise, there was little or no institutional support



Dr. Thomas Legler in the award of the FICSAC Recognition to research productivity. June 22, 2015.

for researchers to translate their publications into English and thus favor their publication in indexed international journals or publishing houses of renown prestige.

Likewise, the research tended to be housed in the different Departments of the University, encouraging disciplinary work. To the extent that, when research teams were formed, these tended to be organized between members of the same Department and, to a lesser extent, between academicians from other areas. Although there were some notorious antecedents of interdisciplinarity and transdisciplinarity in research in interdepartmental teams, it was generally the exception to the rule. As we will see in the next section, in later years important changes would be made in the Ibero to face these areas of opportunity.

### Research management at the Ibero, 2014-2018

The timely arrival of MSc David Fernández Davalos, S.J., as rector and Dr. Alejandro Guevara Sangines as vice rector, on June 2014, brought to the Ibero a new crucial leadership in favor of research. Thanks to MSc Fernández, since 2014, the research work finally assumes its rightful place alongside teaching and linking as one of the three main substantive areas of the university. Significantly, MSc Fernández transferred to the vice-rectory the authority to direct the day-to-day operations of the Fund SNI 100, encouraging the creation and implementation of a plethora of new programs in favor of the Ibero research community, under the guidance and vision of Dr. Guevara. The rector also eased the restrictions existing on the growth in the number of SNI members. Thanks to this openness and the research talent available at the Ibero, the number of SNIs grew rapidly from 77 in 2014 to 102 in 2018. In this way, the University reached a milestone by exceeding 100 members in the SNI since September 2017. The rector's priority of doubling graduate students' enrollment has also contributed to open opportunities for the construction of synergies among Ibero researchers and the growing number of graduate students.

Thanks to the influence of MSc Fernández and according to the Jesuit educational model—which dictates that research should be focused on solving the great problems that affect humanity—the Ibero seeks greater relevance and social incidence. That is, research must generate knowledge, actions, technology and innovations benefiting the most vulnerable sectors and contributing to greater justice, development, democracy, safety, as well as a sustainable society and environment. This has been translated, for example, into the adoption of a *research triad* that combines: insistence on the highest national and international quality standards; relevance to meet the prevailing needs of society under a humanist halo; and social incidence to intervene university wise in favor of a freer, fairer, more solidary, inclusive, productive and peaceful society.

In regard to the above, Ibero's research activities are under a process of continuous orientation towards the resolution of the main social problems of Mexico and the planet and include vital issues such as inequality, poverty, insecurity, violence, inclusion, human rights violations, corruption, the weakening of democracy and global climate change. This focus on social problems creates an imperative for the promotion of a progressively more interdisciplinary and transdisciplinary work developed by interdepartmental teams, as well as the institutes and research centers. In response to this imperative, in August 2018, the vice-rectory launched the first Transdisciplinary University Center (Centro Universitario Transdisciplinario—CENTRUS—) in the thematic area of sustainability.<sup>2</sup>

Thanks to this favorable environment, the Ibero has been able to create and finance a series of new initiatives that in the past could only have been a dream. For example, important steps have been taken towards greater coordination and collegiality among the main actors of the University's research community. In 2015, the Research Council was initiated, an entity whose purpose is to provide advice and recommendations to the rector, the vice rector and the Research Director, as well as to support the internal selection and assessment process of the plethora of calls and projects. In addition to the vice rector and the Research Director, its membership includes six advisors (two distinguished researchers representing each Division), as well as the Postgraduate Directors of the institutes and research centers of the Ibero.

The DINV and the Research Institutes have cooperated closely to promote the homologation of institutional capacities. This collaboration has also helped to create a division of research work. In this regard, DINV has focused its own annual call on basic scientific research, while the institutes have focused their mandate on the promotion of applied research and technology development.

During the last four years DINV developed strategic alliances with the Graduate Directorate and the three Academic Divisions to strengthen the training of young researchers at the graduate level.<sup>3</sup> Together, DINV and the Graduate

2 Currently, the vice-rectory has five thematic institutional research units: the Development with Equity Research Institute (Instituto de Investigación para el Desarrollo con Equidad—EQUIDE—), the Applied Research and Technology Institute (Instituto de Investigación Aplicada y Tecnología—INIAT—), the Research Institute for the Development of Education (Instituto de Investigaciones para el Desarrollo de la Educación—INIDE—), the International Research Center of the Social and Supportive Economy (Centro Internacional de Investigación de la Economía Social y Solidaria—CIESS—) and the Transdisciplinary University Center in Sustainability (Centro Universitario Transdisciplinar en Sustentabilidad—CENTRUS—).

3 The three academic divisions of the Ibero are the Social Studies Division—DES—, the Division of Humanities and Communication—DHYC— and the Division of Science, Art and Technology—DICAT.

Directorate developed a new form of support for graduate students, called Research Assistantships, which was launched in 2016. This scheme, managed by the Graduate Directorate, selects talented students to perform as assistants of full-time professors of the Ibero that have valid research projects. In exchange for monthly support for living expenses in the form of food vouchers, assistants work eight hours a week for their assigned teachers. The program promotes synergies, since students link their thesis projects with the research projects of their professors, who serve as thesis supervisors to the former. In this way, it contributes not only to the training of young researchers, but also to their completion rate. The main synergy occurs when students' ideas enrich their professors research, leading to possible publications in co-authorship. Currently, over one hundred graduate students are working as research assistants.

For their part, the three Divisions have collaborated with DINV in terms of the Student Mobility Program. Graduate students selected in the calls organized by the Divisions receive up to 25 thousand pesos to finance their trip to national and international academic events, where they present papers or *posters* based on the progress of their theses results. Other students have used the program to finance mini research stays and thus advance their thesis work. As of 2015, the program has financed 257 students' mobility.

Since 2014 there is a persistent priority to promote high quality research throughout the university. The shared objective of DINV and the Research Council is to facilitate the continuous outlook of the University research activities in accordance with national and international research standards. In this regard, DINV and the Research Institutes have adopted a peers' double-blind external review in their annual calls. As of 2015, DINV constantly increased the number of international evaluators in its Annual Basic Science Call. In 2016, the Research Council created a multidimensional definition of quality research as a tool to be adopted throughout the university.

On January 2016, after a rigorous six-month selection process, the Ibero initiated its first three Research Chairs: Body, Diaspora and Exclusion; Disability, technology and inclusion; Territorial and well-being dynamics. In this order, the chairs are made up of interdepartmental teams of a minimum of five full-time academicians, who carry out four-year projects on interdisciplinary or transdisciplinary research topics linked to the resolution of significant social challenges in Mexico: migration, young people with different abilities educational inclusion and social welfare. Co-financed by the Ibero and FICSAC, each chair receives an annual budget of one million pesos for four years, an investment in the form of seed capital for its development and consolidation. The expectation is focused on that over time each chair can be self-sufficient in terms of financing its future research activities -action that is expected of all individual and collective actors with research activities.

In the interest to commemorate the 75th Anniversary of the Ibero and promote the creation of interdepartmental research teams to advance interdisciplinary and transdisciplinary research focused on key social issues, in 2016, the Ibero held a call that produced nine Interdisciplinary Research Groups —GII—. These address issues such as, for example, fasting as a way to improve the quality of life; the use of mobile robots for loading operations in industrial and service environments; internal migration and children's rights; the multiple dimensions of urban poverty; walkability and urban health in the Mexican context; and the right to higher education and educational equity in Mexico. Each GII received a budget of 300 thousand pesos to generate a tangible and quality status research product such as a book, the special issue of a magazine or a technological development that will be presented in 2018 in the framework of the celebrations for the 75th Anniversary. It is expected that the seed capital provided has created interdisciplinary research teams that will continue to consolidate and develop new projects in the future.

The SNI 100 Fund has contributed to the creation of an enabling environment so that Ibero's full-time professors can exploit their full potential. The annual support received by SNI members to finance their participation in national and international academic congresses has increased twice, so that in the present they receive up to 40 thousand pesos per year. Since 2015, researchers also have access to funding for the translation and correction of texts in foreign languages for manuscripts that are sent to prestigious international journals or publishers. In addition, full-time academicians can receive up to 30,000 pesos each year from their corresponding Division for small projects or training courses taken during the summer. Also, as of 2015, DINV has financed a series of training seminars to strengthen basic research skills for teachers and students, often in collaboration with and at the request of the Departments throughout the University.

The result of this wave of research activity and its corresponding increase in spending is a large expansion in the size of the management team of the DINV. Before my arrival, the Research Director had a three people team to carry out DINV functions. Since then, it has grown to six members. Two people are employed full-time to carry all the accounting associated with the SNI 100 Fund, as well as the multiple daily interactions that this entails with the numerous teachers and student beneficiaries. In 2016, another member was added to the team with the responsibility of coordinating both the communication and the internal and external dissemination of the Ibero research. Also, as a reflection of the effervescence of research at the University, it is important to mention that the three Research Institutes have also suffered an increase in the number of their full-time staff. This significant investment in human capital leaves a solid base for the continuation in the future of promising trends identified in this section.

## Towards the future

Although many achievements have been made, much remains to be done to develop and consolidate the advances of the past four years. With the achievement of SNI 100 members goal, the University once again faces the existential question of how many more of its professors should ideally become members. So many changes in recent years call for the codification of research policies and the creation of a new regulation. New directions for interdisciplinary and transdisciplinary work, as well as the needs of Ibero's growing number of graduate programs, demand a complete reform and research lines reorganization. Likewise, these must impact the curricula design planned for 2020 for the entire University. A slow and arduous process of databases automated integration of the entire university must be completed to make possible statistics generation on research for multiple purposes, including project quality and productivity monitoring, promotions, evaluation of research social incidence, creation of individual goals and objectives and attention to numerous external requests for information. The researchers in synergy with DINV, Research Institutes and the Institutional Communication Directorate should undertake an even more ambitious agenda for the dissemination of Ibero's research, in the interest of amplifying its social impact. Generation of knowledge resulting from this process must be channeled through a knowledge management system of institutional scope that goes beyond mere administration.

In the present conjuncture, based on the results of the recent national elections, there is some uncertainty regarding the role that private universities should play in the near future with respect to Science, Innovation, and Technology (Ciencia, Innovación y Tecnología —CIT—), and in broader terms in research. Some speculate, for example, that the new administration could reduce its budget support to the continued funding of SNI members from private universities. However, if the case of the Ibero is illustrative, Conacyt's associations with private universities can scale public investment returns dramatically. It is surprising how much our University has achieved through such an arrangement, as manifested in the SNI 100 Fund, despite the fact that, like other private universities, its participation in two of the most important initiatives of Conacyt has been restricted for the advancement of the CIT: the National Laboratories and the Conacyt Chairs. One can imagine how much more the Ibero and other private institutions could achieve if they were invited to co-finance these initiatives. Meanwhile, our experience demonstrates what a well-managed private university can achieve in terms of research, if favorable conditions thereto are present. ¶

*We find wonder and  
support  
in the universe laws and  
constants that,  
before the first second,  
made our resources  
possible;*

Francisco Martín del Campo

*The First Ibero-Conacyt  
Joint Project*

At the beginning of the 1980s it was considered important to guide the Mexican economy towards its own Technological production, which could not only cover national demand, but even be exported to compete with foreign products. To this end, the government granted tax incentives and certain ease that would allow the implementation and development of the electronic industry in the country. The government project envisaged that a minimum annual percentage of benefited products parts would be of national manufacture.

In this context, the Universidad Iberoamericana partnered with the private sector and the National Council of Science and Technology (Conacyt), with the purpose of helping to generate attractive technological proposals, both for the national industry and for export. Thus, emerged the Shared Risk Program, which was the first Ibero-Conacyt project, marking a very important milestone in the history of research within this University.



Expo-Electronics Inauguration of the Mechanical and Electrical Engineering Department. Among the participants are Mr. Francisco Martín del Campo Gómez, Dr. José Warman, Mr. De María y Campos and Mr. Antonio Castro.

The Mechanical and Electrical Engineering Department of Ibero was a key piece for the realization of this project, thanks to figures such as Master of Science Francisco Martín del Campo who, by the way, was a Conacyt Fellow. This character was trained as an engineer in control, communications and electronics and studied higher education at the Universidad Iberoamericana from 1968 to 1973. As a full-time teacher at that institution, he became interested in getting a postgraduate scholarship. In this sense, he obtained financial support from Conacyt to attend for two years the University of Kent, in Canterbury (England).

Back in the country, he returned to the UIA full time and started some research. For 1980, Martín del Campo shared professor, researcher and collaborator activities to the Mechanical and Electrical Engineering Department director. In that season it was already proposed that educational institutions and research centers collaborate to provide the national industry with the instruments and components that it required. As Project Development Coordinator in the aforementioned department of the Ibero, Martín del Campo stated: “In the current conditions of the country, experts and researchers must deal with solving specific problems —those that essentially concern the requirements of the national manufacturing sector— and not

get lost in very general research that divert attention from the priority areas for the country development”<sup>1</sup>

### Electrocardiogram Transmitting System

It was from premises similar to those exposed that, in 1980, Conacyt established the Shared Risk Program, to support companies that undertook development projects with the participation of universities and research centers. Thanks to the support from the rector, and the Research Coordinator of the UIA, the Electrical Mechanical Engineering Department participated actively in this program, through various technological development projects, to provide its teachers and students the opportunity to solve industry problems.

The first result was the research to develop a Bio signal Transmitting System, which was exhibited in Electronic Engineering congresses and in events of the National Chamber of the Electronics and Electrical Communications Industry (CANIECE). It had a cost close to 400 thousand pesos and was successfully completed on May 16th, 1981. In the agreement was specified that 2.5% royalties on sales would be granted to the university during the first five years. In this research graduates of the of Electrical Mechanical Engineering Department participated; among them, Carlos Blanco, Francisco Bremer and Claudio Martínez Rincón, Engineers, who began working with the delta modulation technique during their thesis project. Subsequently, Gabriel Corkidi and Carlos Simó, Engineers, started working on the project full-time. On behalf of the University they had the support of Luis Vergara Anderson, Engineer, who oversaw the Research Coordination.

From this first project arose the company Dual Instalaciones, S.A. interest to develop it commercially, as well as from Conacyt, to support it. On August 13th, at the event held in lecture hall José Sánchez Villaseñor, took place the delivery of the research project result, in the presence of Dr. Edmundo Flores, who at that time served as general director of Conacyt. Also, in the event the second agreement of the same nature was signed.

<sup>1</sup> Luis Repper Jaramillo, “I, Former Grant Recipient”, *Informática Científica y Tecnológica*, vol. 5, no. 83, August 1983, p. 60.

## Electrocardioscope with plotter

At the beginning of the eighties, the Mechanical and Electrical Engineering Department of the UIA developed, in conjunction with the company Electromedical Technicians, a modern biomedical equipment: the electrocardioscope with plotter. It was a device used to “record and monitor the cardiac signals in patients”.<sup>2</sup> It was intended for hospitals, where it has fulfilled the function of detecting heart’s functioning abnormalities. At the time of its creation, it was estimated that the device would allow savings of about 196 million pesos, since, according to data from the National Programming and Budget Secretariat of Nacional Financiera, the potential market for these devices occupied the fourth place in units purchased by the health sector. The project began on August 12th, 1981 and ended in December of the following year. It had a cost of 816 thousand pesos, half of which were contributed by Conacyt —amount that would be reimbursed by the company in two payments— To negotiate the project it was very important the Liaison (Enlace) program from Conacyt —a linkage body in the technology area, with research centers and companies from the public and private sectors—. Participated as responsible, on behalf of the UIA, MSc. Armando Chávez Olace and Ricardo Montelongo Hernández, Engineer, on behalf of the private company.

Under the Shared Risk Program bases, the patents would correspond to the Universidad Iberoamericana during the first five years. During this period, Tecnicos Electromedicos had to channel 3% of the sales of the product to the educational institution.<sup>3</sup> This device was considered a technological adaptation that created a high demand capital asset, with possibilities of competing in the market with similar foreign products, since its design fulfilled current specifications of the American Heart Association. To achieve the product success, was considered the intercession of Conacyt before a national health institution, to generate a national demand, coupled with the existing international.

The final prototypes were integrated by different modules: a video screen; a cardiometer to digitally record the heart rate or rhythm; a memory module for the screen, which allowed to fix the cardiac trace; an alarm module to alert about heart malfunction; and a plotting module, which printed on paper the heart rate, continuously.

2 “Results in the Risk Share Program of Conacyt”, *Información Científica y Tecnológica*, vol. 5, no. 79, April 1983, p. 45.

3 In the event that, by mutual agreement, it was decided to transfer the technology to other interested parties, the economic benefits of such an operation would be distributed as follows: 28% to each of the parties and an additional 16% to the transfer promoting party.



MSc Francisco Martín del Campo Gómez in one of the workshops of the Mechanical and Electrical Engineering Department.

The excellent results of the Program represented a stimulus for industries, small and medium, to rely on the national engineering capacity, which, according to Martín del Campo, highlighted the need to promote the relationship between research centers, schools and companies. According to his vision, a job well done was a guarantee to attract a greater number of customers. In addition, the reduction of the number of scholarships-credit abroad, which at that time took place, represented an opportunity for those who were scholarship holders, because they found themselves in the position to contribute their experience to help get the country out of the socio-economic blip in which it found itself. By reducing the possibility of studying abroad, it became indispensable to take advantage of the human resources already trained; increase postgraduate degrees in national institutions and create those not existing, to meet the demands of the nation, specifically in technological areas, with a view to the development of a proprietary technology that could be exported.

## Digital taximeter

Another case that arose in this context was the digital taximeter, created with state-of-the-art technology for its time, under the slogan of building electronic systems, of “faster, more reliable and more accurate processes”. The instrument was presented by Michael Stevens, Engineer, of the Universidad Iberoamericana, in an article that also counted with the collaboration of the MSc Francisco Martín del Campo, from the Mechanical and Electrical Engineering Department. To give an idea of what was

being done and what could be done in our country, when the text was published, the described team was ready for its industrial production in its electronic aspect, with a view to its marketing.

A taximeter is a device that calculates the rate the taxi driver will charge his passengers, for the trip made. The purpose of the product was to replace the obsolete and impractical mechanical taximeters, with which most of the units operated. Unlike those expensive machines, the digital taximeter was built based on a single component integrated microcomputer, which expanded its capacity, while reducing its cost. The cost of the taximeter amounted —with all its parts and components— to 16,500 pesos if a single unit was built, and to 8,500 pesos if one hundred were made. Compare this cost with the 20 thousand pesos to which the units that until then were conventional amounted, with which one can understand the great savings implied by the new machines.

But the benefits provided by the digital taximeter were not only economical, since it was a highly efficient device. The microcomputer allowed calculating simultaneously three types of travel prices: per distance, per time and per a linear combination of both. Among other advantages, it gave the possibility of visualizing at any time the selected trip price, that is: if it was charged per time, and in the middle of the trip was decided to select the fare per distance, the corresponding trip price would appear, as if that fee had been applied from the beginning.

Simultaneously, the taximeter had a memory that stored the number of increases charged for each of the three rates, as well as the total number of trips or start of trips (*banderazos*) made by the unit. These functions allowed any person —from the owner of the taxi to the tax collector— to know the income of the unit after a certain date, as well as the number of trips made. And, with the push of a button, the program displayed, at intervals of four seconds approximately, the four informative numbers in question —each number shown, multiplied by its rate, corresponded to the income obtained by said form of collection—. After providing the relevant information, the taximeter automatically returned to show the travel price that was selected.

By means of a different push of the button, the taximeter could also display the distance traveled, or the travel time (depending on the selected rate). All this was possible thanks to three light indicators, corresponding to the type of fare, the flag of the taximeter and the display of the distance or elapsed time. The way in which data was shown on the *display* was multiplexed, implying that only a 7-segment BCD decoder was required. The power consumption —provided by a simple 9v battery— was extremely low, thanks to a 16x4 bit RAM, in charge of storing the total of increments charged for each of the three tariffs. This source of energy also ensured that the content could not be erased, even if the device was disconnected from the car's

battery. In summary: efficiency, low cost and competitiveness were some of the research achievements produced at the Ibero.

### Computerized system for the analysis and control of telephone traffic

The same Department made another important agreement with the company Armex Comunicaciones, S.A., to develop a computerized system for telephone traffic analysis and control. Again, the project was possible thanks to the interest of promoting the country's technological development, for which it was vital the commitment of Mexican scholars who showed ability and professionalism to take care, both the requirements of the manufacturer, and those of the future user. This project is included here, because it was one of the most profitable projects developed at that time.

The equipment presented at the Universidad Iberoamericana could be applied, firstly, to the hotel industry with the possibility of incorporating it into other types of establishments with telephone control needs. Among the system functions stood out: the valuation of national and international LADA calls; the issuance of receipts; the call restriction for time and maximum cost; the service to telephone booths or to manual switches; backup through batteries, in case of interruption in the electricity supply and the computerized updating of tariffs. All was accessible through different input commands: folio, date, time, parity and special discounts.

Marketed by Armex Comunicaciones under the brand CONTROTEL 2020, the equipment worked through an electronic brain with detection systems, which allowed it to identify, from the room where a call was generated, to the number being called. Likewise, the equipment counted the number of calls and the duration of these and recorded in the memory the costs of all the corresponding LADA keys. This allowed to calculate the corresponding costs accurately. Items receivable could be itemized and, occasionally, it was also possible to print a receipt using a printer (even a copy). But even if due to some eventuality there was no printer, the equipment was able to store the data up to a hundred calls, without interrupting its operation, thanks to *hardware* minimization and the use of a maximum capacity *software*, which produced a flexible equipment and high national integration.

One of the advantages of the CONTROTEL 2020 system was that it could be customized, according to the needs of the customer. It was adapted to almost any telephone switch, without requiring major modifications in the telephone installation and worked with a maximum of 12 lines —the optimum number for speed purposes was 8—. And for being such a modern, useful and efficient equipment, the manufacturers guaranteed the buyers that they would recover their investment, thanks to the benefits the device would generate, and to its strict control of telephone traffic.



Sixth Conference on Research. 1987



Inaugural Ceremony of the First International Congress: Problems and perspectives of Electro-Mechanical Engineering February 18, 1992. Presides the ceremony the rector Dr. Carlos Escandón. On the far right, Francisco Martín del Campo, Engineer.

According to Jorge Bohoslavsky, Engineer, —general manager of Armex Comunicaciones S.A.— the basic equipment consisted of a microcomputer that could be complemented with peripherals such as printers. It was designed modularly, which allowed to locate immediately any possible failure, which could be solved in a matter of minutes. To ease its use, the company in question offered training courses.

The design of the telephone appraisal system would not have been possible without the participation of the team of engineers of the Mechanical and Electrical Engineering Department of the Ibero, led by MSc Héctor Peynetti, and with the participation of researchers: MSc Ricardo Corona and Arturo Salz, Engineer. The institution provided the industry reliability, safety in development and marketing, as well as that the project would not be delivered or designed for other people.

The cases presented represent important achievements in the history of research within our house of studies. In particular, the first project of the Shared Risk Program is a very significant example of how the Universidad Iberoamericana was concerned with providing technological support to the needs of small and medium-sized industries, through the sum of its research capabilities —embodied in its Mechanical Engineering and Electrical Department—, the facilities provided by the private sector and the support of Conacyt. ¶

Eduardo Gamaliel Hernández Martínez

*Research in Robotics*

Mechatronics is a multidisciplinary area focused on the combination of electronic, mechanical and computer systems, for the development of controlled mechanisms having a certain degree of autonomy or intelligence.

Robotics, as a type of mechatronic system, encompasses a set of mechanisms used in industry or services, reprogrammable by digital electronics and performing high precision, speed and repeatability movements. On the one hand, robots used in the industry, generally, are robotic arms or “manipulators”, used in tasks of assembly, welding, painting, etc., and make the manufacturing processes more efficient; they reduce work times and ensure a homogeneous quality in the products. On the other hand, mobile robots include all types of land, air, water, underwater or space

vehicles, travelling through wheels, legs, rotor blades, wings, propellers, pneumatics, etc., for exploration tasks, transfer of parts, surveillance, mapping and video recording, among others.

Robotics at the Universidad Iberoamericana, in pursuit of the institution's humanistic vision, has focused from its inception on the development of technology, mainly outside the context of the industry, and with an emphasis on mobile robotics. The predominant field of application is the so-called "service robotics", which includes all efforts to bring this technology to the home context; the substitution of the human being in dangerous tasks, support to the citizenship, didactics and the less polluting electric vehicles, among others.

The first signs of robotic research at the Universidad Iberoamericana Mexico City, in the Engineering Department, date back to 1991, when the now well-known Sergio Montufar, Engineer, graduated in Electronic and Communications Engineering, at the same time as Engineering in Mechanics and Electrical. Montufar developed, for his degree, a hexapod mobile robot—a spider-like robot, with six legs—, revolutionary for the time. This project is considered the forerunner of robotics in Electronic Engineering of the Ibero, and Sergio Montufar, as one of the first professionals with a multidisciplinary profile in mechatronics. The engineer obtained the tenure of the subject of Automation Engineering, until 2012, and drove, from the undergraduate level, the development of robotic prototypes, such as electric and hybrid vehicles, autonomous solar concentrators, etc.

In 2001, the subject of Robotics was taught for the first time at the Ibero, by Rodrigo Álvarez Icaza. From this space, some research and technological development projects were promoted, through undergraduate students, since there was no graduate program in the Ibero related to the area. Under the leadership of Álvarez Icaza, a manipulator robot was developed, controlled online through Matlab *software*, for the arrangement of pieces and preparation of beverages (see Figure 2). Obstacle avoidance strategies in electric scale cars were also implemented.

As of 2004, four undergraduate programs were created within the Electronic Engineering Coordination: Telecommunications and Electronics Engineering, Computing and Electronics Engineering, Electronics Engineering and Mechatronics and Production Engineering. Robotics was integrated as a fundamental area of the latter program. From this integration the previous specialization in automation and control subsystem of previous academic programs was formalized. Such implementation also reflected the University interest in deepening



Fig. 1. Hexapod robot, 1991.



Fig. 2. Manipulator robot in beverages preparation tasks.

in robotics, which was considered as a disruptive technology and as a solution to social needs.

With this drive, between 2004 and 2011, research in robotics focused on the exploration of new microcontrollers, increasingly lower cost sensors and, in general, *know-how* growth on these devices. Some outstanding efforts during this era were the following:

1. Development of the two-legged robot *Cosme*, carried out by Alfredo Cabral, Alfredo Ulloa and José María Cajigal (see Figure 3). In this robot, two-legged motor concepts were studied, as well as step cadence analysis. Later this group of alumni founded the company "CODE Ingeniería", leader in Mexico in the design of embedded electronic systems, microprocessors and wireless communication.

2. Creation of the first "interest group" in robotics, founded by the students who developed the *Cosme* robot. This group participated in several robotics contests in Mexico and the United States, competing with undergraduate and graduate students. They developed algorithms for wheeled vehicles that solved maze problems in a completely innovative way. They won the first place in the Robothon competition, in the edition held in the city of Seattle, United States (see Figure 4 and Figure 5) and the Mexican Robotics Competition in 2006 (see Figure 6).

3. Organization of the first autonomous vehicles race, in a racetrack mounted in the Crescencio Ballesteros Auditorium, where the first autonomous vehicles algorithms were studied with control, cruising and overtaking routines.

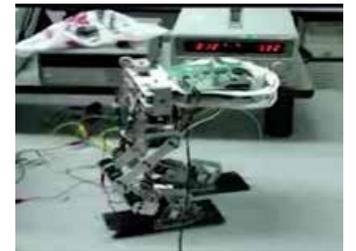


Fig. 3. Two-legged robot *Cosme*.



Fig. 4. One of the Robothon winners, 2005.



Fig. 5. Robothon contest winners, 2006.

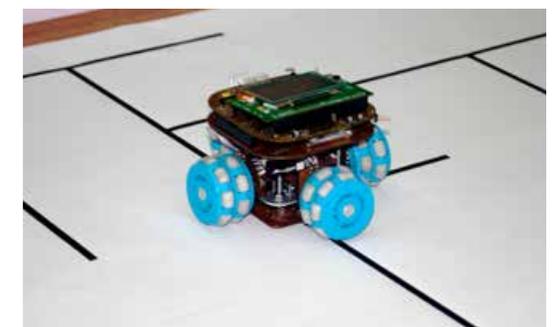


Fig. 6. Labyrinth-solver robot, 2006.

4.

Construction of the first lightweight mobility vehicles, *segway*-type, which control the stability of underwater systems with a more complex dynamic.

5.

In 2010 the robotics laboratory was created in the C building on the ground floor, with the purchase of an industrial robot of the German brand Kuka, under the direction of Alejandro Gómez Terán, Engineer, (see Figure 7). The automatic generation of trajectories of movement through simulators and kinematic models has been studied that help operators to program robot movements in less time and greater safety.



Fig. 7. Kuka industrial robot, robotics lab, 2010.

In 2011, Dr. Eduardo Gamaliel Hernández Martínez joined as a full-time academician the Electronic Engineering Coordination, to drive research in the robotics area within the new SUJ 2014 curriculum of Mechatronics and Production Engineering, and in the Master's and Doctorate programs in Engineering Sciences. The latter have offered a formal entry to postgraduate robotics research, within their research line of "dynamic and control systems", which

allows collaboration with researchers in mechanical engineering, biomedical and the Physics and Mathematics Department.

During the period between 2011 and 2018, research in robotics, led by Drs. Eduardo Gamaliel Hernández Martínez and Guillermo Fernández Anaya, focused on the following aspects:

1.

Study of the collective behaviors in terrestrial mobile robot groups, of differential type —robots with two wheels— and of omnidirectional movement —*mecanum* and omnidirectional type wheels—. This robotics, known as "multi-agent", is already considered as a discipline of its own, emanating from the theories of mobile robotics and graphs, complex systems, sensory and communication networks. The collaborative work of mobile robot groups has allowed to maximize the mapping, monitoring and surveillance tasks, objects group load, biological beings' collective behaviors simulation, etc. New strategies of robots' convergence to formation patterns were designed and validated, advances in formation —or march control— and evasion of obstacles and clashes between the robots themselves.

2.

Development and integration of three multiagent robot platforms, dedicated to research, through projects financed by the Research Department of the Ibero:

a. The first platform was integrated with commercial robots of differential type, of the Irobot brand, commonly used as vacuum cleaners in houses or buildings (see Figure 8). Robot group behaviors were studied in automated manufacturing cells; they were monitored by vision systems, with the support of Drs. Sergio Foyo Valdés and Erika Puga Velázquez.

b. The second platform is a pioneer in Mexico and integrates heterogeneous differential type robots, omnidirectional, four-legged and multi-rotor drones, completely built in the University by postgraduate students (see Figure 9). In a theoretical way, the formation control, march and evasion were extended to the combined case of terrestrial and aerial robots, with different kinematic or dynamic models. With this heterogeneous approach, Alexandro López González was the first graduate in robotics subjects of the Doctorate in Engineering Sciences in 2017; also, Pablo Paniagua Contro, for the Master's.

c. The third platform consists of the previous experimental robots scaling-up. It is about robots with a load capacity of over 150 kilograms, with industrial grade components, allowing the research approach to real users in the industry, the biomedical area and other services (see Figure 10). Such platform is the product of Drs. José Emiliano Martínez (Mechanical Engineering), Guillermo Fernández (Physics and Mathematics), Eduardo Gamaliel Hernández (Electronic Engineering) and the postgraduate student Oscar Oswaldo Sánchez. It was sponsored by the "Call for interdisciplinary research groups" 2016-2018, from the Research Directorate.



Fig. 8. Multirobot platform, with Irobot-Crete robots, 2012.



Fig. 9. Multi-robot platform with heterogeneous approach, 2016.

3.

During the 2013-2017 period, a project financed by Conacyt was carried out in the "Call for development of scientific projects to address national problems", in the section on "Citizen safety". The project was aimed at the design and construction of a multirotor quadcopter type drone, high performance for intelligence operations and citizen proximity. The project met specifications and operational needs commissioned by personnel of the Federal Police Scientific Division. The research result was the design and construction of the aircraft, adding optimal control algorithms, allowing to minimize energy consumption and, therefore,



Fig.10. Omnidirectional load robot, 2018.

increase drone's flight time. The final prototype was delivered to the Federal Police in 2016, in a public event that was widely covered by some media such as Televisa, ForoTV, TV-UNAM, *La Jornada* and *Prensa Conacyt*, among other leading newspapers (see Figure 11). In addition, links were established with Federal Police investigators, being the Ibero the training entity in drone flight for its operational personnel. Undergraduate students Erick Hernández Montero and Joaquín Aguerrebere participation was highlighted, as well as the participation of the Federal Police, through Alejandro Herrera Romero and Víctor Tobón, Engineers, and of Dr. Juan Carlo Rivera Dueñas.

#### 4.

With Conacyt funds of the previous project, in addition to resources from the Electronic Engineering Coordination and Biomedical Coordination of the Ibero, the new Motion Analysis Laboratory was inaugurated in 2016. Said space has a system for capturing movement in three dimensions, by means of a group of high-speed and precision infrared cameras (see Figure 12). The lab serves to monitor positions and orientations of land and aerial mobile robots, for the testing of any movement coordination algorithm. It is also used by Biomedical Engineering professors and students, to capture the movement of human patients, with the aim of detecting movement disorders, prostheses alignment, and perform any biomechanical study. Collaboration was also initiated with the Ibero Interactive Design program, for the combination of human movement with virtual reality environments, with applications to videogames, didactics, machinery use training, driving of vehicles, etc.



Fig. 11. Photograph of the drone delivery event to the Federal Police, 2016.

#### 5.

As of 2013, they had the collaboration of Drs. Enrique Ferreira and José Job Flores Godoy, both researchers from the Universidad Católica de Uruguay, belonging to the Association of Universities Entrusted to the Society of Jesus in Latin America (Asociación de Universidades Confiadas a la Compañía de Jesús en América Latina -AUSJAL). Between 2013 and 2018, stays have been made in both institutions, in addition to the shared direction of postgraduate students.

On the other hand, between 2012-2015, the student of the Master of Science in Engineering, Ana María Vásquez, under the guidance of Dr. Jorge Letechipía, developed a Cartesian robot *router* type of three axes, to dig sponge-like material of conformed seats in wheelchairs. Such seats are customized for the patient with motor disability and help reduce decubitus ulcers, due to the long periods spent sitting in the wheelchair.

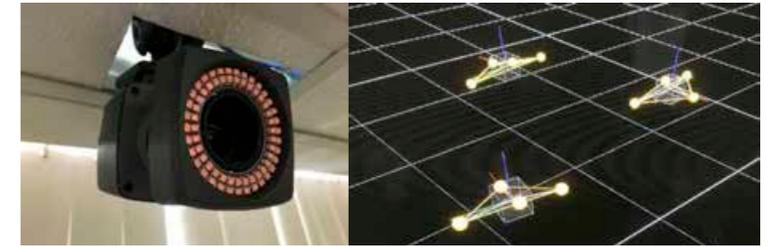


Fig. 12. Vicon brand movement catchment system, from the motion analysis Laboratory, 2016.

Finally, robotic technology at the Ibero has begun to explore previous research, with focus on dynamic and control systems, in combination with artificial intelligence strategies —diffuse logic, neural networks and genetic algorithms—, with robots connectivity through wireless networks and data services in the cloud; by distances, obstacles, orientations and speeds sensing, from local sensors and instruments, such as vision cameras, *lidars*, inertial measurement units (IMU's), among others, with state-of-the-art technology as it is applied in commercial autonomous vehicles, as is the case of the Tesla brand.

In the coming years, the Ibero will be attentive and immersed in all the different robotics applications that will be used more and more frequently in daily life of the human being. Researchers and students will always have an ethical view on the use of this technology, identify areas of opportunity, implement technological innovations and dedicate themselves to improving the quality of life of people, according to the vision of the University. ¶

Antonio Gen Mora

*Research Origins from the Physics  
Department*

I entered the Universidad Iberoamericana as a part-time teacher in the Physics Department in August 1973, then led by Physicist Gabriel Anaya Duarte, S.J.

In January 1974 I was hired as a full-time teacher. In the first professors' meetings of the Department, the percentage of students arriving with low levels in Physics and Mathematics was stated. In this regard, Physicist Baldomero Carrera, Gabriel Anaya and I discussed the topic. We were authorized to review the results of the admission exam for several semesters of the engineering students.

We identified that a high percentage of students entered the university for the total result of the exam, without having approved as regards to Physics and Mathematics. On the other hand, the proportion of students who did approve these subjects was low. The result was presented to the directors of the Science and Engineering Division and it was determined to introduce the prerequisites of Physics and Mathematics, as well as a special test to indicate, in an accurate manner, which students should study these subjects.

In 1975 I took charge of the Physics laboratories. I worked as a team with Physicist Enrique Sánchez in the preparation of the first coursework books for laboratory practices. Previously, we reviewed the equipment used and the preparation of the teaching material. In December of that year, we delivered forty coursework books for the four basic area courses. They emphasized the methodology to follow for data capture and analysis thereof.

The next problem to solve was the equipment required for the laboratory. Enrique and I, together with some students, started manufacturing. Subsequently, the Instrumentation section was formed with the support of Physicist Alfonso González Quevedo—who, at the time served as Department Director—and with workers who were hired expressly. A lot of equipment was built: Air rails, friction ramps, bases with nuts and rods for equipment mounting, weight frames, power sources and devices for heat conduction and thermal expansion, to mention a few. Likewise, complete equipment was built and later sent to León, Tijuana, Puebla and Torreón, so that those cities could build their labs. In addition, in this section equipment has been developed for other Departments of the university.

Also, in that year, the first Physics Week was held, in which Dr. Carlos Graef Fernández, Dr. Marcos Moshinsky and Physicist Juan de Oyarzábal participated, professors and researchers of the Sciences Faculty and the Physics Institute of the Universidad Nacional Autónoma de México, among others. The Week was well received and left the foundations that constituted it, over the years, as a Department's tradition.

In 1976 we started attending the Physics Teaching Congresses, with works that mentioned the background, methodology and results of the working form we used in the university. We also started, Enrique and I, a training program for academic assistants, aimed at teaching in labs and, later, to the development of courses, additional to the theory courses.

In 1977 began the Physics Engineering degree and, with it, the need to implement new labs; in this case, the optics lab and two modern physics labs. To carry out this process the best way possible, research projects were registered. In my case, it consisted of the detection of beta, gamma particles and cosmic rays; as a result, the fog chamber was implemented for its execution.

From the contact with the UNAM's Physics Institute, in 1978 we were invited to be part of the committee for the celebration, on a national level—was carried out worldwide—, of the Albert Einstein's birth centenary, attended by Enrique and I, on behalf of the UIA. Due to the earthquake of March 14, 1979 in Mexico City and the fall of the buildings of the University, the UIA ceremony was held at the Mechanical and Electrical Engineering School of Higher Education (Escuela Superior de Ingeniería Mecánica y Eléctrica (ESIME)), Culhuacán Unit of the IPN.

From May 1981 to December 1982, at the request of Physicist Alfonso González Quevedo, S.J., who was the director, I attended, along with MSc Jorge Vértiz Campero, S.J., since Alfonso moved to the Tijuana campus, in some courses at the UIA León and I served as Physics and Mathematics director. With Physicist Wenceslao Oñate, we completed equipping and practices of the Physics laboratory; the first Physics and Engineering Week was held, with the collaboration of Felipe Bascuñán, Engineer, and the Mechanical Engineering Workshop was implemented, with the purchase and installation of lathes and bench brushes, as well as a milling machine.

In 1988, Enrique Sánchez and I conducted the procedures to execute a scientific and academic collaboration agreement with the National Institute of Astrophysics, Optics and Electronics, supported by Dr. Fernando Soto Hay, Academic Exchange director, and by Physicist Gustavo Soto, Physics director. We established the agreement by means of which, during the summer, Physics Engineering students would attend in the institute the subject of Optics in a very well-equipped laboratory; furthermore, they would collaborate with researchers from the institute and receive a letter certifying their participation in the project.

In 1991, Enrique found that at Dickinson College, in Carlisle, Pennsylvania, a new methodology had been developed for the teaching of theoretical courses—*Developing skills*— and for the use of the laboratory—*computer based laboratories*—. In the laboratory courses new equipment was included, with which a greater amount of data would be acquired in a shorter time, which allowed to start information analysis in the laboratory.

For several years, professors of the Physics Department attended the preparation courses in the summer. Later, I organized a program of guest professors at the Universidad Iberoamericana in Mexico City, aimed at a greater number of teachers, including those from the other campuses. Drs. Priscilla Laws, Ronad Thornton,



Physicist Antonio Gen Mora, for the University Merit Ceremony brochure of 1989.



In the foreground Physicist Antonio Gen In the nanotechnology lab.



Professor Antonio Gen Mora, performing a task with carbon nanotubes.

Dewey Dykstra, Patrick Coney and David Sokolof participated. The last course was held at ITESO, in Guadalajara.

In 2003, I processed and established an academic agreement with the National Institute of Nuclear Research (Instituto Nacional de Investigaciones Nucleares), and theoretical and laboratory courses were given at its facilities, which are at the research level. Then, in 2004, the project of the Nanoscience Laboratory came up, I took charge of its implementation, advised by Dr. Mauricio Terrones. I was responsible for this laboratory until 2011. In this case, theoretical and laboratory courses were also developed, as well as field practices for UIA students.

The laboratory was always an open-door space for students; there was also a social service. In addition, after the courses, several students went on to study a masters and doctorates outside Mexico. Research projects were carried out and the results of these were taken to congresses of the Materials Research Society, as well as of the Mexican Society of Materials. ¶



Samples in the Nanotechnology lab.

Esther Ramírez Meneses  
and Felipe Cervantes Sodi

*Nanomaterials Synthesis  
and Nanotechnology*

In 2004 the Nanoscience and Nanotechnology Laboratory was founded, ascribed to the Physics and Mathematics Department, an initiative strongly supported by Dr. Mauricio Terrones Maldonado, researcher in the area and former student of Engineering Physics of the Universidad Iberoamericana. The space destined for this lab was located on the ground floor of building M (Fig. 1: a, b). Currently, it is adapted for nanostructures synthesis, mainly by chemical vapor deposition (Fig. 1: c, f).

Mauricio Terrones, Rodolfo Estrada and Antonio Gen are some of the professors who have participated in the lab. It is currently led by Felipe Cervantes Sodi, who joined the Physics and Mathematics Department in 2010, shortly after Dr. Esther Ramírez Meneses —specialist in nanomaterials synthesis— was hired by the



a.



b.



c.



d.



e.



f.

Fig. 1. Images of the beginnings of the Nanoscience and Nanotechnology laboratory (a, b). The lab has, today, a worktable and two fume hoods where synthesis experiments are carried out, mainly by chemical vapors (c-f) and various treatments (e).

Universidad Iberoamericana in the Engineering and Chemical Sciences Department, in 2009.

From the nanostructures produced in the lab are carbon nanotubes (Fig. 2a) which are the insignia of the Nanoscience and Nanotechnology laboratory, which have been produced in different shapes, sizes and properties.<sup>1</sup> In addition, in collaboration with various institutions (PSU, IPN, Jumex, UNAM, IMDEA, UAM-A, UP, etc.)<sup>2</sup>, studies have been carried out for applications in sensors, optics, as well as biocompatibility studies.<sup>3</sup>

Nowadays, metallic dichalcogenides are also produced, an area in which theoretical research began in collaboration with Dr. J.A. Reyes Retana, who began his collaboration through a CONACyT call to carry out a postdoctoral stay to strengthen the postgraduate program in Engineering Sciences. In his work, he used quantum mechanics<sup>4</sup> and predicted the use of 2D materials for applications in hydrogen cells<sup>5</sup>, thus laying the foundations to achieve production —by students of the Bachelor in Engineering Physics— of flakes of a few atoms thick and several microns in diameter (Fig. 2b) with great possibilities of application in fuel cells, catalysts, sensors, electrochemistry, etc.

The Nanoscience and Nanotechnology Laboratory has always been supported by the Physics and Mathematics Department and the Research Directorate —DINV—. There are at least three basic science projects funded by DINV with which Felipe Cervantes has been supported, who also has had support for research in summer. The lab has five research awards granted by DINV; one for Felipe and the rest for undergraduate students.

- 1 Felipe Cervantes-Sodi, *et al.* "Carbon Nanotube Bundles Self-Assembled in double helix microstructures", en *Carbon*, vol. 50, August 2012, pp. 3688-3693. Juan Vilatela, *et al.*, "A Spray Pyrolysis method to Grow Carbon nanotube on carbon fibers, Steel and Ceramic Briks", *Journal of Nanoscience and Nanotech*, vol. 15, no. 4, April 2015, pp. 2858-2864.
- 2 Pennsylvania State University (PSU), Instituto Politécnico Nacional (IPN), Universidad Nacional Autónoma de México (UNAM), Instituto Madrileño de Estudios Avanzados en Nanociencia (IMDEA Nanociencia), Universidad Autónoma Metropolitana Unidad Azcapotzalco (UAM-A), Universidad Panamericana (UP).
- 3 Rosa L. Garnica-Gutiérrez, *et al.*, "Effect of Functionalized Carbon Nanotubes and their Citric Acid Polymerization on Mesenchymal Stem Cells in Vitro", *Journal of Nanomaterials*, July 2018.
- 4 J. A. Reyes-Retana and F. Cervantes Sodi, "Spin-orbital effects in metal-dichalcogenide semiconducting monolayers", in *Scientific Reports*, no. 6, April 2016.
- 5 J. A. Reyes-Retana, *et al.*, "Centered honeycomb NiSe<sub>2</sub> nanoribbons, structure and electronic properties", *Journal of Physical Chemistry C*, vol. 118, no. 6, January 2014, pp. 3295-3304.

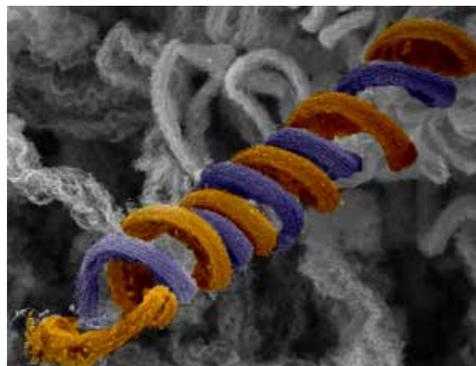


Fig. 2a. Carbon nanotubes in bundles forming.

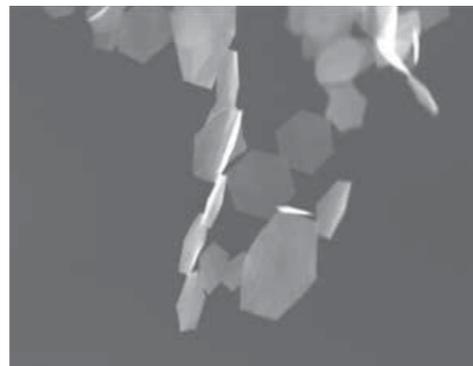


Fig. 2b. MoS<sub>2</sub> flakes, some only a few micro spirals atomic layers thick.

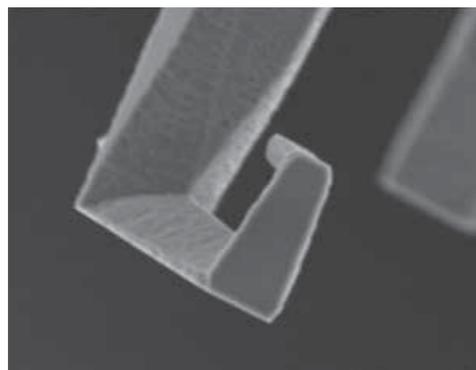


Fig. 2c. ZnO micro wire in hook form.

Images 2b and 2c were obtained in the electron microscopy laboratory of the Universidad Iberoamericana.

To date, there are three students who completed their Master's degree in the lab, co-directed by collaborators. The first, at the Universidad Panamericana; the second, led by Dr. Esther Ramírez, of the Engineering and Chemical Sciences Department of the University; and the third, an exchange student from France.

Starting in 2009, from the Engineering and Chemical Sciences Department of the Universidad Iberoamericana, research projects focused on nanomaterials synthesis started by Dr. Esther Ramírez Meneses. These were carried out in the previously called Catalysis Laboratory of the Engineering and Chemical Sciences Department (Fig. 3a). Today, this space is registered as Nanomaterials Synthesis Laboratory (Fig. 3b) and is overseen by Dr. Esther Ramírez Meneses and Dr. Iván R. Quevedo Partida, who joined in 2014 the current Chemical, Industrial and Food Engineering Department, officially named so since October 2017.



Fig. 3a. Catalysis Lab image, spring 2014.



Fig. 3b. Nanomaterials Synthesis Lab, currently (Spring 2018). Chemical, Industrial and Food Engineering Department.

The projects in nanomaterials synthesis were part of the Synthesis and Assessment Area (ASE II) subjects, in charge of the Degree in Chemical Engineering students, as well as postgraduate thesis topics in the Master of Science in Chemical Engineering program. One of the first ASE II projects was obtaining molybdenum oxide thin films, through chemical vapor deposition method. These have electrochromic properties and are considered intelligent materials. This project was carried out in collaboration with Dr. Felipe Cervantes Sodi, and the material was evaluated at the School of Higher Education in Chemical Engineering and Extractive Industries of the Instituto Politécnico Nacional (Escuela Superior de Ingeniería Química e Industrias Extractivas —ESIQIE-IPN—), for a collaboration with the Electrochemical and Corrosion Laboratory.<sup>6</sup>

The first results of this project were the beginning to carry out other experiments as part of a Master's thesis for the generation of this same material, MoO<sub>3</sub>. The films were obtained from the precursors Mo(CO)<sub>6</sub> and MoO<sub>2</sub>(acac)<sub>2</sub>. This thesis project contributed with a study of the material phases obtained, at different pressure and temperature conditions of the system, thanks to a more precise experimental assembly. The Master's thesis was presented by a graduate student of the Chemical Engineering degree at Ibero, who obtained a Master's degree with this project in April 2015<sup>7</sup>.

6 E. Ramírez-Meneses, *et al.*, "Low temperature one-step synthesis of molybdenum oxide films", *Ide@s*, Consejo de Ciencia y Tecnología de Guanajuato, núm. 87, México, septiembre 2012.

7 A. Carmona Orbezo, "Síntesis y Caracterización de películas delgadas electrocromicas de óxidos metálicos por el método de depósito químico en fase vapor", Master's in Sciences in Chemical Engineering, Mexico City, Universidad Iberoamericana, 2015.

Within this same research line, in the Engineering and Chemical Sciences Department began the metal nanoparticles synthesis experimental montage, by reduction and/or displacement of ligands of organometallic precursors chemical method, which is carried out in an inert atmosphere; generates metal nanoparticles colloidal systems and extends to bi- and multi-metal systems (Fig. 4). This project was carried out with resources from project No. 157613 Conacyt Basic Science, awarded in 2012 to the Engineering and Chemical Sciences Department and the Research Directorate. In these works, in charge of Dr. Esther Ramírez Meneses, there is collaboration with different national institutions, such as ESIQIE-IPN, the Center for Research in Applied Science and Advanced Technology (Centro de Investigación en Ciencia Aplicada y Tecnología Avanzada —CICATA—) Altamira Unit -IPN; the Research Institute in Materials Instituto de Investigaciones en Materiales) of UNAM; the Center for Chemical Research (Centro de Investigaciones Químicas) of the Universidad Autónoma del Estado de Morelos; the Mexican Institute of Petroleum (Instituto Mexicano del Petroleo —IMP—), as well as foreign institutions, such as the coordination chemistry laboratory of the Centre National de la Recherche Scientifique —CNRS— in Toulouse, France.

This methodology of synthesis from organometallic precursors generates metallic nanoparticles of size smaller than 10 nm, which is important for applications in catalysis, electrocatalysis; as electrode material in reactions of interest for fuel cells,<sup>8</sup> magnetism,<sup>9</sup> among others. Likewise, it presents the possibility of controlling the shape and size of particles, depending on the stabilizer's nature and the metal-stabilizer relationship, including the support used.<sup>10</sup>

- 8 M.A. Domínguez-Crespo, *et al.*, "Kinetics of hydrogen evolution reaction on stabilized Ni, Pt and Ni-Pt nanoparticles obtained by an organometallic approach", *International Journal of Hydrogen Energy*, no. 37, 2012, 4798-4811. E. Ramírez-Meneses, *et al.*, "Stabilized metal nanoparticles from organometallic precursors for low temperature fuel cells", *Recent Patents on Nanotechnology*, no. 7, 2013, 13-25. E. Ramírez-Meneses, *et al.*, "Synthesis and Electrochemical Characterization of Ni Nanoparticles by Hydrazine Reduction using hydroxyethyl cellulose as Capping Agent", *Electrochimica Acta*, no. 127, 2014, 228-238. A. Manzo-Robledo, *et al.*, "Electro-oxidation of methanol in alkaline conditions using Pd-Ni nanoparticles prepared from organometallic precursors and supported on carbon Vulcan", *Journal of Nanoparticle Research*, no. 17, 2015, 474. E. Ramírez-Meneses, *et al.* "Synthesis of Rh nanoparticles in alcohols: magnetic and electrocatalytic properties", *Journal of Materials Science*, no. 53, 2018, pp. 8933-8950.
- 9 E. Ramírez-Meneses, *et al.*, "Superparamagnetic nickel nanoparticles obtained by an organometallic approach", *Journal of Nanoparticle Research*, no. 13, 2011, 365-374.
- 10 E. Ramírez-Meneses, *et al.*, "Shape-and size-controlled Ag nanoparticles stabilized by in situ generated secondary amines", *Journal of Alloys and Compounds*, no. 643, 2015, S51-S61. E.



Fig. 4a. Experimental montage image for metallic nanoparticles, by organometallic precursors reduction and/or displacement method.



Fig. 4b. Fisher-porter reactor employed for synthesis.

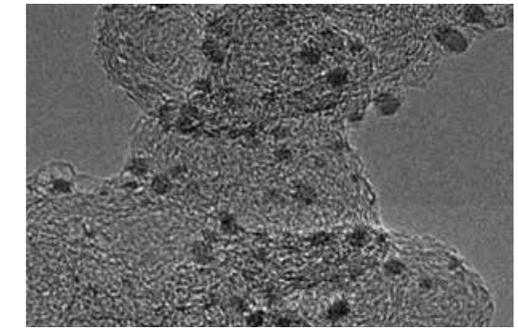
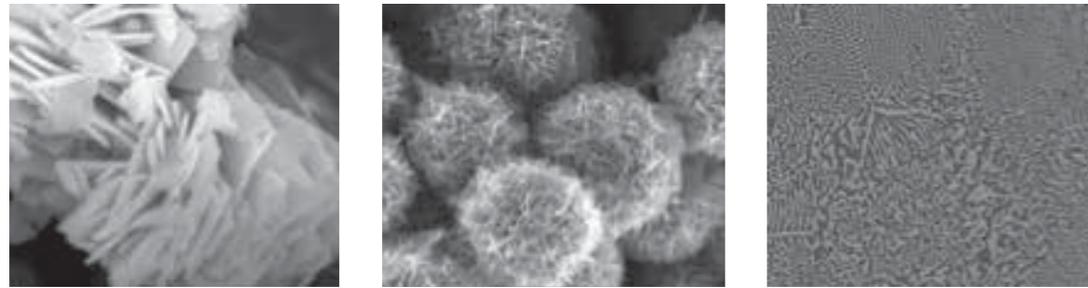


Fig. 4c. PtPd/C particles electron microscopy transmission image. Nanomaterials Synthesis Lab, Engineering and Chemical Sciences Department of the Universidad Iberoamericana.

Some images of scanning electron microscopy, from the materials synthesized in the Nanomaterials Synthesis Laboratory, are presented in Figures 5 (a-b). These materials have been synthesized by students of the Master of Science in Chemical Engineering and the Doctorate in Engineering Sciences, associated to the research projects under the lead of Dr. Esther Ramírez Meneses.

In 2014, the need to have material characterization equipment to support this line of study in the Master's and Doctoral programs in Engineering Sciences, as well as the Master's Degree in Chemistry Engineering Sciences was presented to the Research Directorate. During this period, thanks to the support of Dr. Alberto Ruíz Treviño —Director of the Research Directorate— in April 2015, a Hitachi Scanning Electron Microscope, model SU3500, was acquired. In 2015, the Engineering and Chemical Sciences Department allocated part of the catalysis laboratory, located on the ground floor of building F, for the adaptation of the Electron Microscopy Laboratory (Fig. 6). Currently, the electron microscope is run by Dr. Esther Ramírez Meneses, of the same Department, as well as by Dr. Felipe Cervantes Sodi and Carlos Juárez Balderas, Engineer, from the Studies in Engineering for Innovation Department of the Universidad Iberoamericana.

Ramírez-Meneses, *et al.*, "Decoration of single-walled carbon nanotubes with Pt nanoparticles from an organometallic precursor", *Journal of Materials Science*, no. 46, 2011, 3597-3603.



a. b. c.

Fig. 5. Scanning electron microscopy images of (a) BiOCl rectangular microplates stabilized with ethylenediamine; (b) nickel particles stabilized with hydroxyethylcellulose<sup>11</sup>; and (c) tin-bismuth alloy. Nanomaterials Synthesis Laboratory, Chemical, Industrial and Food Engineering Department of the Universidad Iberoamericana.

Currently, in the Electron Microscopy Laboratory are analyzed materials that are generated in some of the research laboratories: Polymers, Bioengineering, Food and teaching in the Reactors and Advanced Materials Laboratory (Chemical Engineering), among others. Since one of the requirements of the samples to be analyzed in the microscope is that they are electrically conductive, in 2016, the Engineering and Chemical Sciences Department —with the support of the Physics Engineering Department— provided resources for the acquisition of a samples evaporator, which can coat the samples with an Au, or carbon film, to be analyzed under the microscope (Fig. 7).

Finally, in the summer of 2018 the installation of an advanced X-ray diffraction equipment is expected, which will be installed in the Electron Microscopy Laboratory, as a result of a project presented by researchers from both departments: Esther Ramírez, Felipe Cervantes, as well as Alberto Jesús Quezada, Rodolfo Estrada and Ruth Pedroza, —the latter was the winner in the call for infrastructure of the Research Directorate of the Universidad Iberoamericana, in 2017—. With this team, various areas of material research will be strengthened, specifically the nanomaterials area. ¶

11 E. Ramírez-Meneses, *et al.*, “Synthesis and Electrochemical Characterization of Ni Nanoparticles by Hydrazine Reduction using hydroxyethyl cellulose as Capping Agent”, *op. cit.*

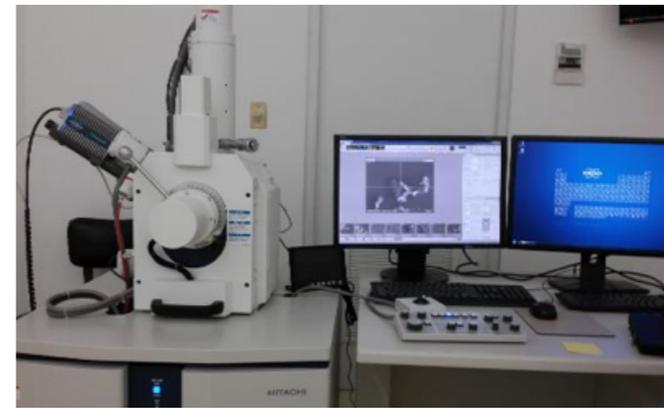


Fig. 6. Scanning electron microscopy Hitachi brand, SU35000 model image. Electron Microscopy Lab.



Fig. 7. Electron Microscopy Laboratory and equipment images for coating samples with conductive material (gold or carbon), adapted to a vacuum pump and to an argon gas feed.

Jorge Ibáñez Cornejo

*Chemical Engineering research  
adventures*

In this text I will discuss some aspects of the research in which I have participated, in the Engineering and Chemical Sciences Department —now the Department of Chemical, Industrial and Food Engineering—. After completing my postgraduate studies in Texas, I joined the Ibero in 1985. The friendly, free and serene environment prompted me to begin my research work very soon. I started working on semiconductors synthesis by simple and low-cost methods, as well as in educational research. Semiconductors have the particularity of being able to generate electrons —in their conduction band, BC— and gaps —in their valence band, BV— able to produce electrical current, or, to carry out chemical reactions, either of synthesis or pollutants destruction. Thus, we achieved synthesis by chemical deposition in aque-

ous bath (CBD), of semiconductors that had their separation energy between both bands —called  $E_g$ —, in the ultraviolet (ZnS), visible (CdS) and infrared ( $\text{Bi}_2\text{S}_3$ ) regions of the electromagnetic spectrum.

The development of these syntheses and characterizations with easily accessible materials and low-cost equipment, motivated me to expand this idea towards monitoring the speed of reactions with the use of electrochemical measurements, mainly to provide students with experiments in the areas of kinetics and reactors design. We learned to follow conductivity and, together with Physics dissertator students, we automated online pH monitoring. Also, we measured the main electrochemical thermodynamic parameters and, together with researchers from the Universidad Autónoma Metropolitana- Iztapalapa —UAM-I—, we associated the potential of complex species to their chemical structures and developed thermodynamic diagrams of multiple species predominance, in different concentration scenarios, pH and potential. In parallel, we worked to achieve the measurement of thermal energy chemical storage effect and chemical heat pumps in simple systems —with calcium salts and primary alcohols—.

I undertook, together with researchers from the Center for Research and Advanced Studies (Centro de Investigación y de Estudios Avanzados (Cinvestav)) and the School of Higher Studies in Chemistry and Extractive Industries (Escuela Superior de Química e Industrias Extractivas (Esiquie)), both of the Instituto

Politecnico Nacional, the study, prevention and monitoring of certain corrosion types in ferrous materials; and with Rubén Vásquez Medrano of the Ibero, with whom we achieved a fruitful collaboration that has lasted to the present.

On the other hand, there are polymers that have the property of conducting electric current, which gives them advantageous characteristics with respect to, for example, many metals, since they have a lower weight and cost, and can also be produced in ways that adapt to the needs specific in microelectronics, electrochromism, biomedical devices, rechargeable batteries, anti-corrosive films, chemical and biochemical sensors, protection against electromagnetic radiation, antistatic gaskets, etc. With researchers from the University of Texas-Austin I worked on the electrode preparation to give direct follow up to blood glucose, using polyvinylpyridine. Also, with researchers from the University of Texas-Arlington, the University of Guanajuato, the Tec de Madero and UAM-I, we achieved the application of polypyrrole to the reduction of toxic chromates. As a result of this work, I became interested in the subject and recently we were able to publish, with researchers from the Universidad Nacional

Autónoma de México (UNAM), the Universidad Autónoma del Estado de México (UAEM), the Laurentian University (Canada), and the Universidad de Guanajuato (UG), a review article in the most important journal in the world of Chemistry — *Chemical Reviews*.

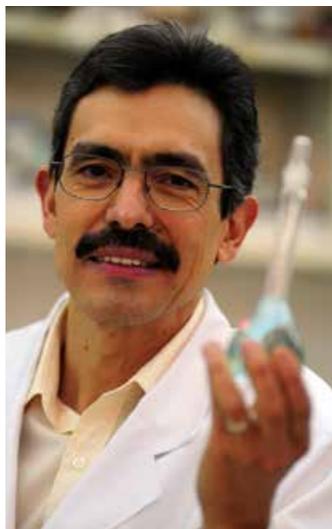
The possible applications of electrochemistry towards the study and environmental remediation began to attract me more, to the extent that we published a book that has been used as a text in many countries during the last 20 years: *Environmental Electrochemistry* —Academic Press—. In addition, we disseminated multiple articles with researchers from several of the institutions mentioned above, as well as from the Institute of Technology and Higher Studies of the West (Instituto Tecnológico y de Estudios Superiores de Occidente (ITESO)), of the Jesuit University of Guadalajara; Creighton University, Loyola University of Chicago; the University of Macedonia, and the University of Wuppertal, among others. On the other hand, we included semiconductors applications —*i.e.* photocatalysis— and we developed a series of educational experiments with international impact. As a byproduct of one of these investigations, we proposed what we called photocatalytic writing, which instead of being interested in the destruction of a contaminant, attends to the disappearance or change of its color, by applying a laser beam.

The electrochemical community has been very interested lately in designing and implementing processes, in which both currents —*i.e.*, anodic and cathodic— are used to carry out useful reactions during an electrochemical process —and not only the decomposition of the solvent—. Therefore, we have developed the simultaneous synthesis of chlorine dioxide, the simultaneous generation of hydrogen and electrocoagulant; the production of coagulant species with magnetic properties; the simultaneous generation of electroluminescence, among others.

In keeping with our university mission to seek a more open society to the needs of the most disadvantaged, we have worked with professors from the Technological Institute and Higher Studies of Monterrey (Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM)), the UNAM and several departments of the Ibero, in the Chair for Disability, coordinated by Jorge Letechipía, in an effort to provide experiences in the scientific field to people with visual disabilities.

Despite all these investigative possibilities and their results, I believe that the most important contribution, with the greatest social and lasting impact, that we have had, has been in the field of Micro-scale Chemistry. Together with a group of visionary colleagues<sup>1</sup> we started, in 1990, the Mexican Center for Green Chemistry

1 Full time teachers: María del Carmen Doria Serrano, Arturo Fregoso Infante, Rosa María Mainero Mancera, Margarita Hernández Esparza; and those part-time teachers: Guadalupe



Jorge Ibañez with microscale instruments.

and Microscale (Centro Mexicano de Química Verde y Microescala (CMQVM)) with the logistic support from the National Microscale Chemistry Center—in Merrimack College, Massachusetts—. This has had as its main mission, to promote the care of the environment and the students, using micromolar quantities or reactors with some micrometric dimension, to carry out chemical reactions. The aforementioned has led to an increase in safety, considerable time reductions, reagents and energy quantities, as well as saving hundreds of thousands of liters of pollutants, in experiments implemented by nearly 4 thousand instructors in over 50 countries of the five continents, to which we have given courses, workshops and lectures.

Due to the performance in the CMQVM, national awards have been obtained—National Chemistry Award, 1998 and National Electrochemistry Award, 2015—and international—American Chemical Society-Sustainability, 2011; International Microscale Chemistry Award, 2017, and the International Union of Pure and Applied Chemistry Fellowship, 2013—which honor the tireless work of the Center and the Ibero, which enlivens it. Among the multiple publications achieved—some already mentioned above—, stand out the national books that have reached spaces off the beaten path of our Mexican territory and others that have been widely used internationally as texts—*e.g.*, *Environmental Chemistry Fundamentals and Environmental Chemistry-Microscale Laboratory Experiments*, both published in New York by Springer—and that have had, altogether, near 100 thousand downloads of chapters to the date. Both translated into Spanish and published by McGraw Hill and Ibero itself.

As I said at the beginning of this brief narrative, a serene atmosphere of peace and freedom can lead to unsuspected achievements for the good of others. As we inscribed in the prefaces of the last two mentioned books, we want this to be *ad maiorem Dei gloriam*. ¶

Castañeda Ramos, María Teresa Morán Morán, Martha Elena Ibarguengoitia Cervantes, Virginia Cervantes Nemer, Elizabeth García Pintor, Margarita del Valle Méndez, Mercedes Gómez Álvarez, María Eugenia Gasca, and Jorge Gama Orozco, among others.



Chemical Sciences academicians in 2011.

# Alberto Ruiz Treviño

## *Research on Polymers*

I have dedicated many years of my life to research. I trained as a chemical engineer at the Universidad Autónoma de Nuevo Leon, from where I got my degree in 1982. Subsequently, in 1985, I obtained the degree of Master of Science from the Universidad Autonoma Metropolitana, Iztapalapa Unit. It was with this preparation that, in the same year, I entered the Universidad Iberoamericana. In this house of studies, I developed, during the first years, research related to Rheology and empirical mathematical models. By that time, at the end of the eighties, I joined the National Researchers System —SNI—, and I was one of the first academicians of the Ibero to achieve this distinction, since until recently it was reserved for researchers of public institutions.<sup>1</sup>

<sup>1</sup> Between the years of 1998 and 2001, and from 2001 to 2004, I obtained the rank of National Researcher, Level I in the SNI, meanwhile, between January 2013 and December 2017, I was in Level II.



Dr. Francisco Alberto Ruiz Treviño.

I left for the United States in 1992, with the purpose of studying a PhD at the University of Texas at Austin. After obtaining the degree with the thesis *Modification of Gas Separation Membrane Materials by Antiplasticization*, I continued with the post-doctorate at the University of Texas at Dallas, as associate researcher. In 1997 I was repatriated to Mexico thanks to the support of Conacyt, which provided a series of facilities for Mexican researchers residing abroad to return to the country. Back to the Ibero, I got back up from Conacyt itself to start the first investigations in polymeric materials.

It should be noted that the polymer research group, of which I have been a part, has had funding from Conacyt in three basic science projects. In these projects I have served as technical manager:

1. “Gases Transport Properties in Polysulfone Membranes Chemically and Physically Modified”. 1999-2002, Conacyt, Ref. 32780-U.
2. “High Free Volume Polysulfones Properties Synthesis and Evaluation for Gas Separation Membranes”. 2004-2007, Conacyt, Ref. 42477.
3. “Polymeric Membranes Synthesis and Performance Evaluation for Gas Separation”. 2012-2015, Conacyt, Ref. 184156.

Likewise, there was international financing from the STINT —The Swedish Foundation for International Cooperation in Research and Higher Education—. The corresponding project was titled: “Gas Permeability and Free Volume Properties of Polymers”. It was developed in collaboration between the Universidad Iberoamericana and the University of Lund, Sweden, with Frans H. Maurer, between 2002 and 2007.

There has also been very close links with institutions such as the Materials Research Institute (Instituto de Investigación de Materiales —IIM-UNAM—), the Center of Scientific Investigations of Yucatan (Centro de Investigaciones en Científicas de Yucatán (CICY-Mérida)) and the Mexican Institute of Oil (Instituto Mexicano del Petroleo (IMP)). But, in addition to the financial support of the University and the different institutions mentioned, it is evident that each researcher has made his own contribution, starting with the same generation of research projects. Another example is the training of students and getting scholarships for them. Personally, I was also involved in obtaining equipment for the laboratories of the

University, such as a dynamic mechanical analyzer for testing with polymers, as well as gas permeation equipment. Thus, for the successful development of projects, it has been essential to add to the support in time and resources, the commitment of the researcher. He or she is, by far, responsible for bringing the stone, the chisel and the hammer so that he/she himself/herself molds his/her own research experience.<sup>2</sup>

My research, developed with an extensive network of collaborators, has been related to polymers, to produce hydrogels, as a means of supporting microorganisms in the removal of water contaminants. A basic science research was initiated and strengthened to generate knowledge, based on structure-property relationships, leading to the development of polymeric membranes with permeability and selectivity properties, towards pairs of outstanding gases. It was propitiated that said gases also had better physical properties to withstand the aggressive conditions under which they operate; i.e., much more mechanically, chemically and physically resistant to the dissolution or swelling with solvents, to plasticization with condensable gases, and to physical aging (densification), natural process of the dynamic condition, characteristic of polymers amorphous state.

In other words, these inquiries have been about the application of plastics as separation membranes or gas sequestration. The latter is an extremely important operation: substances such as hydrogen, nitrogen, oxygen, methane or carbon dioxide, have different productive uses, and even medical applications; e.g., oxygen can be used in combustion furnaces or may, at a medical level, be administered to patients. The gas industry is always the leader in sales worldwide: everyone needs gases.

There are different processes to separate gases present in air, in order to exploit them; some of them have the disadvantage of being expensive and entail a high energy expenditure, as in the case of cryogenic processes. Polymers, on the other hand, are the most used materials in the world. Unlike other methods for gases

- 2 Developing research projects with links to the private sector is complex. When a researcher generates knowledge and there is a social actor to take advantage thereof, knowledge finds direct application, produces an economic movement and incidence on social wellbeing. However, it is very difficult to achieve this coordination. It is perhaps due to the fact that short-term links are sought in Mexico; however, the best projects are those of medium and long duration. The speed of knowledge generation should be coupled with the speed of its application. A short-term project usually focuses on machines production for a very specific objective and with a very punctual development, which does not entail major research challenges; only economic competition. Perhaps that is the reason why this type of scheme has not had the impact it should, as it has in countries such as Korea and the United States. It would be necessary, for this type of scheme to be successful, to change the “maquila” mentality that sometimes prevails in our country.

separation, polymeric membranes can separate components of different molecular sizes, more economically and efficiently, with a much lower energy expenditure. Thus, gases separation by means of polymers can be considered a clean technology. This fact constitutes, by itself, an important contribution in the context of environmental degradation that we experience currently.

For me, research represents following the trace that physical and chemical phenomena are leaving and showing that this track is followed, by means of scientific methods and procedures. With the knowledge obtained, better materials can be generated and, also, ultimately, contribute to society. Regarding the latter, it is known that one of the Universidad Iberoamericana values is that research generated in it is useful to society. I consider that my research has complied in this aspect, because the studies I have performed, in addition to constituting clean technologies, have different applications in the industry. In this way, research is a way to promote economic activity, which in turn generates more sources of employment; more wealth and greater well-being, provided these fruits are well distributed. In that sense, engineering can generate wealth, but it is the job of entrepreneurs and specialists to distribute it equally and fairly, so it impacts everyone. To really make a positive change for the inhabitants of Mexico, it is necessary to complete the circle, which goes from the generation of knowledge, through its application, the consequent activation of the economy, to social wellbeing.

As an academician, I also consider it a central task to train, from the university, the human resources capable of producing new research. It is best to do it jointly, i.e., through research generating knowledge, and that, in the process of doing so, also trains new researchers, capable of continuing the same work. Ultimately, this is in the best interest of the country, since it reduces dependency we have abroad on this subject. It is a transcendental requirement to generate our own knowledge, which allows us to stop buying that of other countries, and that leads to an increase in the Gross Domestic Product —which currently rests mainly in maquila and sale operations and not in the generation of knowledge.

The above, I have assumed throughout my career, in which I have engaged in the task of leading approximately 17 bachelor's, 21 Master's and 5 Doctoral theses, the vast majority within the Universidad Iberoamericana. However, it is important to note that the work of the doctoral advisor should not consist in doing the thesis to the student; the researcher already trained should show his disciple the existing research challenges and teach him to collect the questions. In the research process, the student will have more questions, which, otherwise, never ends. To be a doctor, one must show one can do research independently and without the lead of the advisor. In this sense, what is often lacking —it must be said— is to form intellectual independence in the student. When he or she can generate knowledge



In the foreground rector Dr. José Morales Orozco S.J., in the background Dr. Alberto Ruíz Treviño.

by itself, it will already be trained as a doctor. In addition, I think it is relevant to train researchers who are able to handle themselves in two languages; it is a common practice in other countries, but in Mexico it is difficult to get students interested therein. For a researcher, the first thing to do is to understand the physical phenomenon in its native language, and then be able to translate it into English; with which it can generate the greatest possible impact in the scientific community —of course, with a view to the application of knowledge it produces.

And although, according to the above, another essential aspect for research of a scientific nature is to disseminate the results thereof. I think that publishing is much richer than generating patents from educational institutions, since they cost resources and often remain unused. By publishing, however, how little or much knowledge is generated can be quickly applied. In addition, a person, a science teacher or a doctor are trained with research. At the beginning of my career it was very easy to publish; unfortunately, over time it has become more difficult, both because the level of demand for peer-reviewed journals is increasing, and because there is a perceived decrease in the commitment of new generations to research. In my trajectory as a researcher I have written, in collaboration with research colleagues, about forty scientific articles, published in peer reviewed and indexed journals. Just to mention the most recent, I include the following:

1. “Microporous Polymers from Superacid Catalyzed Polymerizations of Fluoroketones with p-Quaterphenyl: Synthesis, Characterization, and Gas Sorption Properties”, *Polymers*, The Netherlands, vol. 102, October 12, 2016, pp. 221-230. [With Lilian I. Olvera, F. Alberto Ruiz-Treviño, Jorge Balmaseda, Inga A. Ronova, Mikhail G. Zolotukhin, Maria P. Carreón-Castro, Enrique Lima, Jorge Cadenas, Ruben Gaviño].

2. "Sulfonated Polyphenylsulfone Asymmetric Membranes, S-PPSU: Effect of Coagulation Bath (acetic acid-NaHCO<sub>3</sub>/isopropanol) on Morphology and Antifouling Properties", *Journal of Applied Polymer Science*, United States, vol. 134, October 8, 2016, 134, Issue 8. [With M. A. Yam-Cervantes, J. L. Santiago-Garcia, M. I. Loría-Bastarrachea, S. Duarte-Aranda, M. Aguilar-Vega].
3. "A Highly Soluble, Fully Aromatic Fluorinated 3D Nanostructured Ladder Polymer", *Macromolecules*, United States, vol. 50(21), October 30, 2017, pp. 8480-8486 [with Lilian I. Olvera, Manuel Rodríguez-Molina, F. Alberto Ruiz-Treviño, Mikhail G. Zolotukhin, Serguei Fomine, Jorge Cárdenas, Rubén Gaviño, Larissa Alexandrova, Rubén A. Toscano, Eduardo Martínez-Mercado].
4. "Transesterification of Soybean Oil by PAAc Catalytic Membrane: Sorption Properties and Reactive Performance for Biodiesel Production", *Renewable Energy*, The Netherlands, vol. 116, 2018, pp. 250-257. [With Gloria Aca-Aca, María I. Loría-Bastarrachea, F. Alberto Ruiz-Treviño, Manuel Aguilar-Vega].
5. "Simultaneous Thermal Crosslinking and Decomposition of Side Groups to Mitigate the Physical Aging in Poly (oxyindole biphenylene) Gas Separation Membranes", *Industrial and Engineering Chemistry Research*, United States, vol. 57(13), March 21, 2018, pp. 4640-4650. [with Hernández-Martínez, Hugo; Ruiz-Treviño, F. Alberto; Ortiz-Espinoza, Jesús; Aguilar-Vega, Manuel; Zolotukhin, Mikhail, Raymundo and Lilian].

Likewise, throughout my career I have had the honor of receiving some distinctions, such as the University Merit Diploma from the Universidad Iberoamericana in 2000, the prize for Academic Improvement of the Promotion of Research and Higher Culture A.C. of the University (Superación Académica del Fomento de Investigación y Cultura Superior —FICSAC-UIA—), for the years 2001, 2002 and 2004. The same university awarded me the medal for University Merit in 2004. Between 2004 and 2015 I was a member of the Academic Committee, as a representative of researchers of the UIA, and since October 2005 I am member of the Mexican Academy of Sciences. Finally, since 2011 I am a member of the Technical Committee of the Mexican Academy of Research and Teaching in Engineering Chemistry, A.C. (Academia Mexicana de Investigación y Docencia en Ingeniería Química, A.C. —AMIDIQ). On the 75th anniversary of the Universidad Iberoamericana Mexico City, I thank our institution for the great support received over the years, for the development of my research, as well as the opportunity to have served as Research Director between 2005 and 2014. ¶

In collaboration with Dr. Jose Fernando Madrid Quezada.

Rubén César Vásquez Medrano

*Chemical Processes Engineering*

Dr. Rubén César Vásquez Medrano studied Chemical Engineering at the Universidad Nacional Autónoma de México. In that same house of studies, he obtained the degrees of Master in Metallurgical Engineering, and of Doctor in Chemical Sciences (Chemical Engineering). Since January 1993, he is a full-time professor at the Universidad Iberoamericana Mexico City. In addition, he is a member of the National Researchers System (SNI).

His research interests revolve around electrochemical processes -environmental, energy storage, reactors design, ionic liquids and corrosion-; to advanced oxidation processes, as well as to separation processes. Consequently, his research has focused in wastewater treatment through advanced oxidation processes and membrane processes. Likewise, he has worked in the design of biorefineries and

carried out electrochemical studies, focused on the simulation and modeling of secondary batteries, technological uses of ionic liquids and the design of electrochemical reactors.

Shortly after entering the Universidad Iberoamericana, he developed one of his first research projects. This one had for title: “Monitoring and control of corrosion in the process industry” and was executed between January 15th, 1996 and December 12th, 1997. Afterwards, he carried out the project named “Research and Development of Laboratory Experimental Techniques for the Registration, Prevention and Control of Corrosion under PEMEX-Refinacion Conditions”. This was Project FIES 96-45-II, which had resources from the Development of Basic and Technological Research Projects Support Fund; in collaboration with higher education institutions, granted by the Mexican Institute of Petroleum. This work was developed over several years, between August 11th, 1997 and May 14th, 2001. Another long-term research project that Dr. Vásquez Medrano worked on was the “Study of Electrochemical Behavior of Corrosion Inhibitors and Mathematical Modeling of Localized Corrosion”. This lasted for seven years, between 2001 and 2007.

One of the most remarkable items of the researches undertaken by Dr. Vásquez Medrano, is the link that he managed to establish with the productive sector. There have been several works developed under this scheme. The first one is the “Development of Reverse Osmosis Equipment with Electro Deionization for Water Purification”. Said project, registered before Conacyt under number 110691, had the participation of the Universidad Iberoamericana and the company ACF Sistema de Desmineralización Integral; it was developed in 2009 and it was a remarkable research, in face of the challenges society faces, with respect to the supply of the vital liquid.

The following year, in 2010, the Universidad Iberoamericana partnered again with the same company, for the second project called “Development of an Injectable Grade Water Purification System”. Registered with Conacyt under number 137086, the project was part of the Program to Encourage Research, Technological Development and Innovation. Later, in 2011, Dr. Vásquez Medrano undertook -under the same scheme and with the same participants- the third project named “Development of Residual Water Recovery Treated Through Ultrafiltration/Microfiltration for Reuse”, registered in Conacyt under number 151600. Both projects were undoubtedly transcendental for the development of technologies that allow water cleaning and reuse, a major issue, given the growing demand and less availability of this important resource.

The fourth and final project in which Dr. Vásquez Medrano participated, until this year, under a collaboration scheme between the Universidad Iberoamericana and the company ACF Sistema de Desmineralización Integral, titled “Scaling, Vali-

ation and Commercial Launch of a US Pharmacopeia Purified Water Generation Prototype”. Registered before Conacyt under number AC/2012-01/010(NN), and which also received the backup of the Program to Stimulate Research, Technological Development and Innovation, and lasted approximately one year, between March 4, 2013 and April 14, 2014.

In addition to the projects developed together with the productive sector, Dr. Vásquez Medrano has carried out other important investigations, such as the work titled “Electrochemical and Photochemical Reactions to Make Energy More Efficient” that he developed from January 2<sup>nd</sup>, 2010 to December 31<sup>st</sup>, 2012. Subsequently, between 2013 and 2017, the work called “Electrochemical and photochemical reactions to make energy efficient, 2nd phase” took place. Currently is underway the research titled “Pesticides Destruction Through Electron Exchange Processes Assisted by a Potential Tax and Solar Energy”, which is valid from January 15<sup>th</sup>, 2018 to December 31<sup>st</sup>, 2020.

As a researcher, Dr. Vásquez Medrano has collaborated in numerous projects. One of them, “Lithium Ion Batteries Simulation and Modeling”, was a joint effort carried out between 2011 and 2016. Another, lasting one year, was the “Design and Optimization for the Separation of Bioethanol Through Ionic Liquids”, between January 2011 and December 2012. Finally, recently, he participated in the project “Processes Design and Optimization for the Capture of Carbon Dioxide using Ionic Liquids”, which covered the years 2016 and 2017.

Up until May 2018, Dr. Vásquez Medrano had published 35 articles in indexed journals; 4 book chapters, published by recognized prestige publishers; 45 full-text works in congresses memoirs, both national and international; and 70 presentations in congresses, inside and outside Mexico. All this shows a prolific trajectory, of high productivity and commitment to research.

Finally, it should be noted that, in addition to his extensive work as researcher, Dr. Vásquez Medrano has developed a wide teaching activity, having taught more than one hundred courses between undergraduate, masters and doctorate. He led 28 theses, of which three have been doctorate, 11 master’s and 14 bachelor’s degrees. ¶

Adolfo G. Finck-Pastrana

*Solar Thermal Energy (LETS)*

In this text are introduced different projects developed in the Solar Thermal Energy Laboratory (LETS) by MSc Adolfo G. Finck-Pastrana with the participation of other researchers from the Universidad Iberoamericana.

As an antecedent, to understand the importance of this research work, it is important to point out that solar energy potential is abundant in Mexico, of the order of 5.5 kWh/sq. meter per day or 2.0 MWh/sq. meter per year. The above is relevant if we consider that it is precisely this proportion, the electrical energy daily consumption of an average family in urban areas. The use of renewable energy sources has become a priority, as energy resources derived from oil are increasingly scarce. Therefore, it is necessary to develop technologies whose operation is based on renewable energy resources such as the sun, wind and biomass, to name a few.



The Solar Thermal Energy Lab has several purposes: foster the use of renewable energy sources, as well as thermal energy use obtained through solar energy photothermic transformation.

Derived from the above, in the Solar Thermal Energy Laboratory have been proposed several objectives such as: encouraging the use of renewable energy sources, as well as the use of thermal energy obtained through the photothermal transformation of solar energy; train human resources for the development of these areas; design, build and operate various solar systems for photothermal conversion; determine the optimal operating conditions of the systems and reduce the energy expenditure necessary to obtain the final product thereof. On the other hand, it is intended to link photothermal conversion technology with companies, institutions and appropriate groups for such purpose. Finally, disseminate the results obtained in these projects at a national and international level.

Among the projects developed under these premises we find the following:

- Thermal accumulation in bedrock.
- Degradation of selective surfaces.
- Solar dryers for the food industry.
- Solar water distiller for human consumption.
- Portable solar oven.
- Indirect solar cooking for indoor use.
- Portable solar concentrator for steam generation.
- High temperature parabolic disk solar concentrator.

Below, the characteristics of some of the projects are shown.

**The indirect solar dryer with variable direction flow** consisted of the design, construction and operation of the device. For this job the participation of Adolfo G. Finck-Pastrana, Enrique Sánchez y Aguilera, Rosalba Vilchis Morales, Ángela Mariscal Sánchez, Andrea Carraro, Ludovico Allasio and Ortzi Akizu Gardoki was counted with. It was an inter-institutional project involving the Physics and Mathematics Department of the Universidad Iberoamericana, Mexico City and the Politecnico di Torino, Facoltà di Architettura, Laurea Specialistica in Ecodesign.

The usefulness of this device is that the water contained in the food allows microorganisms proliferation, as well as the development of chemical reactions that deteriorate them. When it is necessary to preserve them for some time, an alternative is to dry them or dehydrate them. That is, remove the water content therein.

The indirect solar dryer consists of a chamber built with  $\frac{1}{2}$ » thick plywood and 60 cm long, by 40 cm wide and 55 cm high dimensions. It has four nylon mesh trays that allow an initial drying mass of approximately 2 kilograms in the most heavy products, like apples or bananas.

Additionally, it was given the property of being able to change the air inlet location towards the drying chamber, as well as the direction thereof regarding the trays containing the product. The results were optimal, the system works with enough efficiencies for the drying of delicate products. On the other hand, trays movement was not required, since the dehydration was appreciated homogeneously. In addition, the system complied with satisfactory hygiene conditions.

In second place, we found the **deconstruction and characterization of a tunnel without structure for coffee drying** project by means of solar energy. This was developed with the collaboration of Adolfo G. Finck-Pastrana, José H. Mondragón Suárez and Graciela Rojas González at the Inmecafé facilities located in Ixtacuaco, Veracruz.

As one of the main results, it was noticed that the temperature of the tunnel's inner dry bulb managed to maintain a difference of approximately 10°C above that of the environment. This was of significance since the phenomenon occurred with total solar radiation that never exceeded 100 W/sq. meter.



The main purpose of a solar dryer is to accelerate the drying process, in addition to making it as clean as possible and at low cost.

A third case is the **chile solar dryer**, in which the same Finck-Pastrana, Mondragón Suárez and Rojas González participated, joining the team Rafael de Regil. The importance of this project is that in Mexico, the medium producer generally dries chili in open field ditches and the drying time varies from three to four weeks. Therefore, the main purpose of this study was the construction and operation of a direct solar dryer that would accelerate the drying process, making it as clean as possible and at low cost.



Solar kitchens may be used in out of the way places, do not produce smoke or contaminants and are cost-efficient.



Chile solar dryer.

## Solar cookers

Another branch of the projects refers to the development of solar cookers. First, we found the **design and construction of the solar oven cabinet type “Nylamid”**. For this, the collaboration of Finck-Pastrana and Mondragón Suárez was counted with again, as well as of Mariana Orta Camargo, Ana Constanza Ferrer Bouras, Andrea Carraro, Ludovico Allasio and Ortiz Akizu Gardoki.

Solar cookers are defined as devices that allow cooking food using sun radiation as energy source. The above is achieved through the greenhouse effect, a process where three forms of heat transfer are combined to increase the internal temperature of a photothermal conversion system. Oven-type or box-type solar cookers —one of several that exist— consist of a thermally insulated box designed to capture solar

energy and keep its interior hot. Materials used are generally of low thermal conductivity, so the food does not burn or be overdone and preserve both its flavor and its nutritional value.

Solar cookers have several advantages and some disadvantages. Among the first, do not need any fuel or electricity. They can be used autonomously in out of the way places, do not produce smoke or any type of pollutant and, by not using combustion agents, are very economical. Also, are safe to use, their construction is simple, stable and the food remains hot after cooking. In addition, they do not require continuous supervision. However, among the disadvantages, we know that some types of solar cookers do not work without direct radiation. On the other hand, it takes more time to cook and it is usually difficult to fry food.

The system developed is a 60 cm long solar box-type cooker, by 40 cm wide and 30 cm high. The walls and the bottom are made of one-centimeter thick nylon sheets, with the aim of thermally insulating the system. It has a double 3 mm glass cover, has a copper foil as an absorber surface painted in matt black and, below, a fiberglass insulation and a lid that, in turn, works as an adjustable reflector.

To set up the operating characteristics of the “Nylamid” solar cooker, tests were carried out with an aluminum cooking pot, painted matt black on the outside, with a 2 liters water capacity. For the assessment of thermal performance, the following parameters were measured:

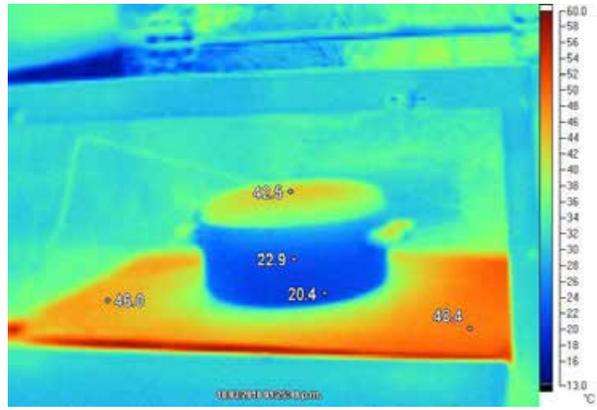
- Solar radiation (watts/sq. meter).
- Ambient temperature (°C).
- Temperature of the absorber sheet (°C).
- Water or product to cook inside the cooking pot temperature (°C).

With the previous data, solar radiation graphs (watts/sq. meter vs solar time) were obtained, as well as temperatures profile (°C vs solar hour). In the following figures are shown several thermal photographs in infrared, where you can observe the heating process of the cooking pot and the water inside it.

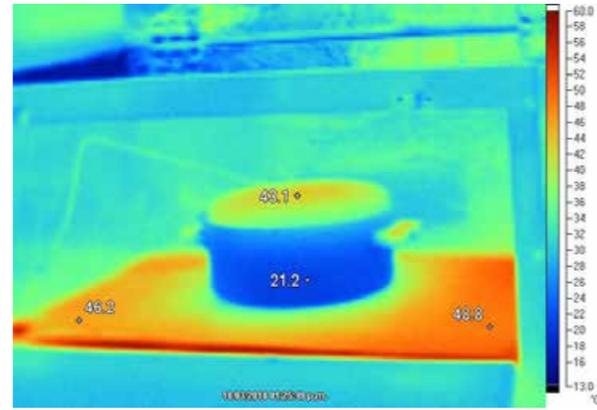
It was concluded that laminated nylon is a good option for the manufacture of cabinet type solar cookers and ovens, because it guarantees an adequate structure of the system body, provides its adequate insulation and, finally, it is a material very resistant to the elements.

In second place we have the manufacture of **solar cooker with thermal fluid in thermosiphon, “Cosfluterm”**. This was developed jointly by Adolfo G. Finck-Pastrana, Enrique Sánchez y Aguilera, as well as Miroslava Meléndez Nieto.

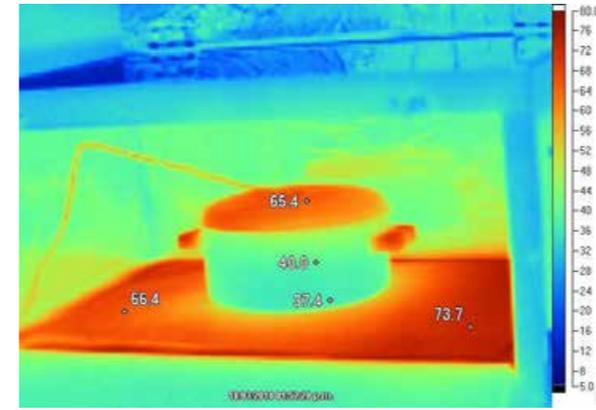
It is important to note that other systems have significant disadvantages, e.g.: you can only cook on clear days and follow the path of the sun at regular intervals to



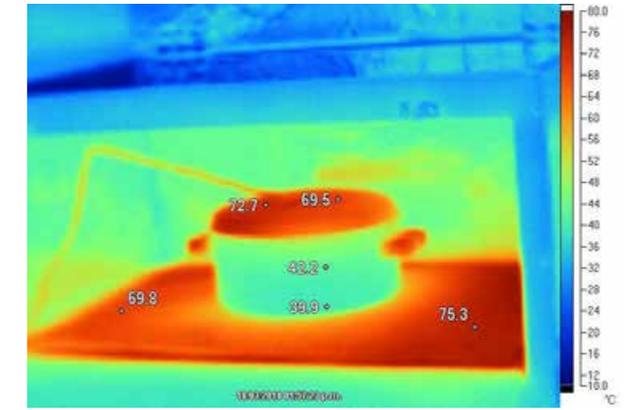
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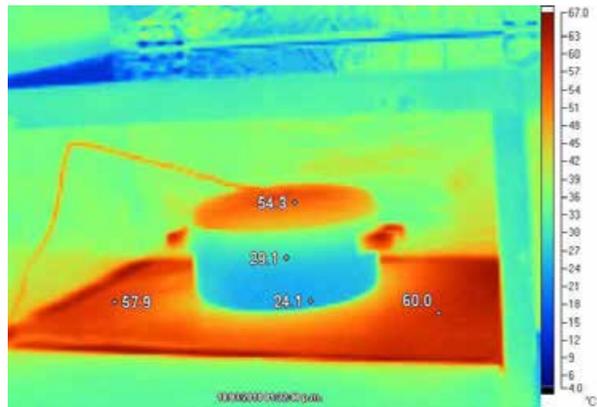
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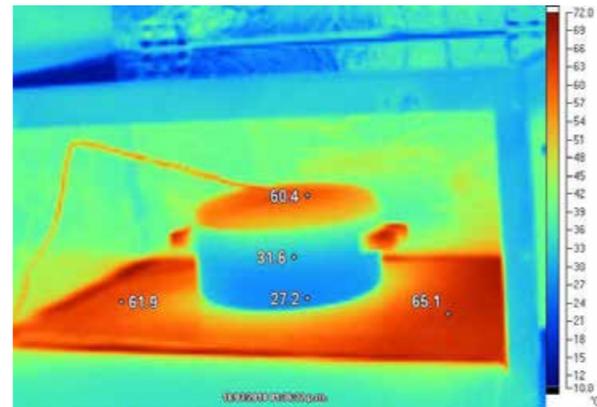
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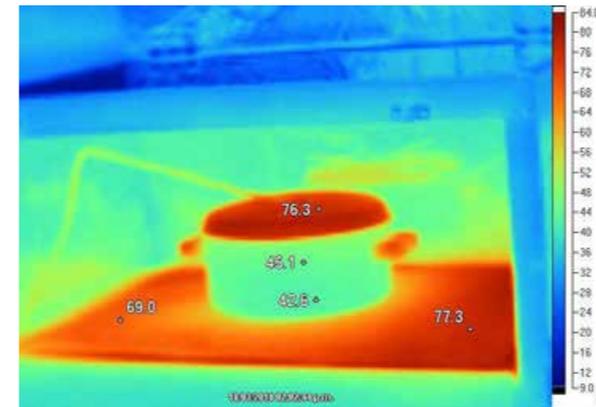
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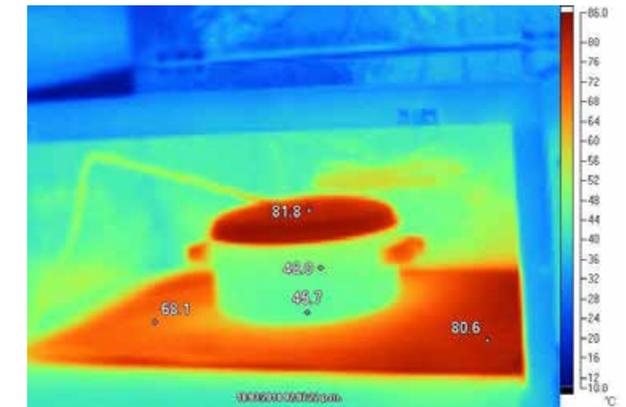
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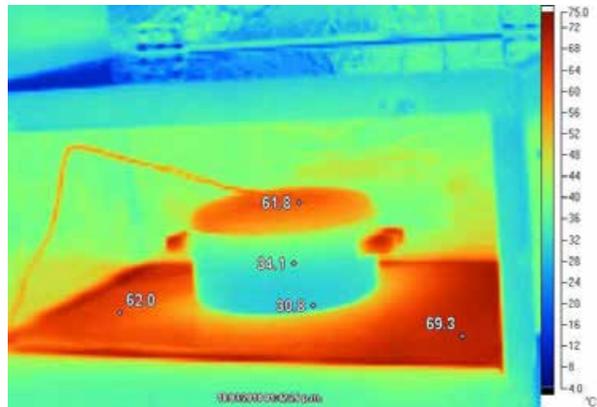
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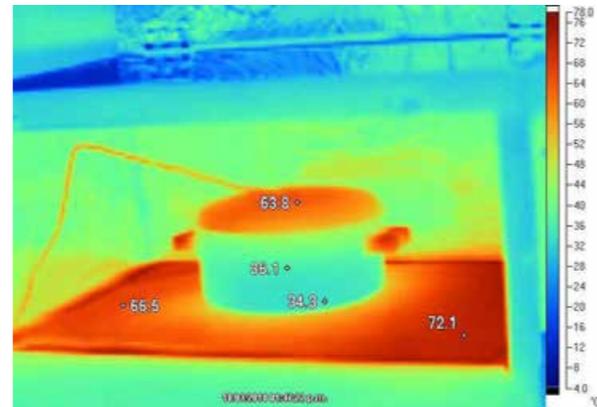
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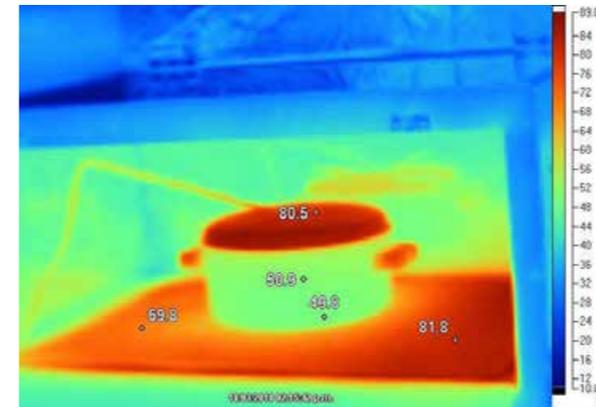
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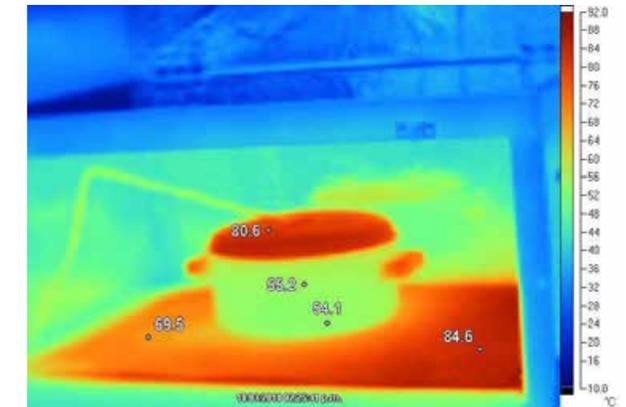
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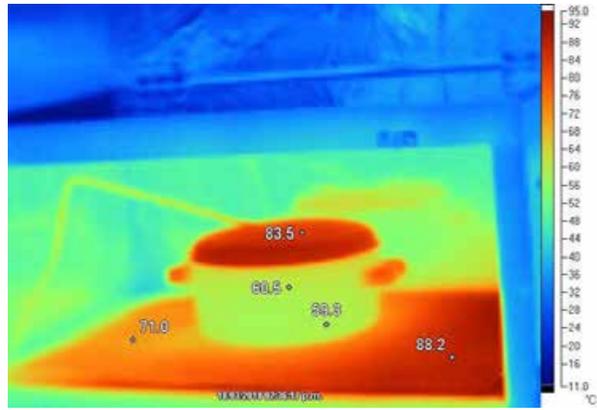
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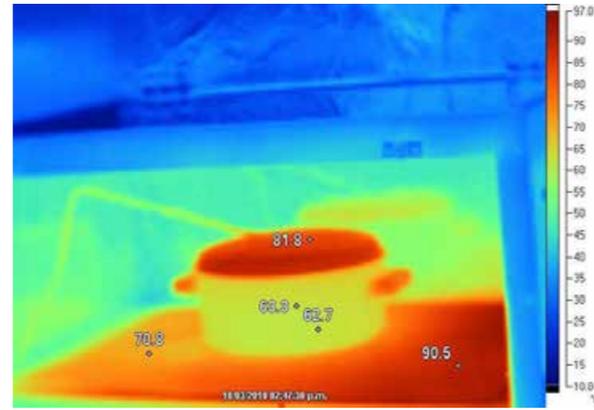
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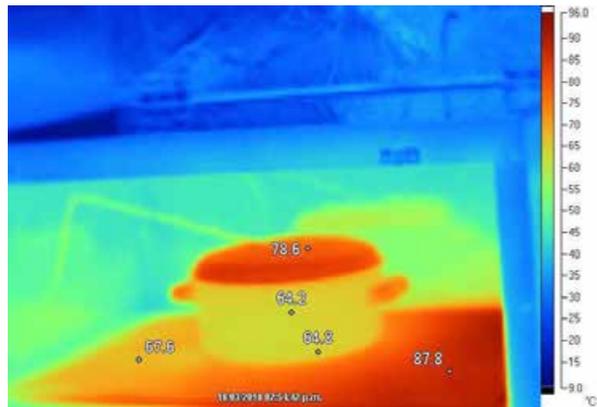
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optimize the efficiency of the cooker. On the other hand, they do not allow cooking in the afternoon or evening, as they do not have thermal accumulation. In this regard, the advantages provided by “Cosfluterm” are remarkable, since it has a thermal accumulation system that allows cooking inside the house without the presence of the sun.

The method used in this study consists of two main systems: the heating of the thermal fluid and the storage of the fluid that operates as heat exchanger. The methodology operates with solar radiation, the ambient temperature, as well as the thermal fluid in the storage tank and the food in preparation. In this regard, six tests were carried out to test the cooker efficiency, the first two with water inside the pot and the later ones with different dishes. The following results were obtained:

The above allows to conclude the viability of the system, thanks to the system and thermal fluid used and for its optimal heat transfer, it allows cooking without direct solar radiation. The temperatures reached are enough to complete the cooking process of any food.

<p><b>Test 1</b> Food - 4000 g water. Water temperature above 80°C: 5 h approx. Water temperature above 90°C: 3 h 30 min approx. Nominal power: 85 W</p>	<p><b>Test 2</b> Food – 4000 g water. Water temperature above 80°C: 4 h 30 min approx. Water temperature above 90°C: 2 h approx. Nominal power: 71.33 W</p>
<p><b>Test 3</b> Food - nopales dish. Total mass = 3533.6 g Food temperature above 80°C: 3 h 30 min approx. Food temperature above 90°C: 1 h 30 min approx.</p>	<p><b>Test 4</b> Food - stew of chayotes and broccoli. Total mass = 1837 g Food temperature above 80°C: 0 h approx. Food temperature above 90°C: 0 h approx.</p>
<p><b>Test 5</b> Food - pork dish with potatoes. Total mass = 1769.4 g Food temperature above 80°C: 2 h approx. Food temperature above 90°C: 0 h approx.</p>	<p><b>Test 6</b> Food - chicken skewers dish. Total mass = 1165.9 g Food temperature above 80°C: 3 h approx. Food temperature above 90°C: 30 min approx.</p>

### Solar concentrator

Of great transcendence was the **solar concentrator** project developed by Adolfo G. Finck-Pastrana, José H. Mondragón Suárez and Maite Ertze García.

In Mexico, around 30 million people consume food cooked with firewood. In addition to the serious deforestation problems that this implies, there are many diseases caused by ingesting water or poorly treated or cooked food. Therefore, today, cooking and boiling food and drinks properly is a need for survival.

To create the **solar concentrator**, a SKY satellite antenna lined with aluminum foil was used as reflecting wall. The surface is .50 sq. meters. In the focal area a metal arm was placed to support the cooking pot, whose approximate surface is .049 sq. meters. The above, established in the system a concentration ratio of 10.2.

To verify the operation, tests were carried out, where the following parameters were measured: solar radiation, ambient temperature and food temperature (water inside the pot). Following, the results:

Afterwards, the concentrator was fitted with a boiler, a double-walled cylindrical stainless-steel vessel with 250 ml of insulated capacity with laminated nylon. For its mounting a new metal platform with wheels was used for a simple orientation. In addition, a new aluminized and adhesive reflective paper was applied, as well as a steam generating boiler isolated and placed in the focus of the system.

As conclusion to this work, it was observed that the system is practical and easy to build, since there is a large number of this type of antennas out of use. On the

other hand, it is easy to cook when the pot is placed directly in the focal area, since the generation and transport of steam allow cooking indoors. Finally, laminated nylon thermal insulation is ideal for its resistance to various climatic conditions.



Solar concentrator.

### Solar distillers

In the development participated Adolfo G. Finck-Pastrana, Mauricio Ruiz Serrano and Mariana Orta Camargo. This project arose with the aim of facilitating drinking water for human consumption availabil-

ity, a problem that is becoming increasingly complex. The enormous difficulties of supplying the population with the vital liquid are already well known. It is not only the fact of overcoming technological challenges to bring water to large cities, but also supplying a multitude of towns and small settlements existing throughout the country.

In coastal areas and other regions, the liquid is extracted from wells and springs with a high content of salts and which have a high incidence of solar radiation. This is where solar distillation technologies become useful for obtaining fresh water, especially solar distillation of saline water.

The result of this work is the **ladder-type solar still**. One of the experimental evidences observed in the shed type distillers, regular size, is the phenomenon of the early condensation to steam. This occurs before the vapor reaches the cover and is due to the temperature gradient of the air enclosed between the water mantle and the cover. As the air cools, the vapor coalesces and condenses. Such phenomenon is more noticeable the greater the free space of the distiller. The suggested solution to this problem is the design of a distiller with cascading trays, so the distance from the tray to the cover is always relatively small. However, the system has certain problems for adequate feeding in the various trays that are in different conditions.

Derived from the above, the **ultra-flat ladder still** was proposed, which has a rectangular prism shape of 1.80 m long by .90 m wide and .15 m thick. The system

has a matte black metallic absorption surface. On it are placed 27 channels, also metallic, whose function is to contain the water to distill. In addition, it has a one-piece anti-reflective glass cover sealed with epoxy resin, inside the product is condensed, drained and collected with a pipe in the lower part of the system that, in total, has a capacity for 20 liters. On the other hand, the body of the distiller is made of aluminum with a thermal insulation seal on the back.

It is considered that this type of distiller offers advantages, with respect to the common shed type solar distiller as, e.g., the proximity of the evaporation surface with that of condensation (cover), distance that does not vary even when the system is placed in different inclinations. The foregoing represents an advantage, since having a pronounced inclination of the cover ensures that all the product runs in the pipe, without any drops falling back into the still.

This system has been the subject of several studies and measurements of several parameters were carried out. In one of these experiences a solar radiation of around  $5.1 \times 10^6$  calories/sq. meter day was obtained. If one considers that the absorption surface of the distiller is approximately 1.62 sq. meters, it turns out that  $8.26 \times 10^6$  calories were found that day. And, if to the foregoing is added that the amount of distilled product on that occasion was approximately 7.5 liters —which surpasses shed solar distillers average production— then, we can calculate the following factors:

$$\text{Efficiency} = \frac{(7500 \text{ g}) (540 \text{ cal / g})}{8.26 \times 10^6 \text{ cal}} = 0.49$$

$$\text{Energy expenditure} = \frac{8.26 \times 10^6 \text{ cal}}{7500 \text{ g}} = 1101 \text{ cal/g}$$

$$\text{Productivity} = \frac{7.5 \text{ kg}}{1.62 \text{ sq. meter}} = 4.6 \text{ kg/sq. meter}$$

The use of an ultra-flat ladder type solar still allows the evaporation-condensation process to be carried out by means of the diffusion phenomenon, since the distance between the evaporator channels and the cover is small and constant. This is important, since the distiller can be placed at inclinations higher than 30 degrees to ensure that the condensed fluid slides properly inside the cover, without falling back into the interior. On the other hand, it allows to better capture solar energy in the winter season, when the solar irradiation decreases significantly.

## Photovoltaic systems

In the Solar Thermal Energy Laboratory, important research has been carried out around photovoltaic systems. Adolfo G. Finck-Pastrana has also participated in these, as well as Andrea Cabrero Vilatela and Jerónimo Terrones Portas.

A cell or photovoltaic cell is an electronic device capable of directly converting electromagnetic radiation (visible light) into electric power. It works thanks to the photoelectric effect, discovered in 1839 by the French physicist Edmund Becquerel and explained in 1905 by Albert Einstein (which earned him the Nobel Prize in Physics). The first photovoltaic module was built in the Bell laboratories in 1954. The photoelectric effect is an electronic phenomenon of mechano-quantum character and is due to the interaction of the photons of a light beam with the electrons of a material. A photon with the indicated energy can promote an electron from its base state to an excited state. If it has enough energy, it will even be able to free the electron from the forces that hold it together to the atom or the solid's network. The foregoing is common in the case of metallic solids, where the valence and conduction bands overlap, and conduction electrons are weakly bound.

In the case of semiconductor materials, very high energy photons ("X" or gamma rays) would be required to completely detach the electrons. However, photons of the visible spectrum, with energies between  $2.4 \times 10^{-19}$  J and  $5.0 \times 10^{-19}$  J, can promote transitions between the valence and conduction bands, thus generating electron hole pairs. An intrinsic semiconductor, element of group IV such as silicon or germanium, can be doped by contaminating it with impurities of two types in order to build the Union *p-n*. If group III elements are used, such as boron, there will be electrons missing to satisfy the links of the semiconductor crystal lattice, in this way there will be "holes" that will allow conduction; since these can be seen as a positive charge. These materials are known as *p*-type semiconductors. Analogously, by introducing substitutional atoms of group V, such as phosphorus and arsenic, there will be excess electrons in the network, which will allow electrical conduction. These materials are known as *n*-type semiconductors.

At joining a type *p* with a type *n* material will have carriers, electrons and holes concentration gradient through the union area. The established electric field will generate a potential difference through the area next to the union, this is known as "depletion", since the holes will move towards the higher potential region, towards the interior of the *p*-type material and electrons towards the one of lower potential, the interior of type *n* material, depleting carriers present in the two materials interface. This "depletion area" is the spatial barrier that separates electrons from holes in a photovoltaic cell. When the light has a bearing upon a *p-n* junction, photons with an energy equal to or greater than the prohibited band (Band Gap) of the semicon-

ductor—in the case of silicon is  $1.9 \times 10^{-19}$  J, so can make the most of the entire visible spectrum— will promote electrons to the conduction band generating electron-hole pairs. Due to the present electric field, electrons will move towards the *n* side (positively charged) and the holes towards the *p* side (negatively charged).

Materials used were monocrystalline silicon, polycrystalline silicon, amorphous silicon, cadmium sulfide and gallium arsenide. Therefrom the following uses are included:

*Autonomous systems:* telephones and emergency lights on roads and remote locations can be powered by batteries charged by solar panels. In the case of satellites, photocells represent an inexhaustible source of energy with which they can work continually.

*Energy supply for remote communities:* in places where connection infrastructure to the electricity grid is too expensive, the use of photovoltaic systems is cheaper and allows the satisfaction of the basic energy needs of these communities. Specifically, public lighting and water pumping systems can be powered.

*Energy saving and electricity network support:* interconnected systems to the electricity grid represent a saving in the energy expenses of a family or company. During low demand hours it is possible to "pump" excess energy towards the electric network, contributing to satisfy demand in other areas. Depending on the legislation of the place and the electricity company conditions, it is possible to use a two-way meter so that the excessive spending during high demand hours is compensated with the energy sent to the network during low consumption hours.

Among photovoltaic systems projects connected to the network monitored by the IIE are *Green Corner*, an organic products store in Mexico City that has an array of 204 Shell brand FV modules, Model sq150-pc, divided into two sub-arrays of eight and nine chains in parallel with a total capacity of 36 kW. And, on the other hand, Valle de las Misiones, a real estate complex in Mexicali, Baja California consuming 346,600 kWh per year of solar energy.

In 2003, photovoltaic equipment installed capacity was 15 MW, mainly dedicated to rural electrification, water pumping and refrigeration. Since 2007, the Electric Research Institute (Instituto de Investigaciones Electricas (IIE))—in collaboration with the United Nations Development Program (UNDP), through the support of the Global Environmental Facility (GEF)— carried out the project "Photovoltaic systems connected to the network". With this, the Federal Government intends to establish basic conditions facilitating large-scale introduction of photovoltaic systems connected to the grid in the Mexican market.

The National Commission for Energy Savings (Comisión Nacional para el Ahorro de Energía (CONAE)) considers that in 2001 there were more than 115 thousand square meters of photovoltaic systems installed in the country, which

generated about 8.4 GWh/year. For the year 2012, 30 MW were expected to be installed and 18 GWh/year of energy. From 1993 to 2003, the installed capacity of such systems was increased from 7 to 15 MW, generating over 8,000 MWh/year for rural electrification, water pumping and refrigeration. For 2013, it was expected to have 25 MW installed with photovoltaic technology and generate 14 GWh/year.

On the other hand, production costs of photovoltaic cells have reduced greatly in recent years. From 1982 to date, it has decreased from 27/W to 4/W (USD). On the other hand, the cost per Kilowatts hour, is in a range of 20 to 50 cents (USD), which is equivalent to a global range of two to five times the price per kilowatt hour of the normal electricity grid. In Mexico, 5.9 cents (USD) are paid per kilowatt hour, therefore, the cost to produce the energy in photovoltaic cells is on average five times higher. It is estimated that within 15 to 20 years, the cost of energy produced by cells will be less than that produced by solid fuels. Regarding the generation and investment for photovoltaic systems, they are in the range of 3,500 to 7,000 USD/kW installed and from 0.25 to 0.5 USD per generated kWh and it is expected that with the advance of the technology, these will decrease.

The foregoing allows us to conclude that, currently, photovoltaic systems are not very economical and are not as efficient as would be desired. However, research and development of this technology has minimized its cost and increased its efficiency. In the very near future, photovoltaic technology will be essential, since it will replace energy from fossil fuels. Its dependence on only solar light not only converts it into a 100% renewable and clean energy, but also allows this technology to be applicable in practically any electrical device, from a means of transport to be the only electrical source of a home. ¶

Guillermo Fernández Anaya\*

*A Life with Dynamical Systems,  
Control and Mathematics  
in the UIA*

I started as a full-time teacher on May 1st, 1987 at the Universidad Iberoamericana, hired by Juan Abud, the Mathematics Department Director at that time. In those days I was working on positive real transfer functions and stability preservation in adaptive controllers for systems with unmodeled delays, with Drs. Romeo Ortega, Researcher in Control Theory at Centre National de la Recherche Scientifique, France and Rogelio Lozano of the Université de Technologie Compiègne — UTC—, in France, and the International Mixed Unit —UMI— Franco-Mexican Automatic Computer and Control Laboratory —LAFMIA— and the Center for Research and Advanced Studies of the Instituto Politecnico Nacional —Cinvestav IPN—, in Mexico.

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For a broader reference of all research presented in this summary, cf. Online. Google Scholar: [https://scholar.google.com.mx/scholar?hl=en&as\\_sdt=0%2C5&q=G.+ Fernandez-Anaya & btnG = and in Researchgate](https://scholar.google.com.mx/scholar?hl=en&as_sdt=0%2C5&q=G.+Fernandez-Anaya+&btnG=&and+in+Researchgate): [https://www.researchgate.net/profile/G\\_Fernandez- Anaya](https://www.researchgate.net/profile/G_Fernandez-Anaya)

Afterwards, I worked on the preservation of polo-assignable systems and achievable systems on commutative rings, using Category Theory, associated with my doctoral thesis —which I finished in 1995—, with automata mounted on categories.

From 1997 to 1998 I collaborated with Drs. J.J. Álvarez-Ramírez and Rodolfo Suárez of the Universidad Autónoma Metropolitana, Iztapalapa Unit —UAM-I— and with at that time students, Baltasar Aguirre —UAM-I—, as well as Stalin Muñoz, Rodolfo A. Sánchez, Walterio Mayol and Alejandro R. Trejo Ortiz of the School of Engineering, UNAM —FI-UNAM—. We worked on linear control systems analysis with simultaneous saturation and stabilization, also, we used evolutionary strategies and simplification of regular expressions.

From 1999 to 2000 I worked with Drs. J. J. Álvarez-Ramírez, Ricardo Femat —UAM-I—, and students of the same institution, Jesús González and Ricardo Aguilar, on robust control for linearizable systems through feedback; stability properties under Hadamard product, strictly positive real functions —SPR—, with coefficients and intervals; distillation columns linearized control, using a neuro-estimator; adaptive synchronization of high order chaotic systems; and stability preservation in polynomial families using substitutions.

From 2001 to 2002 I collaborated with Drs. J. J. Álvarez-Ramírez, Rodolfo Suárez, Carlos Ibarra-Valdez —UAM-I—, Jorge Torres —Cinvestav—, Vladimir Kharitonov —Saint Petersburg State University, in Russia, and Cinvestav IPN— and at that time students Jesús González, Ricardo Aguilar —UAM-I—, Miguel Barrón of the Universidad Autónoma Metropolitana Azcapotzalco Unit —UAM-A—, M. Misrahi —UIA— and E. Rios. Our research was directed towards control based on an observer using sliding modes for bioreactors class, complex dynamics in a simple stock market model; proportional and integral control for a non-linear systems class; stability preservation in multidimensional systems using SP functions; properties preservation in SPR functions powers and performance of acetylenic surfactants, in a water-based system.

From 2003 to 2005 I collaborated with Drs. Juan Carlos Martínez —Cinvestav—, Vladimir Kucera —Institute of Information Theory and Automation, Czech Republic—, J. J. Álvarez-Ramírez, Carlos Ibarra-Valdez, F. Valdez-Parada and J. A. Ochoa-Tapia, the latter of UAM-I, as well as with the students of those years: Danya Aguilar-George —Cinvestav— and A. Velasco —UAM-I—. The research dealt with the preservation of robustness properties, in linear systems of one input and one output (SISO), substitutions were applied with SPR functions (strictly positive real functions); properties preservation in linear systems of multiple inputs and multiple outputs (MIMO) under substitutions with SPR functions; some problems about market stability based on technical analysis; stability of population process control and physical consistency of the generalized linear driving force models.

From 2006 to 2007 I worked with Drs. Antonio Flores-Tlacuahuac —UIA, J. J. Álvarez-Ramírez, F. Valdez-Parada, J. A. Ochoa-Tapia, Basilio del Muro —IPN, José Job Flores-Godoy —UIA—, Ricardo Femat —Instituto Potosino de Investigación Científica y Tecnológica—, Carlos Ibarra-Valdez, Juan Carlos Martínez, Vladimir Kucera, M. Velasco-Villa —Cinvestav—, O. Jiménez-Ramírez —IPN— and, student at that time, Danya Aguilar-George. The research work was directed towards interpolated controllers for robust transition control for a reactors class; high-order extension for the Cattaneo diffusion equation; preservation of non-fragile controllers robustness and passivity, using linear fractional transformations; positive real matrices families characterization, by matrices substitutions in rational real functions; SPR functions substitutions and algebraic Riccati equations families; feedback and stable price adjustment mechanism; realization in space of transfer functions composition states; Smith's prediction scheme, based on an observer for unstable processes with delay; stability and passivity properties of fractional order linear systems and stability and synchronization preservation in non-linear systems.

From 2008 to 2009, again, I did research with Drs. J. J. Álvarez-Ramírez, C. Ibarra-Valdez, F. Villarreal —UAM-I—, J. J. Flores-Godoy —UIA—, Jesús Álvarez —UAM-I—, Leo Diago-Cisneros —University of Havana, Cuba—, G. Solís-Perales and E. Ruiz-Velázquez, both from the University Center of Exact Sciences and Engineering (Centro Universitario de Ciencias Exactas e Ingeniería) of the Universidad de Guadalajara—CUCEI-UdG—, R. Femat, B. Aguirre —UAM-I—, R. Suárez, J.C. Martínez, V. Kucera, F.D. Vargas Villamil of the Mexican Institute of Petroleum, J.R. Romero-Arias —IF, UNAM—, F. Salazar —IF-UNAM— and G.G. Naumis —IF-UNAM—; as well as with the students of those years, Eduardo Rodríguez —UAM-I—, C. Marquina-Almela —UIA—, G. Bonfanti-Escalera —UIA—, D. Becker-Bessudo —UIA—, and D. Aguilar-George.

Our project consisted in dealing, on a Taylor rule, with demand *shocks* and uncertain potential macroeconomic outcomes; SPR functions preservation and stability, via certain special mappings; multipliers and polynomial operators sequences; systems with delay stabilization and with non-linearly correlated perturbations, using constant controllers; Hurst variant exponent in time for US stock markets; solution to a generalized eigenvalue problem, for a non-coupled multi-component system; synchronization preservation, under modifications per matrices product; non-linear systems synchronization, under perturbation in its linear part; stabilization of a biomedical systems class, via stability preservation; operations with positive real functions and related issues; performance preservation and robustness in MIMO systems, when applying substitutions with SPR functions; properties preservation in discrete singular linear systems, under substitutions; interpolated control of a fixed bed reactor, with cold injection cooling; thermal conductivity anomalies,

relaxation and low frequency vibration mode, in lenses based on a model using Fermi-Pasta-Ulam nonlinear Hamiltonian.

From 2010 to 2011 I collaborated with Drs. J. A. Heras —UIA—, A. Rodríguez-Palacios —National Center for Technological Research and Development (Centro Nacional de Investigación y Desarrollo Tecnológico)—, C. Rodríguez-Lucatero —UIA—, F. D. Vargas-Villamil, R. Muñoz —Universidad Autónoma de la Ciudad de México—, L. Diago-Cisneros, G. Gonzalez-Garcia —UACM—, E. Izquierdo-De La Cruz —UACM—, José Job Flores-Godoy, F. J. Valdés-Parada and J. Álvarez-Ramírez, Rafael Martínez-Guerra —Cinvestav—, Rodrigo Muñoz, Jorge A. León —Cinvestav— and the students of that time: A. Mendoza-Álvarez, C. Miranda-Reyes and Dan Becker-Bessudo —UIA—; J. García and E. Orduña —IMP—. The research question was the following: Can Lorenz-Gauge potentials be considered as physical quantities? In this regard, properties of strictly positive real functions, low product and composition thereof were examined; dynamic systems synchronization preservation via Lyapunov methods; hierarchical control structure applied to an ammonia reactor, tubular type, with intermediate cooling; curves families related to tautochrone; synchronization preservation, using non-linear modifications in the Jacobian matrix. Coupled spinors orthonormalization criterion was used in multi-band systems; scleronomic, holonomic and nonlinear conservative oscillators were researched; phenomenological survey on the potential profile evolution in III-V binary compounds; conservative nonlinear oscillators in Abel's mechanical problem; it was queried in the generalized fractional Cattaneo-type equation; a criterion was proposed for the eigenvalues generalized problem in coupled multi-band systems; synchronization of nonlinear systems of fractional order, as well as some observations on dissipative properties of dynamic systems under variable changes.

Subsequently, from 2012 to 2013, in collaboration with Drs. J. J. Flores-Godoy, Hector Vazquez-Leal —Universidad Veracruzana—, Yasir Khan —Department of Mathematics, Zhejiang University, China—, Agustín Herrera-May —UV—, Arturo Sarmiento-Reyes —Instituto Nacional de Astrofísica, Óptica y Electrónica—, Uriel Filobello-Nino, Victor-M. Jiménez-Fernández and Domitilo Pereyra-Díaz —UV—; R. Muñoz-Vega, E. Salinas-Hernandez, A. Mendoza-Álvarez, L. Diago-Cisneros and E.G. Hernández-Martinez —UIA—, X. Gómez-Mont —Center of Research in Mathematics (Centro de Investigación en Matematicas)—, R. Muñoz-Vega, Jorge A. León, James Alexander Hughes —Brock University, Canada— and Sheridan Houghten —Brock University, Canada—, and the students in that period: Armando Lugo-Peñalosa —UIA—, Rafael Martínez-Martínez —CINVESTAV—, G.M. Mallén-Fullerton —UIA—. We carried out works on stability and synchronization preservation of a fractional order systems class, a general solution to Troesch's

problem, as well as a toy model for a coherent macroscopic quantum system; an effective potential evolution in the valence band for coupled gaps, discrete control in decentralized formation time, for multi-robot systems; march control based on a leader-follower scheme and formation graphs; some attractors in the Lorenz model with complex variables; distributed order linear systems stabilization and passivation with the use of preservation methods; practical and exact synchronization of nonlinear systems fractional order complex networks, and data sets for key problems of the DNA fragment assembly problem.

From 2014 to 2015 I performed works with Drs. Rodrigo Muñoz, E. López-Chávez, E. Salinas-Hernández, S. Carrillo Moreno, J. J. Flores-Godoy, F. Vázquez Valencia —UIA—, H. Vázquez-Leal —UV—, Y. Khan, U. Filobello-Nino, V.M. Jiménez-Fernández, A. Herrera-May, A. Díaz-Sánchez, A. Marín-Hernández, J. Huerta-Chua, G.M. Mallén-Fullerton, Antonio Miranda, E. Hernandez-Martinez; as well as with the students at that time: K. Casas-García, J. E. Quiroz-Ibarra —UIA—, A. López-González —UIA—. The research focused on an exactly soluble model of a shallow double well. The study of new chaotic flows of a three-dimensional systems family with quadratic nonlinearities, a perturbation method for a basic diode circuit; classic algorithms of modified graphs for DNA assembly problem and formation tracking based on approximate speeds.

From 2016 to 2017 I carried out collaborations with Drs. E. D. Ferreira-Vázquez —Universidad Católica de Uruguay—, E. G. Hernández-Martínez, J. J. Flores-Godoy —UCU—, J.A. López-Rentería —Instituto Tecnológico de Tijuana—, S. Carrillo-Moreno, A. Mendoza-Alvarez, L. Diago-Cisneros, O.A. Rosas-Jaimes, R. Muñoz, G.M. Mallén-Fullerton, J.A. Reyes-Retana —UIA— and the still students P. Paniagua- Contro —UIA—, A. Lopez-Gonzalez, K. Casas-Garcia, L.A. Quezada-Téllez —UAM-C—, G. Nava-Antonio, J. Jamous-Galante, J.E. Quiroz-Ibarra, Sara Zapata Marin —UIA—. I clarify that, during this period, A. López-González and L. A. Quezada-Téllez graduated as doctors. We worked on formation control based on distance, for this we use angular information between robots; multi-robot formation control using distance and guidance; robust stability through trajectories connectivity of fractional order polynomials; equilibrium points asymptotically stable in new chaotic systems; simulation of an effective potential under pressure through holes; polynomial approach and non-linear class analysis for a fundamental traffic diagram; Lyapunov functions for non-linear class systems with Caputo derivative application; asymptotic stability of distributed order nonlinear dynamic systems; assembly of paired DNA fragments using graph theory; dynamic analysis of a Lü model follow up in six dimensions and its projections; heterogeneous mobile agents formation follow up, using restrictions in distance and area; stability analysis in the Greenberg traffic model and multi-band tunneling exploration for decoupled particles.

From 1987 to 2017 I was these advisor for 15 bachelor's, eight master's and seven doctoral. I was co-advisor of a bachelor's thesis, three master's and four doctoral theses. I also participated in co-authorship in 121 congresses, two books —one as publisher and one as co-author—, nine chapters in books, reviews of articles in *Mathematical Reviews* and a book review. I have served as publisher and reviewer of several peer reviewed journals. Also, I have participated in several congresses as a reviewer and organizer, as well as in 97 articles in peer reviewed journals. The fields in which I have worked deal with control theory, process control, linear and non-linear systems analysis; dynamic systems; linear and non-linear systems theory; chaotic systems synchronization; stability and passivity theory of dynamic systems of integer and fractional order; consensus problems and agents formation; DNA assembly problems, up to differential equations applications in economics, among others. ¶

### Some illustrative figures about different research

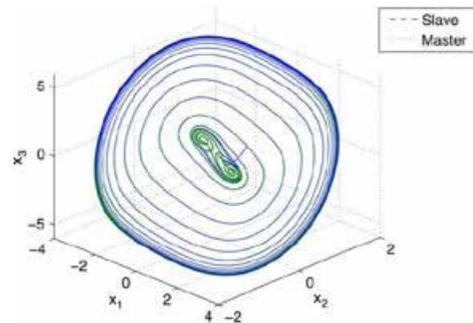


Fig. 1. D. Becker-Bessudo, G. Fernandez-Anaya and J.J. Flores-Godoy, “Preserving synchronization under matrix product modifications”, *Physica A: Statistical Mechanics and its Applications*, vol. 387, no. 26, pp. 6631-6645, 2008.

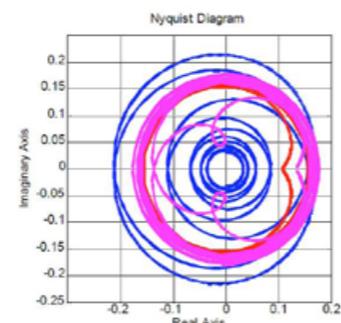


Fig. 2. G. Fernandez-Anaya and J.J. Flores-Godoy, “Stabilization of Delay Systems with Nonlinearly Correlated Perturbations by a Constant Controller”, *The Open Cybernetics & Systemics Journal*, vol. 2, pp. 153-157, 2008.

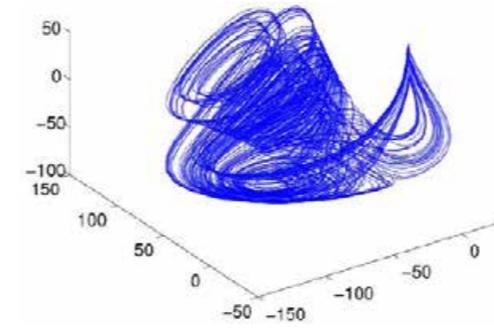


Fig. 3. K. Casas-García, L. A. Quezada-Téllez, S. Carrillo-Moreno, J. J. Flores-Godoy and G. Fernández-Anaya, “Asymptotically stable equilibrium points in new chaotic systems”, *Nova Scientia*, no. 16, vol. 8 (1), pp. 41-58, 2015.

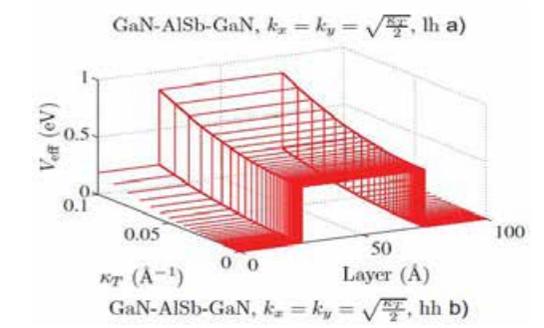


Fig. 4. J.J. Flores-Godoy, A. Mendoza-Alvarez, L. Diago-Cisneros, and G. Fernandez-Anaya, “Valence-band effective-potential evolution for coupled holes”, *Phys. Status Solidi B*, 250, no. 7, pp. 1339-1344 (2013).

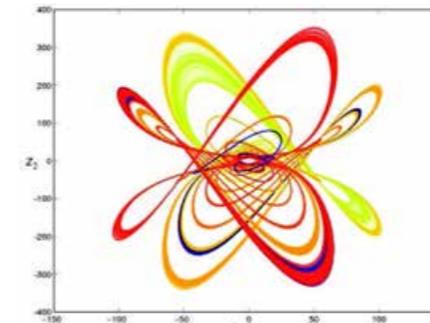
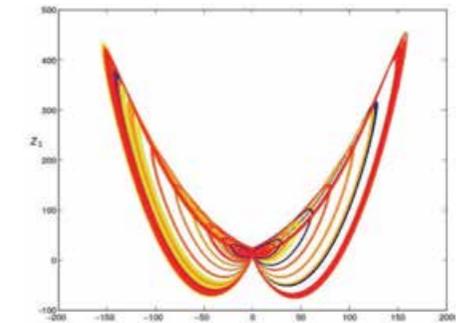


Fig. 5. Luis Alberto Quezada-Téllez\*, Salvador Carrillo-Moreno, Oscar Rosas-Jaimes, José Job Flores-Godoy and Guillermo Fernández-Anaya, “Dynamic analysis of a Lü model in six dimensions and its projections”, *International Journal of Nonlinear Sciences and Numerical Simulation*, 18 (5), pp. 371-384, 2017.



Alfredo Sandoval-Villalbaz

*Relativistic Thermodynamics*

Specialized studies on Relativistic Fluids Physics began, in the UIA, at the end of the nineties, since then the studies of our academicians are kept in constant activity and presence through multiple publications in specialized journals.

To understand the contribution of these investigations, it is important to point out that Statistical Physics links microscopic and macroscopic aspects of nature. This area of the natural sciences allows to relate the dynamics of the individual atom with the properties of complex systems, such as atmospheric fluids and astrophysical structures. In particular, when a system is at sufficiently high temperatures, the description based on classical physics is no longer valid and it is necessary to use concepts from Einstein's theory of relativity.



Dr. Alfredo Sandoval Villalbazo and Mr. Daniel Goldin Halfon, present at the Ibero the cycle of lectures: Live with Mathematics.

As an example of the above, let's imagine a protons and electrons system in which we achieve raising the temperature until atoms move at speeds close to that of light. Therefore, the system properties description corresponds to an important theoretical problem that has possible applications related to clean energy production. The latter, due to the increase in laboratory plasmas temperature through laser technology.

In this sphere, the disciplinary studies developed at the Universidad Iberoamericana arose due to a phenomenological study aimed at generalizing the Meixner-Prigogine formalism of irreversible processes thermodynamics, to the field of relativistic fluids. The first product of these dissertations was published in co-authorship by Leopoldo García-Colín Scherer<sup>1</sup> and Alfredo Sandoval Villalbazo<sup>2</sup> in the Dutch journal *Physica A: Statistical Mechanics and its Applications*. Since then, more than 30 articles have been published in international peer reviewed journals in this area of knowledge and a small working group has been set up in which academic personnel from the Universidad Iberoamericana, Mexico City and the Universidad Autonoma Metropolitana, Cuajimalpa unit, actively participate.

The group's most recent contributions are documented in different specialized international publications. In order of issue, stands out the work titled "Relativistic Bulk Viscosity in the Relaxation Time Approximation: a Chaotic Velocities

<sup>1</sup> National Sciences Award 1988.

<sup>2</sup> Currently is part of the National Researchers System, level 2 and is a full-time academician at the Universidad Iberoamericana since 1993.

Approach", published in the *Journal of Physics: Conference Series* in 2015, in which researchers Alma R. Méndez, Ana L. García-Perciante and Alfredo Sandoval-Villalbazo collaborated.

In second place we have the article "On the Kinetic Foundations of Kaluza's Magnetohydrodynamics", also published in 2015 in the *Journal of Non-Equilibrium Thermodynamics*. In this work, Alfredo Sandoval-Villalbazo, Alma R. Sagaceta-Mejia and Ana L. García-Perciante participated.

2017 was particularly prolific, as four other texts were published. The one that had by title "Evolution of Statistical Averages: An Interdisciplinary Proposal using the Chapman-Enskog Method" in the *International Journal of Modern Physics*, where A. Mariscal-Sánchez and Alfredo Sandoval-Villalbazo collaborated. In second place, the work titled "Thermoelectric and Thermomagnetic Effects in Kaluza's Kinetic Theory" that was disseminated in the *Journal of Non-Equilibrium Thermodynamics*. In this one participated Alma R. Sagaceta-Mejía, Alfredo Sandoval-Villalbazo and Ana L. García-Perciante. In third place, the research developed by García-Perciante, Méndez and Sandoval-Villalbazo who took the title "On the Role of Dissipation in Structure Formation for Dilute Relativistic Gases: the Static Background Case" and which was published in the journal *Gen Relativ Gravit*. Finally, stood out the work titled "Relativistic Heat Flux for a Single Component Charged Fluid in the Presence of an Electromagnetic Field" in which researchers García-Perciante, Sandoval-Villalbazo and D. Brun-Battistini collaborated and which was published in the *Journal of Non-Equilibrium Thermodynamics*. ¶

Salvador Carrillo Moreno

*Experimental Particle Physics*

**Brief introduction**

The history of my participation in Experimental Particle Physics research is strongly linked to our students' collaboration, both undergraduate and postgraduate at the Ibero, since they have been, are and will continue to be fundamental part of our approach and effort. I have not had many students but consider I have been fortunate to have excellent students who have made a difference and that, after the University, continue their research trajectory in High Energy and related areas.

## Background to consider

As background, it is important to clarify that an Experimental Particle Physics researcher has a work cycle, which is combined with the development of the experiment itself, called “Life Cycle of a High Energy Physics Experiment” and which is defined by the following Steps:

1. Design
2. Construction.
3. Data Collection.

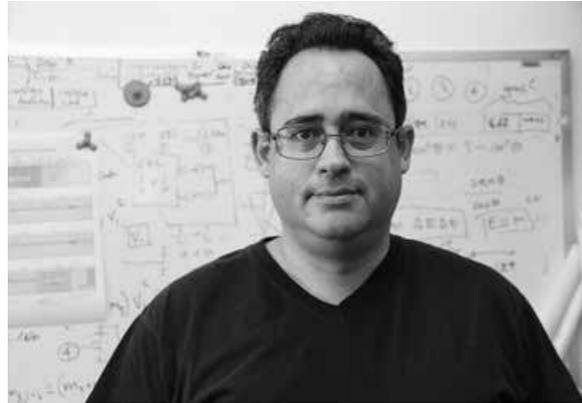
This cycle can repeat itself, and to item 1 would change its name to *Upgrade*, instead of Design. In most of fixed-target experiments that are short-term—a couple of years—the cycle is unique; however, in collider experiments the entire period can last more than 20 years with several updating, construction and data collection cycles.

Depending on the work that is being done, a typical group of High Energy experimental physicists would be, e.g., involved in an experiment taking data and analyzing, while simultaneously engaging in the design and/or construction process thereof, or of a new detector. If entering an experiment that already is taking data, then a period should be fulfilled where, this new work group, integrates to the experiment needs to fulfill—it can be up to a year—a “service” work and show work commitment and responsibility.

This was my case when I entered the Collider Detector at Fermilab—CDF—experiments in 2006, which I will list below. My experience in calorimeters and muon detectors presented an opportunity for direct participation in the integration of a new muon detector in the frontal region—*Forward*.

### Participation in particle accelerators: colliders and Fixed Target

- 1996 - 2004. Experiment E831-FOCUS Fermi National Laboratory—Fixed Target—Charm Physics:
  - a. In charge of the electromagnetic “internal” calorimeter detector.
  - b. PhD student of the Center for Research and Advanced Studies



Dr. Salvador Carrillo Moreno, article from the Page of the Ibero with the title “Physicist of the Ibero participates in high energy research”.

- Cinvestav—, member of the collaboration by this institution.<sup>1</sup>
- c. The only doctoral thesis using FOCUS electromagnetic calorimeters.
- 2006 - Current. CDF Experiment—*Collider Detector at Fermilab*—Fermi National Laboratory.
  - a. Participation, together with Dr. Elsa Fabiola Vázquez—part-time teacher—as guest researchers from the Universidad Iberoamericana at the University of Florida.
  - b. Responsibility of muons front detector—*Forward*—, called BMU (Barrel Muon), not used until then. My job, in a sabbatical year, was precisely to integrate it into the data reading system and comply with its characteristics: calibrations, identifications, efficiencies, etc.
- 2005 - Current. CMS Experiment—*Compact Muon Solenoid*—of the *Large Hadron Collider*—LHC— at the European Center for Nuclear Research—CERN.
  - a. The Universidad Iberoamericana joined as an official member of CMS. We contributed with four Mexicans and three institutions that joined: by Cinvestav, Dr. Heriberto Castilla and Dr. Alberto Sánchez; from the Universidad Autonoma de San Luis Potosí, Dr. Antonio Morelos and from the Universidad Iberoamericana, Dr. Salvador Carrillo.
  - b. Initial work on the Trace Detector—*Tracker*—; then work was done on the muon identifier—*MuonID*— for several years.
  - c. In 2015, the Universidad Iberoamericana officially joined the Muons group in the RPC subsystem—*Resistive Plate Chambers*— with three research professors: Dr. Cristina Oropeza, Dr. Elsa Fabiola Vázquez, Dr. Salvador Carrillo and a research technician, Rodolfo Fabián Estrada.

### Projects of the Research Directorate (DINV)

- 2006 - 2008. High Energies Experimental Physics.
- 2009 - 2011. High Energy Particle Colliders.
- 2012 - 2014. Searches of New Physics and Measures of Electroweak Theory in CDF and CMS.
- 2015 - 2017 (18). Measurements of the Electroweak Theory and Quark B Physics in CMS.

<sup>1</sup> Thesis Adviser: Dr. Elsa Fabiola Vázquez Valencia.

- 2017 - Strengthening of Infrastructure for Research Groups (budget of 2 million 900 thousand Mexican pesos): Development of Muon Cosmic Ray Detectors and Muon Telescope Laboratory.

### Students who participated in Experimental High Energy research, in part or in their degree project

- Cristina Oropeza Barrera —experiment E831-FOCUS—. She is currently a Research Professor in the Physics and Mathematics Department.
- Elsa Valencia Martínez<sup>1</sup> —experiment E831-FOCUS.
- Jorge Morales - CDF and E831-FOCUS experiments. He currently collaborates in Dark Matter CDMS —Super Cryogenic Dark Mater Search.
- Bruno Candiani —Cosmic Rays experiment.
- Fernanda Psihas<sup>2</sup> —CDF experiment. He is currently collaborating in the NOvA Neutrino Experiment —NuMI Off-axis Neutrino Appearance.
- Genoveva González Blanco —CMS experiment, Resistive Plate Chambers (RPC).
- Kleomenes Stamatiades —CMS RPC experiment.
- Osvaldo Miguel —CMS RPC experiment.
- Juan Vásques —Big Data Analysis.
- Ricardo Zamora —Physical Analysis of B in CMS experiment, with the collaboration of Dr. Iván Heredia from Cinvestav.

### Mobility of students of the Iberoamericana University in Experimental Particle Physics

- Osvaldo Miguel Colín.
  - Research summer 2018 —nine weeks—, CMS, RPC, CERN, Geneva, Switzerland.
  - Research summer 2017 —nine weeks—, CMS, RPC, CERN, Geneva, Switzerland.
  - Research summer 2016 —four weeks—, CMS, RPC, CERN, Geneva, Switzerland.

<sup>2</sup> Thesis Adviser: Dr. Elsa Fabiola Vázquez Valencia.

- Jorge Francisco Ciprián Sánchez.
  - Research summer 2017 —four weeks—, CMS, RPC, CERN, Geneva, Switzerland.
- Dante Fernando Bazaldua Huerta.
  - Research summer 2018 —nine weeks—, CMS, RPC, CERN, Geneva, Switzerland.
  - Research summer 2017 —four weeks—, CMS, RPC, CERN, Geneva, Switzerland.
- Miguel Alonso Calderón Monroy.
  - Research summer 2016 —five weeks—, CMS, RPC, CERN, Geneva, Switzerland.
- Ricardo Zamora Solís.
  - Analysis School 2016 —one week—, CMS, Data Analysis School, Fermilab, Batavia, Illinois, USA.
- Genoveva González Blanco.
  - Analysis School 2015 —one week—, CMS, Data Analysis School, Fermilab, Batavia, Illinois, USA.
  - Research summer 2015 —five weeks— CMS, RPC, CERN, Geneva, Switzerland.
  - Laboratory Assistant —three days—, National Contest of Scientific Summer Stays Particles and Fields Division —DPyC—, Mexican Society of Physics. Centro Universitario de Ciencias Exactas e Ingenierías —CUCEI— Guadalajara, Jalisco, Mexico.
  - School of Applied Statistics CMS 2014 —4 days—, Benemérita Universidad Autónoma de Puebla, Puebla, Mexico.
  - Kaones Physics Workshop 2014, Cinvestav, Mexico City, Mexico.
  - Research summer 2013 —4 weeks—, Fermilab, Batavia, Illinois, USA.
- Kleomenes Stamatiades Concha.
  - Analysis School 2015 —one week—, CMS, Data Analysis School, Fermilab, Batavia, Illinois, USA.
  - Research summer 2015 —five weeks— CMS, RPC, CERN, Geneva, Switzerland.
  - School of Applied Statistics 2014 —four days—, CMS, BUAP, Puebla, Mexico.
  - Kaones Physics Workshop 2014, Cinvestav, Mexico City, Mexico.
  - Research Summer 2013 —four weeks— Fermilab, Batavia, Illinois, USA.

- Diego Berdeja.
  - School of Analysis 2015 —1 week—, CMS, Data Analysis School, Fermilab, Batavia, Illinois, USA.
- Oscar Ochoa.
  - Research summer 2014 —four weeks—, Fermilab, Batavia, Illinois, USA.
- Silvia Fernanda Psihas Olmedo.
  - Talk at DPyC Annual Meeting, Mexican Society of Physics 2011, Mexico City, Mexico.
  - Research summer 2010 —four weeks— Fermilab, Batavia, Illinois, USA.
  - Research Summer 2009 —four weeks— Fermilab, Batavia, Illinois, USA.
- Bruno Candiani.
  - Research summer 2010 —four weeks— Fermilab, Batavia, Illinois, USA.
  - Research Summer 2009 —four weeks— Fermilab, Batavia, Illinois, USA.
- Jorge Morales.
  - Research summer 2010 —four weeks— Fermilab, Batavia, Illinois, USA.
  - Research summer 2010 —four weeks— Fermilab, Batavia, Illinois, USA, DINV.
  - Presentation of two posters, “Mexican String School 2010”, León, Guanajuato, Mexico —Best poster.
  - Research Summer 2009 —four weeks— Fermilab, Batavia, Illinois, USA.

### Current activities and responsibilities in High Energy Physics

RPC *Resource Manager* 2018-2020. Administrative responsibility within RPC Group of CERN CMS Collaboration: responsibility for RPC Maintenance and Operation contribution resources administration, as well as the *Upgrade* for RPC Phase-II. I manage the contribution of almost 100 members and 25 institutions in 15 countries. This is the RPC community of CERN CMS Collaboration.

*Level-3 CMS RPC Chamber Assembly Responsible for Phase-II 2018-2021.* Responsibility, from assembly, of the first of the 72 new chambers that will be installed for the CHC Update Phase-II in CMS: assembly, calibration, certification;

delivery in CMS in Geneva, until the last one —considering the construction of several reserve additional—. Of course, the assembly is considered in our country.

*CMS RPC Test Beam Coordinator for R&D and Longevity Program 2016-2020.* Responsibility for coordinating data collection during Fixed Target —*Test Beam*— periods, where we use a muons beam of 100 GeV/c to calibrate them, and a Source of Cs-137 of 13.9 TBq, to measure their ability to respond to the expected *High Luminosity* —HL— conditions of *Large Hadron Collider* —LHC—. Since 2015 participated in three to four months non-continuous stays at CERN, just to participate in Fixed Target periods, I coordinate data collection shifts (24 hours shifts), analysis, calibration, etc.

I would like to highlight that the participation in these tasks, together with students —mainly undergraduates— has allowed us to analyze several detectors characterization data that were used in *The Phase-2 Upgrade of the CMS Muon Detectors*, published in 2017. Our contribution to many *Gamma Irradiation Facility* —GIF ++— results and Eco-Gas studies for the new-RPC (iRPC or improved RPC). The fifth chapter of that book is dedicated to RPC.

In short, since 2015 our work with students has focused on CMS, mainly in the analysis, characterization, calibration and follow up of detectors development and in the study of the aging of current ones, for High Brightness conditions in the future of LHC.

### Areas of additional research. Line Research Dynamical Systems and their Applications

Since the beginning of the Universidad Iberoamericana’s Research Directorate, there was a recommendation that we should seek internal collaborations with other researchers, within the same institution. Thanks to the fact that, recently, we have a PhD in Engineering Sciences, which belongs to the PNPC —National Postgraduate Quality Program— where we actively participated, the collaboration with Dr. Guillermo Fernández allowed us to co-advise a PhD thesis and a master’s degree at the Ibero. This collaboration has a bearing on publications related to dynamic systems, particularly chaotic systems, where Monte Carlo techniques have been applied —widely used in Experimental Particle Physics.

## Other research

Currently, I collaborate with a private company —SitiLab, *Creative Developers*— in an additional project, without budget, in the DINV that started in 2009. We submitted a poster at the Third National Climate Change Congress in the UNAM —2010—, titled *Meteorological Model for the Mexican Republic using WRF*, in which an internal supercomputer network was used at the Universidad Iberoamericana.

I also collaborate, officially, with Dr. Alma Rivera, from the Francisco Xavier Clavijero Library, in the quantitative analysis of her Research Project of the 2018 Call, of the Research Institute for the Development of Education (INIDE), with the project called: “The paper of the library in university education: the voice of students from various backgrounds”. Members of the Dr. Jorge Villalobos Padilla, S.J. Library of the Technological Institute of Higher Studies of the West (ITESO) participate in it.

## Prominent Publications

Publications with postgraduate students of the Ibero:

- Carrillo Moreno, S., G. Fernández Anaya, J. J. Flores Godoy, L. A. Quezada-Téllez, Óscar A. Rosas Jaimes. “Dynamic Analysis of a Lü Model in Six Dimensions and its 4D and 5D projections”, in the *International Journal of Nonlinear Sciences and Numerical Simulation*, no. 18 (5), 2017, pp. 371-384, FI: 0.890.
- Báez Juárez, E., S. Carrillo Moreno, G. Fernández Anaya, LA Quezada-Téllez, Óscar A. Rosas Jaimes, A. Zamora Ramos, “Lyapunov Exponents and Parameter Plans of Hyperchaotic Regions of Lü Model in 6D and its projections”, in Christos Volos, (ed.), *Nonlinear Systems: Design, Applications and Analysis*, Greece, Nova Science Publishers, 2017.
- Carrillo Moreno, S., K. Casas-García, G. Fernández Anaya, J. J. Flores Godoy, L. A. Quezada-Téllez. “Asymptotically stable equilibrium points in new chaotic systems”, at *Nova Scientia*, Universidad La Salle Bajío, Mexico, no. 8(16), 2016, pp. 41-58.

Publications with undergraduate students of the Ibero:

- CMS Collaboration, “The Phase-2 Upgrade of the CMS Muon Detectors”.

Prominent Publications in Particle Physics:

- CMS Collaboration, “Observation of a new boson at a mass of 125 GeV

with the CMS experiment at the LHC”, in *Physics Letters B*, The Netherlands, no. 716, September 2012, pp. 30-61.

- CMS collaboration. (2008). “The CMS Experiment at the CERN LHC”, n/d, of *Journal of Instrumentation*. Website: <http://inspirehep.net/record/796887/files/fermilab-pub-08-713.pdf>, S08004.
- CDF Collaboration, “Observation of B0s – B0s Oscillations”, in *Physical Reviews Letters*, USA, no. 97, July 7, 2006, 242003.
- FOCUS collaboration, “Measurement of lifetime differences in the neutral D meson system”, in *Physics Letters B*, The Netherlands, no. 485, July 2000, pp. 62-70.

Guillermo M. Mallén Fullerton

*Astronomy's First Steps*

During his life, Alejandro León de la Barra, Engineer, contributed to the dissemination of astronomy in an outstanding way. Civil Engineer by profession, graduated from UNAM, belonged to the Astronomical Society of Mexico (SAM) since the late 1940s. He was president of this association twice. Also, he was a professor of the Civil Engineering degree at the Universidad Iberoamericana for many years. From 1964, he introduced his students to Astronomy from a visit to the Valente Sousa Planetarium and its observatory. For a long time, within the SAM, he dedicated himself to making astronomical calculations of phenomena, such as concealment of stars and planets by the moon, sun eclipses, etc. He also built a series of equipment used by astronomy fans, including a Newtonian telescope 6" of diameter  $f/8$ , for which he carved the main mirror by hand, in the purest tradition of fans.

At the Ibero he taught on many occasions a subject called “Voyage Through the Cosmos”. He was director of the Clavius Astronomical Center of the Ibero, from its foundation in 2001, until his death. Among the many lectures he gave on astronomy, stands out the talk on the “Star of Bethlehem” that became set up as a tradition, being taught in the month of December of each year.

Within his work as director of Clavius he communicated to many students his passion for astronomy, which motivated some of them to go abroad to study a postgraduate course in the field. To reinforce the activity in the Astronomical Center, he achieved the collaboration of Dr. Lorena Arias, currently responsible of the observatory and coordinator of all activities. In addition to the very numerous lectures Alejandro gave, he attended groups of elementary schools children who visited the observatory to show what astronomical heaven is.

Although Clavius never conducted research directly, no doubt Alejandro favored the Center, through his activities to promote the science of Astronomy, work to which he devoted six decades of his life. ¶



Opening of the Clavius Astronomical Center Observatory from right to left: MsC. Enrique Beascochea Aranda, Mrs. Marina Matarazzo de Escandón, MsC. Pablo Escandón Cusi, president of FICSAC, Susana Mariscal de León de la Barra and Alejandro León de la Barra, Engineer.



Dr. Guillermo M. Mallén Fullerton in a lecture in the Instituto Politécnico Nacional



Alejandro León de la Barra, Engineer.

*Anabel Arrieta Ostos*

*Astrophysics*

There is a great tradition in the study of Astronomy and Astrophysics by members of the Society of Jesus. As examples I will mention Christopher Clavius (1538-1612) who was an astronomer recognized for his contributions to the Gregorian Calendar, and the astronomer and physics professor George Lemaître (1894-1966) who proposed, for the first time, the theory of the expansion of the Universe. To the Society of Jesus has been entrusted the directorate and administration of the Vatican Astronomical Observatory and, from its two venues, the Steward Observatory at the University of Arizona and the Castel Gandolfo Palace, in Italy, Jesuit astrophysicists organize every two years the most appreciated Summer School among graduate

students from around the world. At the Ibero we have had the great fortune of having visiting researchers from this Observatory: George Coyne, José Funes and Guy Consolmagno.

Prior to me joining the Ibero, there was an important group of astronomy enthusiasts at the Clavius Astronomical Center who, with donations from Mr. Pablo Escandón, acquired a 16" telescope, now located on the roof of Building S. Since 2001 and to date, astronomical dissemination talks are given every Wednesday at 7 pm. The coordination of the Clavius was in the hands of León de la Barra, Engineer, later supported by Ignacio Santiago Prieto and Lorena Arias Montaña, who currently have a doctorate and experience in contemporary astrophysics research.

I was the first academician to enter the Ibero with a training in astrophysics. At that time, Ignacio was studying Physical Engineering and Lorena a PhD at the Universidad Nacional Autónoma de México. I had a PhD from the Institute of Astronomy at the UNAM and a Postdoctoral stay at the Space Telescope Science Institute in Baltimore, Maryland. At that time my area of research was the study of intermediate mass stars last phases, indicating detachment of the stars from the outer layers and form impressive gas and dust clouds, called Planetary Nebulae —PN—. Figure 1 shows examples of this type of objects.

Existing theories, proven by various methods, ensure that at the beginning of the Universe all material was hydrogen gas and helium; i.e., there were not all the elements that make up the current periodic table. It is in the inside of stars where nuclear reactions will produce elements such as Carbon, Nitrogen, Oxygen, Sulfur and Silicon, among others. Upon “dying” the stars, the outer layers enriched with these elements the interstellar medium. That gas, later, will be the ingredient in the formation of new stars with different chemical composition. If the star has low or intermediate mass, it will form a Planetary Nebula. But if the star is massive, it will have an explosive death as a supernova, which will contribute to the interstellar medium more massive atoms than iron.

To understand how the Universe evolves chemically, it is necessary to make a careful study of the gas surrounding stars. To solve the problems presented in this study, astrophysics tools are used: Physics, observational astronomy and computational models of astrophysical phenomena. For its part, observational astronomy requires the use of terrestrial and space telescopes, as well as to engage to these instruments that use different techniques at observed wavelengths. The area known as astronomical instrumentation is responsible for the design and manufacture of instruments tailored to each project.

Despite the current wide-ranging knowledge of what happens inside the stars and the surrounding gas, there are many open questions in this regard: which physical processes collimate the gas from the planetary nebulae?; is low mass stars

chemical composition explained by stellar evolution theories?; why are measured chemical abundances dependent on the method used?; how does stars rotation affect interstellar medium enrichment? Below are mentioned the contributions that, with research from the Ibero, have been had in the search for answers to these questions. Before starting the description, it is fair to thank the Research Directorate of the Universidad Iberoamericana —DINV—, which has backed up projects with financial resources to carry out field practices and for the payment of fellows, from 2004 to date.

### What physical processes collimate the gas from planetary nebulae?

When I joined the Ibero in 2003, my main interest was to understand why some of the stars form round PNs and others very elongated (see Figure 1). To date, it remains a topic of debate in the international astrophysics' community. Attempts have been made to reproduce with computational models very elongated morphologies (v. M 2-9, M1-91 and M1-92 in Figure 1); the basic assumption is that there are two stars in the nucleus, and one throws gas at the other, forming an accretion disk. Other models require that the central star be rotating and/or have a magnetic field.

My passion has always been observational astronomy. During my doctoral studies I observed stars in stages prior to PN, which are called Planetary Proto-Nebulae —PPN— or Young Planetary Nebulae —YPN—. I specialized in an observational technique called “high resolution spectroscopy”, which consists of separating light into different wavelengths. The technique allows to distinguish the light of the different chemical elements, to estimate the abundance and some of the gas physical conditions: temperature, density and speed —among others. Seeking for common features in YPN, together with the advisor of my PhD thesis, Silvia Torres-Peimbert, we made several discoveries:

1. We found, for the first time, Raman emission in this type of objects. In this way we prompted the attention of the international community (Arrieta et al., 2003).
2. With the study of a YPN very collimated M1-92, an impressive similarity was found with a known binary star, MWC 560. We postulated that it is the same type of object but seen at a different stage. Even, an evolutionary sequence was proposed where M1-92 is 900 years more evolved than MWC 560 (Arrieta *et al.*, 2005). This discovery supports the theory that a binary star and a disk are necessary to form bipolar PNs.

3. For two very collided YPNs —M 2-9 and M1-91—, we found that an expanding disc is observed, contrary to the accretion disc predicted by the models (Torres-Peimbert *et al.*, 2010).

In 2009, researchers from UNAM's Astronomy Institute contacted us to jointly obtain financial support for the robotization of a telescope at the National Astronomical Observatory —OAN—, with the purpose of conducting polarimetry observations. Lorena and I —both from the Ibero— were interested in the project, since with this technique we could determine if PPNs wind —whose morphology is still not distinguishable with images— was, or not, spherical. In addition, a robotized telescope would allow PPNs to be monitored for variability, to determine if there were one or two stars at its core. Convinced of the importance of the project, we processed the application in the Conacyt Basic Science call, being I the main researcher of the project. The requested resource was obtained and, later, with the financial support from DINV, we began to make observations at the San Pedro Mártir Observatory; likewise, support was obtained for a Physical Engineering fellow, Anylu Ibarra. By then, the Observatory's policy of robotizing telescopes was modified, and the project changed to the construction of a better quality polarimeter than the existing one, which was left in OAN's custody. From the achieved results, we can summarize the following: about 55 PPNs have been monitored and, for the first time, polarization was found in some of these objects and, definitely, polarization variability was observed, which cannot be explained by a companion star, but with star pulsations, yes. These pulsations may be able to form a PN, such as that seen in PN NGC6543 (see Figure 1).

### Is low mass stars chemical composition explained by stellar evolution theories?

In 2010, motivated by the acquired experience in the determination of chemical abundances in PN, I started a project with UNAM researchers to study the change in chemical composition with the evolution of a star. To achieve this, it was necessary to learn to determine the chemical composition in the central star. The most accepted method is the comparison of observations with computational models of star spectra, in which the star wind is simulated as a multitude of points; each point with physical parameters that are affected by changes in neighboring points and these, in turn, by their neighbors. Iterations are calculated, until the entire star wind converges into a stable solution for all points. In addition, the light emission of each atomic species is calculated, considering thousands of possible electronic states. There are only two numerical codes developed for this; one of them is the so-called CMFGEN,

designed by John Hillier of the University of Pittsburgh. Therefore, I requested a sabbatical year to work with him.

My goal was to model the star spectrum of the PN He 2-131 (see Figure 1) and find chemical abundance and compare it with that found in the PN's gas. In a collaboration with Leonid Georgiev, Christophe Morisset and Grazyna Stasinska, we determined the chemical composition of both the nebula and its central star, and we compared the chemical abundances of one same object at two different times of its evolution: launching the wind of the PN 10,000 years ago and the current wind. In the comparison of this object and in three others, it has been found that the amount of Silicon does not match that expected, according to the stellar evolution models.

### Why are measured chemical abundances dependent on the method used?

It is known that, since 1967, there are differences in the chemical abundances' measures in interstellar gas, for two commonly used methods. The explanation of this difference has been a great debate to date. Theories attribute the difference to fluctuations in gas temperature and/or to lumps presence with higher oxygen content than others. By measuring the gas velocity, through spectroscopy, we have found that there is no difference between the methods, if the gas velocity is considered. This contribution has been considered very original in the international community but requires extremely careful treatment in observed spectra. This method was designed by our group and learned by Adolfo Galindo, a Physical Engineering student (Richer *et al.*, 2013), Richer *et al.*, 2013, and Arrieta *et al.*, in preparation).

### How does stars' rotation affect interstellar medium enrichment?

After venturing into stellar winds topics, Lorena and I were invited to participate in a project with Leonid and Janos Zsargo, where we sought to understand the role of massive stars rotation in wind characteristics. We agreed to participate in said project and Conacyt was requested support in the 2010 Basic Science call. Janos Zsargo served as chief researcher. The project consisted of making an observational catalog of massive stars with winds —it is known that rotation speed increases with the mass of the star— and generate models with ASTAROTH, a numerical code that was born from CMFGEN, including an additional difficulty: non spherical winds. The code was written by Leonid and was in the testing phase.

A few months after Conacyt authorized the project, Leonid died suddenly from cancer —December 2012. With his death we lost not only a great scientist,

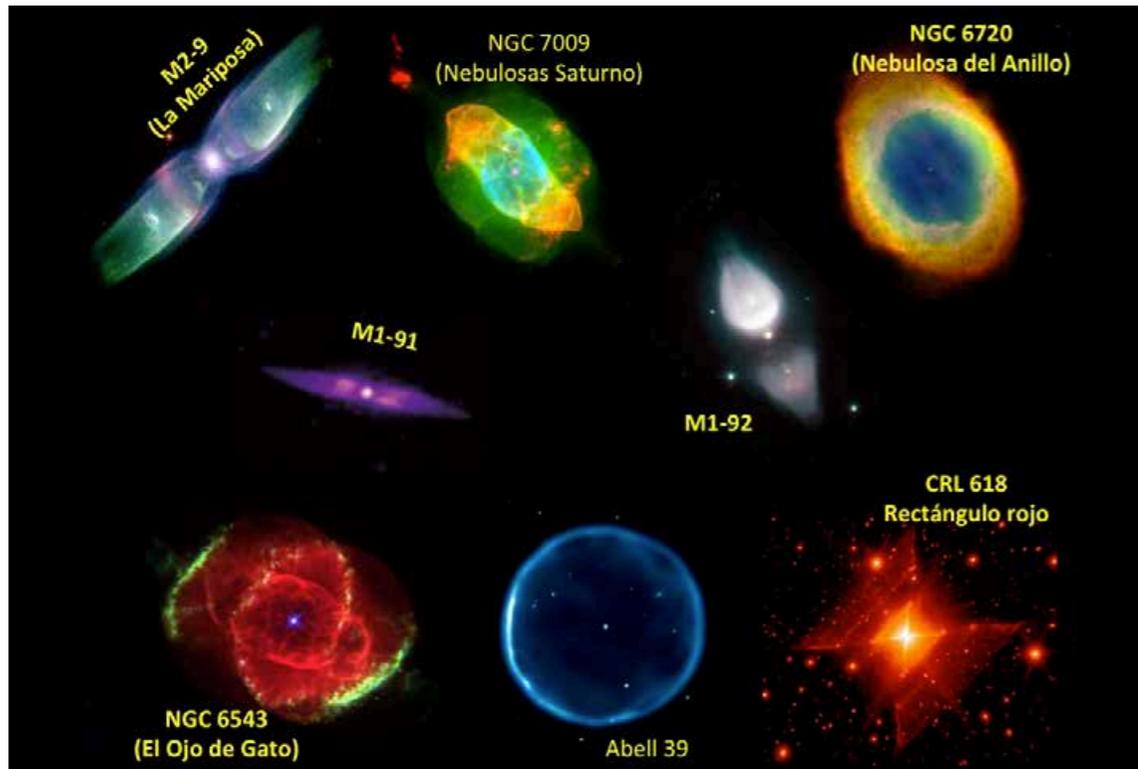


Fig. 1. Examples of Planetary Nebulae, where it is possible to distinguish that morphology differs between some objects and others —M1-91 was taken from Machado’s catalog and the rest of the photographs with the Hubble Space Telescope, by different authors.

collaborator and friend, but the possibility of using ASTAROTH. It was important to maintain the project. Therefore, changes were made in the methodology with authorization from Conacyt. The plan to create an observational spectroscopic catalog of massive stars with winds continues to date, we have about 200 observed stars, which will be reported in an article, in collaboration with Ayrton Aguilar, a Physical Engineering student. The characterization of all these stars requires many models generated with CMFGEN, each model takes about a week. The requirement of powerful computer equipment led us to partner with Jaime Klapp —Astrophysicist of the National Institute of Nuclear Research—, who runs the largest supercomputer in Latin America. Thus, we obtained the opportunity to generate a large number of star models with different physical conditions. We currently have the largest numerical catalog in the world —over 40,000-star spectra—. On the other hand, Agustín Payen, Physical Engineering student, designs a virtual platform to give access to the models, from any part of the world. The mesh of models has begun to attract the attention of the astronomical community and we have established new collaborations.

#### Other studies

In 2005, I gave support to Alfredo Sandoval Villalazo and Leopoldo García-Colín to find a stage in astrophysics, where their theoretical models could be applied (Sandoval-Villalazo *et al.*, 2005)<sup>1</sup>. Parallel to this activity, in 2010 the Master’s and PhD programs in Engineering Sciences were initiated; two students approached me to request support in the thesis advise. Although the topics were not close to my area of expertise, the methodology is similar and the language is the same, so I agreed to the collaboration. As a master’s student, Juan Carlos Luna designed a numerical code that simulates the collision of two galaxies, to explain the formation of bars in spiral galaxies. Currently, Nancy Ávila is working on the topic of chemical evolution of isolated dwarf galaxies, in a doctoral thesis. Both students have been financially supported by the Ibero Scholarship Coordination and by DINV and, academically, by researchers outside the Ibero: Mario Rodríguez, from ININ, and Leticia Carigi from the Astronomy Institute of the UNAM.

<sup>1</sup> A. Sandoval-Villalazo, L. S. García-Colín and A. Arrieta, “A Simple Model for Hydromagnetic Instabilities in the Presence of a Constant Magnetic Field”, in *Revista Mexicana de Astronomía y Astrofísica*, 41, 131, 2005.

As a final comment, it is enough to say that research will not always end with the expected results, nor will it follow the methodology proposed at the beginning; but all roads will lead to new results and contribute to knowledge, as long as science is done with ethics and adherence to scientific formalism. ¶



Eclipse observation, May 15, 2003.

*Ana Bertha Pérez Lizaur*

*Health Department*

In 1971, the Universidad Iberoamericana, aware of the nutrition national problem and at the behest of Dr. Elba Durán Vidaurri, opts to begin the training of human resources capable of addressing this problem and proposes to create the first bachelor's-level program that would open in the area of Nutriology in Mexico.

On September 8th, 1972, the rector Dr. Ernesto Meneses announces the creation of the Bachelor in Nutrition and Food Science at the closing of the World Nutrition Congress. The degree is attached to the Chemical Sciences Department of the UIA. In February 1974, the Rectory created the independent unit of Nutrition and Foods that would be responsible for the management of the Master's programs in Food Technology, founded in 1969.

With the perspective of widening Ibero's field of action towards other areas of health, in 1988, the University Senate agreed to change the name of the Nutrition and Food Science Department to the Health Department.<sup>1</sup>

Research in the Health Department has been linked to the country's nutrition problems from a multi and interdisciplinary point of view, since full and part time academicians, from various branches of health determinants, have sought answers and solutions to these problems.

This is how initially, in conjunction with the area of food technology, MSc. Ángel Torreblanca and Dr. Héctor Bourges develop the food area, especially focused on children with malnutrition, since the lack of both nutrients and social origin occupy the attention of public health care in the seventies.

Upon finding that nutrition problems are multifactorial, an academic nucleus is created that seeks to answer to the situation from Genetics, Pathophysiology, Nutrigenetics, Anthropology and Psychology, emphasizing on Nutriology from clinical and community, as well as from basic and food science, to the management of food services.

In the nutrigenetics field, Dr. Felipe Vadillo (2000) was a precursor to studies to recognize the consumption of dietary supplements added with L-arginine and antioxidant vitamins, to reduce the rates of maternal death due to preeclampsia.

Since his arrival at the Department of Health (2005), Dr. César Hernández has impelled students into molecular nutriology, promoting studies on Nutrigenetics and Nutrigenomics, as well as intestinal microbiota studies in people with obesity. It is important to note his passion for incorporating in this line of research students who currently stand out for their impact on the generation of knowledge, such as Berenice Palacios, Jennifer Mier and María Eugenia Frigolet, who learned to develop as researchers in the Nutrition Labs of the Ibero.

As for functional foods, in liaison with the University of Salamanca, Dr. José Monroy has focused on the mechanisms of nutrients in hypertension; especially the pigments (xanthines) in dairy products and their effect on blood pressure. This collaboration allows to find an answer to the growing morbidity/mortality of chronic degenerative diseases.

From 2010 to 2015 the Health Department proposed the innovation of specialized milks for children and for people living with diabetes. Its liaison with the dairy industry allowed these products to have market access to improve people's quality of life.

It is worth mentioning that research in nutrigenetics and nutrigenomics links interdisciplinarily to biological chemical sciences with nutriology and essential

1 Bachelor's Degree in Nutrition and Food Science Brochure, 2004.

aspects of cardiovascular medicine; therefore, its publications in high-impact indexed journals allow dissemination to researchers interested in the area.

In the science of Nutriology, work in the clinical area of MSc Araceli Suverza stands out, who has shown her knowledge in the assessment of the nutritional status of healthy and sick subjects by publishing textbooks that are useful for students of nutrition and medicine. The development of the methodology for the diagnosis of the state of nutrition (anthropometric, dietary, clinical) of people with obesity and diabetes in the Ibero, is a reference for health authorities, who have requested the support of MSc. Suverza Fernández NC and MHSc Ana Bertha Pérez Lizaur NC to elaborate the Official Standards for the Comprehensive Treatment of Obesity.

Pérez Lizaur and collaborators constantly develop and update a food database, known as the Mexican Equivalent Food System (Sistema Mexicano de Alimentos Equivalentes (SMAE)), an effective tool for dietary calculation of healthy subjects (children, pregnant women, infants, adults, athletes, senior adults) and the sick (obesity, diabetes, kidney, etc.). The database has allowed technological development of useful applications for following up people's food plan. It is an instrument recognized by the country's nutritionists for its versatility, topicality and understanding in food orientation.

For the dissemination of basic knowledge in nutrition, the publication of *Nutriología Médica* is a point of reference for students in the Health area, with more than 50,000 copies sold in Mexico and Latin America; in addition to the value of the work, it is important to note that the chapters are written by the nutritionist/physician binomial, which confers extra value from the multi discipline.

Within the research to achieve the development of an object that would allow to unify food orientation in the country, some graduates of the Bachelor's degree in Nutrition and Food Science such as Esther Casanueva, Martha Kaufer, Georgina Toussaint, Ernestina Polo, Maite Plazas and Ana Bertha Pérez Lizaur promoted and developed the Healthy Eating Dish (Plato del Bien Comer), an icon that allows to offer to the population the basic concept of correct nutrition. The image is recognized both nationally and internationally and is part of the Official Standards for health promotion.

Mexico's population pyramid shows a clear trend of population over 60 growth, therefore, in an innovative way the Health Department began the study of this population segment. This is how Dr. Pablo Picardi, MSc. Loredana Tavano, Dr. Pedro Arroyo and in recent years (2015) MSc Miriam López Teros have added indispensable publications in the area of senior adults cognitive and motor capacity assessment.

Nutrition and Gerontology clinics are recognized for their service to the university community and for their convening power to recruit people who give informed consent to participate in Dietetics, Nutrition, Psychology, Nutrigenetics and

Gerontology studies. The clinics offer a fabulous space for the training of undergraduate and graduate students for the development of clinical and research skills.

The Nutrition Clinic, in addition to its service to the community and teaching, actively participates in the development of research projects with institutions such as the National Institute of Genomic Medicine (Instituto Nacional de Medicina Genómica); currently, it works with the “Federico Gómez” Children’s Hospital of Mexico (Hospital Infantil de México “Federico Gómez”), in children’s body composition, and with the National Institute of Psychiatry (Instituto Nacional de Psiquiatría) and UAM-Xochimilco, with the Body project, whose aim is risky eating behaviors prevention. It also has a surgery at the Ernesto Meneses Center in the Santa Fe community, where low-income population is served.

The Psychology/Nutrition binomial has allowed Dr. Escalante Izeta and MScH Pérez Lizaur to venture into overweight and obese children anxiety. Hence, the first developed a line of research in obesity prevention and treatment in children, with innovative techniques of personal development and *mindfulness*.

In search for better lifestyles, Dr. Teresa Ochoa seeks interdisciplinarily, through fasting, novel ways to improve the population well-being.

Dr. Vilar, currently in EQUIDE, opened a food safety line for the older adult in the Health Department, as well as prevention of diabetes complications workshops. The results of these projects allowed her to link with Dr. Rafael Pérez Escamilla (graduated from the Ibero), for projects funded by the NIH and Yale University.

Even in a short period of time (2015-2018), Dr. González de Cosío promoted research in the area of mother and child health, especially breastfeeding and its implications on the child and mother.

Currently, Dr. Alicia Parra Carriedo, gives a new promotion to the Health Department with the hiring of recognized academicians in the community area, since Dr. Sonia Hernández will influence the design and evaluation of nutrition and lactation programs and policies and their effect on maternal health, overweight and obesity in children and adolescents’ prevention. As well as in the strengthening of clinical nutriology area for the solution of diabetes, renal and chronic degenerative diseases problem.

This is how the Ibero, in more than half of its 75 years of life, was not only avant-garde in the training of human resources in nutriology, but has evolved in public health, solving problems of children malnutrition principle, up to the current problems of obesity. It is a pioneer in the training of specialists in gerontological nutrition, ahead of the country’s demography. For this purpose, its commitment to continue investing in the generation of quality knowledge to influence the health and well-being of Mexicans. ¶

*But, the sphere of those  
resources*

*is one of preferences  
and restrictions*

*framing the underlying  
human topics in the  
social façade*

María Cristina Torales Pacheco

*Ernesto Meneses Morales, S.J.,  
his research in his own words\**

*Mexico has countless resources [...]*

*But nothing can be compared  
to the wealth of its children and its youth.  
Educating them to improve the future of our country  
is the most excellent task that God  
has entrusted to present generations.*

*Ernesto Meneses Morales, S.J.  
The teachings of the history of education in Mexico.*

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I decided to write this biographical sketch on Ernesto Meneses, S.J., as researcher, through his written word. On other of the intellectual facets of Dr. Meneses, numerous scholars have already written. The Jesuit himself, at the end of the twentieth century, worried about writing his autobiography: *Remembrances of a Mexican University Jesuit (Remembranzas de un jesuita mexicano universitario)*, Mexico, Fundación Ernesto Meneses Morales, 2000.

The last words that Ernesto Meneses wrote in his autobiographical notes, regarding his trajectory, were: “And I wish that after my death I would not be remembered so much for my work as an advisor or educator, as an administrator or university professor, but simply as member of the Society of Jesus”.<sup>1</sup> However, it is not possible to stop qualifying him as a recognized education researcher. His inquiries concerning preschool education, the historical trajectory of official education in Mexico, as well as universities, specifically, the Universidad Iberoamericana, are invaluable. In this institution, in addition to his duties as a teacher and researcher, he was director of the Psychology degree course and the Psychological Orientation Center, as well as vice-rector and rector. He restructured the Psychology degree course, promoted institutional academic reform and introduced in Mexico the university departmental model that, once instrumented in the Iberoamericana, has served as an organizational model for other institutions of higher education in the country.

In life, the work of Dr. Meneses was widely recognized. In 1981, the Universidad Iberoamericana distinguished him with an Honorary Doctorate. In 1984, he acquired the José Sánchez Villaseñor Gold Medal and, in 1993, he was awarded the Saint Ignatius of Loyola Gold Medal. In 1996, the Promotion of Research and Higher Culture awarded him the *Tlamatini* Prize, this being the first time it was granted. The Organization of American States distinguished him in 1988, with Honorable Mention, with the Andrés Bello Education Award and the National Association of Universities and Higher Education Institutions (Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES)), awarded him the 1997 Gold Medal for his invaluable contributions to higher education.

We must understand Dr. Meneses as part of the Jesuits generation trained with special studies at prestigious universities in North America and Europe, at the initiative of the provincial José de Jesús Martínez Aguirre (1893-1975). The latter convinced of the priority that the Society should give to higher education in Mexico. Meneses, like his Jesuits contemporaries who arrived in the early fifties at the Iberoamericana, known as *The suicide squad*, constituted the pillars of research.<sup>2</sup> All of them were a model of academicians who promoted the concept of the Ibero

1 *Ibid.*, p. 148.

2 Ernesto Meneses Morales, “Words of appreciation from Dr. Ernesto Meneses Morales, S.J.” in the *Award Ceremony of the Ignatius of Loyola Gold Medal 1993*, Mexico, Universidad Iberoamericana, 1993, page 41. He started his speech with these words: “They called us ‘the suicide squad’ and referred to Ignacio Perez Becerra, rector, Jose Sanchez Villaseñor, Felipe Pardinas, Ramon Gomez Arias and Maurilio Montemayor. see also: Ernesto Meneses Morales, *Remembrances of a Jesuit*, op. cit., page 44.

researcher, in which teaching, research and dissemination, are inseparable; in which research is inconceivable, if not at the service of society.

For our purpose it is convenient to incorporate a paragraph in which Dr. Meneses expressed the value of research at the University:

Contact with research is another fascinating aspect of university life. To know the stages of a project: preparation, incubation, lighting and verification in which human creativity is admired in all its splendor and contemplates the wonderful functioning of human understanding, in one of its most excellent processes: giving life to an idea. What the artist does with the chisel, the brush or the sound notes, the researcher executes with ideas. And if it is a beautiful spectacle to contemplate the painter or the sculptor to capture on canvas, marble or pentagram, the ideal glimpsed, it is not less to observe the researcher follow the paths of inspiration that lead him to establish a new truth. Back in the back of my soul I envied those who dedicated themselves for their ability to research the human being.<sup>3</sup>

Ernesto Meneses, during his Third Probation in the Society of Jesus, in the summers of the forties, studied the Master of Science in Education at Fordham University, New York and in that same university, in 1965, he obtained a PhD in Psychology. His first research in Iberoamericana was about child psychology. How to explain these firstfruits? The answer can be inferred from the last chapter of his autobiography, titled “Why have Children Always Worried Me?” I include here a small paragraph in this regard:

Children are enchanting. Who else can be ecstatic before a flower, a bird or a small stone? Who else waits with the little face attached to the windowpane for the return of the loved one? They live in a hostile world where objects are inordinately large; the doorknobs are always too high and the chairs so difficult to climb to sit down that the floor is chair, bed, battlefield and amusement park. They transform at their whim the world that surrounds them with the magical spell of their creativity, envy of artists and designers. The world would be, no doubt about it, a more pleasant and friendly place if men preserved children’s creativity.<sup>4</sup>

3 *Ibid.*, page 43.

4 *Ibid.*, page 143.

The book *Educate Understanding the Child (Educar comprendiendo al niño)*<sup>5</sup> gives the opportunity to explore his firstfruits as researcher. This work has had multiple editions and has been the required text of numerous generations of preschool educators in the country, as well as read by thousands of parents. This book was followed by research motivated by his first teaching experiences. Aware of the lack of a good text in Spanish for the training of psychologists, he wrote his book *General Psychology (Psicología General)*, which also had numerous editions.<sup>6</sup>

He acquired interest in History in the Society of Jesus, where his master of novices, at Ysleta College, was the prolific Historian Francisco Zambrano, author of the *Bio-bibliographic Dictionary of the Society of Jesus in Mexico (Diccionario Bio-bibliográfico de la Compañía de Jesus en Mexico)*. In Ysleta College he met another illustrious and productive Jesuit Historian, Gerard Decorme, author, among other books of *The Work of Mexican Jesuits during the colonial era (1572-1767) (La obra de los jesuitas mexicanos durante la época colonial (1572-1767))*. Meneses, after 13 years of directive work, wrote his first work of History: *The Universidad Iberoamericana in the Context of Contemporary Higher Education (La Universidad Iberoamericana en el contexto de la educación superior contemporánea)*, published by the University itself in 1979. The document was the result of a seminar he prepared for his top officials, with who would implement the academic reform of our institution.

It is convenient to our purpose to incorporate some lines of its Foreword to the *Universidad Iberoamericana in the Context ...*, in which he let us see the aim, content of his book and the expectations of its recipients. In the backdrop, we can appreciate the simplicity and humility of the wise Jesuit:

This work aimed at officials, professors, students and employees of the Universidad Iberoamericana, tries to make known (first part) the human knowledge enterprise: the University in its history, in its contemporary crisis and most important aspects. Immediately (second part), he studies the Universidad Iberoamericana, its history, its quirks, its educational philosophy with its image of the world and man, values

5 In 1964, Jus publishing house published the first edition of 5,000 copies. Followed a second edition in 1965 and a third in 1969. Subsequently, Editorial Trillas continued with the edition of the work. The 5th edition came out in 1973, the sixth in 1986, and in 1990 the seventh edition came out. As of that date the publishing house has made several reprints, the last one in 2008.

6 In 1967 Porrúa publishing house published it for the first time.

hierarchy, educational theory and knowledge theory. The third part, rather aimed at organizational matters, describes the current aims of universities, similarities and differences between them and businesses, different universities academic structures, the role of the department director and the curriculum.

Some will notice that this part does not fit so logically with the previous theme. This deficiency is due to the particular aim to which the work is intended. It was suggested not to separate these topics from the rest of the content. Bibliography abounds in British and North American works. It indicates a limitation of the author and also the difficulty of obtaining information and translations of Slavic languages works and others still less known.

The book purports to help reflection on university activity in our country. It offers, in plain language that facilitates dialogue, comments and points of view on various university problems, on the intelligence that many of them will always be open, others will allow to reach a consensus.<sup>7</sup>

To this effect, on the occasion of the Iberoamericana *Ideario's* 30 years, he wrote a brief story of this fundamental document.<sup>8</sup> He also left an unpublished "History of the Universidad Iberoamericana", marked in 1997.

The research line with which he concluded his university career exceeded, as study object, the boundaries of higher education and the Universidad Iberoamericana. In 1976, he returned to his teaching work in the Education Department, where he was assigned the Education Philosophy course. As he expressed in his autobiography *Remembrances of a Mexican University Jesuit (Remembranzas de un jesuita mexicano universitario)*, his "ignorance of Education History in Mexico"<sup>9</sup> and the lack of texts in this regard led him to research the subject. In the autobiography he dedicates an extensive chapter to defining what we could brand as his "research workshop".

He exposes, in detail, the conformation of his team of young historians, the methodology, access to historical archives, etc. In this way, he assumed the interdisciplinary challenge aimed at understanding the philosophy and history of education



Dr. Ernesto Meneses Morales, S.J., after giving his activity report for the year 1974.

7 Ernesto Meneses Morales, *The Universidad Iberoamericana in the context of contemporary higher education*, Mexico, Universidad Iberoamericana, 1979, page 11.

8 Ernesto Meneses Morales, *History of the Universidad Iberoamericana Ideario*, México, Universidad Iberoamericana, 1998.

9 Ernesto Meneses Morales, *Remembrances of a Jesuit*, op. cit., page 134.

in Mexico. In the beginning, its goal was to elucidate that relative to the nineteenth century. However, after completing his first book with the Porfirian educational model, he decided to continue the research, to study post-revolutionary educational projects, until the management of the Public Education Secretary, Mr. Miguel González Avelar. Result of his research tasks, during the period from 1983 to 1997, was his work *Official Educational Trends 1821-1988* (*Tendencias educativas oficiales 1821-1988*). In the introduction of the book, he stated:

I am not a historian but an educator, and I am interested in studying educational trends to find out if any of them constitute an education philosophy, with its own solidly founded and linked elements. Therefore, the work underlines the educational aspect rather than the historical one, and it is limited to the official elementary, preparatory and normal education in the Federal District and Territories, although it eventually mentions as a point of comparison the educational work carried out within the country, and refers to the economic, political and social aspects of the country. In any case, the educational aspect receives special emphasis as well as the relation of the facts referred to with education. Occasionally the educational theories and methods used in Mexico are compared with those of European and North American authors.<sup>10</sup>

As synthesis of his teaching and research trajectory relative to education in our country, he published *The Teachings of the History of Education in Mexico* (*Las enseñanzas de la historia de la educación en México*) and the *Instructional Handbook of the University Teacher* (*Manual didáctico del docente Universitario*), works that every academician of our University should read. I limit myself to recover here what in its “Epilogue” to *The Teachings...*, expresses as pending subjects of the Mexican government to improve education:

... to increase the number of hours of the educational workday, stop the National Educational Workers Union abuses;

10 Ernesto Meneses, *Official Educational Trends in Mexico 1821-1911* (*Tendencias educativas en México 1821-1911*), Mexico, Editorial Porrúa, 1983, pp. xi-xii.

invest more money and distribute it better in educational projects, send well-endowed young people to study outside the country and observe other educational systems [...] link the teacher’s colleges with universities in order to avoid “intellectual inbreeding”, practice an assessment before undertaking new projects or modify existing ones, carry out a lot of research on promising projects, pay teachers correctly, demand that they get their degrees and give them ease thereto.<sup>11</sup>

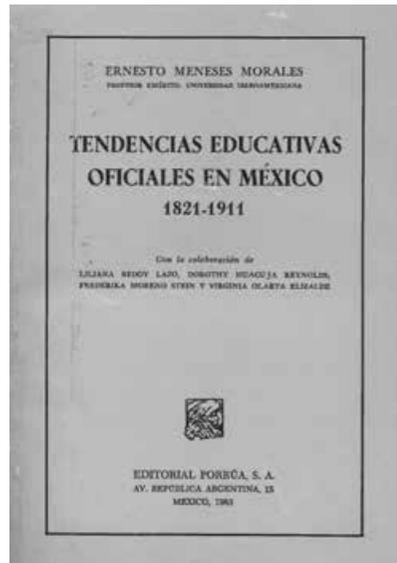
The question of what the Universidad Iberoamericana meant for a Ernesto Meneses researcher is answered with the following lines, expressed on the occasion of being the first academician to receive the Ignatius of Loyola Gold Medal, for his forty years of exemplary trajectory as university professor:

The University provided me with an environment conducive to writing. I cannot imagine where else I could have written the books I have published, especially *Official Educational Trends in Mexico* (*Tendencias Educativas Oficiales en México*), with its 13 years of research and thousands of hours of work of my collaborators and mine, if not in the university, for their strong intellectual, financial and moral support, completed by the National Council of Science and Technology.

In my appreciation to the University Senate for its beautiful and significant “Ignatius of Loyola” medal, I include in my gratitude all my collaborators and colleagues, professors, administrative and service employees and my secretaries.<sup>12</sup> ¶

11 Ernesto Meneses Morales, *The teachings of education history in Mexico* (*Las enseñanzas de la historia de la educación en México*), Mexico, Universidad Iberoamericana, 1999, page 153.

12 Ernesto Meneses Morales, “Words of appreciation from Dr. Ernesto Meneses Morales, S.J.”, *op. cit.*, page 44.



First edition of *Official Educational Trends*, a must for understanding the History of Education in Mexico.

Sylvia Schmelkes del Valle\*

*Carlos Muñoz Izquierdo*<sup>1</sup>

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Carlos Muñoz Izquierdo's disciple. I worked for him in a subordinate capacity for 14 years at the Center for Educational Studies. We coincided again at the Research Institute for Education Development of the Universidad Iberoamericana Mexico City, during the last three years before his retirement. We never lost close contact academically, and consolidated our friendship over the years. I am currently Counselor of the Government Board of the National Institute for the Assessment of Education. My resume, so far, reports 19 books, 52 book chapters and 87 papers.

Carlos Muñoz Izquierdo was researcher and professor at the Universidad Iberoamericana from 1984 to 2010, the year he retired. He founded the Interdisciplinary Research Program and, later, in 2002, the Research Institute for the Development of Education of the Universidad Iberoamericana, Mexico City. He was an upright, admirable man. Carlos defined himself as a Christian. His deep understanding and lived experience of Christianity translated into his undeniable social commitment, which he held and developed as a priority through his professional work as an educational researcher. Carlos did not carry out research that was not geared towards clarifying, explaining, illuminating or helping combat social injustice, due -among many other things- to the acute educational inequality that characterizes Mexico. He was

1 Written based on: Sylvia Schmelkes. Profile on Carlos Muñoz Izquierdo on the occasion of the Honoris Causa Doctorate granted by the Jesuit University System. Mexico City, November 3, 2010.

versatile in the topics of educational research that he took on -we could say that nothing educational was alien to him-; however, he remained faithful to his maxim that all research should serve the purpose of greater justice. His latest book “How can education contribute to social mobility?”, captures 40 years of his research work on the quality of education and its socio-economic effects. His trust in education, which he understood in all its complexity and its potential for contributing to social equity was only matched by his concern with why, being able to do so, it has not yet achieved it. His inquiry into the causes of this phenomenon was published in a book of the Fondo de Cultura Económica, 1996, called *Origin and consequences of educational inequalities (Origen y consecuencias de las desigualdades educativas)*, which he later reanalyzed in the book quoted above. His main contributions have to do with the relationship between education and social change.

Carlos was indisputably Ignatian. It could hardly be otherwise, since he worked in institutions of the Society of Jesus for 46 years, 26 of them at the Universidad Iberoamericana. The Ignatian inspiration guided several of his works. An example is a study that comes from his concern about the degree in which the Universidad Iberoamericana was forming men and women for serving others; i.e., managed to penetrate the moral development of students and their sense of social commitment. The study carried out with Maura Rubio and published by the Universidad Iberoamericana, in 1993, *University formation, professional practice and social commitment (Formación universitaria, ejercicio profesional y compromiso social)*. The results of the study are not heartening. However, it helps those who have the formation of professionals in Jesuit Universities in their hands to reflect on the impact of their endeavors. The Universidad Iberoamericana was a constant subject of his concern and reflections, as shown in the paper titled “Universidad Iberoamericana’s Strengths and Weaknesses for the 21st Century” (*Fortalezas y Debilidades de la Universidad Iberoamericana para el Siglo XXI*) published in 2003. In it he gives inputs for the necessary critical reflection of our daily activities. Carlos sustained that, that education quality, properly distributed, depends on developing the potential of education to transform society towards greater justice. Among his many works on the subject, the book *Quality of education: policies implemented in several countries to improve it (Calidad de la educación: políticas instrumentadas en varios países para mejorarla)*, published by Fondo Cultural Banamex, the Institute for Educational Promotion and Research -IFIE- and the Universidad Iberoamericana, is particularly noteworthy. His complex vision of the quality of education has had great impact: the quality of education is the consequence of the articulation of its components which are sufficiency, relevance, pertinence, effectivity and equity. Carlos was an economist. He was one of the few to delve into the difficult paths of education economics, which only some dare to pursue due to its technical complexity and its demand for

methodological rigor and sophistication. He pioneered a field which in Mexico had remained unexplored. But one can see in these studies, which many judged as cold and detached, his underlying concern of how to achieve a better education to build a better society. His privileged knowledge of education economics and his contributions to the field -for which he is internationally recognized- took him to the educational planning and education financing fields, as his first two books, published by the Center for Educational Studies: *School planning: some methodological observations (La planificación escolar: algunas observaciones metodológicas)*, in 1968; *Investment in the National Education System until 1970 and its financing sources (La inversión en el Sistema Educativo Nacional hasta 1970 y sus fuentes de financiamiento)*, in 1966, testify. His studies on education and employment are also recognized internationally.

Carlos analyzed private higher education institutions in Mexico, always searching answers to the question of education’s contribution to social transformation. In 1997 he published a paper called “Three hypotheses about the contribution of higher education to development” (*Tres hipótesis acerca de la contribución de la educación superior al desarrollo*). This and several other studies on higher education earned him the 2001 ANUIES (National Association of Universities and Higher Education Institutions) Award for Contribution to Higher Education.

I have always found it remarkable that Carlos, an economist and naturally concerned with education macrosocial and macroeconomic issues -where he sought to understand the relationship between education and social justice, as well as education and social change-, he ventured into the field of pedagogy with the brilliance that characterized him. In 1979 he carried out a study on school failure which to date remains a classic on the subject and its causes. Without ruling out all the external causes of drop-out academic failure, most of them due to poverty, Carlos Muñoz analyzes the internal school and classroom factors that help explain them in the work entitled *The academic failure and drop-out syndrome (El síndrome del atraso escolar y el abandono del sistema educativo)*. He explains that teachers who are not trained to address differences among individual students, treat them all equally. The poorest, for various reasons, cannot keep up with the class and do not learn enough to understand the next lesson. The teacher does not know or decides to ignore this phenomenon and continues the next class addressing the entire group. This daily falling behind of students becomes progressive and leads to the painful need to fail the student at the end of the cycle and to compel them to repeat the school year. A poor student who fails one year increases the chances of failing again and, ultimately,



Carlos Muñoz Izquierdo,  
Honorary Doctorate by the  
Universidad Iberoamericana.

drops out without finishing the educational level.. In doing so, schools reproduce poverty. Many of his disciples and students understood from this study that schools and classroom practices have to change in order for the school to contribute to educational equity. Much depends on our ability to properly train teachers.

In his last years pedagogy and its relation to education quality, concerned him very much. He found that the problem with the education system is that it has been unable to offer an education that is meaningful to the students with recent access to school —i.e., to the poorest in the country—. The school is not relevant, Carlos used to say. This is a very important cause of dropping out of school, precisely in the case of those that require more support to remain in it. I heard him in his latest period quote Jerome Bruner, who maintained that every human being is capable of learning anything, if one knows how to teach him or her. The tragedy of our education system is that it doesn't know how to teach them. Thus, education reproduces inequality.

This facet of Carlos as education researcher, is undoubtedly the main one of his life, since work was for him the privileged space of personal fulfillment and commitment to others.

Another facet is undoubtedly his professorship. Carlos formed generations of students. In classrooms, his students experienced a teaching impregnated with his research experience. Generations from Universidad La Salle, the Instituto Politécnico Nacional, the School of Philosophy and Arts of UNAM, as well as of the bachelor's, master's and doctoral degrees in Education of the Universidad Iberoamericana (Puebla and Mexico City), speak of numerous doctoral and master's theses directed by Carlos. But he not only exercised professorship in the classroom. Those of us who had the privilege of working with him learned to do research by his side. He was the master of several craftsmen of this trade, throughout the years. There he created a school: of rigor, gravitas, sincere search for truth, but also, in an exemplary way, of social commitment. This has been his professorship. This characterizes his disciples and is undoubtedly his invaluable legacy. I am proud to be his disciple.

His academic solidarity was another of his qualities. I never knew that Carlos said no to a request for support: to be part of an advisory commission, an editorial committee of a journal, a jury of a prize, a reader of a thesis, a member of the selection panel of research projects or books. This academic solidarity work, never obtaining payment, always expensive in time, on which we all depend, but which we all shun, Carlos performed it with surprising generosity.

I met Carlos as Cristina's husband; also, as father and grandfather. He and Cristina were a model relationship for those who, younger, followed them in the adventure of marriage. They enriched each other. They understood each other. There was between them deep love, which allowed them to face with faith and

wholesomeness times of conflict and difficulties, which were not few in their life together. As a father, there are his daughters to show the fruit of affection and dedication. As a grandfather, his grandchildren are witness to his sweetness, his sense of humor, his ability to play.

There are many other facets to Carlos Muñoz, a complete, round human being, of which we could talk long. His taste, fascination, I would say even passion, for music, gives a clear idea of his aesthetic sense, of his ability to enjoy beauty and let it penetrate his life.

However, it would not be possible to end my participation without talking about Carlos Muñoz as a friend. I knew him for over 40 years. I was his student first, then his assistant, later his subordinate, recently his colleague; for a little time, briefly, even his boss. But since we met, what marked our relationship was friendship and mutual affection. No one will be surprised, after what I have already said, that Carlos was an extraordinary friend. He was always there when I needed him. He never asked, but always listened when needed and there was, after listening, accurate advice. He always heeded the calls to attend a celebration, anniversary or dinner with friends, because he rejoiced in shared enjoyment. He was at my side in difficult times, in sad moments of life, simply accompanying. He didn't miss the opportunity to connect when he knew it was for my good. He brought me to the Ibero, nothing less.

I have ascertained throughout these years that Carlos was for many a friend; undoubtedly for all who also offered him their friendship. My colleagues from different moments, throughout these more than 40 years, will confirm this.

Thus, to the Carlos researcher extraordinaire; to Carlos committed to the transformation of society through education; to Carlos educator, teacher, testimony of righteousness and permanent searcher for truth; to Carlos husband, father, grandfather; to Carlos friend, to whom we owe so much, the members of the Strategic Field Models and Educational Policies, and INIDE colleagues and Education Department of the Ibero Mexico dedicate the recognition granted by the Jesuit University System, with all the love he deserved. ¶



Symposium on Carlos Muñoz Izquierdo's contribution, Honorary Doctorate by the Universidad Iberoamericana, to educational research.

*Mr. Rector of the Universidad Iberoamericana Mexico City, I ask you that, on behalf of this Academic Cloister of the universities that make up the Jesuit University System, the Degree of Doctor of Education be conferred to professor Carlos Muñoz Izquierdo.*

Enrique Pieck Gochicoa

*Educational Research*<sup>1</sup>

I appreciate, from the beginning, the opportunity given to write a few words about what the development of educational research in our University has been. It is a privilege to have belonged to the Research for Education Development Institute (Instituto de Investigaciones para el Desarrollo de la Educación —INIDE—) since its inception; in fact, from before some of us had already worked with Carlos Muñoz Izquierdo, from the Planning and Research Directorate. I refer to the period before 2002, date when the institute was inaugurated.

<sup>1</sup> “Welcoming message in INIDE’s 15 years celebration”, Universidad Iberoamericana, November 2018.

During those years, having an Education research institute was always a dream, something that was talked about in the hallway, which was in the imaginary of some of us, a dream viewed by Carlos for many years. It was an initiative that had to go through different circumstances and vicissitudes, tendencies for and against, an accumulation of crosslinked voices and wills. Finally, the creation of INIDE was approved within a private university, certainly not a common practice. From the beginning it involved opening a path and, sometimes, I think we continue to do so. It has become a privilege to be part of a university that bets on research; however, within the framework of university work focused naturally on teaching, it has not been easy to position research very own code: its nature, its own requirements, its times, its contributions, its link with politics, its financing sources.

INIDE began as a small institute and has remained so, with no more than five tenured researchers. We have always been few. I remember on one occasion —two or three years ago— when, for two months, I was the only researcher, along with Marisol, as director. Now we are six: we certainly are in our best times. Carlos, Diego, Arcelia, Stefano, Marisol and I are the current INIDE team. In my opinion, I feel that being few has never affected us. This circumstance has contributed, rather, to know us more as colleagues, to get involved and be closer to our research interests; to share our achievements and to find attitudes willing to listen to research work vicissitudes. It has also contributed to the development of a friendly, flexible, respectful, collegial environment; a true privilege as workspace.

Certainly, it would be better if we were more. And yes, it would enrich us as a team, in addition to the fact that we could impact more on a concern that we are passionate about: that research can contribute to educational quality improvement in situations of sectors in social vulnerability. In this aspect, INIDE distinguishes itself and maintains a position that has been strengthening over these 15 years. Certainly, there are many educational research institutes in Mexico and the fields of education prioritized in their agenda, among others, the history of education, subjects, curriculum, pedagogical processes, educational policy are very varied. In INIDE we wanted the research we do to touch reality of the population sectors that have less —which are many— where educational inequality situations and lack of equity become more present. As well as in its beginnings, today, those of us who form INIDE, continue to head for the problems of education, which are, at the same time, the product and source of the unfair and unequal society that prevails in Mexico. Our research lines have sought to be faithful to this priority: quality and equity in basic and higher education, intercultural education, educational policy, relations between education, work and poverty.

Celebrating a time traveled inevitably leads us to remember the people who accompanied us, the different moments we live, the situations we face, our

achievements and our challenges —such as developing a research that contributes to social change—. Such is the variety we have had in this period of time. Fifteen years speak already of a story that has been lived and shared, of subjects —researchers and assistants— who have been present at different times: Mercedes, Maura, Pedro, Angeles, Alejandro and Hídalia. At this time, different managements have taken place in INIDE's directorate, which have left different imprints: from Carlos, at the beginning of those first steps, then Sylvia's time, and now Marisol. All these presences have been propping up the foundations and defining the course of the institution we are now.

Fifteen years have also given us the opportunity to cross each other during the periods of three rectors: at the dawn, with Enrique González Torres —promoter and sponsor of this institute—; later, José Morales, and now David Fernández. Of all there has always been great support and great defense to this research space. In the words of David Fernández, current rector of this university:

Only with research do you get to know critically what the university should do in its attention to social needs (...). From research the university will know where social reality is, what does that reality need and what are the means to solve those needs.<sup>2</sup>

Within the framework of this statement, we are pleased to ascertain that as every day goes by there is greater recognition of the contribution provided by INIDE research, in terms of knowing the educational problems of the country and collaborating at the level of strategies and public policy. The guild has begun to recognize us as a voice with authority in the educational research field.

Our research has touched many populations and educational levels: indigenous schools at elementary level, the commitment to a second immersion model, the problem of young people from vulnerable sectors who attend first university year; the systematization of experiences such as that of Ts'umbal Xitalha; low-income youths who opted for technical training as a second chance; rural youths who derive some usefulness from job training component in technical secondary education; hero teachers in multigrade schools; children of migrant families who lack quality education. Why this cut? And I quote a text that we developed in INIDE, around these subjects:

2 All the texts quoted are taken from the booklet: INIDE, "Relevance and social impact of educational research", Mexico, UIA, 2017.

Because these issues glue together the nuclei of greater exclusion and injustice and at INIDE we are convinced that through their rigorous study we can generate useful knowledge to understand, make visible and, to the extent that is within our reach, contribute to the transformation of such conditions.<sup>3</sup>

These research have been backed by a great diversity of assistants, aides, fellows and invited professors; various teams that have been formed, which are behind many research projects throughout this time. All this has enriched our work and generated new coexistence codes. It is them who have also made different projects development and culmination possible. It goes hand in hand with this process the formative function that INIDE has played, something we consider fundamental in our academic work. In this sense, there are classmates who have dabbled in different national and international spheres, different private and public bodies, related to research, education policy and teaching.

We cannot fail to mention that, throughout these years, we have maintained permanent closeness with the Education Department of this University, aware of the importance of linking both research and teaching, as teaching with research, by incorporating graduate students to the different projects that are developed in INIDE. Many resources, both internal and external, have sustained the development of our research: the annual fund itself for the support of educational research that the institute has; Public Education Secretariat (SEP), the Ford Foundation, UNESCO's Regional Office of Education for Latin America and the Caribbean and the International Institute for Educational Planning; the Latin American Network of Education and Work, Conacyt, the Kellogg Foundation, among others.

One concern that is becoming a hallmark of our work, is that our research has social impact and relevance. This concern is, of late, set aside, given the imposition of academicist criteria, permeating the way in which research is assessed: journals ranking, impact factors, number of quotations, etc. Social relevance of research carried out by Jesuit universities is not only guided by products economic value, but also by the depth of social problems and their repercussions on the quality of life of the impoverished social sectors.

For the most part, the inquiries carried out and that are being carried out from INIDE involve field work and are applied research proposing to complex simplistic or vertical views with the local actors vision that,

3 *Idem.*

more than informants, are considered as active subjects that play a relevant role in the construction of knowledge resulting from research.<sup>4</sup>

We consider, therefore, that the search for incidence and social relevance should be the benchmark that guides our research. This orientation is a priority within the framework of the national educational problem, and in correspondence with the mission of this University.

As a result of our research, different publications and interventions in academic events related to educational policy have arisen. We try to be faithful to the slogan of: "if I research, I publish; if I publish, I diffuse". All this, in order that research results circulate and have a greater capacity to influence the betterment of education in Mexico, at its different levels.

This brief account of what has been the development of research within INIDE, makes us very proud, due to the path we have traveled, and the course we are outlining. This momentum allowed us to share this brief account; a story that fills us with satisfaction, for being part of an institute that seeks commitment to the most disadvantaged sectors; having as references educational unfairness and inequality; and that has, as beacon, the link between research and the social problems of our country. ¶

4 *Idem.*

José Ramón Ulloa

*Research in Didactics*

The Didactics Center of the Universidad Iberoamericana was set up in 1973 during the rectorship of Father Ernesto Meneses Morales, as one of the elements of support for the Academic Reform. Its purpose was to contribute to the good operation and achievement of goals set out in that Reform, goals that could be grouped into two main watersheds.

First: undergraduate students interdisciplinary training, through a Christian-inspired humanistic curriculum, based on courses departmentalization and the flexibility with which the student could choose courses and teachers.

Second: teachers training in a teaching style that, beyond memorization of contents, would also favor the development of thought and research methods, as well as humanistic attitudes.

\*

He was director of the Didactics Center in the period 1988-1996.

I joined the Didactics Center in 1980, and therefore I had no direct experience of the founding period in which, as I have heard, Federico Weber, José Antonio Outón, Raúl Gutiérrez, Jorge Díaz Estrada and Miguel Ángel Zarco participated.

The research carried out at the Didactics Center and throughout its subsequent history was always aimed at bettering the provided services. These services were mainly:

- a. The collaboration in the curricular design and evaluation, first of the undergraduate study plans and, later, also those of Higher University Technician —TSU— and Postgraduate. It was sought that the curricula were congruent with the educational ideals of the University, adjusted to the established structure in the Academic Reform and that they were socially pertinent and pedagogically effective.
- b. Training of academicians in a teaching facilitating students' formation, not only in their disciplinary or professional fields, but also in the development of general skills and attitudes corresponding to educational ideals of the University. As one of the elements to support the teacher training process, instruments for teaching assessment were developed.
- c. The assessment of the various instruments used by the University to admit its students, to evaluate their learning throughout the program of studies and to appreciate the degree to which, once their studies were completed, they had developed the qualities indicated in the *Ideal Profile of the graduate student*.

The type of research we are talking about here corresponds to evaluative research and *design research*<sup>1</sup>, which is the search for evidence aimed at products and services development.

A primordial service of the Center was teachers training and thus, during the founding period, the Didactics Center developed and applied the questionnaire for student appreciation of teachers —known as EMA-4, for being the fourth of the instruments used to evaluate academic activity. EMA-4 was the first questionnaire of this type used in Mexican universities.

On the other hand, the publication of texts aimed at teacher training began —these texts were published as brochures called DIDAC newsletters and notebooks

1 For a broader reference on this topic, cf. Online: website <https://www.teamlabs.es/es/blog-teamlabs%C2%BFqu%C3%A9-es-el-design-research-y-cómo-te-puede-ayudar-dise%C3%25%20B1ar-el-producto-o-servicio>.



Photo taken during a meeting of academic personnel of the Didactics Center. To the center Federico Weber, first director of the Didactics Center.

that later gave rise to the *DIDAC Magazine*— and covered various topics aimed at improving teaching. One of the topics in these brochures was research on the teaching-learning process. I remember that one of the texts on this subject was a paper by Dr. Ernesto Meneses, titled *A Profile of the University Professor* (Un perfil del profesor universitario); and I remember another that reported on *Mastery Learning*, which was then a teaching innovation project that was tested in American universities.

The composition and classification of aims for teaching planning was also promoted, based on the model of Benjamin Bloom's *Taxonomy of Educational Objectives*, which was in vogue in the United States. This work was accompanied by the publication of critical reflections that tried to release the use of learning objectives from the behavioral and mechanistic vision of learning that, inspired by Skinner, encouraged the so-called *programmed teaching*.

The Didactics Center also worked, together with other instances of the University, to assess the progress of the newly implemented Academic Reform.

When I joined the Didactics Center in 1980, its director was MSc. Ricardo Blanco Beledo (author of the book *University Teaching and Human Development* (*Docencia universitaria y desarrollo humano*)). At that time, the Center experimented with the so-called *operational groups*, which pretended to assign students a leading role in the conduction of their learning process and, in which the teacher's role consisted rather than in directing, in offering orientations and proposals of learning to the group, in addition to being attentive to the resistance experienced by the group throughout its learning process. Along the same line of assigning the student the main responsibility for its learning were the learning *project agreements*, in which

the student was committed to achieving certain purposes, by performing certain learning activities. Almost thirty years later, in 2011, Dr. María Luisa Crispín continued the work undertaken for this purpose and prepared therefore the *Handbook on autonomous learning (Manual sobre aprendizaje autónomo)*.

In 1980, the Didactics Center members were preparing ourselves to train full-time academicians at the University in useful techniques for educational guidance (I remember in this regard we studied the book: *The Skilled Expert*, by Gerard Egan), since in agreement to the regulatory document *UIA Professor Ideal Profile (Perfil ideal del Profesor de la UIA)*, the counseling was one of the tasks that—in addition to teaching and research—the academician had to assume.

Regarding the students' evaluation, the Didactics Center was in charge of preparing the admission exam to bachelor's programs at the University that, in addition to assessing the student's previous academic preparation, included questions about their current world knowledge—political, economic and social scenario, national and international—. These questions, which can be seen as an attempt to examine the disposition to the humanist social formation that the Academic Reform intended, were later incorporated into other admission processes in Mexico.

As sample of research topics permanence in the line of humanistic social training, it is worth mentioning that many years later, in 2015, the Admissions Coordination of the Universidad Iberoamericana commissioned the Services for Integral Training Directorate (that was the organizational instance in which the Didactics Center was subsequently integrated) the preparation of a questionnaire to appreciate the willingness to social humanism (or social conscience) of candidates to join the University.

Regarding the learning assessment, as of the decade of the 80s, the Didactics Center, in collaboration with the School Services Directorate, did a research on the predictive validity of the admission exam; i.e., on how efficient the exam was to predict the future academic development of candidates joining the University. These research was carried out in different periods and later allowed—when the University stopped preparing its own admission exam—to make comparisons with the predictive validity of its successor, EXANI-2 of the National Center for Higher Education Evaluation.

In 1982, the Didactics Center, together with the Mathematics Department, carried out another research project related to student learning, in which the validity of the departmental exams that were then applied on the subjects of Calculus and Algebra. Based on the results of this research, applying these exams was suspended. The results also allowed questioning the leveling courses efficacy in Mathematics (called Math Prerequisites), taught to students newly admitted to the University who had deficiencies in this subject.

The effort to improve departmental exams and Math Prerequisites has been kept over time at the Universidad Iberoamericana. Near 30 years later, in 2015, at the request of the Academic Vice-Rector, the Services for Integral Training Directorate collaborated in the design of a computerized system for the preparation and evaluation of departmental exams and together with the Physics and Mathematics Department, developed a proposal on new Math prerequisites.

As regards teachers training, which was another of the priority services of the Didactics Center, in the 1980s, in addition to the basic training corresponding to techniques and didactic methods—objectives writing and courses planning, evaluation of learning by objectives, audiovisual media, seminar, exposure and workshop techniques, etc., the dimension of human development was considered, considering that teaching is an interaction process between teacher and students, in which the teacher's personality contributes to the students development to the extent that the teacher has developed as a person. To this guidance belongs the famous phrase that I heard Ricardo Blanco say: “the method is the teacher”.

After MSc. Ricardo Blanco, in 1983, Dr. Armando Rugarcía Torres was appointed director of the Didactics Center. His doctoral thesis was focused on a didactic innovation called “Semi-notes or semi-entries.” Dr. Rugarcía was subsequently Academic General Director of the Universidad Iberoamericana and Rector of the Universidad Iberoamericana Golfo Centro and has authored numerous books and papers on education. Dr. Rugarcía considered that in education too much importance had been given to the memorization of knowledge and the formation of competences and attitudes valuable for life had been neglected. Thus, during his tenure, the development of students' reasoning skills was driven based on the Reuven Feuerstein *Instrumental Enrichment Program* and the *Children's Philosophy Program* by Matthew Lipman and Ann Sharp. The relationship with the *Philosophy for Children Program* gave way to a research program backed by the Public Education Secretariat (SEP) that included the translation and publication of the program texts. Among the translations are: *Philosophical Questioning (Cuestionamiento filosófico)* (made by Araceli Delgado and Silvia Delgado) and *The Discovery of Aristeo Téllez (El descubrimiento de Aristeo Téllez)* (made by Araceli Delgado). On the other hand, also in the line of student skills development, the Center developed a *Handbook of Reasoning Skills Development* and, years later, supported the development of the popular handbook *Learn to Read to Think Well* by Dr. Yolanda Argudín and María Luna.

Concerning teacher formation, the approach to rescuing teachers successful experience was incorporated into the usual courses.

In the line of the humanist formation of the teacher, Dr. José María García Garduño started an original research on the *Profile of the Motivating and Demotivating Teacher, in the Engineering Degree*, based on the opinion of different degrees students

of the Universidad Iberoamericana. This research, which was published in 1985 in the DIDAC magazine, was replicated in at least one other university in the Mexican Republic.

Considerations were also made about the influence of the institutional environment on the value training of students, to which publications such as *The Community as an Educational Medium (La comunidad como medio educativo)* (1985) and *The Environment and Values at the Universidad Iberoamericana (El ambiente y los valores en la Universidad Iberoamericana)* (1988) correspond.

A research work on moral judgment development in students of the Universidad Iberoamericana began. In this work, the questionnaire and methodology of Dr. James Rest was used, and his authorization and support were provided. This work has aroused the interest of researchers from other universities in Mexico, Central and South America. María Luisa Crispín, Sergio Noguez, Isabel Martínez Ateca and, later, MSc. Alberto José Segrera Tapia participated.

In the line of teaching evaluation, a research was carried out on the difference between the results obtained in EMA-4 by University professors according to their maximum academic degree (bachelor's, masters and PhD) and also conducted a study on the interaction between teacher and students in the classroom, using Ned Flanders' method of *interaction analysis*, in order to observe in the University classrooms, the degree in which said interaction favored the active and proactive participation of the students or on the contrary, the passivity and the merely reactive attitude.

In 1988 I was appointed director of the Didactics Center and considered that research should continue to aim improving the provision of its basic services: the design and assessment of curricula and teacher training.

The Didactics Center always dealt with the formation of teachers in the use of teaching aids such as flipcharts, feltboard, acetates, opaque bodies projector and used the recording of teachers in *micro-teaching* sessions, but from this time, with the indispensable support of Dr. Alejandro Acuña Limón, we began to consider more and more the use of the new computational technology for educational purposes and I remember writing a paper in the *DIDAC Magazine*, titled «*Teacher and Computer Monologue*» (*Monólogo del profesor y la computadora*) (1995) in which he exemplified the use of the *Mathematica* program in the teaching of Algebra.

Later on, I wrote a text about Algebra and Ignatian pedagogy (1997), aimed at teachers, pretending to explore how to use technology and perform the phases of the *Ignatian pedagogical paradigm* in the teaching of University Algebra.

Upon concluding my period in 1996, MSc Estrella Piastro Behar was appointed director of the Didactics Center who for her ability to promote the consideration of teachers on their own teaching practice, to renew the enthusiasm of teachers for teaching, and for their commitment to the educational values of the Institution, was for many years an obligatory reference for teacher and humanist teacher training of the Universidad Iberoamericana.

MSc. Piastro was especially interested in propelling the different dimensions of teacher formation, including spirituality in line with Ignatian pedagogy. In accordance with the provisions of the Organic Statute of the Ibero of 1998, the Didactics Center was incorporated into the new Values Formation Directorate, in charge of the eminent Jesuit humanist Dr. Raúl Durana Valerio, who sought to establish a synergy between the four centers incorporated into the new Directorate: Center for Psychological Counselling, Center for University Integration, Center for Social Service and Didactics Center, which were conceived as instruments that should exercise concerted action for the humanistic formation of students and teachers.

At this time, Dr. Crispín introduced the use of teaching portfolios as a means for teacher formation and assessment, as well as to promote teacher research on their own teaching. On the other hand, she applied questionnaires that would help students to recognize their own learning style and teachers to recognize the need to use didactic techniques that covered those different learning styles.

Another contribution of this period was the search for information that would help to design the new curricula for 2004. The task was carried out by Dr. Crispín who used questionnaires applied to students, teachers and graduates as well as a review of relevant statistical data for the assessment and design of the new plans. This task was consolidated later (2006) through the development of a computerized information system for the evaluation of curricula called the Evaluation and follow-up system of the curricula — SESPE.

On the other hand, an investigation was also conducted on the teachers of the University Consideration Area — ARU —, mainly responsible for the humanist personal formation of undergraduate students, and on the assessment processes as an element of teacher formation, from which Dr. Crispín's doctoral thesis emerged.

Between 1998 and 2001, the Center's researchers collaborated with a group of researchers from different institutions — such as the Universidad Autónoma Metropolitana, the Universidad Nacional Autónoma de México and the Universidad Autónoma Benito Juárez de Oaxaca — in aspects related to teacher assessment and formation. From this collaboration resulted the publications: «The Portfolio as a



Dr. Armando Rugarcía.



First multimedia interdisciplinary Conference organized by the Didactics Center on August 27, 1993.

Tool to Improve Teaching» (*El portafolio como herramienta para mejorar la docencia*)<sup>2</sup>; “Teacher Training: Basic Factor for the Achievement of University Objectives” (*La formación de profesores: factor básico para el logro de los objetivos universitarios*)<sup>3</sup> and “Teacher Training. Basic Aspect for the Improvement of Teaching” (*Formación de profesores. Aspecto básico para el mejoramiento de la docencia*)<sup>4</sup>.

After Dr. Raúl Durana, Dr. Jorge Martínez Sánchez was appointed director of the Values Formation Center. Dr. Jorge Martínez did research on the effect of the University Consideration Area courses on students’ education. These courses were intended to promote the Christian—inspired humanistic formation that constitutes one of the permanent purposes of the Universidad Iberoamericana formation. His

2 María Luisa Crispín and L. Marván, “The portfolio as a tool to improve teaching” (*El portafolio como herramienta para mejorar la docencia*), in Mario Rueda and Monique Landesmann (coord.), *Towards a culture of academic assessment? (¿Hacia una cultura de la evaluación académica?)*, Mexico, UNAM-Center for Studies on University (CESU), *Pensamiento Universitario*, no. 88, 1999, pages 165-183.

3 María Luisa Crispín and R. Rueda, “Teacher formation: a basic factor for the achievement of university objectives” (*La formación de profesores: factor básico para el logro de los objetivos universitarios*), *Innovacion Educativa*, vol. 7, No. 4, September-October 2001.

4 *Ibid.*

doctoral project was titled *Towards a Pedagogy of Decisions (Hacia una pedagogía de las decisiones)*. He also participated in a research project titled *Youth Culture in Undergraduate Students of AUSJAL Universities (La Cultura Juvenil en los alumnos de licenciatura de las universidades AUSJAL)*.

Dr. Martínez contributed to establishing the new curricular design orientations of the Universidad Iberoamericana, whose study plans were then developed, for the first time, in collaboration with the Jesuit University System —SUJ. The guidelines for the new plans design were structured in the form of a theoretical framework, an operational framework and a pedagogical framework. The changes that were made then were intended to renew the scheme of the Academic Reform of 1973, mainly to incorporate the approach of competencies that was then in vogue and which had antecedents in the interaction that occurred years before between the Didactics Center and the Alverno College. The competencies approach emphasizes “the development of sets of knowledge, skills and attitudes that allow complex tasks to be carried out effectively and autonomously in diverse contexts.”

In 2003, the name of the *Values Formation Directorate* changed to *Comprehensive Formation Services Directorate (DSFI)*. Dr. Martínez was succeeded as director by Alejandro Robles Oyarzún, architect.

One of the innovations made by DSFI at that time was the *Sofía* educational platform development, based on previous research and developed by a team in charge of Dr. Luis Miguel Martínez. This learning management platform had its antecedent in a system called: *Semester in progress*, designed by the Universidad Iberoamericana Library. Subsequently, *Sofía* was replaced by the *BlackBoard* and *BrightSpace* commercial systems.

DSFI, in collaboration with the Academic Analysis and Information Directorate, carried out a review of the *Educational Processes Assessment System—SEPE-1*, successor of *EMA-4*— to establish the validity of the grades provided by this instrument and to fix the appropriate scores for decision—making regarding both the hiring, promotion and removal of teachers as for their formation in didactic aspects. During this process, DSFI always maintained the need to complement the information provided by SEPE-1 with others that would include, for example, the teaching portfolio, self-assessment and peer assessment. It was also recommended that decisions regarding the hiring of professors should not be taken mechanically, but rather agreed upon by a team of academicians who would have all the relevant information. The complete SEPE system was designed under the coordination of Dr. Araceli Delgado and instrumented by the Analysis and Academic Information Directorate.

Also, under the coordination of Dr. Araceli Delgado, a curricular information system was developed, called the Study Plans Assessment and Follow-up System

—SESPE— that allowed having access to systematized information relevant to the evaluation and curricular design. This instrument, supplemented by surveys to graduates and their employers, served as the basis for the review and design of new plans in 2012. SESPE was also a valuable instrument to support the assessment and accreditation processes of different bachelor's degrees. Likewise, Dr. Delgado coordinated the development of a System for study plans development, called SEPLE, that supported the different actors in their tasks of registration and curricular design. This system was subsequently adapted to facilitate the development of postgraduate studies.

In relation to study plans assessment, data were also obtained on the degree of departmentalization of the different degrees (courses offered by departments other than the one responsible for the degree), which allowed establishing guidelines in this regard for new study plans.

After Alejandro Robles, architect, I was appointed director of DSFI in 2006. At that time the Universidad Iberoamericana considered the possibility of joining the Southern Association of Colleges and Schools —SACS—. This prompted the Directorate to coordinate the start of study plans permanent assessment system development including the clear definition of goals and indicators, the verification of achievements and deficiencies in relation to the goals and the consequent determination of actions to be taken to address the deficiencies and thus establish a cycle of continuous improvement.

During my administration I proposed myself to reconsider the training goals of the two areas in charge of DSFI that were responsible for the humanistic formation of the study plans: The University Consideration area —ARU— and the University Social Service Area —SSU—, and formulate the goals of humanistic formation in more operational terms, so that it would be easier to obtain evidence of the achievements made in relation to the proposed goals. For this purpose, the dialogue within DSFI was promoted to specify the formation purposes of the University Consideration Area and assessment instruments were developed to obtain evidence of these achievements. A suitable SEPE was also designed especially to appreciate the performance of teachers and the achievement of ARU goals and the most appropriate teaching means to achieve them.

Dr. Hilda Patiño, ARU coordinator and her team did a research to determine the formative dimensions of the University Consideration Area seen by her students. For this, a qualitative research was carried out, based on the review of thousands of opinions recorded in the special SEPE for the area. For her part, Dr. Patiño had also carried out, for her doctoral thesis, a study on humanist formation at the University, based on the characteristics of ARU distinguished professors.

Based on the *on-service learning* approach, an analogous effort was made to also specify the goals of the University Social Service Area, and under the coordination of

MSc. Raúl López was developed a model scheme for the final report of the social service experience. On the other hand, a special SEPE for the Social Service Area was designed and work was done to explore how the Area would work if it used online teaching to a greater extent. In this latter research, Dr. Georgina García collaborated.

In the field of generic competencies, Dr. Lourdes Caudillo prepared a research on the deep learning of students for her doctoral thesis and later undertook a new research on the development of reading and writing through the curriculum, linked to a of the competences assumed by the University.

Under the coordination of Dr. Crispín, a *Teacher's Guide for the Development of Competencies (Guía del docente para el Desarrollo de competencias)* (2012) was also developed. On the other hand, Dr. Adriana Jiménez developed her doctoral thesis on the Higher University Technician programs. Regulatory frameworks for the design of the new Higher University Technician plans were developed and incorporated into them the requirement to have a Council that would permanently assess its relevance and efficacy.

To conclude, it seems to me that one of the driving threads of this story is the permanent dedication of the Didactics Center, and later of DSFI, to support the achievement of the objectives of the Academic Reform that included as goals: academic and professional formation, personal humanist formation and social humanist formation.

The achievement of these goals was based on a flexible and departmentalized curriculum, which included as basic elements the Integration Area (later called University Consideration) and the Social Service Area.

The elements of humanist formation described in the document of the Academic Reform, were extended in the document called *Ideal Profile of the Graduate of the Universidad Iberoamericana*, were subsequently reformulated in terms of the fundamental dynamisms of the *Educational Philosophy of the Universidad Iberoamericana* and were transformed in 2012 into the *generic competencies* of the new undergraduate plans and TSU.

The academic reform also required the formation of qualified teachers to promote the type of graduate desired by the University, which implied the teacher's formation in a teaching that, in addition to effectively promoting learning, would contribute to the development of humanistic values of university education. And it is in the field of Christian-inspired humanistic formation in which the didactics research of the Universidad Iberoamericana has tried its greatest achievements.

The research on humanist formation was concretized, for example, in the human development approach given to teacher formation, in the concepts of the book "The role of values in education" by Dr. Armando Rugarcía, in Dr. Crispín's research on the values in the University, in the research on the development of moral

judgment based on the work of Dr. Rest, in the mini research of MSc. José Ramón Ulloa on *The environment and values at the Universidad Iberoamericana*, in a permanent attempt to truly incorporate humanistic personal and social formation into the curriculum; in the book of Dr. Araceli Delgado: *Values Formation at University Level (La formación valoral a nivel universitario)* and in the one by Dr. María Luisa Crispín: *Autonomous and Collaborative Learning for the Construction of Moral Personality (El aprendizaje autonomo y colaborativo para la construccion de la personalidad moral)*.

For this trajectory of search of the values formation, the National Public Security System Executive Secretariat assigned, in 2012, to the Services for Comprehensive Formation Directorate, the organization of a course on ethical and legal values, for the training of police officers throughout the Mexican Republic. The course was organized by Dr. María Luisa Crispín, based on contributions from security officials in the country, bibliographic research on police training and ethical formation theories of Puig and Buxarrais. Dr. Crispín also coordinated the development of two handbooks for this course: one for student use and one for teachers use. In the preparation of these guides and in the delivery of the courses, several DSFI teachers participated, thus achieving the synergy that had been sought with the integration of the centers in the of Services for Comprehensive Formation Directorate.

My narration concludes in January 2016, the year I retired and Dr. Mariana Sánchez Saldaña was appointed director of DSFI. ¶

Antonio Tena Suck

*Academicians Pioneers in Research  
in Psychology*

In this brief presentation, I will try to summarize the trajectory of over 30 years in the Ibero, of three illustrious psychologists, psychotherapists, former directors of the Psychology Department, trainers and pioneers who contributed to consolidate research in Psychology in Mexico. The Psychology Department of the Universidad Iberoamericana was founded in 1950 and was the second school of professional studies of this discipline in the Mexican Republic, five years after it was founded at UNAM —1945—. The Department was the second, also, in constituting a post-graduate course for the formation of masters and doctors in Psychology, in 1968.<sup>1</sup> Within the Psychology Department, four scientific and professional national media journals have risen, the most important for our field of study:

1 J. Lafarga, "Roots and projection. Forty-five years of presence in Mexico. The psychology department of the Universidad Iberoamericana", *Psicología Iberoamericana*, vol. 3, No. 3, 1995, p. 5.

1. *Teaching and Research in Psychology (Enseñanza e Investigación en Psicología)*, official organ of the National Council for Teaching and Research in Psychology - CNEIP.
2. *The Mexican Journal of Psychology (La Revista Mexicana de Psicología)*, official organ of the Mexican Society of Psychology.
3. *Revista Psicología Iberoamericana*, official organ of the Psychology Department of the Ibero.
4. *Prometeo. Mexican Journal of Humanist Psychology and Human Development*, product of collaboration, in its time, of the Psychology, Human Development Departments and the centers of Didactics and Counselling Service of the Ibero.

The first of the researchers referred to is Dr. Roberto Navarro Arias. He was born in Guadalajara, Jalisco, on May 13th, 1933. He studied middle school and high school at the Sciences Institute of that city. He graduated in Philosophy from the Free Institute of Philosophy —Mexico City— and completed a Master's degree in Literature from the Institute of Literature —Puente Grande, Jalisco—. He taught at Carlos Pereyra High School in Torreón, Coahuila, from 1958 to 1961. He was also a Master of Science — research — in Psychology and a Doctor of Clinical Psychology from the University of Saint Louis, Missouri, US. Likewise, as a psychotherapist, he was the initiator of Psychoenergetic Body Psychotherapy. He was the director of the Psychological Counselling Center and the Psychology Department of the Universidad Iberoamericana, in the years 1975 and 1976<sup>2</sup>. He directed the Mexican Institute for Teaching and Research in Psychoenergetic Psychotherapy. He is the pioneer of the system of psychoenergetic psychotherapy. He has published some books, among which are:

- Psychoenergeticf, (1984).
- The book for you to stop smoking, (1985).
- Anti-depressive psychotherapy, (1990).
- Body and psychoenergetic psychotherapy, (1999).
- *Emotions in the body*, (1999).
- *Mexican women who suffer (and love) too much*, (2004).

2 Cf. Psychology Department. (1997). "History of the Psychology Department of the Universidad Iberoamericana", n/a, *Quantum*. Online: [http://www.uia.mx/departamentos/dpt\\_psicologia/historia.html](http://www.uia.mx/departamentos/dpt_psicologia/historia.html).



After the University Merit Ceremony Dr. Armando Salcedo Camarena, S.J. talking with Dr. Roberto Navarro Arias.

- *When I love too much*, (2007).
- *Psychoenergetics*, (New updated version, 2007).
- *I adore you and you hurt me*, (2007).
- *How to solve your emotional problems without going to a therapist*, (2008).
- *Jesus and Magdalene*, (2013).
- *Yes, you can quit smoking*, (New version, 2013).
- *Jesus and Mary Magdalene are still alive and surf the Internet*, (2013).
- *Anti-depressive psychotherapy*, (New version, 2013).
- *Psychological strategies for young people*, (2013).
- *Psychological training for young people*, (2013).
- *Psychology, liberation, Latin American*, (2013).
- *Psychological self-help: enjoy joy and emotional health without paying a therapist*, (2014).
- *Single mothers help their children get ahead!* (2014).
- *The helpers: abusive, narcissistic and life protectors*, (2016).
- *The book for you to enter heaven or hell: in the company of angels or demons*, (2016).
- *Training to integrate your true personality*, (2016).
- *Psychoenergetic so you can enjoy your true Self*, (2017).

In his own words, Dr. Navarro explains:

From a modern western psychological and philosophical framework, Psychoenergetics offers effective techniques to overcome anguish, stress, depression, psychosomatic discomforts and alcohol and drug abuse, cultivate the best values and feelings, develop true self, find meaning in life and reach higher levels of consciousness.<sup>3</sup>

Psychoenergetics is a well-known body-mind-spirit humanistic body psychotherapy. It was designed forty years ago to solve neurotic alterations, sexual blockages and psychosomatic discomforts caused by stress, as well as the pressures of hectic life in today's societies. Psychoenergetics poses that health is a state of equilibrium between all the parts that make up the individual and provides a choice of body psychotherapy, to solve the discomforts caused by pressures, family and social problems, typical of today's societies. Through techniques and exercises that highlight mind-body relationship, psychoenergetics proposes to overcome emotional disturbances and recover health.

On September 15th, 1976, Dr. María Teresa Lartigue Becerra was appointed the Psychology Department director (1977-1981).<sup>4</sup> She graduated in Psychology from the Universidad Iberoamericana and obtained a master's degree in psychology from UNAM. She works as a self-directing psychotherapist, and is a doctor in Psychology by Ibero, and Psychoanalyst by the Mexican Psychoanalytic Association —APM—. She is also a didactic and lifelong psychoanalyst, specializing in children and adolescents. She was president of APM (2002-2004) and director of the Psychoanalysis Institute (2004-2006), as well as permanent publisher of *Psychoanalysis Notebooks*.

She worked with marginalized communities to find alternatives for dialogue with them, through the Psycho-community model. She proposed to change passive attitudes, for others of self-management, through a method guided towards communities' development, specially designed for university teaching groups: teaching, research, service to society and creation of a democratic community.

On the other, Dr. Lartigue Becerra is a prolific researcher in the area of pregnancy, reproductive health and mother-child relation, which is verified through

3 Navarro, R. (2016), n/a, Mexican Institute of Teaching and Research in Psychoenergetic Body Psychotherapy. Online: <http://www.psicoeenergetica.com.mx/page1001.aspx>.

4 Cf. Department of Psychology. "History of the Department of Psychology of the Universidad Iberoamericana", op. cit.

the number of papers published -at least 35- in *IMBIOMED*, with topics such as: self-care during prenatal control; mother-child relation in Mexico -cross-cultural aspects; depression in the perinatal stage, psychosomatic difficulties, emotional and behavioral disorders-; risk practices for sexually transmitted infections in pregnant women and their partners; the mental health of the baby; sexuality and human reproduction in Mexico; ethics in reproduction research; HIV/AIDS, etc.

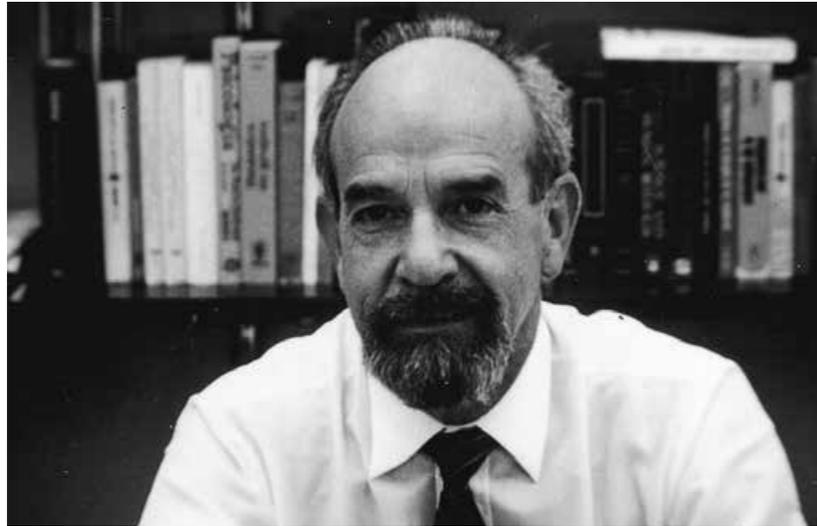
Dr. Lartigue has been very concerned about the mental health and work burn-out of those who work in the health sector: doctors, nurses, psychologists, etc. We can see it in one of her books: *Nursing a high-risk profession* (2000). She has also been interested in the development, validity and reliability of measuring instruments: Edinburgh Perinatal Depression Scales, to detect perinatal depression; guides for the psychodynamic interview of depressive states; Personality Organization Inventory —IPO— in Mexican pregnant women; Inventory of High Risk Sexual Practices -for pregnant women and their partners- and the Inventory of Depressive Experiences.

Her most recognized and outstanding books are:

- *Alternatives for dialogue with marginalized communities*, (1986).
- *Guide for the detection of alterations in the formation of the mother-child bond during pregnancy*, (1994).



Directors of the Human Sciences Division in 1983. From left to right, Doctors Ernesto Weber and Juan Lafarga, Master's Jesús Luis García, Jorge Hernández Sategna, Francisco Prieto and Jesús Ledesma.



Dr. Juan Lafarga Corona, S.J.

- *Guide for the observation of the quality of the mother-child bond during the first year of life*, (1994).
- In co-authorship with Juan Vives Rocabert: *Brief psychotherapy during pregnancy and lactation handbook*, (1994).
- *Sexuality and human reproduction in Mexico*, (1996).
- Between 1998 and 2000, four editions of *Nursing: a high-risk profession*.
- *Psychoanalysis and gender relations*, (2004).
- *Sexuality and gender: a psychoanalytic vision*, (2005).
- *The body and psychoanalysis*, (2006).

Now it's the turn of Dr. Juan Lafarga Corona.<sup>5</sup> For him, the scientific truth is in integration, not exclusion. The complexity of the human being justifies that various hypotheses are generated around its behavior. Behavior cannot be understood through a single philosophical-psychological current. The human being must be seen from the individual and social, the dynamic and behavioral, the emotional and the rational. The doctor concludes that the only non-scientific thing is to do without the different.<sup>6</sup> He himself said that if someone wrote about his work, he would have liked them to say: "He put a grain of sand in the integration of Mexican Psychology

<sup>5</sup> *Ibid.*

<sup>6</sup> Cf. J. Caso (coord.), *Voices of Mexican Psychology*, Mexico, Universidad Nacional Autónoma de Mexico, 2012.

and in the integration of thought, teaching and research towards the well-being of the human being".<sup>7</sup>

Among his contributions to research, I would like to highlight those that had to do with the *Attitudes in front the use of drugs by a student from a private university in Mexico* (1980, 1990). His tireless work in the Seminar *Transformation and Change, Integral Health and Quality of Life in the Human Sciences Division* (1996), of the Universidad Iberoamericana. Dr. Lafarga developed proposals on the *Factors of change in psychotherapy* -co-researcher with Hanne Lore Schluter- in 1993. He also proposed his *Analysis of change factors in people who completed a psychotherapeutic treatment* (1996). Likewise, he carried out his *Psychotherapy Characteristics according to Mexican psychologists who practice it* -co-researcher with Hanne Lore Schluter, Lilia Groues and Irene Pérez-, in 1997 and *Ethical Values of Mexican psychologists* (2001). Finally, he developed *The two faces of aggressiveness: violence and health* (1996).

Tireless driver of humanistic Psychology in Mexico, the theoretical framework that Dr. Lafarga called "human development", will be defined as a relationship between the growth impulse and the search for autonomy: a broader concept that encompasses all theories and all practical systems, to promote individuals, couples, families, groups and society personal growth; that is, human development from any behavioral, psychoanalytic, gestalt and other psychological paradigms perspective. It is worth noting the four volumes, listed below, which have been used as textbooks in various human development programs and remain until today as the best-selling psychology books by Trillas publishing house.

- *Development of human potential*, vol. I (comp. and author), 1968.
- *Development of human potential*, vol. II (comp. and author), 1978.
- *Development of human potential*, vol. III (comp. and author), 1979.
- *Development of human potential*, vol. IV (comp. and author), 1983.
- *Human development. Personal growth* (author), 2013.

Another important contribution was made in CNEIP magazine, with topics on teaching and research of Psychology in Mexico: "Why postgraduate programs in Psychology in Mexico?" (1975); "The great question to the Psychology schools, teaching and research in psychology" (1976); "Who is the Psychology teacher today?" (1976); "Psychology: science or profession?" (1976); "Experience and personal growth. Self-Directional Psychotherapy" (1976); "Proliferation of Psychology schools in the country. Teaching and research in psychology" (1977); "Who is the

<sup>7</sup> *Ibid.*, p. 75.



Dr. Antonio Tena, former director of the Psychology Department, Director of the Center.

Mexican psychologist?" (1977); "The Psychology professor formation in the country needs research" (1977); "The System centered on the person in psychotherapy" (1978); "Values, motivation and professional ethics of the psychologist" (1979); "Five years in perspective" (1979); "The psychologist, identification model" (1980); "Professional identity of the psychologist" (1980); "Unity in the National Council for Teaching and Research in Psychology" (1981); "Professional Formation without Supervised Practice" (1981); "Psychologists in Mexico. Who and how many are we?" (1982); "Eight years of uninterrupted publications" (1982) and, finally, "To be or not to be" (1983).

The participation of Dr. Juan Lafarga in the Mexican Society Journal of Psychology includes: "Learning and questioning about the disaster in Mexico City" (1985); "The Mexican psychologist

today: from the service of man to the knowledge of man" (1986); "Carl Rogers dies, one of the most outstanding psychologists and educators of the century" (1986); "The Mexican professional psychologist (some hypotheses about the application of psychology in Mexico)" (1987); "Are theoretical and applied research really different?" (1987); "Five years of the *Mexican Journal of Psychology*" (1988); and, finally, "Changing of the Guard in the Mexican Journal of Psychology" (1989).

In the *Prometeo Magazine. Mexican Journal of Humanist Psychology and Human Development*, Dr. Lafarga has published: "Human development towards the year 2000" (1992); "Induced abortion" (1992); "Future of psychotherapy in Mexico and Latin America" (1993); "Ezequiel Nieto: psychotherapy manual for clinical psychologists" (1993); "Creativity for adults" (1994); "The woman in Church" (1996); "Either we save ourselves together or we all perish" (1997); "Release or manipulation. The love that gives freedom" (2001); "The reflection of the companion" (2001); "Sixteen years later. Prometeo" (2002); "Awakening of conscience" (2003); "The power of peace" (2003); "Transformation and change, comprehensive health and quality of life. Eight years of research in human development at the Universidad Iberoamericana (1989-1997)" (2003); "Words and faces of human development in Mexico. Experiences and projections" (2004); "To trust or not to trust" (2006); and, finally, "The joy of believing, spiritual dimension of the person" (2008).

In the *Psicología Iberoamericana* magazine of the Psychology Department of the Ibero, Dr. Lafarga has published, among other papers: "Forty-five years of

presence in Mexico" (1995); "Ten years of the *Psicología Iberoamericana* magazine" (1999); and "Cure or promote health?" (2000).

In a conclusive way, and in his own words, his contribution can be summarized as follows: "Having put psychology at the service of personal growth, not instrumentally, but as a natural recipient in the search for knowledge".<sup>8</sup> ¶

8 *Ibid.*

# José Fernando Gómez del Campo Estrada

## *Research in Human Sciences*

From 1989 to 1996, Juan Lafarga led the institutional research program “Transformation and Change, Comprehensive Health and Quality of Life”, within the Human Sciences Division. The members of the program, academicians of several Departments such as Anthropology, Sociology, Psychology, Communication and Social Service, met weekly in a two-hour seminar, to submit their research progress. The participants were accompanied by Juan Lafarga and José Gómez del Campo, from the formulation of their projects, until the end of the research.

The goal of the program was to investigate the factors and processes of change, personal, group, organizational and social growth, as well as the review and development of instruments and paradigms, to account for them. In this regard, four lines of research were raised:

Analysis of change elements on change processes, in the different psychotherapeutic and orientation processes, both individual and group, focused on promoting health and development of people and their communities.

Study of the conditions that favored significant learning in educational processes; that is, learning directly related to the interests, activities and personal and social development of learners and educators, both in family and at different levels of formal and non-formal education.

Identification of productivity factors related to human development of personnel in companies and other organizations or work groups. In this sense, by “human development” was understood the processes of growth and maturation progress, through which individuals, groups and societies travel.

Exploration of personal growth and development in the different groups, ethnicities and organizations that make up Mexican society, as well as the manifestations of these patterns in national culture.

Within the first line, Juan Lafarga, Hanne Lore Schlüter, Lilia Groues and Irene Pérez researched psychotherapy characteristics and the profile of people who concluded a psychotherapeutic process; Teresa Lartigue and Juan Vives explored various aspects of the assessment, quality and development of the mother-child bond; Laura Elliot and José Antonio Vírveda studied behaviors related to eating disorders; Luz Piña and Fernando Quintanar studied death from the perspective of Humanistic Psychology; Lucía Ortega and Silvia Vásquez reported students' changes of the Master in Human Development of the UIA, due to their participation in growth groups; Ernesto Rage, José Antonio Vírveda, Antonio Tena and Lorena Matus explored the meaning of life in university students of the UIA; Lorena Matus researched self-concept and patterns of self-care in the elderly; Marco A. Bautista proposed the assessment of a psychological support model by telephone for adolescents; Nérida Gliemann reported her observations about the role of the humanist psychologist in the promotion of public health; Ernesto Rage, José Antonio Vírveda and Antonio Tena studied the couple relationship and the attitudes of young people towards marriage; Federico de Tavira and Susana Hirsch researched the relationship between affections and music; Raquel Atri and Carolina de la Luz Sánchez did work on the female sexual role.

From the second line of research, the following researchers and their work can be mentioned: Juan Vega explored the self-realization in full time professors of the UIA; Federico de Tavira and Adriana Servín made a comparative study of creativity and personality among students and teachers of the UIA; Araceli Aizpuru worked on the development of a community practices handbook, highlighted the role of the supervisor as a change agent and evaluated a psycho-affective development in children program, which he related to the profile of university students working with them; Irene Pérez researched the teachers' attitude towards the use of computer in education and, together with Juan Lafarga and Hanne Lore Schlüter, he conducted a study on ethics in Mexican psychologists.

Mariano Araiza, Irene Pérez and Juan Lafarga researched the effects of the meeting groups in the formation of bachelor's degree in Psychology students; Humberto Rivera studied attitudes towards teaching in UIA academicians; Odette Lobato researched the quality of life in UIA teachers; Carlos Serrano designed

and validated an instrument to assess teamwork; Joaquina Palomar designed a valid and reliable instrument to assess the quality of life; Juan Lafarga and Lorena Matus researched attitudes, experimentation and drug use in UIA students; Hilda Eltherman, Raúl Barba, Aída Cortés and Lucía Ortega researched non-formal education programs with parents and street children.

On the third line, only Patricia Torres and Claudia Ytuarte's research was carried out, about the changes in work processes in Mexican companies with regard to commercial opening. Regarding the fourth line of research, transcendent projects were also carried out, Silvia Bolos and Ma. Teresa McKelligan researched social participation around urban demands for services and rights; Silvia Narváez and Manuel Ramírez studied the influence of human rights violation, in the socio-political conformation of the indigenous people; Martin Walker addressed intergroup relations and identity in the Free Trade Agreement; Germán Plasencia focused on the interdisciplinary study of production processes and environmental crises; Manuel Ramírez researched the socio-political emergence of the indigenous people movement in the area of the Isthmus of Tehuantepec, Oaxaca; David Robichaux studied economic transformation and demographic trends in rural areas of Tlaxcala, where he also explored the Mesoamerican system in the formation of domestic groups and their sensitivity to economic transformation.

The program produced numerous investigations that were presented in conferences and other forums, in addition to being published as a thesis, sabbatical investigations, papers in specialized journals or in journals of the Universidad Iberoamericana, such as *Prometeo* and *Umbral XXI* and the *Research Notebooks in the Human Sciences Division. Transformation and Change, Comprehensive Health and Quality of Life*. In addition to the seminar, dissemination activities were organized, such as conferences, conversations, book presentations and open exhibits to the university community, with topics related to the program, in which both program researchers and professionals and experts from Mexico and foreigners participated.

From 1993 to 1996, Juan Lafarga was a National Researcher Level 1 of the National Researchers System—SNI— and left the program to go to the Academic General Directorate and, subsequently, to the Rectorate of the UIA-ITESO System. Since 2005 he summoned a group of human development academicians, culminating in 2008, with the foundation of the National Institute for Human Development Research - INIDH - that remains active. ¶



Dr. José Gómez del Campo Estrada, 1994.

Alba González Jácome\*

*Ángel Palerm and Social Anthropology*

**By way of introduction**

In Mexico, between 1960 and 1970, research—in particular, social research—was almost non-existent. To teach in universities, professors were not required to have PhDs and the master's degree was the desired optimum degree to be part of an academic institution. In order to teach in the bachelor's degrees, it was only necessary to have one and with the master's degree you could teach in the postgraduate course. Conacyt—founded in December 1970—did not have the National Researchers System (SNI), which was created until July 1984, to “promote the development of research-related activities to strengthen its quality, performance and efficiency”.<sup>1</sup>

1 Conacyt documents. National researcher recognition is granted through peer evaluation. The

\*  
Emeritus Professor at the Universidad Iberoamericana, Mexico City Campus; member of the Mexican Academy of Sciences and the National Researchers System, level 3. She is currently a Guest Researcher in the Regional Centers System, Universidad Autónoma Chapingo, Texcoco, State of Mexico.

Before its creation and that of the SNI, there was no institution, external to Mexican universities themselves, that assessed the academic quality of universities; neither that of their professors, researchers, plans, programs and the teaching that was taught in them.

There were also no scholarships for graduate students, which in the case of Anthropology were very necessary.<sup>2</sup> It was, and is important, support in universities where graduates want to see their efforts paid in a short time; and careers in undergraduate or postgraduate degrees for social purposes —with their possibilities of work in institutions aimed at the benefit of society— do not allow it. A high percentage of the postgraduate students of Anthropology at the Ibero required and require monetary support to study and support their families and, at the same time, pay for higher education costs at the university. It is in that context that a part of the work carried out by Ángel Palerm is understood during his stay in the Iberoamericana.

### His contributions to Anthropology in the Iberoamericana

Ángel Palerm used to say that research is not just a job, it is a way of life and not a bureaucratic work, with a set schedule, a watch for monitoring check-ins and check-outs, and a daily routine. He also practiced that where one learns to *research by researching*.<sup>3</sup> Palerm shared with other colleagues and friends of his<sup>4</sup> this way to see teaching and research. In the Iberoamericana, Palerm coincided in these ideas

appointment is a distinction that endorses the quality and prestige of scientific contributions, and is associated to economic stimuli, the amount of which varies with the level assigned. The Iberoamericana entered the system in 1997 but the institution had to pay economic stimuli to researchers selected by the system. It was later, when Conacyt signed an agreement with the University to pay the stimuli directly to researchers.

- 2 The support for obtaining the first scholarships for graduate students in Anthropology was given by Miguel González Avelar, then Secretary of Public Education. Among the beneficiaries with the support, was González Avelar's wife, Tere Vale, then a graduate student in Anthropology at Ibero. This implied the acceptance of Conacyt, to grant scholarships to students of a private institution, which was not originally contemplated. Patricia Torres Mejía, then Postgraduate Coordinator, carried out the procedures in the Department and in the University, for the granting of scholarships.
- 3 J. A. González, "Learn to Research Researching," in N. Rebolledo R. (coord.), *Learn to learn. Nuevas Rutas en Pedagogía*, Mexico, CONACULTA/SEP-Tlaxcala/ITC, 2016, pages 95-116.
- 4 Among the Mexicans were Gonzalo Aguirre Beltrán, Efraím Hernández X., Arturo Gómez Pompa, José Sarukhán Kermez, among the foreigners were Karl Wittfogel and Gonzalo Robles Fernández.

with Ernesto Meneses Morales —vice rector in 1965 and rector in 1968— and with Ernesto Domínguez Quiroga —rector between 1980 and 1988—. Ernesto Meneses used to say that: "Both teaching and research and cultural dissemination should be characterized by an eagerness to provide the best service in terms of human quality and academic excellence" (Fundación Ibero Meneses AC).

In 1966 discussions for the reorganization of the University began. It initiated with the conversion of schools and graduate schools, which it then had, into departments. This allowed abandoning the academic dependence of UNAM and entering into a model inspired by other educational models, in whose academic base was multidisciplinary integration and the interrelation between teaching and research.

The progress of science in the nineteenth century modified this attitude of the university teacher [as a reader of notes] and drove them not only to enrich its own discipline with new knowledge, but to teach its students the discoveries made through research. This dynamic factor, unprecedented in higher education, introduced important innovations in teaching; the seminar and lab assignments.<sup>5</sup>

In 1967, Ángel Palerm published, in the paper "Departmental Organization"<sup>6</sup>, a proposal to generate a type of organization where teaching and research were directly linked. The case he showed was the work plan for the then Anthropology Department at the Universidad Iberoamericana. Palerm was closely linked to the academic interests of the Iberoamericana, which is verified in the series of publications he made in the *Comunidad* magazine, a very important organ of expression in those years.

The departmentalization of the Ibero is organized in 1970, creating the graduate Academic Committee; for 1971 the university Senate holds its first meeting (Ibero Timeline). The school of Anthropology becomes the Anthropology Department and, thus, ceases to have the same study programs and professors as the National School of Anthropology and History —ENAH—. The teaching of the discipline is modified, when a new study plan is created, where field research is carried out in summers, with a duration of six weeks; postgraduate programs cease to

- 5 Ernesto Meneses Morales, "A profile of the university teacher" (Un perfil del maestro Universitario), *Revista de la Educación Superior*, no. 24, Mexico, ANUIES Publications, 2011 [original 1977?], page 4.
- 6 Ángel Palerm, "Departmental Organization" (Organización departamental), *Anuario Indigenista*, Vol. XXVII, no. III, Mexico, 1967b, pages 197-206. It was reissued in 1987.

have the number of semester hours for each seminar —approximately 100— and are reduced, first, to 68-80 semester hours —four hours a week for each seminar—. Second, years later, they are reduced to 51 —three hours per week per seminar, with 17 sessions on average.

### Teaching of research in the Anthropology Department

In Anthropology there were no seminars for teaching methodology, because it was taught in the field work. In the early days, it was held between December and January. The school calendar reorganizations, in the Public Education Secretariat (SEP), changed the schedule, and the field work was carried out in the summer. The facilities of the Joseph de Acosta Field Station, located in Tepetlaóztoc, Texcoco, were used to lodge undergraduate and graduate students. Shortly thereafter, field work was also organized and carried out in other parts of the country, and later, on the border with the United States —San Diego, Texas— where studies in the Tennessee Valley were transcendent; they were also performed in other Latin American countries. To understand the way in which fieldwork was organized after 1965, we will go back a few years in time.<sup>7</sup>

The School of Anthropology of the Iberoamericana was founded in 1960, by Luis González Rodríguez<sup>8</sup> and Juan Lafarga Corona.<sup>9</sup> Between 1964 and 1965, Ángel Palerm taught Ethnology at the National School of Anthropology and History

7 Cf. J.A. González, “Spanish Utopias in Mexican lands: Ángel Palerm and the formation of Mexican anthropologists” (Utopías españolas en tierras mexicanas: Ángel Palerm y la formación de antropólogos mexicanos), in M. Rutsch and MM Wachter (coords.), *Bricklayers, Scribes and Memorialists: networks, narratives and subjects in scientific communities*, (Alarifes, Amanuenses y Evangelistas: redes, narrativas y sujetos en las comunidades científicas) col. Científica, Mexico, INAH/Universidad Iberoamericana, 2005, pages 223-239. J. A. González, Ángel Palerm. *Spanish Political, Social and Economic Thought on Latin America Anthology Collection*, (Colección Antología del Pensamiento Político, Social y Económico Español sobre América Latina) Spain, Spanish Agency for International Cooperation (AECI), 2006. J. A. González, *Water and Agriculture. Ángel Palerm, the discussion with Karl Wittfogel on the Asian Mode of Production and the construction of a model for the study of Mesoamerica*, (Agua y Agricultura. Ángel Palerm, la discusión con Karl Wittfogel sobre el Modo Asiático de Producción y la construcción de un modelo para el estudio de Mesoamérica) Mexico, Universidad Iberoamericana and Spain, Center for Higher Scientific Research (CSIC), 2007. J.A. González, *Learn to learn. New Routes in Pedagogy*, *op. cit.*, pages 95-116.

8 Then Jesuit and director of the school between 1964 and 1969.

9 Founder of the Psychology Department in Iberoamericana.

(ENAH) and at the School of Anthropology of the Iberoamericana. Both institutions depended academically on the Universidad Nacional Autónoma de México (UNAM); they shared the same study programs and the same teachers; in those years there was no division between a bachelor’s and a master’s degree. The latter was obtained with traditional educational programs, carried out in five years and doing several field work. The graduates did not have a bachelor’s degree and directly acquired the master’s degree.<sup>10</sup>

In 1967, the Iberoamericana started its Master’s and PhD in Anthropology programs, besides creating the Social Sciences Institute —Ibero Timeline—. By 1969, the Graduate School of Social Sciences of the Iberoamericana was created, where postgraduate studies began, and whose director was Ángel Palerm.

One of the characteristics of these studies was to place research as the basis of teaching; another was to gather undergraduate and graduate students in field work. The seminars were annual, the field work was led to research for thesis and obtaining the degrees of Master and Doctor of Anthropology and Social Sciences. The Graduate School had the academic support of young teachers and their friends and colleagues.<sup>11</sup>

In 1974 and 1975, the teachers’ workforce reached 34; the internal governance body was the Technical Council. There it was decided the acceptance or rejection of new professors to the academic workforce; differences between professors and students were solved, in addition to situations related to the teaching of the discipline, the approval of research projects and field work. After 1980, with the disappearance of the Anthropology Department, the number of professors was reduced first to six and then to eight, an amount that has not increased after.<sup>12</sup>



Professional Examination for bachelor’s degree in Ethnology of Ángel Palerm Vich.

10 J. A. González, *Spanish Political, Social and Economic Thought on Latin America Anthology* (*Antología del Pensamiento Político, Social y Económico Español sobre América Latina*), *op. cit.*

11 The list of teachers included: Gonzalo Aguirre Beltrán, François Lartigue, Pedro Carrasco Pizana, David Barkin, Richard N. Adams, David H. Kelley, Sidney Mintz, Salomon Nahmad.

12 This situation has generated constant difficulties, since the necessary plant to continue

## Research, professional qualification and professionalization of students

Before, like now, it was difficult for students to graduate, despite having finished their studies; therefore, it was an important task of Palerm to organize and achieve said professional qualification and graduation. For that purpose, he applied much of his time in the translation and publication of classic and necessary works in the formation of students. In 1971, he translated *Notes and Queries on Anthropology*, a work created and organized by a Committee of the Royal Anthropological Institute of Great Britain and Ireland, published in 1874, and aimed at improving and homogenizing the information obtained by anthropologists in the field.

Later, Ángel Palerm, with the support of Richard N. Adams and Carmen Viqueira translated and published the *Guide for the classification of cultural data* —Murdock's Guide— which represented the culturalist approach and was a basic tool in the fieldwork. It was published in Spanish in 1954 by the Pan American Union and in 1976, in Mexico. The publication in Spanish of "classics" in anthropology required its translation from English; under the selection of authors made by Palerm, Carmen Viqueira began translating Malinowski. This idea coincided with Spanish publishers and a series of works that were virtually unknown in Mexican anthropology appeared on the market.

During his directorate at CISINAH —Research Center in Social Anthropology of the National Institute of Anthropology and History—, books and workbooks were published, with the results of theses and research projects. The projects covered social, political, economic and cultural problems of rural and urban societies in several federal entities in Mexico.<sup>13</sup> Research was also initiated by Mexican and/or foreign anthropologists studying anthropology in Mexico.<sup>14</sup> The processing and follow-up of scholarships to support these students was one of the fundamental tasks at the Ibero, for which the support received from CISINAH and international institutions was important.

Another of the academic goals of Dr. Palerm was the formation and professionalization of young anthropologists, whose thesis should be the product of

belonging to the National Postgraduate Program (PNP) in Conacyt is a minimum of 12. For this reason, the current postgraduate course requires the collaboration of professors from the area of sociology, which —somehow— is beneficial to students; however, it restricts the possibilities of opening many branches of contemporary anthropology at the University.

13 Among them: the Basin of Mexico, the State of Mexico —Acolhuacan and Texcoco, mainly—, Tlaxcala, los Altos de Jalisco, Morelos, Hidalgo, Chiapas and Guanajuato.

14 Among the foreigners were students from Central America, Brazil, Paraguay, Peru, Ecuador, Chile, Spain, the United States, Germany, Sweden, Japan, and others.

research carried out on site and focused on problems arising from the national situation, which could be studied from Anthropology. He himself advised the theses of several students, requesting the collaboration of other colleagues, so that —according to their theme— they would advise their research. This work was benefited when, in 1973, Ángel Palerm was appointed director of the then CISINAH.<sup>15</sup>

The new institution had the support of SEP's Popular Culture and Extracurricular Education Undersecretariat, where Gonzalo Aguirre Beltrán was director. From CISINAH, in close collaboration with the then Anthropology Department of the Iberoamericana —created in 1974—, he promoted —with academic, monetary and publications resources— the organization and development of research projects for young people. These, for a few years, had advice and financial resources to carry out the necessary studies in the preparation of their thesis. Carmen Viqueira participated in these projects, who, with a team of enthusiastic students of the Iberoamericana bachelor's degree, carried out their research in Ciudad Sahagún, State of Hidalgo, initiating what in those years they called Industry's Anthropology, then considered as a new approach in the discipline.<sup>16</sup>

For Dr. Palerm, the professionalization of anthropology students included, in a very important way, the dissemination and discussion of partial and final results of the research they carried out. For this, a symposium was organized, at the Ibero facilities in Campestre Churubusco, to discuss the results of the project and the future of Industry's Anthropology, in which researchers and students from other universities and research centers participated. Dr. Palerm used to support the participation of professors and students in this type of academic events. Some research projects were carried out in other countries —including the United States<sup>17</sup>—, which allowed to

15 In 1980, CISINAH changed its name to CIESAS —Center for Research and Higher Studies in Social Anthropology—, abandoning its original intention to support anthropological research among young people, led by formed researchers with recognized academic prestige. CISINAH supported the dissemination of research results, through book publications, workbooks and the organization of round tables, courses, seminars and conferences, with the participation of prestigious professors.

16 These studies are part of the branch of the discipline known as Economic Anthropology, a branch that —as such— has not been taught in Mexico. At the Graduate School of Social Sciences, seminars on Economic Anthropology were taught (by David Barkin, who had just arrived in Mexico City and the Iberoamericana. François Lartigue also led another seminar on Economic Anthropology. Currently, Dr. Barkin works in the UAM-Xochimilco and Dr. Lartigue, worked in the current CIESAS until his death.

17 The San Diego-Texas Project included the Tennessee Valley project and another, on political anthropology, on the border between Chihuahua and Texas. Participants: Elena Bilbao, Roberto Melville Aguirre -who later became a professor at the Iberoamericana and currently

confirm the efficacy in the application of the research model brought by Palerm—Cultural Ecology— developed, tested and modified in Iberoamericana. Cultural Ecology was taught and used at the University between 1966 and January 2014; it is part of a branch of cultural anthropology, known as Ecological Anthropology. The field work and ethnography management have influences from British Social Anthropology; also, from the Cultural Geography from the Berkeley School, the French Geography, Ecology, Physics and its models applied through the so-called Complex Systems Theory—also popularly known as Chaos Theory—; and, of course, of History and Ethnohistory, which play an important role in the discipline.<sup>18</sup>

Palerm's academic flexibility supported the diversity of approaches, since not all teachers shared the Cultural Ecology model; however, the same professionalism in teaching was expected of them. To train undergraduate and graduate students in this model, as well as anthropology professors, Palerm published three books on ethnological theory, for use in classes. In addition, he organized a series of seminars, which were taught at the Graduate School of Social Sciences, both in the bachelor's degree and in the Social Anthropology Postgraduate degree and in CISINAH.

found in CIESAS-CDMX—, and two other Ibero students. In the study on political anthropology, border and migration between the United States and Mexico, Carlos González Herrera, from CISINAH, and several undergraduate students from the Iberoamericana participated. The model was modified by the results of the research experience in the Iberoamericana, to which numerous studies carried out were added, first at the field station in Tepetlaóztoc, and then in different regions of the country. After 1980, a series of professors kept using the Joseph de Acosta field station. Cf. J. A. González, *Bricklayers, Scribes and Memorialists: networks, narratives and subjects in scientific communities*, op. cit. J. A. González, Ángel Palerm. *Spanish Political, Social and Economic Thought about Latin America Anthology Collection*, op. cit. J. A. Gonzalez, *Water and Agriculture. Ángel Palerm, the discussion with Karl Wittfogel on the Asian Mode of Production and the construction of a model for the study of Mesoamerica*, op. cit. J. A. González, *Learn to learn. New Routes in Pedagogy*, op. cit. Roger Magazine, Tomás Martínez Saldaña (coords.), *Texcoco in the new millennium. Change and continuity in a peri-urban region of the Valley of Mexico (Texcoco en el nuevo milenio. Cambio y continuidad en una región periurbana del Valle de México)*, Mexico, Universidad Iberoamericana, 2010. Tomás Martínez Saldaña, *Los Altos de Jalisco. A sociological reflection (Los Altos de Jalisco. Una reflexión sociológica)*, Jalisco, Postgraduate School, Montecillo, Texcoco and Municipal Government of Arandas, 2015.

18 Among them were taught: Economic Anthropology, Anthropology and Marxism, Industry Anthropology, Ethnohistory, Non-Anthropological Currents in Anthropology, Urban Anthropology, Ecology. Research seminars were also organized, such as the one Dr. Ángel Palerm led on the Basin of Mexico in CISINAH. As a result of these activities, all participating students, from Iberoamericana and CISINAH, graduated; besides, several books were published.

Palerm considered that a dissertator had not finished graduating if he did not publish the results obtained in his research; this was done through a book or several papers. Despite the insistence of the Public Education Secretariat and the pressures that were exerted on the authorities of the Iberoamericana, in those times no modifications were accepted that would simplify and negatively affect the activities, or reduce the quality of the thesis, only to graduate a greater number of students. Conacyt regulations have reduced the number of school years and the reception time of students. To level the academic preparation and quality of the studies that students receive, they invented the postdoctoral degree.

Currently, in several teaching and research institutions, future graduates are asked to publish one or two, and up to three papers, in recognized journals, before moving on to the completion and approval of the thesis and receipt of the master's or doctor's degree, in the specific subject of each one of them. In relation to this idea and the need to publish, Ángel Palerm created the *Workbooks* of La Casa Chata and looked after books publication, including research carried by graduated students.

The earthquake of March 14th, 1979 destroyed an important part of the University's facilities in the Campestre Churubusco neighborhood. Classes resumed in a building loaned by the Mechanical and Electrical Engineering School of Higher Education—ESIME—in Culhuacán; by May 31st of that same year the academic activities were restarted in the provisional facilities of Cerro de las Torres. In spite of everything, the Anthropology Department organized its work and field work in the summer. The professors carried out studies in Tepetlaóztoc and in Ciudad Sahagún<sup>19</sup>, Tlaxcala, Los Altos de Jalisco<sup>20</sup>, the state of Morelos and the US-Mexico border.<sup>21</sup>

Palerm's teaching method was a modern adaptation to "learn by doing"; it required—of course—that students wanted to learn to do research, starting with fieldwork. In a conference given at the Universidad Autónoma Metropolitana of

19 Among Carmen Viqueira's students were: Patricia Torres Mejía, Ma. Esther Echeverría Zuno and another girl. In Texcoco: Jacinta Palerm Viqueira, José González, Gerardo Aldana, Jay Sokolovsky—from William T. Sanders group—, Alma Rosa Rodríguez and Michel C. Ennis Macmillan.

20 In the Los Altos de Jalisco, bachelor's and master's students participated, and all graduated. Among them, were: Tomás Martínez Saldaña, Leticia Gándara, María Antonieta Gallart, José Díaz, Román Rodríguez, Virginia García Acosta, Carmen Icazuriaga and Jaime Espín Díaz. Initially, they were headed by Ángel Palerm and had the advice of Richard N. Adams; field coordinators were Andrés Fábregas and Gustavo del Castillo. They were periodically supervised by Brigitte Böehm (personal information of Tomás Martínez Saldaña).

21 The projects were organized: San Diego-Texas—Ma. Antonieta Gallart and Elena Bilbao—and the one from the Tennessee Valley—Roberto Melville.

Xochimilco, during the Educational Seminars in October 1975, with the topic “Concrete proposals to promote social change in Latin America”, Palerm established an important element in research conception, which he implanted at the Universidad Iberoamericana and the then Anthropology Department:

Of course, there is a need to very clearly differentiate the routine scientific activity from the one that is really creative, as in the examples I have just brought for discussion. Kuhn makes this issue the central theme of his science historical development analysis. He considers that his process consists in the destruction and substitution of paradigms and not simply in its incessant improvement. Science progress is not linear and continuous but is made of ruptures and new beginnings.<sup>22</sup>

In other words, learning to *research researching* was the principle of Anthropology teaching in Iberoamericana.<sup>23</sup> Its educational application was adapted to local, regional, state and national conditions of the study places. It was based on the set of problems derived from logical questions emerging in the places where human groups live, and from the surrounding natural and social environment. This research model begins with tours through the area or region, the possible place selected for the study and casual talks with people they meet. From these ideas emerged Dr. Angel Palerm’s concern to create a field station, where anthropology students would learn to research, and took the first steps to do so.

### Joseph de Acosta Field Station

Between 1964 and 1965, the Joseph de Acosta field station arose, under the academic and monetary auspices of Ángel Palerm and Carmen Viqueira; with the contributions of used furniture, in good condition, taken to Tepetla —short form of

22 Ángel Palerm V., “The University and Socialization” (La Universidad y la Socialización), Conference in the *Educational Symposium* under the auspices of UAM, Xochimilco Unit, with the topic: “Concrete proposals to promote social change in Latin America” (Proposiciones concretas para promover el cambio social en Latinoamérica), October 20, 21 and 22, 1975.

23 J. A. González, Ángel Palerm. *Spanish Political, Social and Economic Thought about Latin America Anthology Collection*, op. cit., p. 24. J. A. González. *Learn to learn. New Routes in Pedagogy*, op. cit., pages 95-116.

common use among students— by several families of the then students of the Social Sciences Graduate School of the Iberoamericana. It was located in Tepetlaóztoc, a town located a few kilometers from the city of Texcoco, in the cultural area that its students called “the Northern Acolhuacan”. Ángel Palerm, together with Eric Wolf, Pedro Armillas and other colleagues and friends, had studied the area years before they took there students.

In the tours through the field station, Dr. Palerm invited specialists from different areas of knowledge, who gave a talk, walked together with students of anthropology, or archeology, and made reflections thereto. Among these were: Karl Wittfogel, Eric Wolf, Gonzalo Robles Fernández; William T. Sanders and his students, and Efraím Hernández X. and his students. These specialists, over several years, accompanied Palerm and his students in their field work, which took place in the summer, for six weeks. From these experiences several questions arose that were gradually answered, and where these played an important role. The field station complemented the teaching-learning of ethnography, of which Palerm, among many other things, said that:

Ethnography becomes a cultural tradition and almost a literary genre, along with travel stories, from the classical tradition inaugurated by authors such as Herodotus, César, Strabo or Tacitus, to the present day. This cultural tradition of humanistic content modifies its orientation in the mid-nineteenth century to become a formal science and it is at this time, when it intends to differentiate itself from the valuable and extensive precedents by placing the label of pre-scientists.<sup>24</sup>

After Palerm’s death in 1980, the use and management of the field station during summers was in the hands of Carmen Viqueira. This led to numerous research and undergraduate and graduate students graduated. Apparently, there were about 15 undergraduate and 25 postgraduate theses.<sup>25</sup> With Viqueira’s retirement —1999—, several professors advised the field work at the Joseph de Acosta station, among them, Tomás Martínez Saldaña, Alba González Jácome and Casey Walsh,



Ángel Palerm (1917-1980), social anthropology impeller in Mexico.

24 Ángel Palerm V., *History of ethnology. The precursors (Historia de la etnología. Los precursores)*, Mexico, CIESAS/Universidad Iberoamericana, 2010 [original 1974], p. 14.

25 Roberto Melville Aguirre, “Carmen Viqueira Landa: rereading her contributions to anthropol-

subsequently, Roger Magazine and David Robichaux took over the station and field work.

### Some final considerations

The history of Social Anthropology research in the Iberoamericana has been a good experience for education. In past times, future Mexican anthropologists, archaeologists and historians, faced the study of human societies, where aspects such as: economic, political and social groups to which they belonged, and the own culture of each were involved. Everyday life made students live with teachers and fellow students, with their customs, with foods different from the usual ones. Learning to *research researching* was a process that included learning to live with other people and their cultures, which was complemented with the participation of teachers and students in symposia and round tables, and with the production of papers and books.

The anthropology of those times was professionalizing, focused on social and cultural research, it followed the parameters of scientific research. Also, it generated novel information from human societies, sometimes little known; it answered questions derived from different realities, social, cultural and economic groups in the country, and outside it. It faced studies in rural and urban societies, local and regional development projects, companies, social problems and others. Its ethnographic methodology was advanced and reconstituted to the extent that more research was done.

In teaching, both in seminars and in field research in the Ibero's Anthropology, students were treated individually and collectively. Theses, publications, on site field work, were fundamental parts of the discipline. Publications, a fundamental part in the dissemination of knowledge, learning to live with other cultures was a training that did not exist in other educational institutions where Anthropology was taught. That is to say, tolerance went further, by becoming aware of ethnic, economic, social and cultural differences, to be part of living with different human groups, based on respect for ways of living, thinking and acting of people and social groups.

Ángel Palerm's academic legacy is in all those who met him personally, both in the classrooms and in the field, and in the cafeterias of the university, where we discussed for several hours the ideas that arose in the seminars. It is also a legacy for

ogy" (Carmen Viqueira Landa: relejendo sus contribuciones a la antropología), *Desacatos*, no. 35, Mexico, Center for Research and Higher Studies in Social Anthropology, January-April 2011, pages 165-170.

those who did not know him personally, but who have been students at the Ibero and have recognized him through anecdotes and stories, in addition to reading his articles and books, and his powerful arguments, which remain valid, to this day. Palerm was a great teacher, a leading researcher, who achieved international fame, a promoter of the quality higher education and a foundation in the formation of the Iberoamericana, as a university with national and international recognition. He was a universal Ibicenco, as his countryman Joan J. Pujadas wrote.<sup>26</sup>

If there is or can exist a universal discipline by its very nature, it is anthropology. If there is or can exist a scientist devoid of nationalist, racist, cultural or social prejudices, is the anthropologist. We are part, teachers and students, of a true international community. However, there are all kinds of reasons —pedagogical, academic, cultural, even economic— to wish to see greater production in Spanish in the field of sociocultural anthropology.<sup>27</sup> ¶

26 Cf. Joan J. Pujadas, "Catalan anthropology and Spanish republican exile in Mexico" (La antropología catalana y el exilio republicano español en México), *Revista de Dialectología y Tradiciones Populares*, vol. LXXII, no. 2, Spain, July-December 2017, pages 38-440.

27 Ángel Palerm, *Introduction to Ethnological Theory (Introducción a la Teoría Etnológica)*, Mexico, Universidad Iberoamericana, 1967, p. 190.

Carmen Bueno Castellanos

*Carmen Viqueira's Contributions  
to Anthropology*

For me this is a fine opportunity to review and reconstruct the research contributions of our illustrious teacher Carmen Viqueira Landa. The texts by Roberto Melville in 2011 and Miriam Beltrán in 2010<sup>1</sup>, on the occasion of her death in July of that year, are not only important references for what I present here, but have also provided me the opportunity of identifying with the perceptions and experiences that have marked an approach on how to work in the field of anthropology for those of us who were her disciples.

Carmen was born in Badajoz, Spain in 1923. She was obliged to leave her homeland during the Spanish Civil War and spent a brief period in England, arriving

1 I highly recommend reading both texts since they provide a rigorous analysis of Carmen Viqueira's legacy.

in Mexico in 1940, where she lived during most of her life. A year after her arrival she married Ángel Palerm, an outstanding anthropologist and with whom she had four children. Her initial studies were in psychology, a field she enrolled in at the Universidad Nacional Autónoma de México (UNAM). Her thesis points to the fact that she always had an interdisciplinary dialogue with social anthropology. Later, at the Universidad Iberoamericana in Mexico City (UIA), she found an academic niche in social anthropology for her graduate studies and obtained a PhD in the mid-seventies. She later joined the faculty and formed part of it for over thirty years. She continued her work in research, coordinating graduate studies, the Interdisciplinary Program for Research and Regional Analysis, and as head of the Anthropology Department.

Hereby follows a chronological review of her publications. Carmen's first two research articles are Rorschach's *Psychodiagnostic Application to Anthropology and the Cultural Factors of Perception. An Ecological Study*. The first article was to obtain her M.A. in psychology in 1950 but was never printed. The second was her doctoral dissertation, first published in 1974. The Center for Research and Higher Studies in Social Anthropology (CIESAS) published a second edition in 1974. These two documents illustrate a rigorous theoretical-methodological dialogue between psychology and anthropology.

Her M.A. thesis addresses the relevance of a methodological application of Rorschach's approach to ethnic communities (Totonacs from Tajín and mestizo peasants from Venta Prieta in the state of Hidalgo). This posed an enormous challenge since the diagnoses stemming from this method were used in clinics. Melville (2011)<sup>2</sup> mentions some results of this publication in co-authorship with Ángel Palerm in the journal *América Indígena* 1954. Something that sets aside her M.A. thesis from all others is a masterful argumentation on how to treat problems using direct observation in the field and/or confronting classical psychological and anthropological theories. Empirical evidence allowed her to discover the points of insertion and complementarity between both disciplines evolving around two key points: culture and personality.

Although some 25 years were to elapse before she received her PhD, a constant concern manifest in her research is an ongoing dialogue with classic authors and her interest in an interdisciplinary approach based on dialogue between psychology and anthropology. Her dissertation was published in 1976 under the title *Perception and Culture, an Ecological Approach*. A distinguishing feature of this work

2 Roberto Melville "Carmen Viqueira Landa: Rereading her Contributions to Anthropology", Mexico, *Desacatos* journal CIESAS, no. 35, January-April, 2011.

is the emphasis she places on sensorial abilities that influence the perception that relatively isolated communities adapt to or transform according to the climate and natural resources available in their cultures.

Her next publication, titled *Textile Factories in New Spain 1530-1630 (Los obrajes en la Nueva España 1530-1630)*, appeared in 1990 in co-authorship with José Ignacio Urquiola, an anthropology student who would later study his doctorate in history. This text points to Carmen's new research interests in industrial anthropology. We need to stress that from the mid-seventies on Carmen led a pioneering study at the Industrial Complex in Ciudad Sahagún in the state of Hidalgo, where she directed several theses on the subject.

Carmen's contributions to the book *Textile Factories in New Spain* were multifold: first, and once again, this shows her multidisciplinary interests, this time with history; second, and based on the careful compilation of statistical series by Urquiola, accounts for the importance of the manufacture of cloth and sheep raising in New Spain to cover the colonial market. The regulations established by the colony for the development of this activity are also examined, including subsidy policy, price controls and wage labor, often with advance payments to settle outstanding debts.

The data confirm that textile factories represented forms of capitalist production, which arose in the colonies and confronted the historicity of Marxism and goes back to the eighteenth century European industrial revolution. Third, her analysis is framed in the proposal of Wallerstein's world system (1979) and from the perspective of the metropolis-colony relationship proposed by Ángel Palerm in his publication *Anthropology and Marxism (Antropología y Marxismo)* sponsored in 1980 by CIS-INAH. Her work places this concern at the global level and for local demand. At the same time it was necessary to maintain the production and export of silver, which in the latter case was strategic for the hegemonic positioning of Spain from the very beginning of the world system.

The next works in Carmen Viqueira's career are two compendia of what might be considered an anthology, where her prologue or preface highlights the importance of the compendium in question, its purpose and contribution. The first was published in 1994 under the title *Hydraulic Systems, Modernization of Agriculture and Migration (Sistemas hidráulicos, modernización de la agricultura y migración)*, which was coordinated together with Lydia Torre Medina, a graduate student, while the second refers to a regional approach to anthropology, with the assistance of Roberto Melville, another graduate student, in the selection of authors and the mention of other graduate students who helped with this edition. *A Regional Approach to Anthropology (Un enfoque regional en antropología)*, was the first publication to appear as part of an anthropological legacy in 2001 in the Social Theory Collection at the UIA.

*Hydraulic Systems, Modernization of Agriculture and Migration* integrates a series of research results obtained by the UIA's graduate students as well as by academicians from El Colegio Mexiquense. In her preface Carmen mentions the importance of an anthropological approach in order to understand the reality of the contemporary world of agriculture; however, there are many thorny issues looming on the horizon, such as armed conflicts stemming from problems with water management, such as those organized through participation of members of the communities, the bureaucratic apparatus that administered these huge hydraulic works, the development of regions linked to the international market, and the resulting waves of illegal migration on an international level who inserted themselves on the job market under unstable and discriminatory labor conditions. As in no other work, this publication points to how these approaches have guided academic interests under the Palerm/Viqueira school of thought: cultural ecology, the role of the State in charge of development planning, the persistence of the peasants, a regional approach, and the multifold economic circuits that make up the world system.

*The Regional Approach to Anthropology (El enfoque regional de la antropología 2001)* is an anthology whose assets reside in an interdisciplinary dialogue that commences with the construction of this focus on geography, an early contribution of Le Play, a sociologist and engineer, to anthropology; the diverse conceptualizations and approaches by outstanding anthropologists such as Wissler, Steward, Malinowski, Foster, Radcliffe Brown, Aguirre Beltrán, Palerm and Wolf. It describes a prism of contributions that ranges from cultural aspects to the regional integration of pre-Hispanic empires or intervention by the State in regional planning. Text selection, as well as the manner in which Carmen intertwines the application of a regional approach as part of problems on a larger scale, address the grand vision always reflected in the scope of this discipline.

There is no doubt whatsoever that as part of the mission of the teacher who shaped new generations, Carmen worked for new editions of several classic works she considered to be cornerstones of this discipline. Among these we could mention several reeditions of Ángel Palerm's works, specifically: *Introduction to Ethnological Theory, pre-Hispanic Mexico. Ecological Evolution of the Valley of Mexico (Introducción a la teoría etnológica, México prehispánico. Evolución ecológica del valle de México 1990)* and *Regional Planning and Agrarian Reform (Planificación regional y reforma agraria 1993)*. I would like to mention the preface she wrote for reediting research done by Bronislaw Malinowski and Julio de la Fuente on the valleys of the state of Oaxaca during the forties. This is a report titled *The Economics of a Market System in Mexico (La economía de un Sistema de mercados en México)*, which was translated into Spanish for the first time in 1957 by the ENAH (Escuela Nacional de Antropología e Historia,) and reedited in 2005 in the UIA's Collection on Social Theory in

co-edition with the ENAH. This is the last publication that Carmen eagerly promoted with the support of one of her students, Diego Albarracín.

There are several contributions I would like to pay particular attention to in the preface Carmen wrote. At the onset she magnificently presents the contributions of Malinowski, a distinguished English functionalist, recognizing that his market research in Oaxaca is from a different perspective than his well-known study published in 1922, *The Argonauts of the Western Pacific /Los argonautas del Pacífico occidental*. Carmen recognized that in Oaxaca the author faces a complex society with an indigenous focus that portrays great vitality in spite of several centuries of colonization. This in turn led him to review historic and archaeological documents. She also reiterates the contributions of the author to a regional approach to anthropology through an analysis of exchange systems, production and consumption among the communities of the same region such as the Kula on the Trobriand Islands and market systems in the Valleys of Oaxaca. Finally, she presents a logistical experience behind this piece of research, mentioning international academic collaboration backed by a regulatory agreement, highlighting the integration of a consultative committee of Mexican researchers.

Not to go missing is an essay that sets forth Carmen Viqueira's contributions to anthropology and her ongoing devotion to preparing researchers, which can be gleaned from the encouragement she gave her graduate students at the UIA to publish their theses. There are two collections particularly worthy of mentioning: the first bears the title of Tepetlaoxtoc, in which during the nineties seven theses based on work in the Northern Acolhuan area were published. Her interest was to leave a testimony of this region. This research refers to changes and continuity of the communities of this region, which covers the mountain range, the foothills and the valleys and leaves testimony of a pedagogical practice that she heralded as "learn to do research by doing it". This has been the guiding philosophy for the permanent field station "José de Acosta" from the decade of the seventies to date. The other collection is *Regional Studies*, which was published from 1994 to 1997, and included research on development plans for the Chontalpa area in the state of Tabasco and in the lower Aguán region in Honduras, as well as the effects of agricultural modernization in three regions of Spain.

Another important contribution was her interest in translating texts from English into Spanish so they would be accessible to Spanish speakers. Melville (2011, 170) offered a list of these texts that might be of interest and included a book written by Julian Steward in 1955 titled "*Theory and*



Carmen Viqueira upon receiving the "Jose Sanchez Villaseñor" Gold Medal, 1999.

*Practice of the Study of Areas*” and others requested by Michael Kearney (1957) *The Winds of Ixtepejiin*.

### **Balance of the research contributions by an outstanding teacher**

The academic legacy of her writings reflects a desire to train new generations and this characteristic distinguishes Carmen from all others. After obtaining her degrees, it became obvious which topics she considered innovative approaches in the symbiosis of training-research.

1. To contribute to studies on cultural ecology, to research topics that went beyond community studies from a regional point of view and to account for the phenomena of textile factories which could not be comprehended without framing them within a world system perspective.
2. To maintain that the only way to approach dealing with problems and constructing knowledge is rigorous fieldwork, where observation and data recovery are in direct communication with informants through dialogue and matched against theory.
3. To justify discussions with the classic authors of anthropology. Here not only was it important to maintain a critical spirit within the scope of the northwestern schools of thought, which emerged from the 19th century on, but to revindicate the contributions of historians, philosophers, and missionaries as forerunners of anthropology as a science.
4. To encourage interdisciplinary dialogue in an effort to obtain clarity regarding the contributions of anthropology as a science.
5. To seek at all times the company of students in a collaborative process of learning/knowledge construction.

It was up to her students to continue to bear the fruits of the seeds that Carmen sowed in her rigorous pedagogical practices, opening and broadening the horizon that anthropology was able to offer to understanding society.

### **Carmen viqueira landa's publications**

- Applications of Rorschach’s Psychodiagnostics to Anthropology. M.A. thesis in psychology, UNAM (1950) (unpublished)
- Perception and Culture: An Ecological Approach. Mexico, Editions of the Casa Chata, CIS-INAH. (1976) and CIESAS (2008)

- Textile Factories in New Spain 1530-1630. Mexico, General Dept. of Publications, CONACULTA (1990) in co-authorship with Urquiola, JI.
- Hydraulic Systems, Agricultural Modernization and Migration. Mexico, El Colegio Mexiquense and the UIA (1994) in co-coordination with Lydia Torre
- A Regional Approach to Anthropology. Mexico. Social Theory Collection, UIA (2001)

### **Carmen viqueira's prefaces to classic works**

- Malinowski, B. and J. de la Fuente (2005 /1957) Economics of a Market System in Mexico. An Essay on Contemporary Ethnology and Social Change in a Mexican Valley. Mexico, Social Theory Collection, UIA, INAH, ITESO.

Alba González Jácome

*A way to see, understand and do  
Anthropology*

**Introduction**

Talking about oneself is a difficult task, so I will only try to mention those parts necessary to understand the role I played since my admission to the university, as a student, in 1969, and of my entry as a professor-researcher in 1975, until my retirement in February 2014. I consider my most important contribution to research in anthropology at the Universidad Iberoamericana was to consolidate, through research-teaching, a solid theoretical, practical, interdisciplinary, flexible formation, freed from racial, social and cultural prejudices, which is articulated to the study of important problems for the nation and its socioeconomic groups, especially those that live in rural regions and areas of the country.

The academic goal to which I subscribed has been the formation and consolidation of young researchers in Social Anthropology. To this was added contributing to academic consolidation of the young University, for it to achieve national and international prestige; considering Jesuits have been recognized for the quality of their teaching and their ability to generate, organize and manage companies of

various types, and that they have proved successful. On the other hand, contributing to the development of a university that was forming, has been a challenge not only important, but stimulating.

### Academic backgrounds

For my good fortune and that of generation classmates, the Spanish emigration to Mexico, and the Mexican teachers who, in addition to being professors were researchers, gave us an infinitely rich academic heritage. Thus, the Mexican *baby boomer* generation had a series of great teachers, Mexicans and foreigners, to whom we owe our professional formation, and we also received great personal, social and cultural support from them.

Among the illustrious academicians who contributed to my academic training were: the Spanish Pedagogues Antonio Ballesteros Usano and his wife Emilia; Jorge Hernández Millares, geographer and historian born in Las Palmas, Canarias; Vicente Sáenz Rojas, a Costa Rican journalist and writer, who unfortunately died without finishing the History of America course he taught us; Pedro Bosch Gimpera, who was the holder of the Prehistory seminar at the National School of Anthropology and History; and Madrid's José Luis Lorenzo Bautista, professor of Archeology at that same academic institution.

In the postgraduate course, the teachings of the cultural Geographer Alfred H. Siemens were relevant, which formed the basis for the physiogeographic analysis of the regions and places I have studied, along with those that have been my anthropology students. No less important have been the teachings and friendship with the US Ecologist Stephen R. Gliessman, with whom I learned Ecology at the now extinct Tropical Ecology Higher School, in Cárdenas, Tabasco. Finally, one of the most important researchers in my formation as anthropologist was Richard N. Adams, who accompanied me in two field work seasons in Tlaxcala.

Among the Mexicans who gave me the basis for historical and ethnohistorical knowledge were: the great M in H Agustín Cué Cánovas, from Tabasco, a specialist in Social and Economic History of Mexico; Carlos Martínez Marín, who paved the way in the study of chroniclers and codices for us. Wigberto Jiménez Moreno, philosopher and historian who taught us classic Nahuatl. Bernardo García Martínez, who initiated me on the path of Environmental History and French Geography. For me it was very important to know and take seminars on northern Mexico with the Archaeologist Beatriz Braniff, at the National School of Anthropology and History (ENAH), and participate in the seminars taught by Gonzalo Aguirre Beltrán, also at ENAH.



Dr. Alba Gonzalez, member of the Mexican Academy of Sciences.

Especially important for all of us was the presence and teachings of Ángel Palerm Vich, a Catalan born in Ibiza and of Mexican academic formation, who taught several generations of students at ENAH and the then School of Anthropology at the Universidad Iberoamericana. His Ethnological Theory seminar opened for us the doors to the knowledge of anthropological theory and of important researchers from several countries. In addition, we had to learn to read and discuss articles and books in English, to update our anthropological and historical knowledge bases. Those who, together with me, entered the Social Sciences Graduates School of the Iberoamericana in 1969, did field work with Ángel Palerm in Tepetlaóztoc.

### Field work

As a student, I participated in two “field work” seasons at ENAH; but they were not equal to the Ibero field research. A group of my classmates and I went to the sugar mill of Motzorongo, in the municipality of Tezonapa, in central Veracruz. In those years it was necessary to arrive first to Córdoba and then to the sugar cane mill and

town of Motzorongo, some 45 kilometers southeast of this city. The professor in charge of the practice assembled us in Córdoba, where he gave us instructions, and left, but not before making an appointment to see us in Mexico City at the end of the practice. We also went for field work to San Pedro Cholula, with a famous anthropologist, who left us with a lot of questionnaires to deliver -already filled out- on our return to Mexico City.

With Ángel Palerm, who always accompanied us to the field, it was basic, before leaving, to read some texts about the study region; already in it, to perform several tours through the area and the towns chosen for the studies. One had to carry a backpack, with a block of notes, a topographic map, a compass, an aerial photograph of the region, pens and pencils. One or two oranges were pocketed, maybe some sandwich or chocolate and water. Enough to walk without fainting on the thorough tours of the region or the study area. These were not very long in distance but required careful observation and preliminary recording of what we observed in our notebook; relationships had to be established between the elements observed. Alcoholic beverages and their consumption during field work were prohibited.

Dr. Palerm had extensive knowledge about cultivated plants and we learned to see them in a different way. On several occasions, the famous agronomist Efraím Hernández X. accompanied us to the field, who, along with his graduate students, took us to see the experiments he had with them in the region. With Hernández X. we toured the town of San Miguel Tlaixpan and Tezcutzingo; he gave us lectures on traditional agriculture in Texcoco. We had the opportunity to be accompanied to field work by very relevant characters in academia, such as Karl Wittfogel, Eric Wolf, William T. Sanders and Gonzalo Robles Fernández. Later, I was advised for two seasons of fieldwork by Richard N. Adams.

Chats and discussions about what was observed in the tours were held at the Joseph de Acosta field station, in the town of Tepetlaóztoc, where we had a space and a large table for multiple uses -dining room, conference room, study-. As there were no laptops, the noise of the Olivetti typewriter served as background in the drafting of the Field Diary. To the groups of students of the ENAH and of the Iberoamericana, other archeology students, both of the ENAH, and students of Sanders were added. Archaeologists taught us some elements to collect, organize and recognize of the pre-Hispanic pottery scattered throughout the Acolhuacan. Discussions included what we had seen on the tour and issues related to theoretical approaches to research problems in the area.

There we learned that the teaching of Anthropology was current and relevant if we combined research with our thesis, with academic discussion and reading everything related to the region or place of study selected, and with theory; in addition, if we related research to the teaching of discipline to younger generations. Learning

to be flexible, eliminate prejudices, live with our classmates and then with the students, without generating problems, was an important result of the fieldwork. Later, with the Ibero students I did field work in several places in Mexico, including: State of Mexico, Tlaxcala, central and northern Veracruz, Sierra Juárez of Oaxaca, Chiapas, Tabasco, Campeche, Yucatán, Quintana Roo, Guanajuato, Michoacán and Sonora. There, we applied the theory and methodology of cultural ecology.

With Bernard Gös (+)<sup>1</sup> I did two seasons of fieldwork to the east of Poland, to meet the peasants, comparing the observed with the result of open interviews and with the theory of the peasant economy of A. Chayanov. With the solidary support of Jorge Aníbal Servín Segovia, a former student of mine at Ibero, and with the support of the Inter-American Development Bank (IDB), I carried out two field work seasons in indigenous areas of northern and eastern Paraguay. Under the advice of Eduardo Sevilla, and together with Stephen R. Gliessman, we made a short field trip —*survey*— in the Sierra de Yeguas, in southern Spain. In the plain and near the Sierra de Yeguas, in the agricultural plain of Navahermosa, there is an ecological crops route taking the path of the old farmhouses and their olive groves; where white asparagus is now grown for export and local sale.

### Teaching method and theory

Learning to research researching was the pedagogical principle in the teaching of anthropological research in the Iberoamericana. Its application to teaching was adapted to local, regional, state and national conditions of the study locations. It was based on problems derived from logical questions, raised in the places where human groups live, and from the surrounding natural and social environment. This research model begins with tours of the area or region; a place is selected to carry out the study and have casual talks with the locals. From these ideas arose Ángel Palerm's concern to create a field station, where anthropology students learned to research, taking the first steps thereto.

From on-site research, the first questions are derived, to which the student -a researcher in training-, would seek to answer, with support of academic resources suggested by the teacher, pending that -later- they would be sought and selected by

1 PhD student in the Iberoamericana, of Polish origin and German nationality, member of the Berlin Institute of Anthropos research. It was part of the congregation of the Divine Word. Bernard translated my questions to the peasants; given its high academic preparation and great intelligence, we could conduct a series of interviews on the tours we did.

the student himself. Palerm used to give us several books to read, then ask us about their content and our opinion about it. The process goes from the general to the particular, and includes: learning to observe, to ask logical questions, to seek answers in what others have done before, to learn to record in writing what was done, how it was done, and results obtained, besides not asking the obvious.

There are different concepts, theories, concerns, ideas and applications in anthropology, as ways of defining it, as well as its corresponding methodological approaches. Each of them can provide knowledge of man, its society and culture. However, we use one of them, known as Cultural Ecology, corresponding to the theory and methodology of a branch of the anthropological trend -arisen in the twentieth century- called Ecological Anthropology, derived from multilineal evolutionism, through Julian H. Steward (2004, original 1955). This theoretical-methodological trend reached the Universidad Iberoamericana under Ángel Palerm's academic influence and with the support of several of his colleagues.

Cultural Ecology is based on interdisciplinary tradition, to give indications, or possible answers, to complex problems, based on observable situations and realities, from study problems where various aspects of human groups are interconnected, the environments where they live, climates they face, their societies, members, economy, social and political organization, their culture and worldview they share, along with the temporary space interrelationships they have with other neighboring groups. The approach can be diachronic or synchronous, depending on the type of research desired, depending on the problems studied.

### Research projects

In the Iberoamericana, the monetary resources for research projects were modest, until 1992. Most of the expenditure was contributed by those of us who participated -teacher and students-. University money was spent on major expenses: rent of a house or rooms in modest, but clean hotels; rental of vehicles and payment of gasoline -item that was discontinued-; occasionally, it was enough to buy food. Research projects I guided at the University, with the participation of masters and doctoral students, were: Project Tlaxcala —1975-2014—; Projects on central Veracruz —1981-1983 and 1984-1988—; Projects on the Toluca Valley — 1980-1985 and 2005-2010—; Project on the Sierra de Juárez in Oaxaca —1990-1995—; Projects on the study of wetlands in Tlaxcala and the Lerma river basin - 2006-2008 and 2005-2012—; Project on the Lajas river basin in Guanajuato —1986-1988—; and Project on the middle basin of the Mayo River, Sonora —2012-2014.

With Dr. Stephen R. Gliessman, from the University of California, Santa Cruz, I participated in several projects:

1. 1981-1983. *Orchards project in Tlaxcala and Tabasco*, from the Department of Environmental Studies at the University of California, Santa Cruz, with Dr. Stephen R. Gliessman and Mexican and American students. Interdisciplinary study of traditional agricultural systems such as orchards, dividers and terraces. As a result, an agreement was signed with the University of California, lasting until 2008.
2. 1981-1983 and 1984-1988. *Central Veracruz Project*, with anthropology students from the Iberoamericana and the Geography Department of the University of British Columbia, Canada. The project consisted of the study of *drained fields* in the San Juan river basin; in addition to agriculture and small-scale livestock in villages in the region, settled between the villages of Vargas, La Antigua and the port of Veracruz. Dr. Alfred H. Siemens and his Canadian students participated.
3. 1998-2000. *Interdisciplinary Studies Projects in El Eden, Quintana Roo, Mexico*. The projects were led by Dr. Arturo Gómez Pompa, from the University of California at Riverside, and in which I participated together with a Master's student in Anthropology from the Universidad Iberoamericana. The effects of migration on rural populations in the region were studied, especially in agriculture and livestock -an area located 100 kilometers from Cancun.
4. 2002 —11/01/2002 to 12/01/2002—. Participation of the Statistics and Censuses General Directorate of the Republic of Paraguay —DGEEC— and the Inter-American Development Bank. International Evaluator "A" for the *Second Indigenous Census* of the Republic of Paraguay. Tour of the El Chaco region, central area of the country, between Asunción and Ciudad del Este, in addition to the Guaraní settlements between the eastern riverine margins between Ciudad del Este and northeastern Paraguay. Tour through several indigenous regions of northern and eastern Paraguay; interviews were conducted with indigenous coordinators of the census, and with personnel participating in its application.
5. 2004 —01/10/2004 to 11/01/2004—. Participation of DGEEC and the IDB. Selection of research projects proposed by Paraguayan scholars, whose goals were basically social and developmental.
6. 2008 to 2012. Huertos Project with Dr. Ramón Mariaca Méndez, from El Colegio de la Frontera Sur -ECOSUR-, based in San Cristóbal de las

- Casas. The purpose was to conduct research on orchards and advise three graduate students at ECOSUR, who graduated successfully.
7. 2012 —12/01/2012 to 12/20/2012—. International “A” evaluator by DGEEC and the IDB, to carry out the post-census evaluation of the *Third Indigenous Census of the Republic of Paraguay*. The research included a tour of the indigenous regions of northern and eastern Paraguay.
  8. 2018 —01/01/2017-Current—. Researcher participating in the project: *Knowledge, Traditional Cognizance and sustainability*, with Dr. Artemio Cruz León, of the Universidad Autónoma Chapingo —UACH—, Regional Centers Directorate.

### Some final considerations

As a result of the research line —Environment, Society and Culture—, in addition to research projects, combined with the seminars on Cultural Ecology, Economic Anthropology and Research Seminars, 87 Bachelor’s, Master’s and Doctorate in Anthropology students graduated from the Universidad Iberoamericana. I have been an external collaborator in 10 thesis committees in several universities and research centers: Universidad Autónoma del Estado de México, ENAH, UNAM, UAEM, ENAH, UNAM, Postgraduate College-Veracruz, ECOSUR-San Cristóbal las Casas, ECOSUR-Campeche and UACH Texcoco, State of México. In addition, I advised three postgraduate thesis in History, and a PhD thesis in Political Science, which was dedicated to the study and analysis of public policies of the Mexican State, related to agriculture.

As result of research, both with students and other colleagues, and my own, I have published 12 books as sole author, and another one that is approved for publication; 10 books as co-author; 55 chapters in books; 45 papers in national and foreign magazines. Furthermore, I have coordinated and been in charge of the academic review of two books collections that were produced for the Public Education Secretariat —SEP— and CONACULTA. In the first collection five books were published and in the second, 22 paper books and six electronic books. This is a grain of sand in Ibero’s research, but I hope it has contributed to its consolidation as a frontline university. ¶

David Robichaux

*Forty Years of Research at the  
Universidad Iberoamericana: a  
Singular Point of View*

On the occasion of the 75 years of existence celebration of the Universidad Iberoamericana, I would like to make some reflections on the existing research environment in the former Social Anthropology Department, where I entered as a student in 1973 and as a professor-researcher in 1977. Beginning my master's studies in Social Anthropology, I found a cutting-edge postgraduate in Mexico that enjoyed national and international prestige. I had a first contact with the institutional structure that gave rise to my subsequent development as a researcher, with full support from the UIA authorities to the Angel Palerm project, to combine research and teaching in forming anthropologists. I would like to record these reflections, based on my memories of those years, with the desire that concrete experiences

and their achievements be considered when thinking about the next 75 years of the Universidad Iberoamericana.

The decade of the seventies was characterized by the renewal and innovation of anthropology in Mexico, under the academic leadership exercised by Ángel Palerm since the founding of the Institute of Social Sciences in the Ibero, in the late sixties. Free of bureaucratic restraints and stuffy schemes in a non-state institution, anthropological research on new topics and innovative approaches were planned providing original knowledge about our own society. At the same time that this new Anthropology represented a break with official Anthropology -which was largely limited to studying the indigenous population or pre-Hispanic Mexico-. Palerm's vision of the discipline was inscribed in the nationalist tradition of Mexican Anthropology, by privileging research of Mexican society sectors in order to contribute to interdisciplinary discussion of some of the great national problems. From the Ibero, the scope of Anthropology in the country was expanded, by performing studies on peasants, workers, local politics, regions, irrigation and certain social strata, among others. It was an enterprise whose primary task was to produce first-hand knowledge, through the anthropology's particular method, i.e., the observation of the "how" at micro level to dialogue with general sociological theory and participate knowingly in the discussions about what was happening in society.

For Palerm, empirical research was the heart of Anthropology and, without it, discipline was reduced to a chat over a cup of coffee, a philosophical controversy; legitimate activities, by the way, but not specific to the task of Anthropology. I heard him say on several occasions that he could discuss almost any theory, as long as the demonstration was based on empirical data. Self-describing himself as "Marxian", Palerm rejected what he called "Talmudic Marxism", in this regard he referred to Marx's dogmatic interpretations held in some media that they were untouchable and could not be questioned nor discussed in the light of empirical data. For Palerm, there were no "true" or "false" theories, but good or bad theories, the former posed fruitful research questions and stimulated field research. Palerm's Anthropology sought dialogue with History and Social Sciences, especially with Sociology and Economics. It was a discipline that sought to directly study segments of Mexican society, inquire into how things worked and use such knowledge to achieve a positive impact on society.

The American colleagues with whom Palerm forged ties in United States during his stay in the 1950s and 1960s, were guest professors to the seminars offered by UIA's Institute of Social Sciences. The theme of these seminars, taught by renowned specialists, put into discussion models, debates and tools that lent themselves to the social, past and present analysis of Mexico, sometimes through comparisons with other cultural areas. These exercises constituted the core of the first

postgraduate course in anthropology in the country and stimulated research on a variety of topics. Palerm's professional links facilitated sending his students to do PhDs in the United States and England. I was fortunate to form with young professors, such as Guillermo de la Peña, Andrés Fábregas and Alba González Jácome who recently returned from PhDs abroad, under the guidance of Palerm colleagues.

How were research and formation requirements of researchers in a teaching program materialized, in reality? The current "José de Acosta Field Station", which the UIA keeps in Tepetlaoxtoc in the eastern part of the State of Mexico, attests to the central role of formation in the field of Anthropology of the Universidad Iberoamericana. The study plans of the former bachelor's degree included up to seven months of field work. These practices were linked to thesis research projects of recently returned from abroad PhD students or researchers such as Larissa Lomnitz and Arturo Warman, who would be the first to hold doctoral degrees in Social Sciences from the Universidad Iberoamericana. These doctoral candidates, who taught at the UIA, used to be project incumbents at the Center of Higher Research of the National Institute of Anthropology and History -CISINAH— now, Center for Research and Higher Studies in Social Anthropology -CIESAS- whose director was Ángel Palerm and had funding from said institution to carry out their thesis research, expenses for field work and research assistants who used to be undergraduate and master's degree students in Social Anthropology at the Universidad Iberoamericana.



David Robichaux.

Prior to my hiring, on June 15th, 1977, I had worked for almost two years as a research assistant to Alba González in her project on migration and industrialization in southwest Tlaxcala, financed by CISINAH. This project, like many others promoted by Palerm, had a regional focus, such as those of Arturo Warman on the east of Morelos, Andrés Fábregas on los Altos de Jalisco and Guillermo de la Peña and Roberto Varela on different parts of los Altos de Morelos. Like tens of other students of the bachelor's and master's degree in Social Anthropology of the Universidad Iberoamericana, at that time, I was formed as an anthropologist in research with funding from CISINAH.

The link between the Ibero and CISINAH was dissolved with Palerm's departure from its directorate at the end of 1976. However, when I joined the Anthropology Program as a professor-researcher in 1977, I entered into an organizational scheme in which the assignment of functions divided my time between research and teaching. I do not remember the amounts, but I had enough research funds for the purchase of work materials such as aerial photography and trips to Tlaxcala, the research

site for my doctoral thesis. Following, the instances and modalities through which research was supported at the Universidad Iberoamericana were modified. One that stood out was the modality implemented in the 1990s, following a study led by Luis Vergara, which led to the establishment of four institutional research programs, considering the real achievements of different academic programs. I had the opportunity to participate with projects in the Regional Studies Program, led by Carmen Viqueira, of the Postgraduate course in Social Anthropology, and that of Change and Transformation, headed by Juan Lafarga, S.J. of the Psychology Department.

More recently, other institutional ways of supporting research have operated and in the years prior to my retirement -at the end of 2015- I participated in joint projects with colleagues. In these experiences, the importance of scholarship holders' participation as an essential way to financially support postgraduate students cannot be overstated, in addition to incorporating them into research and providing them with a space to learn to investigate. Thus, it has been possible to give continuity, at least partially, to Palerm's project of joining research and teaching into a single activity, as well as ensuring the formation of new anthropologists.

By holding onto my memories in the prevailing context about my incorporation as a student and teacher in the Social Anthropology Program, I wanted to highlight a "pervading research environment", to put it in some way, necessary for the anthropological discipline. At the bottom of this experience there was a model of teaching Anthropology by researching, which gave rise to my personal formation as researcher at the Universidad Iberoamericana, same I have tried to reproduce and transmit to my students in my interaction and work with them.

This model, captured in different support mechanisms for research in the UIA, allowed me to develop a couple of original approaches. Influenced by the pre-eminence of the study of the peasant family as a production unit, which Palerm propagated in the Ibero in the 1970s, in addition to demographic and inheritance studies, I proposed the concept of "Mesoamerican family system." It is about the cultural way in which by joining a new couple, solves the question of its home; that is to say where it is going to live, how real estate is transmitted from generation to generation and who is responsible for the older generation in its last years. In concrete reality, the Mesoamerican family system translates into high proportions of large families in Mexico, largely made up of the residence of a male child married, with his parents and concentrations of family groups related by the paternal bond.

As a corollary of such family system, the union and birth of the first child occurs at a very low age -ten years before than women in some European countries- since having an own home is not a condition for cohabitation. With these approaches, based on empirical work, I have endeavored to talk with anthropologists, demographers, historians and sociologists about issues related to family organization

in Mexico and their influence on the population explosion registered in the country since 1950. The holistic approach of my formation as anthropologist at the UIA, with a historical and comparative perspective, led me to venture into topics such as historical demography, socio-ethnic categories, cosmovision and, more recently, dances as religious expression and as an organizational phenomenon. In this I think I have followed, in my own topics and terms, the precepts that I have reported here about my memories of the academic and research environment at the UIA. That institutional support environment allowed me to carry out basic research and, with my own data collected in the field or in archives, I attained publications that have been quoted numerous times in discussions about different aspects of the national socio-cultural reality. This recognition has been endorsed by the National Researchers System —SNI—, an achievement that is not only personal, but of the Ibero. I finish up by noting that the modalities of research support at the University have varied over time and will undoubtedly be modified in the future. It is my desire that, in this projection, the Universidad Iberoamericana considers concrete experiences of the institution itself that have resulted in the quality of its research through its intimate link with teaching. ¶

Carmen Bueno Castellanos

*Economic Dimension in Social Life*

The Ibero was, in the 1970s, my formation space. Years after obtaining a master's degree at the University of Syracuse in New York, my *Alma Mater*, newly located in Santa Fe, reopened the doors to finish my formation cycle. In 1993, I obtained a PhD in Social Anthropology. More than 15 years passed before, in September 1999, I had the honor of being invited to collaborate as director of the Social and Political Sciences Department. After 8 years of fulfilling this position, I joined the faculty staff of the postgraduate program in Social Anthropology. In the intervals in which I did not have a direct link with the Ibero, I was fortunate to develop my work in prestigious research centers, located in Mexico City; this without abandoning contact with the anthropology program that formed me. The anthropologists' guild is

small and the Ibero has maintained its prestige and recognition, because many of the graduates work in academic institutions in the country, not only as academicians but as executives. In this sense, my trajectory, whether outside or within the institution, has always carried the seal of this honorable University.

From the beginning, great teachers —among them Carmen Viqueira and Ángel Palerm— fueled interest in opening unpublished fields in Mexican Social Anthropology. It was under his lead, and then inspired by his writings, that I maintained a constant line of research on topics that revolve around production organization forms, which dealt with, from cooperatives,

global firms, companies recognized as informal, entrepreneurship, to the study of senior management, labor markets, developments and technology transfers and multiple processes to generate innovation. All of them, difficult topics to anchor in an academic environment whose identity revolves around indigenous topics. On multiple occasions I have had to make a self-reflection and express publicly what is the contribution of the anthropological view to problems that have foreshadowed the economic model of the country. The results obtained have been

several and very diverse: books, academic and dissemination papers, conferences, lectures, consultantships; accompaniment in thesis preparation -especially at the postgraduate level-; multidisciplinary projects; field stays, long and short, usually in the center of the country; academic visits to the United States and Japan. In all these results I was fortunate to collaborate with teachers, colleagues and students.

Something that distinguishes this academic production is the methodology implemented. Direct observation allows analyzing events in specific contexts and appreciating everyday experiences in the emergence of phenomena requiring other explanatory dimensions, circumscribed to global spaces or the state. The empirical evidence puts under the qualitative lens responses of people of flesh and blood, operators of multiple productive processes, various professional and labor profiles that, ultimately, give life to the economy of Mexico. The observable elements attend to the generation, use and appropriation of learning, as well as diverse organizational and operational capacities, multiple interactions and negotiations, which denote power relations and hierarchies that prevail in economic circuits. A constant is to focus on case studies and specific trajectories; the latter are interpreted considering action plans that become the spaces where resources of various kinds are mobilized; the institutional base of productive processes is built and cultural patterns of human machinery operating various segments of the country's economy are attended to.



Carmen Bueno at the inauguration of the Tultitlan Municipality Seminar.

Another constant is to treat social actors' reproduction spaces and with this the holistic approach circuit of Anthropology is closed.

Each of the topics discussed in my trajectory has been a great methodological challenge. How do you have to formulate the research question, so that there are no loose ends that can distort the complexity of each of the problems studied? In this sense, it is necessary to discern in data selection and the place they occupy in a text, in order to be able to clearly express the studied phenomenon. Likewise, it is important to maintain a critical dialogue with theoretical advances that allow creative contributions. All these questions were present in talks with my tutors and I have tried to reproduce them with my students. The methodological treatment that has distinguished Anthropology is the basis of its transgenerational reproduction, a permanent challenge that makes this discipline exciting. Each new research involves building a scaffolding that shapes an assembly incorporating social arrangements and cultural practices intersecting with strictly economic elements, operating in multiple overlapping planes that blur the analytical boundaries between the local and the global, the economic and the multiple dimensions of social life.

I chose to present a tour of my specific research experiences throughout my academic history. What I present here are ideas and excerpts from what is portrayed in a book that I developed during a sabbatical period, titled *Productive Configurations in Globalization. Trajectories the Mexican way (Configuraciones productivas en la globalización. Trayectorias a la mexicana)* that were published by the Universidad Iberoamericana, Mexico City and the Center for Research and Higher Studies in Social Anthropology -CIESAS- in 2016<sup>1</sup>. The first step in the industrial world I gave when I had to choose a research topic for the bachelor's degree thesis. Palerm and Viqueira were who, within the tradition of regional studies, integrated a group of students to analyze, at first, the emergence and evolution of a parastatal industrial development project in the llanos de Apan, in the State of Hidalgo; what later derived in a research on industrialization impact in the rural environment. My contribution in this first incursion was to study production cooperatives and, later, to study agricultural production transformations, especially pulque and barley production in the municipalities near the Industrial Complex called Ciudad Sahagún.

The project as a whole dealt with the way in which the Mexican State, in the middle of the last century, participated as a direct administrator and promoter of industrial policies, as well as its repercussion on the direction of regional economies.

<sup>1</sup> In this book is recorded much of the academic production of my trajectory. To this document I only add the most recent, in this text.

Production cooperatives originating in the 1970s were part of the privileged paternalistic model in the area. Jobs were created for children of the workers of the Complex, under a model that was not direct employment, but whose investment in infrastructure fell to the parastatal, in this way cooperatives were armored against competition and their market secured. The highly protectionist policy also contributed resources to workers so that they would not abandon their crops, subsidized tractors and fertilizers for the production of barley, destined mainly to the beer industry. Whereas pulque at the beginning of the twentieth century was the center of development of the region, it maintained a marginal position at the time of the study. Another element that arose in the research was to account for the strengthening of corporate unions of the Complex, expanding their control spaces by supporting the candidacies of the region town majors.

Following, the study of informality attracted my attention from my master's degree studies. Upon returning to the country I had the opportunity to analyze this phenomenon in the preparation of food in the streets of Mexico City. Viqueira encouraged me to maintain a critical stance in the face of informality studies, referring me to Economic Anthropology of a substantive break, which had already contributed what was necessary about these practices, considering other conceptual references. This led me to take tours by the various explanatory frameworks of the informal sector. This phenomenon has challenged all economic models and takes advantage of the resources at its disposal: political, economic, cultural, cognitive and technological, not only to survive, but to reinvent itself. Informality has embedded in the heart of the economies, to the point of being "invisibly omnipresent," which has been exacerbated from its cyberspace presence. This excessive laxity allows to explain the versatility and accelerated growth of informality and gives rise to a perverse mix of systemic connections of people and companies that move flexibly between different productive spaces.

During my PhD studies at Ibero I proposed a thesis that dealt with the organizational structure and labor market operating conditions of the housing construction industry in the metropolitan area of Mexico City. This is characterized by being intrinsically unstable and fluctuating. The latent risk, product of the erratic of its demand, has perpetuated a productive structure composed of companies linked to each other, with different levels of responsibility, specialization, hierarchy and subordination that, together, make it possible to move a very complex machinery, which privileges the strategic role of a productive system based on the trade. It is a productive structure without permanent borders with fragmented dynamics. Understanding the above was essential to explain the trajectories of workers, their origins, their social and cultural capital, to be inserted and move in this labor market. The identification

and assimilation of practices and knowledge workers carry with them translates into loyalty, trust, manual skills, improvisation and creativity, as well as ways to interact and negotiate with the builders. All of the above allows them to deal with uncertainty, which gives work based on trade a certainty of action and, therefore, differentiated loads of power in the operational scope of this activity. However, asymmetries that condition the margin of action of the construction workers that have a bearing, influence or control decision making, in addition to reinforcing the subordinate and marginal position in which they move.

After a long experience in productive activities with traditional loads and low technological level, I returned to automotive production, which I had begun to study in the experience of Ciudad Sahagún. However, in the mid-1990s this industry was an excellent lab to research the changes that were taking place in the dominant industrial model of the late twentieth century and its "tropicalization" in the Mexican economy. The starting point of this research adventure was to understand *toyotism* in Japan, the place that gave rise thereto and its transplantation and hybridization in the country. At first, only the tip of the iceberg was attended, implementing organizational changes that led to teamwork for decision-making and the empowerment of workers. This preamble, in a very short time, gave rise to a radical change in the operational structure of global companies, which began operating under a deterritorialized scheme, forming value chains, composed of units located in various parts of the world. This scheme allowed the configuration of a highly integrated and hierarchical technological system operating globally, under the rectory of nodes that centralize activities and decisions of the system as a whole. This operation involved deep reengineering to respond to a market that also underwent a metamorphosis, not only manufacturing grew all over the planet, but consumption diversified and specialized.

An element that stands out and accompanies this change in the productive model is the information revolution. The space of the flows analyzed by Castells, such as the network Morphology of production and consumption, has outlined new forms of interaction and control, as well as the generation of new skills and routines. Pursuant to which technological mediation becomes a central topic of my research, since 1990. Information technologies became an indispensable element in the logic and structure of production



Dr. Carmen Bueno, renowned for her anthropological studies on globalization impact in localities.

chains, accelerated response rates and connected discontinuous production spaces. Derived from the analysis of large global chains operational structure, two research concerns were detached. On the one hand, to give an account of the effects brought by global production configuration of large companies in small Mexican companies that, under a protectionist policy, had positioned themselves as suppliers of transnational corporations. On the other hand, understand the role that innovation plays in current production processes.

The first research concern gave rise to a research into the possibilities of linking and collaborating with small local businesses, based on the technological implementation related to subsidiaries of companies that were located in peripheral spaces of global production, and the impact this had on regional development, where large industrial parks were located. The results showed that many of these small businesses had no capacity to reconvert and disappeared from the country's manufacturing space. Instead, spin offs arose, i.e., companies that arose on the initiative of professionals who had had work experience in these companies and saw an opportunity to provide maintenance services to foreign plants. In this study it was possible to appreciate the great effort of these entrepreneurs to escalate to a technological performance, according to the institutional and technological complexity parameters of these supply chains. However, the asymmetries with which this collaboration operates give little hope of closing the technology gap. The difficulties that these companies have to overcome in order to align themselves with the homogenizing requirements of the production process, both of technology and of the product, have opened the cognitive, organizational, social and institutional distance between the central nodes and the local companies. The latter fight against the tide, on the one hand they uphold a dislocation in spatiality, on the other, an arrhythmia in the temporalities of the border areas of the globalized production system.

The second research concern focused on innovation as a fundamental and differentiating element of production and consumption. I started this inquiry with the analysis of the practices that the big companies use. I recognized that these have to constantly generate new proposals in products, processes, materials, technology and even financial schemes to maintain their position in the market. Under the anthropological perspective, the important thing was to analyze the multiple interactions between different social actors participating in the same production chain, but also higher education institutions. In the field it was confirmed that these industrial-technological-educational approaches are noticeable in the strategic nodes of STAI, as they concentrate the ideal conditions for interactive practices maintaining the evolutionary process built over time. In value chains peripheral spaces, such as the industrial park

installed in Mexico, these have not been replicated, which is why participation in innovation processes is marginal.

In the twenty-first century, a significant change in these innovation processes has triggered, the latter have been adjective. Open innovation, social innovation and transformative innovation is talked about now. One of the fundamental elements is to recognize and include in innovative processes the creativity and ingenuity of young entrepreneurs, who provide ideas and solutions based on their professional formation and experience. These proposals are inserted in free access spaces for the production of knowledge, where crowds participate operating under a scheme of protection of various social actors. The results obtained so far describe new forms of knowledge production and value appropriation. , propitiated in these new practices of generating innovations.

This is how, after more than four decades of academic life, I have been able to broaden my vision of the multiple productive arrangements that have shaped the country's economy. The anthropological view has been placed on old and new social actors backed by their cultural repertoires and operating in an expanding local-global context. The holistic approach also requires different forms of governance, from which they were the result of direct control and State administration, going through productive activities that self-govern with practices based on tradition and trade, or that operate mediated by the virtualization of collaboration. Also included are those where decisions are made in strategic nodes and, later, obligatorily abided by peripheral spaces.

This is how I have had the privilege of observing the efforts of a variety of social actors, dispersed in large cities or in the countryside, from independent work, small workshops, subsidiaries of large global chains, local technology-based companies; the professional who uses co-working spaces and network connections as his *modus operandi*. Critical thinking and social commitment of the Jesuit ideology coincided with the thinking of those who gave identity to the postgraduate course in anthropology at the Ibero, since the seventies. This legacy, the disciples of those notable teachers we have wanted to preserve it. ¶

Graciela Teruel Belismelis

*Research for Development with  
Equity Institute*

**Introduction**

The Research for Development with Equity Institute —EQUIDE—, formerly the Research on Sustainable Development and Social Equity Institute —IIDSES— was born in 2003 and founded by MSc. Rodolfo de la Torre. It arose as a proposal before the social environment challenges and consequent with the mission, philosophy and principles of the Universidad Iberoamericana. It aimed to provide Mexico and the international community with analysis and guidance on the economic and social determinants of development based on rigorous and objective research.

## IIDSES

The context in which IIDSES emerged was characterized by the need to have a greater understanding of the mechanisms that condition economic and social development. Likewise, a more participatory society required that reliable elements be provided to issue an informed and responsible judgment. All this in an environment of constant social pressure to correct the severe problems of poverty, the strong inequality of economic opportunities and the insufficient actions to address these problems.

In its origins, the IIDSES proposal was based on the academic reorganization of the Universidad Iberoamericana Mexico City, approved by the University Senate in December 1997. This sought, as one of its central goals, to promote the development and dissemination of the interdisciplinary research directed to the study of the comprehensive development of the human person and society. According to the above, IIDSES mission was raised as:

To generate and disseminate interdisciplinary knowledge that contributes to the realization of viable, fair and sustainable public policies regarding the distribution of resources and social organization that enable adequate and equitable human development.

Depending on the social challenges posed and, considering the relative strength of the Ibero on some topics, the initial research programs to fulfill the mission of IIDSES were the following:

- a. Program for the Analysis of Poverty and Social Policy —PROAPPS—. Whose goal was the examination of the mechanisms generating poverty and inequality over time, to contribute to the realization of better public policies aimed at social development.
- b. Program on Financing and Institutions for Development and Employment —PROFIDE—. Which aimed to examine the relevance and evaluate the operation of the legal and institutional framework related to economic activity, particularly the promotion of development through the labor market, internal savings and access to credit.

Research and reflection on social and economic sustainable development were not new for the Universidad Iberoamericana. Compared to other institutions of higher education, this had one of the most complete teams of researchers in economic and social development topics, to face the challenges posed by an agenda

that sought to study development mechanisms. For example, the Ibero was the only private institution that contributed academic members of the Technical Committee for the Measurement of Poverty, which generated the methodology adopted by the Federal Government in 2002 for the first official quantification.

During the first four years of existence, two stages were distinguished in the development of IIDSES: in the initial two it had to build the organizational bases and prepare the initial research that justified its permanence; in the next two years, it began its stage of generating results and growth.

MSc. de la Torre began the work of the Institute he headed until May 2006, year in which Dr. Nora Lustig was appointed as director of IIDSES, who held the position until August 2006. From September of the same year and until October of 2014, was the MSc. Mauricio de María y Campos who served as director. Then, in November 2014 and to date, IIDSES is headed by Dr. Graciela Teruel.

During the directorate of MSc. de María y Campos, the availability of budgetary resources and human resources in IIDSES and in the Ibero was attended, therefore the convenience of concentrating efforts in two areas was determined: a) economic policies for growth and sustainable economic development and b) public policies for the fight against poverty, the promotion of equity, social inclusion and social development in general. In this regard, a new structure for IIDSES was proposed. In a first stage, it would concentrate on two basic articulating research lines:

- a. Poverty and social policies: sought to capitalize on the studies carried out to date and the experiences of social policies to move beyond the alleviation of poverty towards proposals for economic and social policies, as well as mechanisms that allow to combat poverty and promote equity, inclusion, participation and social cohesion.
- b. Strategy for sustained growth and sustainable and inclusive development, based on appropriate policies and instruments that will foster growth, investment, employment, international competitiveness and innovation, with social equity and environmental sustainability. Comparative studies with successful emerging countries played a prominent role in this project.

In that context it was decided to start the Research Program on Sustainable Development —PRIDES— that took the place of PROFIDE, since it was considered that the Sustainable Development topic was paramount in the national agenda.

During 2010 and until 2013, the Prize for the Best Postgraduate and Doctoral Thesis on Topics of Poverty and Sustainable Development was carried out.

## **EQUIDE**

Currently, the mission of the Research for Development with Equity Institute is:

Through scientific evidence, in the area of poverty and public health, support in the transformation of vulnerable groups reality and the process of public decision making, proposing innovative ideas.

The goal of EQUIDE is to generate rigorous evidence on public health, poverty, vulnerability and inequality topics, as well as the environment. The above, with a multidisciplinary approach that contributes to generating better conditions of equity and justice in Mexico, through proposals for informed public policies. To that end, in 2015, three liaisons were initially created: poverty, public health and the environment with the following goals respectively:

### **Health**

Generate knowledge about population health and social epidemiology that supports decision-making in favor of better systems and conditions for health in Mexico. Likewise, foster a multidisciplinary approach to public health studies. Within the current lines of research are: aging, chronic diseases, health and nutrition in early stages of life, psychosocial and socioeconomic factors of health and nutrition.

### **Environment**

It focuses its efforts on identifying and integrating the environmental determinants of poverty and inequality in Mexico into decision making. The analyzes focus on air quality and mobility in large cities, effective access to natural resources sustainable management in rural areas and the equitable transition to renewable energy sources. Within the current lines of research are: poverty and environment, equity and environmental health, global change, institutions and power relations, as well as their implications for generating or inhibiting collective benefits for the equitable governance of natural resources.

### **Poverty**

The area focuses mainly on generating scientific evidence on the well-being of the population, a concept that is approached through studies of poverty, inequality and social mobility in Mexico. Its purpose is to support decision making in favor of greater equity. It also encourages a multidisciplinary and longitudinal focus to wellness studies. Its main lines of research are: poverty measurement, welfare conceptualization,

inequality measurement, social mobility and equity and social inclusion.

To promote research on equity issues, the Institute finances studies developed by researchers from different departments of the Ibero through an annual call. Since 2015, researchers from Health, Architecture, Social and Political Sciences, Engineering, International Relations, Economics and Psychology Departments collaborate with EQUIDE. So far, 123 research projects have been supported.

Although the main activity of EQUIDE is to generate research, it also carries out teaching activities. Its academicians teach in several Departments of the Universidad Iberoamericana, such as: Economics, Psychology, Health, Social Service, Social and Political Sciences.

In mid-2018, the University Transdisciplinary Center for Sustainability in the Ibero was created. This will be in charge of sustainability and environment topics, for this reason it was decided that EQUIDE's environment area will be integrated into the new center.

EQUIDE has collaborated with advocacy programs, actively participates with the university environment, the Association of Universities Confined to the Society of Jesus in Latin America —AUSJAL— and, at the time, with the Strategic Field of Action on Poverty and Exclusion of the Jesuit University System —CEAPE-SUJ.

On the other hand, it supports non-curricular teaching through the hiring and formation of research assistants, where more than 50 students not only from Ibero but from different universities and careers have participated in projects with internal and external financing done by EQUIDE. Recently, Social Service students have been included in research projects. The above, serves as a link between university students and social reality of our country.

The Research for Development with Equity Institute seeks dissemination of knowledge through seminars and conferences, both nationally and internationally, in which it presents the results of its research and its academicians participate in at least three conferences per year outside of the Mexican Republic.

EQUIDE has just turned 15 years of its creation. Proof of its consolidation is the number of projects with external financing that it has, in addition to the trust generated at government levels for the assessment of various social programs. We walk with a sure step to be a reference in public policies and achieve the impact we have fought for. ¶

# Javier Torres Nafarrate

## *The Luhmann Project*

I understand for Luhmann project that academic effort that resulted in about 40 books.<sup>1</sup> The company intended to make Niklas Luhmann's thoughts known in the

- 1 Niklas Luhmann, *Social Systems. Guidelines for a general theory (Sistemas Sociales. Lineamientos para una teoría general)*, Mexico, Alianza/ Universidad Iberoamericana, 1st ed., 1991; Barcelona, Anthropos/Pontificia Universidad Javeriana/Universidad Iberoamericana, 2nd ed., 1998; Niklas Luhmann, *Sociology of risk (Sociología del riesgo)*, Mexico, Universidad Iberoamericana/ Universidad de Guadalajara, 1993; Niklas Luhmann, Raffaele de Giorgi, *Theory of society (Teoría de la Sociedad)*, Mexico, Universidad Iberoamericana/ Universidad de Guadalajara, 1993; Niklas Luhmann, Karl Eberhard Schorr, *The education system. Reflection problems, (El sistema educativo. Problemas de reflexión)* Mexico, Universidad Iberoamericana/Universidad de Guadalajara, 1993; Niklas Luhmann, *Power (Poder)*, Barcelona, Anthropos/Universidad Iberoamericana/Pontificia Universidad Católica de Chile, 1995; Niklas Luhmann, Javier Torres Nafarrate, *Introduction to Systems Theory (Introducción a la teoría de sistemas)*, lessons published by Javier Torres Nafarrate, Mexico, Universidad Iberoamericana/Anthropos/ITESO, 1996; Niklas Luhmann, *The Science of Society (La ciencia de la sociedad)*, Mexico, Anthropos/ITESO/ Universidad Iberoamericana, 1996; Niklas Luhmann, *Trust (Confianza)*, Barcelona, Anthropos/Universidad Iberoamericana/Pontificia Universidad Católica de Chile, 1996; Giancarlo

Corsi, Elena Esposito, Claudio Baraldi, *Glossary on Niklas Luhmann's Social Theory (Glosario sobre la teoría social de Niklas Luhmann)*, Mexico, Anthropos/ITESO/Universidad Iberoamericana, 1996; Darío Rodríguez Mansilla, *Organizational Management: Elements for its Study (Gestión organizacional: elementos para su estudio)*, Mexico, Universidad Iberoamericana/Plaza y Valdés, 1996; Humberto Maturana Romesín, *Reality: objective or built? I (Realidad: ¿objetiva o construida? I)*, Barcelona, Anthropos/Universidad Iberoamericana, 1996; Humberto Maturana Romesín, *Reality: objective or built? II (Realidad: ¿objetiva o construida? II)*, Barcelona, Anthropos/Universidad Iberoamericana, 1997; Niklas Luhmann, *Organization and decision (Organización y decisión)*, Barcelona, Anthropos /Universidad Iberoamericana/Pontificia Universidad Católica de Chile, 1997; Niklas Luhmann, *Theory of social systems I (articles) (Teoría de los sistemas sociales I (artículos))*, Mexico, Universidad Iberoamericana/ITESO, 1998; Raffaele de Giorgi, *Entitlement Science and Legitimation (Ciencia del derecho y legitimación)*, Mexico, Universidad Iberoamericana/ITESO, 1998; Niklas Luhmann, *Theory of Social Systems II (articles) (Teoría de los sistemas sociales II (artículos))*, Chile, Universidad Iberoamericana/Universidad de Los Lagos/ITESO, 1999; Javier Torres Nafarrate, responsible for edition of no. 40, of the *Sociologica* magazine of the Universidad Autónoma Metropolitana of Azcapotzalco, year 14, Mexico, May-August 1999; Niklas Luhmann, *The reality of mass media (La realidad de los medios de masas)*, Barcelona, Anthropos/Universidad Iberoamericana/ITESO, 2000; Niklas Luhmann, *The Privilege of Society (El derecho de la sociedad)*, Mexico, Herder-Universidad Iberoamericana, 1st ed., 2002; Giancarlo Corsi, *Learning Systems (Sistemas que aprenden)*, Mexico, Universidad de Zacatecas/ Universidad Iberoamericana /ITESO, 2002; Niklas Luhmann, *The art of society (El arte de la sociedad)*, Mexico, Herder/Universidad Iberoamericana, 2005; Darío Rodríguez Mansilla, *Organizations for modernization (Organizaciones para la modernización)*, Mexico, Universidad Iberoamericana/ITESO, 2004; Javier Torres Nafarrate, *Luhmann: politics as a system (Luhmann: la política como sistema)*, Mexico, Fondo de Cultura Económica, 2004; Niklas Luhmann, *The society of society (La sociedad de la sociedad)*, Mexico, Herder/Universidad Iberoamericana, 2007; Niklas Luhmann, *How is social order possible? (¿Cómo es posible el orden social?)*, Mexico, Herder, 2009; Darío Rodríguez Mansilla, Javier Torres Nafarrate, *Introduction to Niklas Luhmann's theory of society (Introducción a la teoría de la sociedad de Niklas Luhmann)*, Mexico, Herder, 2009; Niklas Luhmann, *Sociology of Religion (Sociología de la religión)*, Mexico, Herder, 2009; Niklas Luhmann, *Organization and decision (Organización y decisión)*, Darío Rodríguez M., translator, Mexico, Herder, 2011; Niklas Luhmann, *Fundamental rights as an institution (Los derechos fundamentales como institución)*, Mexico, Universidad Iberoamericana, 2010; Javier Torres Nafarrate, Darío Rodríguez Mansilla, *Society as passion. Contributions to Niklas Luhmann's theory of society (La sociedad como pasión, Aportes a la teoría de la Sociedad de Niklas Luhmann)*, Memories of the Luhmann Conference, Mexico, Universidad Iberoamericana, 2010; Ignacio Farías, José Ossandón, *Communications, semantics and networks (uses and deviations of Niklas Luhmann's sociology) (Comunicaciones, semanticas y redes (usos y desviaciones de la sociología de Niklas Luhmann))*, contributions to the Luhmann Conference, Mexico, Universidad Iberoamericana, 2011; Rainer Schützeichel, *Sociological theories of communication (Teorías sociológicas de la comunicación)*, Mexico, Universidad Iberoamericana, 2015; Niklas Luhmann, *Sociology of Law (Sociología del derecho)*, currently

Spanish-speaking world. Luhmann's work probably is estimated near 90 texts. We are talking, then, about a work of between 30,000 or 40,000 pages.

In the early 1970s, Luhmann was a known figure in Germany. He had already held the famous debate with Jürgen Habermas, which resulted in the outstanding work, *Society Theory or Social Technology? What does Systems Theory contribute?* for a long time the best-selling book in the field of social sciences.

In Mexico, 20 years later, not much was known about this thinker. I have recorded only two individuals who had any news. One of them is UNAM's professor Francisco Galván Díaz, who died prematurely, who translated one of Luhmann's writings from the aforementioned book. That translation appeared in the first issue of the *Sociologica* magazine, in 1986. The other is Luis Vergara Anderson. Luis was one of the very few who at least had basic information about Luhmann. At that time, he belonged to a group interested in Systems Theory -he even worked there as secretary-. This group was made up of personalities from UNAM, who later ended up introducing the National Development Plan into Mexico. I have the vague idea that they once invited Stafford Beer -a leading theoretician on the systems in the organization theory. Beer had helped design Allende's national development plan in Chile and, surely, through it, the group had had Luhmann's reference. This reference was what gave rise to Luis -the Education Department Director, at that time- to support the idea that we worked on Luhmann's theory.

He suggested me to prepare some sessions to discuss Luhmann's thought. After six months -without me understanding much- I proposed to translate some

(October 2018) in press in the Herder de México publishing house; Niklas Luhmann, *Sociological Illustration and other Essays (Ilustración sociológica y otros ensayos)*, a book made based on various Luhmann's articles on politics, law, communication, risk, manuscript, 2016; Niklas Luhmann, *Ecological Communication (Comunicación Ecológica)*, currently (October 2018) in press in the publishing house of the Universidad Iberoamericana. Loet Leydesdorff, *A sociological theory of communication. The self-organization of knowledge-based society (Una teoría sociológica de la comunicación. La auto-organización de la sociedad basada en el conocimiento)*, Mexico, Universidad Iberoamericana, 2015, Gabriel Vélez Cuartas, translator, from 2nd ed. in English, 2003, on upublish.com: Universal Publisher; Niklas Luhmann, "Legitimation through procedure" (Legitimación mediante procedimiento), Javier Torres Nafarrate, translator, currently (October 2018) in press in the Herder de México publishing house; Javier Torres Nafarrate, *Luhmann: entitlement (operating manual) (Luhmann: el derecho (manual operativo))*, manuscript, 2016; Frank Becker, Elke Reinhardt-Becker, *Systems Theory: an Introduction to Historical Sciences and the Humanities (Teoría de sistemas: una introducción para las ciencias históricas y las humanidades)*, Mexico, Universidad Iberoamericana, 2016. Although it is a project of the History Department, I catalog it here because the latest version of the translation was done by me (Javier Torres Nafarrate).

significant work, as that way we could start a discussion from a text. Then, we sent a letter to Luhmann to the Bielefeld University, without a precise address to see “if it would work”.

By the third or fourth month we received an answer. Luhmann was grateful for the translation possibilities, but he warned us that a similar attempt had been made in Spain and had failed: it was too expensive for what an editorial could bear. The attempt in Spain was reduced to the translation of a single chapter of the book *Social Systems*, which appeared in the Paidós publishing house under the title: *Society and System: Theory's Ambition* (*Sociedad y Sistema: la ambición de la teoría*).

### **Golden days**

The project was a random hit and not something caressed in the mind for years. This coincidence push at first made everything run smoothly. We formed, first, a translation team: two Germans and me. Bruni Erker, my first wife, who was assimilated to my salary of the Ibero. Silvia Pappé, who worked with the hope that, in the end, Inter Nations - the German foundation that supported translations - would compensate her somewhat. Immediately, with the sole presence of Luis before the Vice rector -Armando Rugarcía- the Ibero took over the translation rights before Suhrkamp and, from there, Luhmann's first visit was scheduled. The stars seemed to be aligning themselves: the Alianza publishing house was in search of an editorial association with the Ibero, so that the University immediately arranged for a co-edition.

I call *golden days* that time when there were no editorial protocols and no “critical pestilence” from the selection panel members. It is not my phrase, it is from Herder, in the first pages of the *Ersten Kritischen Wäldchen* (from the Berlin edition, 1878), in the context of the controversy against “*connoisseurs*”, who claimed the right to be the only ones who could declare what art really was.

Luhmann came (1991) and aroused, in the academic field, the curiosity to know his work. For his visit, he expressly asked the Ibero to invite a student of his, Chilean, whom he had great appreciation: Darío Rodríguez Mansilla. Chileans immediately recognized Ibero as the academic center in the Spanish-speaking world where the work of spreading Luhmann's work would be carried out. They even talked about contributing some translations that they used as manuscripts for their classes. In Chile at that time was very expensive to edit. Thus, the first books emerged. Investments -it must be said- were minimal, because they had risen from the spirit that Saint-Exupéry tells in the Citadel: “Force them to build a tower and you will transform them into brothers. But if you want them to hate each other, throw them some crumbs”. We began to build the tower of our Citadel.

### **Luhmann's visit to Guadalajara**

Luhmann returned to Mexico very soon for two reasons: the Universidad de Guadalajara (UdG) had granted him the honorary doctorate degree, and because he came to comment on the book on education that we had translated. Thus, the doors to publish with the UdG were opened. The enthusiastic promoters of that visit were Carlos Sedano and Elisa, his wife; in the editorial part, Martí Soler, who, if I am not mistaken, then served as editorial advisor of the university. I affirm of him what everyone says: his great affability and human warmth.

I met Martí again a couple of years ago in meetings at the Fondo de Cultura Económica, and it was he who came forward to remind me of the two great editions we made then: *The Educational System* (El sistema educativo) and *Theory of Society* (Teoría de la sociedad).

### **The jump to internationalization**

In 1994 there was a conference in Navarra. Young Spanish sociologists had invited Luhmann to a seminar. I went to that conference with the idea -after much epistolary exchange- to find an international publishing house to project us. The proper publisher was Antrophos: a fascinating cooperative that, to help itself with the cost of the editions, had a stable. We reached an agreement: we would publish together. Thus, came the impulse of the first Luhmann books. Antrophos, in turn, had the opportunity to negotiate later with UNAM and UAM. The collaboration in those first moments turned out splendidly. But, apparently, the milk business went into crisis and, as a result of insolvency, there were disagreements with the Ibero regarding the timeliness with which they should respond to the sale of books. Our editing department immediately broke the relationship.

Other horizons had opened with Luhmann. The Ibero invited Humberto Maturana (from whom Luhmann had taken the autopoiesis concept) to comment two of his books we published: papers, mostly in English, published during his stay at the Massachusetts Institute of Technology —MIT—. Do not forget that Maturana was nominated at that time as a candidate for the Nobel Prize in Biology. We were still twinned with our construction of the Tower. Pilar Vallés —wife of Dr. Guillermo Zermeño—, specialist in English literature, without expecting any remuneration translated a good amount of texts. As an anecdote of that moment, Maturana had sent his manuscripts without making any warning that these materials he had worked in collaboration with Jorge Mpodozis Marín. The first book - edited by the Universidad Iberoamericana/ITESO/Antrophos— made no mention

of such alliance. An editorial anger against the Ibero was unleashed by Mpodozis. Alejandro Robles, then in charge of the editorial side, held an epistolary exchange with him worth keeping within the most famous legal controversies over true copyright: Mpodozis v. Robles.

### **The passage to the Social Sciences Department**

The project had not started in the Social Sciences Department, but in the then Human Development and Education Department. I do not know if the occasion for me to arrive at the Policy Department as interim director had the veiled intention of giving a boost to the project from the directorate. And yes, indeed, it was the time in which a design could be made that intended to put Luhmann's work hallmark. A young designer, Argentinian, made some splendid dummies that I kept in my personal file, until Araceli Téllez ordered that that should be in the Publications Directorate. I don't know if they are still preserved there.

To some extent, that change to the Social Sciences Department ended up configuring the Luhmann's project Gestalt. The director position gave rise to having two assistants. The idea was —something prior to today's research grants— to help hardworking students work towards a Master's degree developing Luhmann's topics, to, immediately, aspire to the PhD in Europe. Jorge Galindo Monteagudo — one of the most prominent sociologists today in Mexico— and Juan Pablo Vázquez Gutiérrez were on the project. Now that I have been preparing these notes, I became aware of all the folders I have from that time —even the presentation for Conacyt— are cataloged by him. Juan Pablo was, to say the least, the invisible hand that organized my management. Extraordinary dimension of human being: gentle, deep, laborious, willing, like none, to commitment and, above all, that deployment of an aura of discretion, so far from intrigue and disloyalty. It takes a whole life to find another one like him.

### **The Argentinians onslaught**

Suhrkamp, during Luhmann's lifetime, had granted the Ibero a preference for translation rights. The Ibero had paid upfront fees for several books. The only requirement of the Germans was to honor the book copies appearance chronogram. Suhrkamp was not there to know: our Citadel Tower was not something strictly linear but crooked, like Gaudí's Holy Family. If we had pledged that the art book would come out first and a year later the one about law, at the moment of truth our almost free

collaborators first handed over the one about law and then the one about art. This annoyed Suhrkamp, besides he created a surveillance stay for the Spanish editions. A small Argentinian publishing company would be in charge of tracking what was published in Spanish. They made up that our distribution was extremely homemade and that our books were circulating neither in Europe nor in South America. As always: the lie appears alone; the truth, only in context. But that was too much to ask the Argentinians.

Suhrkamp immediately took away the rights from the Ibero —some already paid— of three decisive books. It was then that the publishing house Herder, with its subsidiary in Mexico, interceded —between quotation marks— for us. Jean Cornelius —a German with many years in Mexico— reached an arrangement with Suhrkamp, which consisted in that all the Luhmannian production by the Ibero would be done through Herder.

Prior to this, for the books to have more dissemination, Paidós of Spain publishing house had made the offer of publishing all of Luhmann's work translated by us. Letters came and went and spent long coffee hours with Paidós' representatives in Mexico. Finally, one day we were given an appointment, as the General Director for Spain would come to seal the agreement. Alejandro and I went. As soon as the details of the deal began, Alejandro perceived a conqueror stink from his lordship; he immediately got up from the table, and with it ended our dream of internationalization.

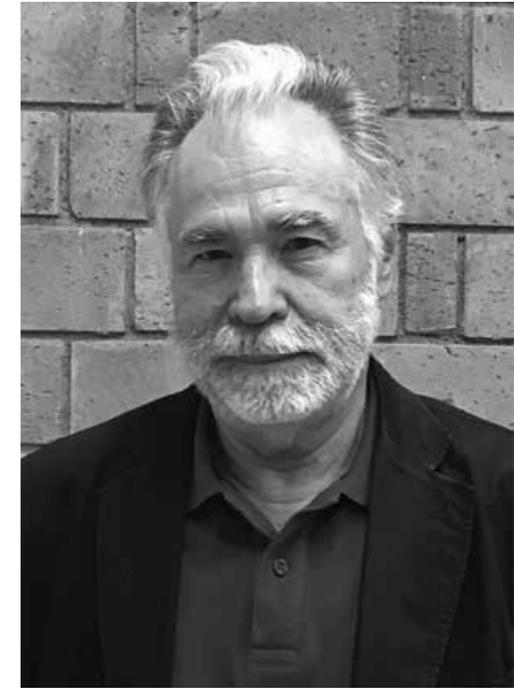
### **The Luhmann Conference**

Throughout this journey we had matured as a team. I felt then that it was time to start the translation of Luhmann's most important book: *The Society of the Society* (*La sociedad de la Sociedad*). Carmen Bueno Castellanos —then the department's director— strongly encouraged the initiative for me to dedicate a year —exempted from teaching obligations— to write the latest version of this text, of more than a thousand pages. I feel that Carmen has been the one who, in a deeper way, penetrated the depth of what the project intended and, although I can say that, in general, I always found support from the leadership, what Carmen did I place in another dimension: to advocate before the authorities for such an enterprise carried the risk of being wrong with herself. I think I interpret in her the pleasure of always trying to go far beyond what is set. Within what I have lived in academia, I consider her Mahadma: big soul. Because in this it is relatively easy to become oneself *the* institution; but it is extremely difficult to sustain oneself as an individual in the institution... That time dedicated to the translation of *The Society of the Society* opened the way to hold a Conference in 2007, to commemorate the first ten years of the launch of the book.

Two years before we had inscribed in the basic research category of Conacyt, the organization of said Conference. It was not accepted. The dimension of the proposal can be glimpsed by what we asked 10 years ago to carry out the event: one million Mexican pesos. It seemed that the opportunity was over. However, while I was in Germany translating the book, the two assistants at that time, Mónica Sánchez and Héctor Estrada, strictly on their own account, again made the conference to be part of the contest in Conacyt. This time it was accepted. The Conference succeeded. It was the first one to be held in the academic world over the 10 years of the book *The Society of the Society*. Fifteen renowned academicians from around the world came to comment on Luhmann's work. Since the conferences held in Mexico were almost all in German, they were immediately published in Germany in a special issue of the *Social Systems* magazine.

### Finally

It is evident that the Universidad Iberoamericana had a great understanding towards the project: without such support, almost 40 books could not have been published. Although, from the nostalgia of plenitude —a category that I read in a theology magazine one day— it could be expressed even better: great understanding, yes, but not total understanding. I think, in general, that the universal meaning of Niklas Luhmann's work would have required greater commitment from the Universidad Iberoamericana. ¶



Dr. Javier Torres Nafarrate, translator and diffuser of Luhmann's thought, 2018.

Karen Cordero Reiman

*“You’ve come a long way, baby”.*  
*Research in and from the Art*  
*Department*

The change in the research field in the Art Department, since I entered in May 1985 —as a rookie director— until my retirement in August 2017, after 32 years as an academician, was radical. When I entered, although a good number of its members at that time —such as Fausto Ramírez and Leonor Morales— had done important research in their respective fields of expertise, they had done so outside the scope of the Ibero, since until then all the positions in the department —with the exception of the directorate— were part-time and most of the professors had only a bachelor’s degree, although some had completed postgraduate studies. The concept of the department was of a teaching entity and half times gave little room to do something beyond preparation, teaching and evaluation of the classes. Thus, the research activity did not form an important part of the professors’ profile, even though the quality

and character of the classes taught by academicians were clearly set apart —both in time and subject— with a significant research trajectory.

To try to stimulate this aspect, in the directorate period previous to mine, Esther Acevedo Valdés —an experienced researcher in art's social history methodology— promoted the department's joint hemerographic project —where she involved teachers and students— and that it was based on the formation of a news archive on events in the culture field. She also organized a collective project that gave rise to a Guide to Downtown Murals of Mexico City, published in collaboration with the National Council of Education Promotion (Consejo Nacional de Fomento Educativo), in 1984. These initiatives served to begin to reconceptualize the department as an entity focused on research, on a par with teaching, even when they were conceived from the directorate, rather than from the interests of each academician.

When I took the directorate responsibility there was this background and also a Research Coordination at the Universidad Iberoamericana that sought to promote and support for production of knowledge and publication initiatives. Through the expansion of most professor positions of the Art Department to full-time positions, it was sought to balance their activity in the University between teaching and research. They were invited to conceive and register projects linked to their interests, as well as to share and feed them back in a dialogue seminar on research. It also sought to integrate a larger number of professors with a profile of teacher-researcher into the teaching workforce. This was intended to underline, in classes, that art history being taught was not a series of works and fixed events of the past, but a construction that could be approached and questioned from the present, in various ways and from different theoretical perspectives. The fact of reorienting the department's profile, in this gradual sense, laid the groundwork for conceiving the development in the department of a postgraduate degree that also implied that the teachers' workforce had postgraduate studies and more consistent research trajectories.

The following years, in parallel to moving the Universidad Iberoamericana from the Churubusco to the Santa Fe campus in 1988, the department's orientation towards research, both linked to teaching and oriented towards the production of knowledge was increasingly strengthened, communicated in publications and papers, coupled with a reflection on Art History contemporary theories and methodologies and related interdisciplinary perspectives. Within the conceptualization process of two master's degrees framework, in Art Studies and Museum Studies, which opened in 1993 —already in the directorate period of María Estela Eguiarte— research groups were formed working on different topics, including History of Mentalities and visual culture, hermeneutics and post-structuralist interpretative theories, as well as the convergence between arts.

Although shortly after I joined the Ibero I had registered my personal research

on the invention of popular art, as part of the process of visual culture in Mexico between 1915 and 1940, it was in the context of these groups that I began to question and transform my research and writing processes from perspectives linked to Critical Theory. The work I had been doing, based largely on art social history and built from archival intensive work and visual documentation, was transformed in light of questioning the power relations implicit in structures, writings and the uses of author voice process in Art History and Theory.

José Luis Barrios, Issa Benítez Dueñas and I formed a research seminar on Art Theory, from which we shared readings, dialogues and teaching, we turned the classroom into a space for debate, experimentation and collective growth. We crossed texts from Phenomenology and Hermeneutics with foundational texts of Mexican Art Historiography, as well as revealing texts of the likes of Hans Belting's *The End of Art History*, we disassemble the fixation of the object-subject relationship and become aware of the role of our own bodies in the construction of our art readings and their meanings. Fruit of the seminars and courses we taught jointly, in the Master's Degree in Art Studies in its first generations, is the book of essays of postgraduate students titled *Spelling Revolving Around Twentieth Century Art History (Grafías en torno a la historia del arte del siglo XX)*, in 2006.

In the development of my own work —which comprised by that time, in addition to the art of the first half of the twentieth century in Mexico, also the art of the seventies to present time— my methodological approach gradually expanded to include a phenomenological approach to art and its perception, which had implications not only for theoretical support, but for my research and writing practice. The experience of motherhood coincided in those years with the new bearings of my readings and with a keen interest in the artistic and humanities atmosphere, in the body as a topic and research site, placing corporeality as the center of my reflections. The above leading me to take up again interests that had accompanied me since the bachelor's degree, on feminism and gender studies. Brief teaching stays at the University of British Columbia and the University of California in Irvine allowed me to place these concerns in relation to the international intellectual context, at the same time, the curatorial coordination of the exhibition *The Alluded Body: Anatomies and Constructions, Mexico, 16th to 20th century (El cuerpo aludido: anatomías y construcciones, Mexico, s.XVI-s.XX)*, which opened at the National Museum of Art in 1998, opened new horizons in my historiographic reflections. Both the work in the research seminar, which led to a non-chronological exhibit that privileged the corporeal reception of the works, as well as the public's response to this approach, led me to develop a comparative analysis between Mexican art history discourse in texts and exhibits, called "Mexican Art Historiography, between the Word and the Wall" ("La historiografía del arte mexicano, entre la palabra y la pared").



Mtra. Karen Cordero Reiman, , academican of the Art Department.

The always rich experience of research seminars matched up in the last decade of the last century and the beginning of this one with a process, in the Ibero, of interdisciplinary lines research conception, crossed by several diverse conceptualizations of the Research Directorate at the institutional level. In this context, the seminar on Art Theory that we had developed in the Art Department was extended to link with a Humanities seminar, convened by José Alcántara of the Literature Department. This was the result of an interdisciplinary work process on aesthetics and politics that has had various incarnations, depending on both the institutional changes in research support mechanisms, and from the organic development, consolidation and growth of the working group and its increasing integration with teaching, publication and social action processes.

Regarding the above, from a first group of Art, Literature, Philosophy and History academicians constituting the research line of “Theories,

Textures and Textualities” (Teorías, texturas y textualidades”) —including José Luis Barrios, José Alcántara and Ilán Semo—, who met in a meeting room to explore the theoretical links of our work, while we ate pizzas and read Paul Ricoeur, Yuri Lotman, among others. The research group called “The Construction of Meanings in Cultural Objects: Theory, Textures, Textualities and Theatricality” (La construcción de significados en objetos culturales: teoría, texturas, textualidades y teatralidad”) was created; and later “Culture Critical Studies: Representation and its Limits” (Estudios críticos de la cultura: la representación y sus límites”) and “Policies and Powers of the not (re)Presented: Exclusion, Bare Life, Clandestinity” (Políticas y potencias de la in(re)presentado: exclusion, nuda vida, clandestinidad). Their different names, long and complex, reflected the transdisciplinary crossing same complexity we wanted to achieve. The project was strengthened by linking not only to a permanent research seminar, but to a permanent offer of curricular seminars open to different disciplines. Likewise, by expanding its topics mainly towards aspects of aesthetics, politics, exclusion and violence, Communication, Social Sciences and Law<sup>1</sup>

1 Part of the fruit of this process is picked up in a series of collective volumes, coordinated by José Luis Barrios and published by the Universidad Iberoamericana: *Affection and Knowledge*:

academicians and students were incorporated. The long process of dialogue, debate and joint work summarized here has now led to the *Deterritorializations of Power: Body, Diaspora and Exclusion (Aesthetics, Politics and Violence in Globalized Modernity)* (Desterritorializaciones del poder: cuerpo, diáspora y exclusión (Estética, política y violencia en la modernidad globalizada)) studies.

In parallel, a research lines consolidation process within the Art Department was also lived, of a more disciplinary nature and linked to teaching and graduate students formation processes; in this regard, together with Dina Comisarenco and Ana Torres Arroyo we formulated a joint research line, focused on modern and contemporary Mexican art, where we explored public art, archive and cultural memory aspects that gave rise to publications and exhibits, such as *To Participate in the Rightful: Recovering Fanny Rabel's Work*, in 2013, as well as re readings of muralism as a political phenomenon and tool for social intervention.

My own research work during the last decade has developed “on horseback” between these two lines, focusing mainly on feminism and gender studies issues, and the ways in which from art and writing distinctive power relations are generated, which allow subjectivities visibility and expression; same that glimpse new political possibilities in the field of everyday life and affection. In this sense, my explorations have been reflected both in collective works with colleagues and students, have generated exhibits and writings from archives analysis —as those of feminist and photographer activist Ana Victoria Jiménez and the plastic artist Fanny Rabel—; as well as in individual works on the work and the archive of the feminist artist Monica Mayer. International collaborations have also been developed, such as exhibitions and publications *Another Promised Land: Anita Brenner's Mexico* and *Radical Women: Latin American Art 1960-1985*, which were part of the Pacific Standard Time project: LA/LA organized by the Getty Research Institute of Los Angeles for the 2017-2018 period, and the colloquium and publication *Reimagining Public Space In Mexico: Relationality, Collectivity, Community In Art And Beyond*, organized between the Universidad Iberoamericana and Cambridge University between 2016 and 2017, with the support of the British Academy.

The integral role that research has come to have, as part of the Universidad Iberoamericana infrastructure and its teaching programs, throughout the 32 years of my trajectory at the Ibero, marks then a fundamental process that transcends in

*Critique, Culture and Destabilization of Reproduction (Afecto y saberes: crítica, cultura y desestabilización de la reproducción)* (2015), *Affection, archive, memory: territories and writings of the past (Afecto, archivo, memoria: territorios y escrituras del pasado)* (2015) and *Affectation and Delirium: Desire, Imagination and Future (Afectación y delirio: deseo, imaginación y futuro)* (2016).

various ways: in the conception of new study programs, such as the PhD in Critical Gender Studies and the PhD in History and Critical Art Theory that were inaugurated in this year of 2018, in the interdisciplinary explorations of recent graduates in their theses and in the resonances of the words and ideas generated individually and collectively—in writings, in events and in exhibits—propitiating conversations that give voice to previously inarticulate experiences and, I hope, contribute to some extent to social transformation processes.

Building interdisciplinary and transdisciplinary research spaces has not been easy within a conceptualized and articulated institutional structure, mainly, based on disciplinary areas of knowledge in academia, politics and economics. However, for me it means one of the aspects that distinguishes in an important way my experience in the Ibero, achieved mainly through the conviction, solidarity and insistence of a group of colleagues committed to thinking otherwise about the relationships between the personal and the political, and culture and social power relations. ¶

*That is perceived, in  
things and history  
specific of a place,  
with eyes, ears and hands,  
tongue and nose;  
as evidence and  
invitation;  
where that expressing us,  
frees us;*

*but only the truth  
expressing us  
offers itself to the  
knowledge of reality  
as existence at the  
service of hope*

# Fernando Rovalo

## *Don Felipe, S.J.*

Linking, research and teaching activities in the former Art Division of the Universidad Iberoamericana owes a lot to Don Felipe —as we used to call Dr. Felipe Pardinás Illanes, S.J. in his time— not only for the very existence of Art History, Architecture, Industrial Design and Plastic Arts bachelor’s degrees, but also for a way of being that is still nostalgic and still valid for those of us who remain disciples.

In order not to forget his contribution to the formation of researchers’ flair, I gather here among diverse evocations, the fragments corresponding to this topic in two texts published in *Nierika. Journal of Art Studies* (*Nierika. Revista de Estudios de Arte*) published by the Art History Department of our University. On the part of Cristina García Hallatt<sup>1</sup>, I retake relevant fragments of her text “Teachings of Felipe Pardinás”<sup>2</sup>.

1 Cristina García Hallatt is a professor in the Art Department; Alumni of the bachelor’s degree in Art History and of the master’s in Art Studies. She has specialized in 19th-century art, in the national and international spheres.

2 Cristina García Hallatt, “Teachings of Felipe Pardinás”, *Nierika. Art Studies Journal*, year 2, no. 3, Mexico, Universidad Iberoamericana, January-June 2013, pages 73-80.

The teachings of Don Felipe Pardinás Illanes (1912-1985)<sup>3</sup> recovering process by a fortunate person of being a student in the bachelor's degree in Art History during the sixties of the twentieth century, became a personal experience full of nostalgia to the conviction that those learnings, however endearing and deep in the heart, remain academically valid.

A great contribution of Don Felipe Pardinás to the Universidad Iberoamericana was the founding of the magazine *Comunidad*, where he poured some interesting reflections of his way of thinking:

The *Comunidad* magazine, founded by Don Felipe Pardinás Illanes, S. J., in 1966, was published four times a year until 1977 when it stopped going out to the public [...]. In the first issue of *Comunidad*, in the "Editor's note", expresses the intention that the publication follows a diachronic-synchronous orientation, considering that the insertion of social phenomena in the historical landscape helps defining them in their evolutionary process, but the synchronous approach emphasizes the precise moment in history in which the phenomenon appears, compares with parallel problems in time, and can offer greater accuracy to understand it<sup>4</sup>.

Since before, still at the Hacienda de San Ángel Inn, his inclination for synchrony was evident. For example, it was usual, after celebrating Mass at seven in the morning, to find Don Felipe having breakfast in the patio cafeteria, surrounded by national and European newspapers while comparing the content and mode of each, such as *Le Figaro* and *The Economist*, among others. His subject was the only one

- 3 He joined the Society of Jesus in 1928; studied Philosophy (1930-1934) at Isleta school in Texas, USA; he studied a bachelor's degree in Theology (1938-1942) at the Gregorian University of Rome and a PhD in Philosophy (1950), at the Universidad Nacional Autónoma de México (UNAM). He also studied a master's degree in Ethnology (1963) at the National School of Anthropology and History (ENAH). Between 1947 and 1967 he was founder, at the Universidad Iberoamericana (UIA) of the Schools of Anthropology, Architecture, Plastic Arts, Social Sciences, Political Science, Industrial Design and Art History. He devoted much of his work development to teaching. By 1967 he left the Society of Jesus and turned his eyes to the Middle East, traveled to India, China and Japan. (Synthesis made from the article by Cristina García Hallat, "Teachings of Felipe Pardinás", *Nierika. Art Studies Journal...*).
- 4 Appropriation made by the French anthropologist Claude Lévi-Strauss for social sciences, of the diachrony-synchrony theoretical dyad of the Swiss linguist Ferdinand de Saussure.

presided by an earth globe where he challenged us to locate the place of his topic and point out others, relevant in their diachrony or synchrony.

As García Hallat points out, Don Felipe proposed dialogue as the tool of understanding and respect for the interlocutor, therefore he said: "Community goes out to dialogue around the world, for who knows how long, as an agent of peace and solidarity among the peoples of the earth."<sup>5</sup> "To the dialogue" —advised Don Felipe— "one must go with analysis categories [...] and not with slogans that only indicate ideological clinging and unconsciousness of the myths themselves, of dichotomous thoughts, that speak of the rich and the poor, of communists and the free world [...]"<sup>6</sup>.

As a teacher, Don Felipe left a deep and lasting mark on those of us who studied with him: "Most of those who were his students remember [...] his classes, in classrooms with a two hundred seats for Art History, Philosophy, Anthropology, Information Sciences and Techniques (as it was then called Communication), Architecture and some other career students. He taught Methodology Research and Techniques in Social Sciences"<sup>7</sup>.

In the prologue to the text, with the same name of his course, Don Felipe argues that "The aspiration of this book is to be read by men and women without university courses who want to better order their thinking, to study or read with higher yields, become familiarized with the principles of scientific work". This book is still on sale to date and has remained a textbook in several universities for decades. His recommendation persists: "don't just read the books, find out who wrote them." Years later he published *Social Communication Handbook (Manual de comunicación social)*, *Diplomatic Relations between Mexico and China (Relaciones diplomáticas entre México y China)* and *A Bamboo Bridge (Un puente de bambú)*. His goal was to learn to apply the scientific-mathematical methods of the natural-physical sciences

5 Felipe Pardinás Illanes, "For a diachronic definition of 'Community', in *Community. Cultural Dissemination Notebooks*, vol. 1, no. 1, México, Universidad Iberoamericana, 1966, page 3.

6 Cristina García Hallat, "Teachings of Felipe Pardinás", *op. cit.*, page 80.

7 *Ibid.*



Photograph of Dr. Felipe Pardinás Illanes, S.J. Universidad Iberoamericana Historical Archive. Diseño Digital, México.



Don Felipe led the Art Division of the Ibero Campus during the fifties of the last century, in the old house of the Treasury of the Hacienda Goicoechea. It is currently occupied by the San Ángel Inn restaurant. Historical Archive of the Universidad Iberoamericana, Photoshop: Diseño Digital, UIA. México.

to social sciences. In line, his teaching strategy was “to show us how he did it in his own research. One topic, for example, was Mexico’s urban middle-class attitude towards Chinese culture”<sup>8</sup>. In this regard, Don Felipe had first-hand knowledge:

Don Felipe traveled to China in 1965 to watch work in factories, the workers’ labor performance, the conditions lived in prison, coexist with the Chinese in the Catholic or Buddhist religious practices under the weight of the communist regime [...].

Don Felipe was a philosopher, historian, art and architecture student, but above all he was an anthropologist and contributed to the discipline systematization, defining theoretical structures that described, explained and predicted social behaviors valued by human groups, adequate research and teaching methods [...]. We had to acquire, first, a discipline language before finding the independent variable (explaining) and the dependent variable (explained) of artistic phenomena<sup>9</sup>

Don Felipe also believed that his studies had a purpose for the benefit of the subjects he studied:

I saw the study of communities and their behaviors as strategies to promote common welfare as opposed to contemporary trends, such as the capitalist, which based its concept of social progress on economic development exclusively, or communist ideology with the implementation of a totalitarian policy. Don Felipe Pardinás conceived cultural development as the indispensable premise in life improvement. It had to be understood as an acculturation process, in which the group had to develop the capacity to assimilate new behaviors, integrate them into their assessment methods once the origin of the proposed behavior was known, the change that would operate and freely decide whether to accept it [...].<sup>10</sup>

8 *Ibid.*

9 Felipe Pardinás Illanes. “Editor’s Letter. Socioeconomic Growth Base”, in *Community. Cultural Dissemination Notebooks*, vol. 2, no. 5, Mexico: Universidad Iberoamericana, 1966, page 4.

10 Cristina García Hallat, “Teachings of Felipe Pardinás”, *op. cit.*, page 80.

As a teacher, the impetus he gave his students to publish was great and made it a requirement of his classes. In this way, he undoubtedly encouraged in them the exchange of ideas spirit:

Pardinás ventured us to unprecedented experiences, and we had to overcome fear if we wanted to pass his subjects. Each student had to publish, per course, two papers on some topic related to the course, in national or international newspapers [...]. The word *curatorship* was not yet in our vocabulary, and it is obvious that we also lacked the concept of the term. *Museography* was a course that we would discover further on, with Mario Vázquez in the newly opened Anthropology and History Museum. In any way we achieved it, all of us who passed his courses published our texts, and the first art exhibit at the UIA was a success.<sup>11</sup>

In *Nierika. Art Studies Magazine* appears the article “The Museographic Laboratory, a great experience in the 1960s”<sup>12</sup>. This is particularly interesting as a testimony of the institutional research promoted by Don Felipe at that early date. Following I quote some significant fragments, where the authors of this text, Marisela Rodríguez Lobato<sup>13</sup> and María Antonieta Graf Graf,<sup>14</sup> narrate how *it went*:

Dr. Felipe Pardinás Illanes imprinted the Art History course of study an extraordinary dynamism that in those years resulted in the formation of a student organization whose main purpose was art dissemination as a living experience. Thus Dr. Pardinás wrote in 1967,

11 Ma. Luisa Ramírez, “Paintings from the East” (Pinturas de Oriente), in *Community. Cultural Dissemination Notebooks*, vol.1, no. 2, Mexico, Universidad Iberoamericana 1966, page 137.

12 Marisela Lobato and María Antonieta Graf, “The museum laboratory a great experience in the 1960s”, *Nierika. Art Studies Journal*, year 2, no. 3, Mexico, Universidad Iberoamericana, January-June 2013, pp. 88-93.

13 Marisela Rodríguez Lobato has a bachelor’s degree in Art History and a Master’s in Art Studies. She was a Eurasia Art teacher from 1969-1973, as well as responsible for the development of the 1974-2001 slide collection and academic consultant at the Francisco Xavier Clavijero Library, 2001-2011.

14 María Antonieta Graf Graf has a bachelor’s degree in Art History. She served as coordinator of the Slide Library from 1967 to 1984, director of the Library from 1985 to 1989 and director of Internal Relations from 1992 to 2001. Currently (2013) she is in charge of the Project of the photographic section of the Historical Archive of the Universidad Iberoamericana.

in the introduction to the *Catalog of the Museographic Laboratory of the Universidad Iberoamericana*<sup>15</sup>: “A museography laboratory is not a museum, but an experimental attitude with that human adventure of making the language of each visitor speak, to fragments of cloth, ivory, wood, metal that one day were part of the living and passionate experience of a group of human beings”.<sup>16</sup>

From the perspective of the students that are part of this experience, it all started in 1966 when we studied the Art from India, China and Japan with the teacher Felipe Pardinás Illanes, founder of the Art History School and academician of the studies program, who asked us to set up an exhibit on oriental paintings.<sup>17</sup>



Fernando Rovalo, Architect, pioneer in Design research, interdisciplinary academician role model.

The success of said exhibit aroused the enthusiasm of a group of students led by Dr. Pardinás and guided by a classmate, María Luisa Ramírez Becerra. They were committed to form a small museum in order to show the university community the cultural pieces they had already obtained through donations:

The collection consisted of pieces of varied artistic value, which included paintings, sculptures, coins, archeological pieces from pre-Hispanic Mexico, Tibetan tankas — prayer canvases — Japanese prints, bronzes and Chinese ivories, two Greek vessels from the Hellenistic era, among many other things<sup>18</sup>.

In those years there were other memorable exhibitions at the Museo Laboratorio, where they avoided presenting themselves as a petrified museum. They showed the last Don Felipe’s impulse to our training as researchers who, with their very specific attributes, require both Art History and Design and Architecture. Paradoxically, two university objectives could not coexist:

15 Marisela Lobato and María Antonieta Graf, “The Museographic Laboratory...”, *op. cit.*, page 88.

16 Felipe Pardinás Illanes, “Introduction”, in the *Museographic Laboratory Catalog of the Universidad Iberoamericana*, México, Museographic Laboratory of the UIA, 1967, page 5.

17 Marisela Lobato and María Antonieta Graf, “The Museographic Laboratory ...”, *op. cit.*, page 93.

18 *Ibid*, p. 89.



Exhibition at the Museographic Laboratory (Photo courtesy of Historical Collection, Francisco Xavier Clavijero Library, UIA).

The then rector of the University, Dr. Ernesto Meneses Morales, S. J. with much regret communicated our director, María del Carmen Hernández y Torres, (1969) that it was no longer possible to continue with the activities carried out by the Museographic Laboratory, A.C. for two fundamental reasons:

1. The economic situation the university was facing.
2. [...] In that year the Service and Social Promotion Center was created, and the place occupied by the Museum was required for the offices that would house the center.<sup>19</sup>

We do not stop regretting, to this day, the never-restored conclusion of that experience. Maybe heading to 2030 we will find the place that now is his. ¶

19 *Ibid*, p. 92.

Fernando Rovalo

*Research in Design*

In 2017, as part of the Ibero Strategic Plan projected for 2030 and the study plans review, in the Design Department we formed a commission focused on promoting a model that specifies the ways in which we generate new knowledge. We call these modes as follows: research *about* Design, research *of* Design, research *for* Design, research *through* Design. We consider this last modality of particular interest because, despite being the most common, we have not valued it sufficiently as research within the Department, nor adequately shared to the exterior.

What is research *through* Design about? What is to research *through* Design? What is the difference that distinguishes this modality from the other equally indispensable modes? We will begin by delimiting the three usual ways character. On

the one hand, research *about* Design involves generating knowledge in the field of Design theory, with philosophical certainty. On the other hand, research *of* Design generates knowledge of Design procedures or methodology, with logical and/or scientific certainty. Likewise, research *for* Design discovers, gathers and articulates indispensable information, often of an interdisciplinary nature, applicable to Design and with scientific certainty.

These research set up in interrelation, the borders can be fluid, the frequent crossings, but the nucleus that characterizes each one is precise. In this sense, the fourth way, to research *through* Design, implies discovering<sup>1</sup> on the perceptual own momentum of the *process* and the *work* itself a new knowledge<sup>2</sup> that visually illustrates events that are not directly visible<sup>3</sup>. Among these:

...the [same] creative process that is to Design, as an activity of the mind, cannot be observed directly. The sketches, made for the eyes and directed by them, make visible some aspects of Design planning. Not only do they provide the Designer with sensitive images of what its mind is trying in the dark of its own freedom, but it also allows the observer or theorist to capture some still photos that peek into the creative flow process.<sup>4</sup>

In the dialogue between the goal-image (that the mind is pursuing and developing) and the visible sketch (that the hand generates on paper) —both initially

- 1 In the *Dictionary of the Royal Spanish Academy* the definition of the term “to discover” is: “Come into knowledge of something that was not known”.
- 2 With ideas from Rudolf Arnheim, *et al.*, *Considerations on art education*, translation by Fernando Inglés Bonilla, Barcelona, Ediciones Paidós, 1993, page 99. Original title: *Thoughts on Art Education*, The Getty Center for Education in the Arts, Paidós Estética 22, 1989. The events that can be seen illustrate the dynamics of other events that are not directly visible. The dynamics, in a sphere of existence, may symbolize that which occurs in another sphere: metaphors, in images, point to the nature of human condition. The dynamic that transmits the image resonates in the nervous system of the recipient; its body reproduces tensions and unites in its inside actions it observes outside. For example, in the dialogue between the sketch and the mental image. It is up to the Designer to form a mirror reflecting what life is; its responsibility is to propose the mirror that, when reflecting what it can be, when looking at it, is. It is not easy, but it is worth discovering the proposals we make and why.
- 3 Thus, in the form of symbols, representations, metaphors or “*anaiconia*” (similarity in the image). This last term, as similarity, not allegory, between sensory perceptions.
- 4 With ideas in the essay by Rudolf Arnheim, “Sketch and Design Psychology”, *Design Issues*, vol. IX, no. 2, Spring 1993, MIT Press, Cambridge Mass.

blurred and increasingly outlined— appears not only to *realize* the topic but, above all, of the internal corporeal resonance reproducing the proper external tension of *perception*, whether current or recovered in memory.<sup>5</sup> But also, at the end of the creation, the Designer provokes a new external incidence<sup>6</sup> in the *fruenta*.<sup>7</sup> For example, upon unveiling a foothold to answer basic questions such as who am I? or where am I?<sup>8</sup>, the Designer intervenes different types of Design, such as the settlement-in-the-landscape, the streets and squares, the buildings and houses, their street furniture and equipment, images with which we communicate, personal dressing, clothing and accessories, the complete attire: where I find identity, I know who I am; otherwise, alienated, “that ‘s not me”. If I enjoy guidance, I know where I am, otherwise, I am *lost*, literally “I am lost literally, ‘no me hallo.”

In this way, *through* sketching and *in* the final result, the Designer *makes visible*<sup>9</sup> the new knowledge, intuitively and in a certain *way* expressive in particular, both in the subject of the work, and in connection with a specific technique and logistics; credited, in each episode of the process and until the end, for existential certainty.<sup>10</sup> This is how he discovers it little by little and, finally, delivers it to the one who enjoys it to provoke that incidence in real-world life, indicated above: in the internal corporeal resonance reproducing and uniting the external tension perceived today directly, or in memory, to provoke that new external incidence,<sup>11</sup> *through*, therefore, the same *make-visible*<sup>12</sup> the topic<sup>13</sup>, *intuitively* and in a *particular way*, credited by the existential certainty, in the unity of specific technique and logistics.

- 5 *Ibid.*
- 6 Nonexistent today, totally valid if it is one —not a mere disorderly juxtaposition—, true —in its technique—, good —in its function— and beautiful —in the expression that unites everything.
- 7 The one who enjoys it. Who enjoys the Design, not the user, nor the recipient.
- 8 With ideas from Christian Norberg-Shulz, *Genius Loci: Towards a Phenomenology of Architecture*, New York, Rizzoli International Publications, Inc., 1980, page 625. Published in Italian in 1979 and 1984 as *Genius Loci - paesaggio, ambiente, architettura*.
- 9 When appropriate, it can be expressed or include one or more of the other senses: hearing, touch, smell or taste.
- 10 The one that implies “expertise in humanity” —reference of Luigi Giussani, *The Religious Sense*, Madrid, Editorial Encuentro 2nd edition, 1988. page 34—, not the philosophical, scientific or mathematical demonstration, which are basic in other fields.
- 11 Again: nonexistent today, totally valid if it becomes one, true —in its technique—, good —in its function— and beautiful — in the expression that unites everything—.
- 12 Whereby to do can be expressed or include one or more of the other senses: hearing, touch, smell or taste.
- 13 The topic or function being heeded.

Otherwise, how did the research activity start in the Design Department? Between 1973 and 1974 —when Rector Dr. Ernesto Meneses Morales, S.J., underlined the importance of research during the Ibero Academic Reform, with a view to official validity recognition of their programs— the interest of certain professors promoted actions and led them to publish books corresponding to ergonomics, Design analysis and composition topics. We set up an anthropometry laboratory and incorporated the incipient use of The Computer to the analysis for the Design. We also worked on interdepartmental projects, for example, with Biomedical Engineering.

We see another milestone between 1998 and 2002, driven by the Urbanism, Architecture and Design Department. It was the first time that a specific budget was allocated for research in these areas. The topics started again from the interest of participating teachers, linked to their teaching. Thus, projects were registered in the areas of Textile Design or Graphic Design. The divisional research project received the problem of new topics, until 2006, when the Art Division that had promoted them disintegrated.

Regarding the topic of books and publications of the Design Department, we can point out that books and articles in magazines that have been published in the interest of Design professors, have dealt with topics of visual composition, typical problems of the profession, Design processes and methods, techniques and, in general, Design theoretical and practical matters. Topics on history, sociology and Design didactics were also integrated. Four books by authors of the Department are currently in the Ibero Publications Department.

We also developed the Linked Projects as research through Design. The relationship of the three university functions is emphasized in the Ibero Strategic Plan to 2030: linking, research and teaching. The Linked Projects we practiced since the seventies of the last century make it easier to address this approach. The courses that form the backbone of the study plans —Design from I to VIII— are especially fruitful for *research through Design*, presented at the beginning of this text. The links have been set with the State, the market or civil society organizations (OSCs).

Another recently completed Linked Project is a case in point, because it was also set based on an interdepartmental link. It is about work initiated in the History Department, with the purpose of recovering oral history in several communities of the municipality of Malinalco, promoted by Santo Desierto del Carmen, A.C., and driven by the Orden del Carmen Descalzo. Based on the historical text prepared by three History students, the Editorial Design course —Graphic Design III—, of the bachelor's degree in Graphic Design, created a children's book for the children from these communities, in addition to a workbook to stimulate ownership of their identity and orientation. To conclude the reference to Linked Projects, it is possible to point to the university-trained higher technician in graphic production. It seems to

me an attractive example, because it brings together linking, research and teaching, in the career of students involved in three different academic programs.

Likewise, we treat the PhD and research area among Design professors. The promotion of postgraduate courses, particularly among Ibero teachers, has been a permanent aspiration. However, at first, it was not easy, and such promotion was, rather, the result of the particular interest of those who participated. This, due to the following:

1. The first PhDs chose by topic education or theory. They opened the way to those who have followed them.
2. Only from personal interest, several professors continued to be PhDs in matters of history, theory and perhaps management.
3. The promotion of the PhD program taught between two universities of the Association of Universities Entrusted to the Society of Jesus in Latin America —AUSJAL— is very recent. Now, it was not only personal desire, but the deliberate creation of an environment where the invitation would ignite. Today PhDs completed between the Universidad Iberoamericana, Mexico City and the Pontificia Universidad Católica de Rio de Janeiro were completed between 2013 and 2017.

Finally, it is important to mention the *DIS Journal*, as we celebrate with pleasure the generation of a digital magazine that has started with success and quality. Its purpose is to “disseminate unpublished research and essays, of high academic quality that stimulate analysis and debate over practice, profession and discipline of Design. Especially those with relevance and social relevance”.<sup>14</sup> In its latest publication, the *DIS Journal* states as particular goals:

...invites to generate a reflection motivating Designers to consider groups of people who have been forgotten or marginalized in traditional practices. Under this approach, the relationship between user and Designer is an opportunity to understand the differences, multiply the possibilities of being more empathetic, resilient, elastic and multicultural, which in turn could result in the development of Design solutions that impact favorably in people's lives quality.<sup>15</sup>

14 (2018). 2018, August, of *DIS Journal*, Universidad Iberoamericana. Online: <http://disjournal.ibero.mx/index.php/DISIBERO>.

15 (2017). 2018, August, of *DIS Journal*, Universidad Iberoamericana. Online: <http://disjournal>.

With the above, we expound a valuable instrument with which we hope to promote and disseminate the research of the Ibero Design Department, in the different ways that were presented at the beginning of this text. ¶

[ibero.mx/index.php/DISJournal/issue/view/1](http://ibero.mx/index.php/DISJournal/issue/view/1).

Gloria María Prado Garduño

*Literature, Hermeneutics and  
Theater*

Research in the Literature Department began practically when the Master's and PhD programs in Literature were restored, now in Modern Literature. Previously they were assimilated to those of the UNAM, but upon undergraduate studies recognition by the Public Education Secretariat (SEP), postgraduate studies —after a few years— were reactivated with different contents and structures. In the beginning, those of Humanities were not incorporated to SEP, but that did not constitute an obstacle to start with a whole research project in various lines. Later, when it was possible, they were recognized and revalidated.

At the beginning of the 1980s, Neohermeneutics —as theory and practice— occupied an outstanding place in the academy, conferences, philosophical debates,

papers, chapters and whole books, mainly in Germany and France. In the Literature Department of the Ibero we started a serious research project in that line.

Gianni Vattimo<sup>1</sup> called this decade's hermeneutics —the 1980s— “the new *koine*”, referring to the lingua franca spoken in Greece that was a “common Greek language, derived from the attic, commonly used in the Hellenic world after Alexander the Great conquests” —cf. RAE—, since such hermeneutics was outlined as the “common language” adopted by the European academy to dialogue, share and debate. At the Ibero, we started just at that time, 1981, with the reading and translation by the teacher Gerald Nyenhuis of the Roman Ingarden text: *The literary work of art*<sup>2</sup>, which is fundamentally a text based on the Phenomenology proposed by his teacher, Edmund Husserl, applied to the search for the essence of literary work. Simultaneously in another of the courses, Literary Theory, we started reading, interpreting and carrying out a hermeneutical approach to literary works, from the first book by Paul Ricoeur that we discuss: *Freud: an interpretation of culture*<sup>3</sup>.

Later we continued with various readings, both by Hans Georg Gadamer and Ricoeur himself, to broaden our inquiry with reception theorists such as Wolfgang Iser and Hans Robert Jauss. All this resulted in a postgraduate research work in Modern Literature, which resulted in, first, that one of the three departmental research official lines outside Hermeneutics, as well as in researchers formation, both academicians and students, in such line. It was sought and achieved, throughout that decade, not only to approach hermeneutics as a theoretical platform from which literary work was focused, but its application through a procedure based on the reflective philosophy of Paul Ricoeur, adapted by Gloria Prado Garduño to the study of various literary works.

Based on these proposals, a good number of master's and doctoral theses were carried out, as well as theoretical and practical texts, in which a theoretical and practical procedure of a hermeneutic nature was carried out, as well as numerous papers and book chapters.<sup>4</sup> This is a research line that continues to date, and its name has just been extended to Theory, literary criticism and hermeneutics, since

1 Gianni Vattimo, “Hermeneutics: New Koine” in *Interpretation Ethics*, Barcelona, Paidós, 1991, pages 55-72.

2 Roman Ingarden, *The Literary Work of Art*, translator Gerald Nyenhuis, Mexico, Universidad Iberoamericana, 1st ed., 1998.

3 Paul Ricoeur, *Freud: an Interpretation of Culture*, Mexico, Siglo XXI, 1970.

4 Gloria Prado Garduño, *Creation, reception and effect. A hermeneutical approach to literary work*, Mexico, Diana, 1992. Gloria Prado Garduño and Andrés Téllez Parra (coordinators), *Neohermeneutics: Literature, Philosophy and Other Disciplines*, Mexico, Universidad Iberoamericana, 2009. The male and female co-authors of this book were academicians and postgraduate

at this moment we are dialoguing and debating with other theorists, philosophers or post-structuralist thinkers such as Derrida, Deleuze and Guattari, Jean-Luc Nancy, Agamben, Rancière, Badiou and many more.

Dr. Gloria Prado Garduño has coordinated in this same register, two books, each with a student as co-coordinator, with own works, of professors and students of the Ibero: *Neohermeneutics, Literature, Philosophy and other disciplines* and *Reflections, interstices and textures. Essays of applied literary theory*.<sup>5</sup> In the same way, she has published numerous papers and book chapters referring to hermeneutics and in its relationship with other disciplines, such as psychoanalysis and gender studies.

Research in gender studies by Dr. Prado led to the proposal for the performance of a transdisciplinary program of critical gender studies in the Ibero, a proposal that was carried out by twelve departments that are part of the Social Science and Humanities Divisions, under the lead of Dr. Elena Varela, the Social Sciences and Literature Departments directors, other departmental directors, a group of researchers from the twelve departments, and the full support of the Rector, the Academic Vice Rector, as well as the Humanities and Communication Division new director, Dr. Javier Cuesta.

Within this gender studies research line, Dr. Gloria Prado Garduño has been part of a collective dedicated to research, since 1984 to date, consisting of twenty PhDs in Literature assigned to various universities —UNAM, Universidad Autonoma Metropolitana-Iztapalapa, Universidad Autonoma del Estado de Mexico, Tecnológico de Monterrey, Ibero, Colegio de México, Instituto Tecnológico Autonomo de Mexico—, who meet weekly since 1984 to carry out research projects on Mexican and Latin American writers, from various theoretical frameworks of criticism and literary theory. The collective got two scholarships from the National Fund for Culture and the Arts —FONCA— and one from Conacyt of 5 million Mexican pesos, to from human resources —scholarships for students and researchers in formation—, so that the members of the group participate in conferences and other events, and for expenses in book publication.

To date, the result of the collective Workshop on Literary Theory and Criticism “Diana Morán” is of twenty books on female writers of the nineteenth century to date, a collection of 13 monographic volumes dedicated to the criticism of

students in Modern Literature. Gloria Prado Garduño, *Creation, Reception and Effect. A Hermeneutical Approach to Literary Work*, increased and corrected edition, Mexico, Universidad Iberoamericana, 2013.

5 Gloria Prado Garduño and Manuel Barroso (coordinators), *Reflections, Interstices and Textures. Essays of Applied Literary Theory*, Mexico, Universidad Iberoamericana, 2013.

works of the most recognized female writers for their literary value, a large number of papers published in magazines, and books chapters. Based on this inter-institutional project, Dr. Gloria Prado Garduño has registered her research projects at the Ibero.

Within the Hermeneutic line, from the year 2000, Dr. Laura Marta Guerrero Guadarrama —researcher of the National Researchers System, SNI, level 1, since 2007— started an important research on children's and youth literature —LIJ—, which has been registered since the beginning to a theoretical framework of a Herme-



Books stemming from research carried out in the Literature Department.

neutical nature, following the proposed guidelines in the Literature Department. In such project it was proposed as the common theme of subversion and neo-subversion in children's and youth literature. Several students were formed by the researcher and performed their master's and doctoral thesis with that orientation, as well as academicians who were interested in working in that area. Among her first research projects within the Ibero's Literature Department we have: "The Female Narrators Subversive Strategies of the Last Decades: 1950-1998", active between 1998 and 2002.

The following year, in 2003, she was awarded the SEP-Conacyt scientific research grant, with the analogous project titled "Between Writing and Plot, Subversion in Children's Literature in Mexico in Recent Decades." The same scholarship was granted to her for the period from 2006 to 2012, to develop the work under the title of "The Neo-Subversive Modalities of Postmodernism in Children's and Youth Narratives in Mexico and Spain, a Study of Recent Years."

Dr. Guerrero Guadarrama has also actively collaborated with other researchers and with other study centers: with Dr. Gloria María Prado —of the same Literature Department— she developed in 2005 the research project "The Image of 'the Feminine' in Contemporary Children's Narrative", which had the collaboration of Alejandra Nevárez, as a fellow.

Two years later, together with Dr. Celia Vázquez of the University of Vigo —Spain—, Dr. Guerrero developed the work "Feminist Theories and Children's and Youth Literature in Mexico and Chicano Literature", within a more broad project called "Feminist Theories and Children's and Youth Literature. Proposal for the Analysis of Female Identity in Literature", coordinated by her and Dr. Vázquez. In addition to the Ibero, the University of Arizona, the University of Colima and the University of Vigo participated; it was supported by the participation of multiple

academicians, among which we have Dr. Gloria Prado, Dr. Gloria Vergara Mendoza, Dr. Alba Nora Martínez, as well as fellows Marleny Bardales Torres and the now Dr. Ivonne Lonna.

Another project of international and interinstitutional scope in which Dr. Guerrero Guadarrama collaborated, was undertaken between 2010 and 2013: "Children's Literature of Spanish Exile in Mexico." It was coordinated by Dr. Pedro Cerrillo, from Castilla-La Mancha University, and Dr. María Teresa Miaja, from the UNAM. In addition to those institutions, the Research Center for the Promotion of Literature —CEPLI—, the Ibero, the University of Almería, the Spanish Athenaeum and the University of Alicante participated. In this same vein we found the international research project "Reading Transformations: Reading Acts, Youth Literature and Youth in Mexico" (Transformaciones lectoras: actos de lectura, literatura juvenil y jóvenes en México), in which Dr. Guerrero Guadarrama participated between 2013 and 2017. It was coordinated by Dr. Evelyn Arizpe from the University of Glasgow —Scotland—, a project to which the efforts of institutions such as the Secundaria Telpochcalli Tepoztlán, Secundaria Num. 12 "General Manuel Ávila Camacho" —Cuernavaca—, the Ibero, Mexico City, and the aforementioned University of Glasgow.

Between 2007 and 2009, Dr. Guerrero Guadarrama participated in an interesting interdisciplinary research project, showing the importance of converging different approaches in academic investigation. It was titled "Formation of University Professors for the Development of the Necessary Skills for Autonomous Learning from an Intercultural Perspective" and was attended by the Ayuuk-Indigenous University Study Center, in addition, of course, the Ibero.

One of Dr. Guerrero Guadarrama's research interests has revolved around the postmodernity phenomenon. As a result, we found research projects such as the one developed at Ibero in 2012, of "The Graphic Literature in the Neo-Subversive Postmodernism Lines, a Representative Study". Also, between 2015 and 2017 she developed the project and published results in the text: "The Postmodern Graphic Narrative in Children's and Youth Literature: Album, Comic Book and Novel, with an Initial Overview of the Hermeneutic Reception Process in Mexican Adolescents", carried out jointly between the Literature Department of the Ibero, the University of Glasgow and the University of Almería. Dr. Guerrero Guadarrama's research is ongoing, and she is currently leading an important research project —current until 2020—titled "The Genres of Memory as a Neo-Subversive Modality of Children and Youth Literature (LIJ). A Study of this Current in Recent Years in Mexico."

In addition to the work described, Dr. Laura Marta Guerrero Guadarrama has also attached to numerous research groups throughout her successful career. Since 2003 she participated in the Research Seminar on contemporary children's

and youth literature, at the Ibero. In 2005 she also joined the research seminar: Hermeneutics and Literature; a line that combined four research projects, each with a responsible researcher, PhD in Literature. In 2007, the children's and youth literature of the Iberian and Ibero-American framework of the University of Santiago de Compostela was integrated into the Thematic Research Network, —led by Dr. Blanca Roig—; and the same year she developed a model in the framework of “Feminist Theories and Children's and Youth Literature. Proposal for the Analysis of Female Identity in Children's and Youth Literature of the Iberian Peninsula and the Countries of Influence (Latin American Countries and Brazil)”, where researchers Dr. Celia Vázquez, Dr. Alba Nora Martínez, Dr. Gloria Prado Garduño, Dr. Gloria Vergara Mendoza, Dr. Laura Guerrero Guadarrama and Dr. María Teresa De La Garza also participated, from the University of Vigo, the Ibero and external entities.

Based on those experiences, Dr. Guerrero Guadarrama was invited by Dr. Blanca Roig of the University of Santiago de Compostela —along with other academicians— to add herself to the network “Children's and youth literature of the Iberian and Ibero-American framework”, of which she was coordinator; it was a very relevant fact, since there were only three persons from Latin America, of the twelve members in total; the others were representatives of the different Spanish regions: Castilian, Galician, Catalan and Basque, plus Portuguese. The most important experts in Latin America participated in that network, so it represented a privilege.

Other research groups to which Dr. Guerrero has been attached are the following: “Children's literature of Spanish exile in Mexico,” Castilla-La Mancha University, coordinated by Dr. Pedro Cerrillo Torremocha —2010—; “The Graphic Literature in the Neo-Subversive Lines of Postmodernity. A Representative Study”, Ibero's Literature Department —2012—; “Reading Transformations: Reading Acts, Youth Literature and Youth in Mexico”, in which the University of Glasgow, the School of Culture and Creative Arts and the Centre for Policy Research —2013— converged; also, “Postmodern Graphic Narrative In Children's and Youth Literature: Book Album, Comic and Novel”, of the Literature Department of the Ibero —2015—; and, finally, she made a postdoctoral research stay at the CEPLI (Center for Studies for the Promotion of Children's Reading and Literature) from March 7-27, 2011, this under the leadership of Dr. Pedro C. Torremocha, director of the Center.

This varied work has earned Dr. Guerrero Guadarrama multiple awards. Among them, she received support for basic research projects with the work “Between Writing and Plot, Subversion in Children's Literature in Mexico in Recent Decades”; work that also received support from the Research Directorate. She has won several scholarships; e.g., in 2003 she obtained a research grant in the SEP Conacyt Call, and between 2007 and 2010 the SEP-Conacyt 2006 Basic Research Grant, with reference number 2006/61770-H, for the study: “The neo-subversive modalities

of the postmodernity in the children's and youth narrative of Mexico and Spain, a study of recent years.” With this research she obtained the “Success Story” recognition in 2012 by Conacyt. For 2010, she obtained third place in the “FICSAC Call to Stimulate Balanced Productivity of the UIA Researchers”, and in 2013 recognition for outstanding work in the development of balanced and high quality research at the Universidad Iberoamericana, delivered by the Promotion of Research and Higher Culture, A.C. (Fomento de Investigación y Cultura Superior, A.C. —FICSAC—), and the Economic and Development Council of the Universidad Iberoamericana. In 2017, she received the same recognition again, and that same year the National Researchers System renewed her appointment as a National Researcher Level 1, with validity of four years, from January 1, 2018 to December 31, 2021.

Finally, it should be noted that Dr. Laura Marta Guerrero Guadarrama added herself to the research on gender studies initiated by Dr. Gloria Prado, and many of the results were published in international and national texts —mainly in Spain—, also in papers at international conferences, as well as in magazine articles.

Another exponent in research of Ibero's Literature Department is Dr. José Ramón Alcántara Mejía, currently academican emeritus SNI 2, who has done an important job, focused mainly on theater and theatricality, from which more than 95 publications have been derived, including books, book chapters, articles, and several editions. This work can be traced until 1985, when he was responsible for the project “The Role of Consultant at the Academic Research Center”, at the Universidad Iberoamericana. Between 1995 and 1996 was responsible, in the same Ibero, of the project “Research Methods in Humanities”; the same between 1996 and 1997, which was titled “Displacement: Mexican literature of post-coloniality”, and between 1998 and 1999, the project “Theatricality and Culture: Towards an Aesthetic of Representation”.

Among Dr. Alcántara Mejía international collaborations, is found that made between 1999 and 2001, in which he participated as a co-responsible for the project “Postmodernity, Post-Coloniality and Female Theatricality in Mexican Theater (1960-1990)”, research associated with the project “Intercultural and Interdisciplinary Communication in Postmodernity and Post-Coloniality”, of the Institut für Romanistik der Universität Leipzig, Leipzig University.

Other research projects he has had under his responsibility within the Ibero and whose results have been published are: “Theater as community



Doctors Laura Guerrero, Jose Alcantara and Gloria Prado, 2018.

cultural configurator” —2000-2002— and “The Text and the Construction of Meaning: a Study of the Relationship between Writing, Representation and Culture” —2002-2007—. At Ibero he has also served as coordinator, between 2002 and 2008, of the interdisciplinary and interdepartmental research line - Literature, Art, Philosophy and History—, titled “The Construction of Meaning in Cultural Objects: Theories, Textures and Textualities”, of the permanent Seminar of said line. And between 2012 and 2014 he co-coordinated the project of the interdisciplinary and interdepartmental research line, registered with the Research Directorate, and called “Policies and Powers of the un(re)Presented: Exclusion, Bare Life, Secrecy.”

Several of his research are registered before the Ibero Research Directorate: “Social dramas and esth/ethical representations” —2008-2012—; “Social dramas II, representation of violence in contemporary Latin American theater” —2012-2014—; “Po/ly/e/thical: Poetics, Politics and Ethics as a Mimetic Process in Social Dramas” —2015-2017—; and the ongoing research, “Theater and Justice: from *an-aesthesis* to *aesthetis*” —2018-2020.

The work of Dr. Alcántara Mejía revolving around the formation and participation in research groups has been remarkable. Since 1993 he is associate founder of the Mexican Association of Theater Research A.C. —associated to the UNESCO International Theater Institute and the International Federation of Theater Research—. Dr. Alcántara was president of the same AMIT, co-organizer of three national meetings, and coordinator of the work group on theater theory. Between 1994 and 1996 he was president of the International Institute of Theory and Criticism of the Latin American Theater —IITCTL—. And between 1994 and 1997 he served as Coordinator of the Institutional Research Program in Humanities, in which he generated the Research in Humanities Seminar and four UIA Research in Humanities Colloquies.

By 2006 we find Dr. Alcantara as a participant in the literary Research Group, coordinated by the Humanities School of the Instituto Tecnológico de Monterrey, Monterrey Campus. Later, between 2009 and 2015, he was a member of the interdisciplinary and interdepartmental research line coordination —Literature, Art, Philosophy and History— of the Ibero, with the project titled “Critical studies of culture: representation and its limits”, and of the permanent seminar of said line. Finally, since 2016 —until 2019— he is a member of the Institutional Research professorship “Deterritorializations of Power: Diaspora Body and Exclusion (Aesthetics, Politics and Violence in Globalized Modernity) 2016-2019”. As can be inferred from the above, the research work in the Literature Department of the Ibero has been continuous, intense, productive and successful, with a national, international and inter-institutional scope, throughout the last decades of the twentieth century and the first 18 years of twenty-first. ¶

Víctor Pérez Valera, S.J.

*Miguel Villoro Toranzo, S.J.*

Miguel Villoro was born from a family of Potosi roots in Barcelona, in 1920. He made his first studies in the Catalan capital and in Brussels. When his family returned to Mexico, he attended high school at the Instituto Bachilleratos de Gelati 28, later Instituto Patria.

In February 1941 he entered the Escuela Libre de Derecho, located on Humboldt Street, a few steps from Juarez Avenue. He was a distinguished student of Mr. Rafael Preciado Hernández and other notable teachers, such as Mr. Manuel Herrera Lasso, Toribio Esquivel Obregón, Mariano Alcocer, Jerónimo Díaz, etc. On August 23, 1943, he graduated with the thesis *Notes for a Methodology of Law (Apuntes para una metodología del Derecho)*, which deserved to be “laureate” by the examining jury. Also, in 1943 he began his studies in Philosophy at the Centro Cultural Universitario, today Universidad Iberoamericana, of which he was the first graduate.



Founders of the School of Philosophy and Arts of the Centro Cultural Universitario, 1943.

He entered the Jesuit novitiate of San Cayetano, State of Mexico, at age 26, where he studied classical Greco-Latin literature. He then reviewed in two years the Philosophy at Ysleta College in El Paso, Texas, and taught two and a half years at the Instituto Patria.

He studied Theology at the Free Institute of Philosophy and finished his formation with the year of Third Probation in Canada. At the end of his Jesuit formation he was assigned to the Universidad Iberoamericana, where he worked enthusiastically for the excellence of the Law degree course. He surrounded himself with extraordinary professors: Luis Recaséns Siches, Manuel and Francisco Borja, Armando Chávez Camacho, Felipe Gómez Mont and others no less distinguished. In 1969 he founded the *Jurídica* yearbook that soon gained great renown. Enthusiastic professor, diligent researcher and brilliant lecturer, Don Miguel was a visiting professor at several universities in the country and South America. He cultivated a special friendship with the Venezuelan Jesuit Luis María Olasso, also an illustrious lawyer.

At the I Conference of Latin American Faculties and Schools of Law, held in Mexico in 1959, at the request of the Universidad Iberoamericana, through Villoro Toranzo, it was unanimously approved to establish a chair of deontology

in the Law study programs. In the summer of 1986, upon leaving for sabbatical in Europe, Don Miguel gave to Dr. Raúl González Schmal, at the time director of the Law Department, a typed version of his *Legal Deontology*, but noted that the work was unfinished and that when he returned from his sabbatical, he would complete it. His *Deontology*, like Mozart's famous symphony, remained unfinished.

Upon returning to Mexico, Dr. Villoro was enthusiastic about writing a Theology of Law, perhaps along the lines of David Granfield's Theosphere of Law. His death frustrated this project. *Legal Deontology* was perhaps the first work on this subject published in Mexico, which, like all of Villoro, is neat, clear and profound.

Next, we transcribe his complete bibliography.

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On April 19, 2013, a group of jurists from the UNAM published on social networks an article titled “The Jurist Vocation Decalogue” by Miguel Villoro Toranzo.<sup>1</sup>In this is referred the book of *Legal Ethics (Deontologia juridica)*, published in 1987, in the Universidad Iberoamericana, where the importance of the moral formation of Law students is stressed. The authors discover this decalogue in section 22 of the *Deontology*, it is worth providing a brief summary and comment.

1. Every road has ideals and risks. It is convenient to choose the one that gives meaning to our life. Indeed, a meaningless life is not worth living.
2. Law is a demanding profession: it assumes a balanced personality and rich in qualities. The vocation to Law demands a surrender of life, to exercise the legal profession in a mediocre way is equivalent to betraying the vocation.
3. The juridical vocation requires a good memory, but the most important is to penetrate the spirit of the laws rather than memorize the words.
4. The juridical vocation does not encompass us in ourselves but opens us up to reality. The vocation encompasses the entire human being, intelligence, will and heart. This includes the affective part: “the reasons of the heart that reason does not understand” of which Pascal talks about.
5. The experience of living a vocation is not without problems, difficulties and challenges, but these are overcome by the joy of the triumph of a just cause or the joy of having unmasked a fraud. Thus, the complacency of honest work, having been useful to the needy, produces a priceless satisfaction.
6. The science of Law without love of justice deprives it of enthusiasm and creative emotion.
7. Vocation deteriorates if there is no self-examination and self-criticism. To assume, whereas, moral responsibilities, injects life into the vocation.
8. Perhaps being inspired by the magnificent study of Castán Tobeñas, Villoro affirms that love, and law cannot be separated. Vocation is a passion of love that fills customer service with joy, like a loved one.
9. Authentic vocation does not exclusively seek material rewards, but values above all the satisfaction of having complied, the fulfillment of the highest ideals.
10. Love in vocation illuminates everything, because as Pablo de Tarso says: everything suffers it, everything awaits it, everything forgives it.

<sup>1</sup> <https://www.juristasunam.com/la-vocacion-del-jurista/2999>.

As a final comment, we could add that for those who love their vocation, it hurts a lot that there are people who discredit the profession, who only profit from it and who, with their actions, favors our living in a more unjust world. Our advice to these false lawyers would be: if you don't have a true professional vocation, don't exercise it. Do not make a noble profession, a vile profession. For this purpose, the affirmation of Pedro Arrupe is illuminating, which could also be that of Miguel Villoro Toranzo: “I am not resigned to the fact that when I die, the world continues as if I had not existed.” ¶

Víctor Pérez Valera, S.J.

*Héctor González Uribe, S.J.*

It is a great challenge to write a brief outline of the life and work of Don Héctor González Uribe, S.J., when we have in front the magnificent six hundred thirty-five pages biography, written by Dr. Ana María López Fernández, published by Editorial Porrúa.

Hector was born on June 26, 1918 in Mexico City, studied elementary school at the Maddox College, which was distinguished by its high academic level and English teaching. In 1930 he entered middle school at the Frances Morelos school, of the Marist brothers. In 1933 he entered high school at the same school and finally, in 1935, he entered the Escuela Nacional de Jurisprudencia. Hector distinguished himself, in all these stages, as an excellent student.

In 1940, at 21 years of age, he graduated as lawyer with Honorable Mention. Among his synods was the great iusphilosopher Dr. Luis Recasens Siches. Shortly

after, Hector took several courses at the School of Philosophy of the Universidad Nacional Autonoma de Mexico —UNAM—. These philosophical studies were his true vocation, same that Dr. Oswaldo Robles had inspired in high school and culminated in his PhD at the universities of Innsbruck and Vienna.

Upon ending of his law degree course, Héctor collaborated in the practice of his teacher José de Jesús Ledesma Labastida; later he founded a law firm with some colleagues. Later he worked as Judicial Clerk of Minister Gabino Fraga, until the latter resigned in 1946. Two years earlier, in 1944, Héctor entered as a Theory of State course interim professor at the Escuela Nacional de Jurisprudencia. In 1946, he won through open competition the tenure of that chair, in which he formed distinguished lawyers, among which Mr. José López Portillo, president of Mexico and who appreciated Don Héctor, stood out. Upon entering the Society of Jesus, he resigned from the UNAM chair, which he would resume in 1963.

Since before beginning his law studies, Héctor entered the Marian Congregation of the Holy Family and there he had contact with eminent Jesuits such as Benjamín Pérez del Valle, Julio J. Vértiz and Eduardo Iglesias, among others. Undoubtedly, in this medium, he was fascinated by the Ignatian charism, which as a Jesuit lived with great fidelity.

On July 31, 1949, the feast of Saint Ignatius of Loyola, at 31 years of age, Héctor entered the Jesuit novitiate of San Cayetano, State of Mexico. That afternoon an impressive storm fell, the Mill of San Cayetano received it with strong winds, thunders and lightning. He spent the second year of novitiate at Ysleta College, El Paso, Texas.

After a few months at the Instituto Libre de Filosofía de San Ángel, D.F., Héctor carried out his teaching at the Instituto Patria. From that time dates his book *Virgil, the classic of the West*, published by Editorial Jus in 1956. He returned a short time to the theologate in San Angel and from there he was sent to the Jesuitenkolleg in Innsbruck, Austria.

Immediately, in a self-taught way, he began studying German, which he eventually mastered. While studying Theology, from 1958 to 1960, he completed his PhD in Philosophy at the Universities of Innsbruck and Vienna. He attended several seminars: History of Modern and Contemporary Philosophy, From Descartes to German idealism and the Seminar on Leibniz and Hegel. Among his teachers stood out the Jesuits Juan Schasching and Emerich Coreth. He completed his doctorate at the University of Vienna in summer courses, studied the interdisciplinary aspect of Philosophy and Law under the lead of Alfred Verdross, a disciple of Hans Kelsen, whose works he studied under his lead. Hector's doctoral thesis dealt with *State and Person (Foundations of State Metaphysics)*; his work was written in German and supervised by the two Jesuit professors mentioned above. He took his *Ad Gradum*

exam in June 1959 and, among his synods, was Karl Rahner, one of the most notable theologians of the twentieth century.

The year of spirituality called among Jesuits as Tertianship was carried out in Belgium, under the supervision of Father Maurice Schurmans. Among the thirty-seven “tertians” was a Mexican, future professor of history at the Universidad Iberoamericana, Jorge López Moctezuma.

When Don Héctor returned to Mexico, the rector Ignacio Pérez Becerra and the general secretary, Father Francisco Javier Mesa —aware of his prestige as a lawyer and UNAM professor— asked him to teach at the Law School at the UIA, which was lacking prestige.

On September 1st, 1961, Don Héctor was appointed director of the School Philosophy and Literature at the UIA, replacing Dr. Sánchez Villaseñor. He assumed the position for nine years and, during his tenure, an excellent panel of teachers was formed, and the school began to have lots of prestige. During the rectorate of Father Carlos Hernández Prieto, the independence of the School of Philosophy was achieved, and the philosophical approach of Christian inspiration was promoted, which took critical distance from the positivist and Marxist-Leninist ideologies.

On the other hand, the career studies fundamental plan was done, which favored the opening of the Neo-Scholastic Philosophy to dialogue with other currents of thought. All this had an impact on the increase in students who, in 1965, became one hundred and five students. Former and prestigious professors such as Fernando Sodi, José Rubén Sanabria, Alberto de Ezcurdia and Jaime Gurza were maintained; to these were added students who distinguished themselves in the postgraduate course: Antonio Ibarguengoitia, Miguel Mansur, Francisco Xavier Díaz Lombardo and Raúl Gutiérrez Saénz. Later joined the faculty of teachers Miguel Ángel Zarco, Jaime Ruiz de Santiago, Jorge Serrano and the Jesuits Rodolfo Mendoza, Roberto Cruz and Raúl Durana.

Don Héctor achieved that the Philosophy Technical Council did self-criticism work, which promoted a remarkable progress in the study plans and professors selection. Dr. González Uribe also backed up several extracurricular activities. Among them, the round tables of professors, previously inaugurated by Sánchez Villaseñor, stood out. In addition, the invited professors program was increased, among which Dr. Agustín Basave and Dr. Luis Recaséns Siches were singled out.

Hector founded the philosophical Athenaeum, where teachers and professors discussed philosophy special topics: papers were discussed, and controversial authors debated. On the other hand, he favored the Thomistic society creation



Héctor González Uribe.

driven by students and teachers. The meetings were held at the home of some teachers, attended by professors and students interested in the study of Saint Thomas. In addition, the Philosophy *Convivium* was favored: lectures on current philosophical topics were given to the entire university community every year. Finally, it should be noted that both Hector and some of the professors participated in national and international events, including the 13th International Congress of Philosophy, held in Mexico City, in 1963, and the 14th Vienna International Congress of Philosophy, in 1968. The library's philosophical collection increased significantly and the *Revista de Filosofía* was created, which soon became well known under the leadership of Dr. José Rubén Sanabria and the president of the student society José Ramón Ulloa.

It is well known that, in our environment, the study of Philosophy does not enjoy popularity, but thanks to the excellent drive Don Héctor gave to the study program, this discipline had more presence within the Ibero and outside it. His collaboration in the Philosophy study program remained present, even after he left the directorate thereto, both for his discrete advice to the director, and for the impulse to postgraduate studies. Likewise, in advising the students, he encouraged to self-appropriate the studies so that what Fichte had said was carried out: "the Philosophy that each one does depend on the kind of man that one is."

It is convenient to summarize the main aspects of the teaching of Don Héctor in the Philosophy Department of the UIA:

- a. Full Professor of Philosophy History, 19th and 20th centuries.
- b. Seminar on Contemporary European Philosophy.
- c. Director of the seminar on Marxist Philosophy, as well as Political Philosophy I and II.
- d. Philosophy History: from Hegel to the present day.
- e. Philosophy History: from Kant to Hegel.
- f. Kant and German idealism.

In the postgraduate course he taught Social and Political Philosophy seminars, as well as Social Ethics and, finally, Philosophical Anthropology.

In April 1987 he was awarded the title of Tenured Professor. Don Héctor distinguished himself by the friendly and respectful treatment of his students: he led and advised many theses, both in Philosophy and Law, he served as a synod of graduate and postgraduate exams, pondered the positive aspect of the work and, very delicately, he mentioned the least valuable points. In addition, he wrote the Philosophy Department Ideario, the Teachers College Regulations and the History of the Department. In the latter weights the names of outstanding teachers and students.

In the sixties he assumed the directorate in the Literature study program,

which already enjoyed prestige, with professors such as Carlos H. de Peña, Felipe Pardinás and Ángel Martínez Baigori. Hector taught some classes in this bachelor's degree, among them, Introduction to German Literature. When a person asked who was teaching that course without knowing German, they took her to Don Héctor's office and talked to her in that language for a long time. Around those same years, on the death of José Sánchez Villaseñor, he had to assume the directorate of the Communications study program. No small difficulties arose, one of which was the threat of closing it. Don Héctor overcame them with his usual prudence.

It is worth making a small digression to point out that, in 1964, Don Héctor, together with Dr. Felipe Pardinás, founded the Political and Social Sciences study program, of which he was director for a time. In that school he taught two courses: History of Political Theories, as well as the Seminar on Constitutional Law. However, he had his first contact with the Ibero at the Law School. While still a "teacher" at the Instituto Patria, he collaborated with various subjects in this school, for example, State Theory and Civil Law. When Héctor returned to Mexico, after his European stay, he found that the Law School was going through an organizational crisis: it seemed obvious to appoint him director of this school, but he did not accept, he preferred Don Miguel Villoro Toranzo be appointed, who immediately managed to overcome the difficulties and promoted the prestige of the study program.

At the Law School, Héctor taught the chairs of Political Theory, Law Philosophy and Municipal Law. In 1978 he became ill of the vocal cords and had to leave teaching until 1984. The following year he finally joined the Law Department with the course of Political Theory; at that time, Mr. Raúl González Schmal assumed the leadership of the Department and told Don Héctor that he would accept the position on condition that he incorporated; his answer was: "I will do it with pleasure."

In the fall of 1986, he gave a course on "Political Philosophy" to full time professors of the Law Department and other departments. On November 7, 1988, one month after the end of the semester, Don Héctor died while officiating morning mass.

Among his publications stand out: *Virgil, the classic of the West*, Ed. Jus, Mexico, 1956; *Political Theory*, Ed. Porrúa, Mexico, 1972; *Man and Society*, Ed. Jus, Mexico, 1979; *The man and the State*, Ed. Porrúa, Mexico, 1988.

He also published numerous papers: three in the *Revista Nacional de Jurisprudencia*, three in the *Revista de la Facultad de Derecho de Mexico* of the UNAM, one in the *Revista de la Facultad de Derecho de Tamaulipas*; in the *Boletín Mexicano de Derecho Comparado del IJJ-UNAM*; in the *Federal Tax Court*; in the *Anuario Jurídico de la UNAM*; in the *Revista Mexicana de Justicia* y en el *Anuario Humanitas del Centro de Estudios Humanísticos de la Universidad de Nuevo Leon*; in the *Revista Mexicana de Filosofía*; in the magazine *Comunidad* of the UIA; in the magazine *Logos* of La Salle

University; in the *Actas del II Congreso Iberoamericano de Derecho Constitucional*; in the *Anuario de Humanidades*; in the *Colección de Doctrina Cristiana* of IMDOSOC, and in the *DIDAC-UIA* magazine.

In the Yearbook *Juridica* of the UIA, he published eight papers, among which stand out “In Memoriam de Alfred Verdross” (No. 12) and “Philosophical Foundations of Human Rights” (No. 19). In the UIA Journal of Philosophy he wrote eighteen papers, among which stand out: “Introduction to Jaspers” (No. 5), “Man and the State in the Political Thought of Jacques Maritan” (No. 14-15), “Faith and knowledge in Hegel” (No. 29-30), “The philosophy of Dr. José Sánchez Villaseñor” (No. 51) and “Three models of interiority in contemporary philosophy: Kierkegaard, Marcel, Peter Wust” (No. 58-59).

To the aforementioned, we should add prologues, introductions, book presentations and regulations. He left as unpublished manuscripts 28 papers, many of which could be publishable. ¶



Doctor Victor Pérez Valera, S.J.

Jane Dale Lloyd Daley

*From Social Movements to the  
History of Emotions*

Ever since I was an undergraduate, I was interested in the study of anarchism as a socio-political doctrine and its insertion in the processes of social mobilization in Latin America. When I was studying for the master's in Latin American Studies at the Universidad Nacional Autónoma de México —UNAM—, I began the work of a bibliography on anarchist groups in the Southern Cone, focusing on Brazil, Argentina and Uruguay.

Derived from the above, during a nine-month stay in Rio de Janeiro, Brazil, I started a study on Brazilian anarchism, whose main topic was the rural colonies founded by Italian anarchists at the end of the nineteenth century in Curitiba, Rio Grande do Sul. I traced in several libraries and archives of the City of Rio de Janeiro in search of hemerographic materials, books and testimonies of the experience lived by the Italian anarchist settlers in Curitiba, documented in the libertarian press of the time. The social experiment concluded in the thirties of the twentieth century. Due to the impossibility of conducting more research in regional sources, I concluded

that it would be difficult for my research to be sufficient for a master's thesis and that I should change the subject. However, when I returned to Mexico, the research advances served as the basis for my hiring as a part-time professor in the Anthropology Department of the Universidad Iberoamericana.

In January 1972, searching for a job, a classmate of the master's degree of Latin American Studies at the UNAM, kindly took me to the Ibero, which at that time was on Avenida de las Torres, where he thought they could hire me as a teacher. At the Ibero, I had an interview with Dr. Arturo Warman, then director of the Anthropology area at the Social Sciences Department. In the subsequent talk, Dr. Warman was interested in the work on anarchist agrarian communities in Brazil and, to my surprise, a few days later he invited me to give the seminar on Anarchism and its Historical Development in Mexico, in the bachelor's degree in Social Anthropology. In later conversations with Dr. Ángel Palerm, then director of the Social Sciences Institute of the Ibero, I learned that he was also interested in my work, for having been, during the Spanish Civil War, one of the important leaders of the anarchists youth and, therefore, felt a great empathy for the study of these topics. In 1973 I was offered a part-time in the Anthropology Department, where I taught seminars on anarchism in general and its historical development in the Mexican nineteenth century, through direct work with students in the Mexican hemerographic archives. Both Dr. Arturo Warman and Dr. Ángel Palerm, opened a unique and plural space for the discussion and study of a libertarian political ideology, that there was not in the other Mexican universities of the time.

As from 1974, I began studies in Social Anthropology master's degree at the Ibero, I took seminars and directed readings with Dr. Ángel Palerm and Dr. Warman on Anthropological Theory, peasant societies and industrialization, etc. To see and listen to these two pillars of Mexican Anthropology weaving their interpretations of classical texts and, in the case of Arturo Warman, building their notion of the "peasant way" gave soundness to my academic formation. The long post-seminar talks, savoring a steaming cappuccino in the "Green" cafeteria of old Ibero, were memorable, a pleasant space for discussion and learning beyond the classroom.

As part of my academic tasks, I did three field practices with Social Anthropology students. The first was in the summer of 1973, in Tepetlaoztoc, State of Mexico, where I learned the Anthropologist's fieldwork methodology and, two others, during the summers of 1974 and 1975, in the towns of Coyotepec, Tepozotlan and Zumpango, State of Mexico. Since 1972 I was in touch with the members of the Iberian Anarchist Federation —FAI— I conducted interviews with their members and attended meetings at the Spanish Center on the calle Lopez, in Mexico City. Subsequently, I joined the socialization activities of the anarchist ideas of the Mexican Anarchist Federation —FAM.

Derived from the above, the stay in Coyotepec allowed me to start a manuscript on the agrarian mobilization of this community for the request of ejidos with the support, as legal advisors, of the brothers Enrique and Jesús Flores Magon, former founders of the Mexican Liberal Party in 1901. Through Enrique Flores Magon, a group of ejidatarios, all former farm laborers from the surrounding estates, came into contact with the FAI, made up of Spanish anarchists refugees from the Civil War, who during the forties until the early sixties of the twentieth century, drove political awareness activities and collective work experiments in the ejido lands of Coyotepec. In this community I came across, for the first time, with the social group of ranchers, small agricultural producers, landowners who constituted, together with the merchants, the wealthy social layer of the village. From that moment, the ranchers topic became a very important common thread in my academic research, a long-term topic that has gone through decades in my academic journey.

For a while I was academic assistant to Dr. Ángel Palerm, at that time the Social Sciences Institute, did administrative duties and had the privilege of sharing long talks with him.

In January 1974, I entered the Center on Social Anthropology Studies — CIESAS—, with a collective project on Coyotepec and Tepozotlan, in the State of Mexico, where Ms. María Eugenia Vila studied the Hacienda de Jalpa, in the municipality of Tepozotlan in the nineteenth and early twentieth centuries, while I continued studying the ranchers and agricultural laborers of Coyotepec, specifically in the period of the Porfiriato and the 1910 Revolution. Work in this municipality represented my first experience in local archives, where I had to order, clean and disinfect, page by page, dockets of documents dating from the eighteenth century to the seventies of the twentieth, to be able to work them. Occupational hazards for a historian who intended to work regional archives. The latter was in total disarray, stacked in a room of the city hall, full of fleas, spiders and some of the largest scorpions I had ever seen.

The second collective project carried out at CIESAS was about the Mexican Liberal Party and its radical agrarianism. Elena Azaola worked the agrarian Magonism of leeward Veracruz, while I began the work on radical Magonistas of the north, who, under the banner of the Mexican Liberal Party rose up in arms against the government of Porfirio Díaz in 1906, 1908 and from 1910 to 1911 This new research was fundamental in my later academic trajectory.

In 1976, Dr. Friedrich Katz of the University of Chicago, began his study on Pancho Villa and gave lectures at CIESAS, I approached him to ask for his advice on bibliography and sources related to the Porfiriato and the northern Magonistas. In subsequent talks, Dr. Katz convinced me to work specifically the Mexican Liberal Party in Chihuahua. To address this matter, it was decided to do reconnaissance

of “the territory” and a first tour of the state of Chihuahua and its “revolutionary areas” was carried out in Dr. Katz’s company and Anthropologist François Latigue, of CIESAS, who thoroughly knew the Chihuahuan mountain range and its problematic. For almost a week we traveled from the city of Chihuahua to the Mennonite fields, we went up to reach Madera, in the high mountain area, and came down to the northwest area of the state, to Casas Grandes, where I stayed to locate files and close relatives, from my long list of names of the northwest Magonistas who were imprisoned by the Porfirian authorities for rebellion crimes in the delimited period of study. The long rides by car were a delight, with François who described the conditions and problems of the Chihuahuan countryside in the 1960s and, on the other hand, Dr. Katz described stories about Villa and his revolutionary troops. The latter, over the years, became my academic mentor, always willing to read my scrawl and discuss my findings.

Under the sponsorship of CIESAS (1976-1980) I conducted various periods of field work in the towns of northwestern Chihuahua: Galeana, Janos, San Buenaventura, Casas Grandes, Ascencion, Ex Hacienda de San Diego and the Mormon settlements in the region. I examined local archives and conducted oral interviews with Magonista survivors and their close relatives. The materials collected were the initial basis for my work on the northwest of Chihuahua.

In January 1981, the History Department director of the Universidad Iberoamericana, MSc. María Teresa Franco, invited me to become a full-time academician and I would also be in charge of coordinating the master’s degree in History. I started teaching the historical research methodology, the Porfiriato and peasant movements in the nineteenth and twentieth centuries. As master’s degree coordinator, Dr. Katz was invited to give a seminar with postgraduate students on popular social mobilization processes during the Porfiriato, through the selection and analysis of the newly arrived archive of Porfirio Díaz to the Historical Collections of the Ibero. The goal was for students to learn the work of Historical research, directly in the analysis and study of the Porfirio Díaz Collection documents. Each of the students selected documentation from a specific state and prepared an introductory study on the chosen archives. The fruit of such work was the publication, in 1986, of the documentary Anthology *Porfirio Díaz facing regional popular discontent (1891-1893) (Porfirio Díaz frente al descontento popular regional (1891-1893))*, by the Universidad Iberoamericana. The historian of CIESAS Luz Elena Galvan, a former History Department student, also participated in this project that gave rise to her doctoral thesis and book *The Shared Solitude (La soledad compartida)*, a documentary anthology about teachers during the Porfiriato.

Within this same line of research, a collective project was carried out, led by the undersigned and Dr. Leticia Reyna, an academician from the Historical

Studies Directorate of the National Institute of Anthropology and History —INAH—, with students from both the National School of Anthropology and History —ENAH— and the History Department of the Ibero, to work on the selection and analysis of documents in the Porfirio Díaz archive regarding social mobilization processes in various states, during the period from 1876 to 1885.

In 1983, an article on “The Economic crisis of 1905-1907 in the northwest of Chihuahua” was published in the journal *Humanidades Anuario VIII*, as the first advance of my work on the northwest of Chihuahua during the Porfiriato. Over the years, the Ibero published several texts of mine on capitalist modernization in Chihuahua<sup>1</sup>: *Four versions of the nineteenth-century Mexican agrarian question*<sup>2</sup>. History Department, 1997; an article titled “Between the Mine and the Ranch: the Rancher’s Political Culture of Northwest Chihuahua, 1880-1911”, *History and Spelling (Historia y Grafía)* series, no. 3, 1995, that won the Prize by the Mexican Committee of Historical Sciences for the best historical research paper, in the same year; and a book about the material culture of ranchers and sharecroppers (medieros) in northwestern Chihuahua,<sup>3</sup> which deserved an honorable mention at the Francisco Xavier Clavijero Award of the INAH, in 2001, for the best historical research.

With the commodatum and subsequent donation of the Porfirio Díaz archive to the Ibero, the donation of archives on the haciendas in Tlaxcala and the books of the haciendas of Gral. Manuel González (president of Mexico between 1880 and 1884) to the Francisco Javier Clavijero library, a new and ideal space was created in the Ibero for historical research on the Porfiriato, where traditional historiographic myths and constructions were questioned, and new interpretations were proposed about the period. The archives gave us the raw material to rethink an entire era and a group of new historians from the History Department and Historical Collections were given the task of questioning the veracity of the Porfirian peace, to demolish the myth of the hacienda as a semi-feudal institution; to question the omnipotence of the



Dr. Jane Dale Lloyd  
Received the José Sánchez Villaseñor Gold Medal in 2015.

- 1 Jane Dale Lloyd, *The Capitalist Modernization Process in Northwestern Chihuahua (1880-1910)*, Mexico, Universidad Iberoamericana, 1987.
- 2 Jane Dale Lloyd (comp.), *Four versions of the nineteenth-century Mexican agrarian question*, Mexico, Universidad Iberoamericana, 1997
- 3 Jane Dale Lloyd, *Five essays on the material culture of ranchers and sharecroppers (medieros) from northwest Chihuahua, 1886-1910*, Mexico, Universidad Iberoamericana, 2001.

president in front of certain governors; to reconsider Porfirian modernization as part of the modernity that came with the twentieth century; and to glimpse and evoke, through the documents, the feelings and life experiences of the people marked by the time they lived. Around these archives and through the students' theses, several generations of historians were forged who are now scattered in various regions and national and international academic institutions. "The Porfiriato" became a place of fruitful academic exchange. It was a privilege for me to share this space together with my colleagues María Eugenia Ponce and Ricardo Rendón Garcini.

Parallel to my work at the Ibero, for 11 years (1995-2006) I worked as a part-time teacher in the master's degree of Contemporary History at the Institute of Educational Sciences of the Universidad Autónoma del Estado de Morelos—UAEM—in Cuernavaca, Morelos. In its classrooms I gave courses and seminars on Historical Research Methodology, History of Porfiriato and thesis seminars, Friday nights and Saturdays. As a result of the postgraduate thesis seminars, both of the UAEM and those of the Ibero, the collective book *Political Projects, Popular Revolts and Official Repression in Mexico, 1821-1965* was published in 2010, with five essays by some of my graduate students of the two institutions, in addition to one of my texts.<sup>4</sup> About social mobilization processes in the twentieth and twenty-first century, was published jointly with Dr. Laura Pérez Rosales of the Ibero and Dr. Rodrigo Laguarda, of the Mora Institute, a documentary anthology for the interdepartmental subjects of Mexico's Contemporary Problems, which were taught at the Santa Fe campus of the Universidad Iberoamericana. Such anthology is titled: *Gender and Social Mobilization Processes in Mexico, Twentieth and Twenty-First Century*, published by the Ibero in 2010.

In 2009 the UIA authorized me a sabbatical, which allowed me to conduct a research stay at the University of Leiden, The Netherlands, with the advice of Dr. Raymond Buve. I took advantage of the two months of my stay to work in the archives of the Social History Institute in Amsterdam, where I located documents and hemerography to continue the research on Mexican anarchist ranchers from the northern border states, during the period from 1906 to 1923, which constitutes part of my current research work.

Based on the considerations of sociologist Barrington-Moore, in 2010, the essay "1908, year of crisis. The emergence of a feeling of social injustice and moral

4 Jane Dale Lloyd, "Rural militias: the emergence of a war culture in nineteenth-century border agrarian communities" in *Political Projects, popular revolts and official repression in Mexico, 1821-1965 (Proyectos Políticos, revueltas populares y represión oficial en México, 1821-1965)*, Mexico, Universidad Iberoamericana, 2010.

grievance"<sup>5</sup> was published, after which began my work on the topic, resulting in a manuscript titled "1908, 1909: The Voices of Discontent. Emergence of a social injustice and moral grievance feeling in the Mexican population during the Porfiriato final stages", finished in January 2018.

In 2011, together with MSc. Ilán Semo, we developed the proposal for a new research line of the History Department, titled "Memory Signatures, Spaces of Experience and History of Emotions. Studies on the History of Present Time", which became a collective project with the same name, funded by the Research Directorate —DINV— from 2011 to 2013. On the other hand, from 2013 to 2016, a new collective project was worked on: "History of present time: acts of memory, traces of experience and Archeology of emotions." Said projects yielded fruit was the collective book *Perspectives in the Archeology of Emotions*, which will be published in 2018. The First National Colloquium on the History of Present Time was organized, with speakers from UNAM; Universidad Autónoma Metropolitana Xochimilco, Iztapalapa, Cuajimalpa and Azcapotzalco; Colegio de Michoacán; El Colegio de México; Centro de Investigación y Docencia Económica CIDE; and Instituto Mora. Currently the collective book product of the colloquium is being edited. With the support of DINV to scholars of these two projects, there were nine master's theses and six doctoral theses.

Throughout my 40 years of teaching, one of my most enriching endeavors has been to support my students with their thesis work. During that time, I have advised 91 theses, from undergraduate to PhD. Since the end of January of this year I have been retired, however, I continue collaborating with the History Department where I advise theses and carry out my new project on the anarchist rebellion in the border area with the United States. ¶

5 Jane Dale Lloyd, "1908, year of crisis. The emergence of a social injustice and moral grievance feeling", *History of Morelos. Land, people, times of the south*, Volume 6. Creation of the State, Leyvism and Porfiriato, Mexico, Universidad Autónoma del Estado de Morelos/Culture Institute of Morelos/City Council of Cuernavaca/State of Morelos Congress LI Legislature 2009-2012, 2011.

María Cristina Torales Pacheco

*Viceroyalty History, Some Keys to our Identity*

During the first year of my studies of the bachelor's degree in History, the 1968 student movement took place and the University's *Ideario* was enacted, two events that marked my life. In the seventies, I completed my undergraduate studies and in full Academic Reform of the Iberoamericana I completed my master's studies.

In that context, research as an academic function in Mexican universities became imperative. Our institution adopted the departmental system for the cultivation of disciplines that was integrated by full-time academicians with substantive teaching, research and dissemination functions. The institutes were conceived as spaces that should encourage interdisciplinary research. One of the first was founded in the Humanities Division, the Humanistic Research Institute. The centers also emerged. For my purpose, I must mention two of them, the Service and Social Promotion Center —CSPS— and the Academic Information Center —CIA—. The first, in addition to coordinating the compulsory social service of the students, should encourage reflection and research on the most relevant social problems in

the country. Such Center, with academicians from all disciplines cultivated at the University, had to carry out social promotion projects in the most disadvantaged communities in Mexico. The CIA took on the challenge of forming a pre-university library, a university library, a newspaper library and a slide library. It was considered then that, in them, there would be basic information to support the children and youth community in the environment, as well as academic programs offered by the University.

This being the case, I began my trajectory as academician at the CSPA in 1975. Among the motivations to incorporate myself to this academic space, was my identification with the social commitment that our University stated in its *Ideario*. I then focused the social service of History students to the rescue and preservation of the documentary heritage of Mexico. Thus, numerous parish and municipal archives were rescued, in addition to some collections preserved by institutions lacking budget to safeguard documentary heritage.

In 1979, in the same week that the University lost its buildings due to the earthquake that took place on March 14, I entered the Academic Information Center to assume the leadership of the Historical Archives section and, in 1982, I had the opportunity to create the Area of Historical Collections of the University. In it I integrated old and rare books, manuscripts, documentary collections and some ancient objects that until then preserved our institution. I set the goals, methodology and procedures to preserve, classify, catalog and disseminate this heritage. I also started the microfilming and automated document cataloging system. Somehow, these activities enriched my formation and drive towards historical research. With great satisfaction, I have been able to appreciate how this Area of Historical Collections has been fundamental to initiate in the history trade our students and has been the mainstay of important works carried out by national and foreign researchers.

By institutional decision,<sup>1</sup> in 1982, I carried out the formation of the Historical Archive of the University, based on a diagnosis and identification of the documentary collections then dispersed in different university entities. To this initiative, aimed at the preservation of the historical memory of the Iberoamericana, I must add two projects associated thereto. On the occasion of the commemoration of the forty years of our University, in 1983, it was my responsibility to coordinate the collective work *The University and the challenge of contemporary Mexico*, in which an institutional reflection on the trajectory of our university and the first ephemera hitherto formed was offered. These were elaborated under my leadership as the

1 This initiative was part of the Institutional Strategic Plan led by the then MSc. Luis Vergara y Anderson, Planning General Director.

support for the writing of an institutional history.<sup>2</sup> To commemorate the 30 years of the *Ideario*, in 1998, I promoted the publication of a short text: *History of the Universidad Iberoamericana's Ideario*, written by Dr. Ernesto Meneses, which was disseminated among the academic community.

The activities associated with research, carried out in CSPA and CIA, were alternated with functions that, since 1976, performed in the History Department as a part-time academician. In this space I defined the goals, methodology and procedures of the Field Practices course, in its moment, novel in the study plans for the formation of Historians. The aim was to initiate young people in research through the territorial and historical diversity of Mexico knowledge, at the same time students were made participants in rescue and research programs of the national historical heritage, as well as History dissemination programs aimed at less favored sectors: rural communities, inhabitants of “popular” neighborhoods, etc.

During the seventies the History Department had the challenge of implementing the University's Academic Reform. It started then its master's program, focused on researchers formation; indeed, the study plan was made up of research seminars, under the academic principle of forming students in the discipline *praxis*: students had to participate in research projects conceived, designed and supervised by their professors. Dr. Tarsicio García and Master's degree Beatriz Ruiz Gaytán, during their management efforts, invited renowned researchers from the Universidad Nacional Autónoma de México —UNAM— and El Colegio de México —Colmex— to conduct the seminars. Prolific seedbeds of researchers were the seminars of Doctors Moisés González Navarro, Edmundo O'Gorman, Ernesto de la Torre Villar and Elías Trabulse. Also, in that decade, in the enthusiasm of the institution to generate its own researchers, the first historical archives were acquired.<sup>3</sup> These significantly contributed defining research lines of the History Department.

For the History Department, the eighties and nineties of the twentieth century were years of consolidation of its researchers,<sup>4</sup> of their internationalization and

2 Participated in the preparation of the ephemeris: Dolores García González, MSc. María Teresa Matabuena Peláez and doctors María Eugenia Ponce Alcocer and Acalia Pozo Marrero.

3 In 1976, the Merchants' Archive and that of the haciendas of Mazaquahuac and Rosario, located in the jurisdiction of Tlaxco, were acquired. In 1978 the Porfirio Díaz Collection was received as a donation.

4 Some examples of those who obtained the master's degree in the eighties: Perla Chinchilla, *Translation and Introductory Study of the Book Industrie und Aussenhande. zur Politischken Oekonomie Mexikos im 19. Jahrhundert*, 1992, 271 pages; Manuel Ramos Medina, *Image of Holiness in a Profane World: the Convent of San José de Carmelitas Descalzas: 17th century*, Mexico, Universidad Iberoamericana, 1989, 162 pages; Jane Dale Lloyd, *The Capitalist*

the drive of its academic dissemination processes. From a faculty at bachelor's level, it passed to a faculty at doctor's level in the mid-1990s. In these two decades the Department was strengthened with the presence of numerous European and American academicians and researchers, who in addition to providing some post-



History Department academicians, 1985.

graduate lectures or courses, consulted as researchers the Historical Archives, specifically the Porfirio Díaz Collection. I must mention, at least, the presence of doctors Raymond Buve, Frederick Katz and Herbert Nikel, who —among others— notably influenced the formation of researchers on social and agrarian movements in the regional environment of Mexico in the nineteenth century. Proof of this are the trajectories in research, in our University, of doctors Jane Dale Lloyd, María Eugenia Ponce and Ricardo Rendon, as well as of numerous graduates who today are outstanding researchers in other institutions.

Special mention deserves the initiative of Dr. Ernesto Domínguez Quiroga, first as academic general director and then, in his rectorate, to link the University with foreign universities, after the buildings of the Ibero were lost in 1979.<sup>5</sup> Fruit of this effort was the biannual presence of Dr. Raymond Buve, from the University of Leiden, for thirty years, who was my doctoral advisor, as well as of other academicians. Buve taught courses and conferences, advised students and encouraged us to organize international meetings with presence of high-level researchers. In the eighties decade we achieved seven international conferences on socio-historical research about Tlaxcala<sup>6</sup> and three *Symposia on balances and perspectives of socio-historical research on Puebla*<sup>7</sup>. National and foreign researchers attended these meetings. Needless to say, our academicians and our students oriented to regional history participated in them.

*Modernization Process in Northwestern Chihuahua, 1880-1910, Mexico, Universidad Iberoamericana, 1987, 168 pages.*

- 5 On August 30, 1979, Dr. Domínguez, then Academic General Director, proposed to the University of Leiden performing an agreement between both universities. On February 3, Dr. W. Teller, director of the *Buitenland Bureau* of said University, confirmed to Dr. Domínguez the willingness of his university to carry out the collaboration agreement.
- 6 *1st to 7th International Symposia of Socio-historical Research on Tlaxcala*, in collaboration with the Government of Tlaxcala and the Universidad Autonoma de Tlaxcala. 1985-1992.
- 7 *Balances and Prospective International Colloquiums I, II and III of Research on Puebla*, in collaboration with the Government of Puebla and six universities in that state. 1990-1992.

Dr. Buve's imprint in internationalization was also reflected in the formation of academicians in the Department. Between the eighties and the first decade of the twenty-first century, five historians of the Iberoamericana obtained a doctorate in Leiden<sup>8</sup> and three more enjoyed temporary research stays at said University.<sup>9</sup> Today, the agreement with the University of Leiden, in force for more than thirty years, also benefits academicians and students from other departments.

As a researcher I started in 1971, when I did my social service at the Biblioteca Nacional de Mexico, I then cataloged the dossiers of the land statements and compositions of the Province of Puebla (XVI-XVIII), at the same time that as a master's degree student, participated in the Mexican Historiography Seminar, led by Dr. Edmundo O'Gorman, to whom I owe a lot of my formation as a researcher. Both experiences defined the study period to which I have devoted myself in priority for more than forty years and motivated the foundation of the Hispanic and Lusitano Worlds Research Line. From 1971 to date my research has been oriented to:

1. *History of Agrarian Property in the Viceroyalty Period*. Specifically, I was a pioneer in the studies on Land Compositions, a legal procedure that gave rise to agricultural property legalization, both of indigenous villages and individuals, during sixteen to eighteen centuries.<sup>10</sup> Needless to say, territorial composition documents remain valid after the Independence and to this day. Recently they are study object of numerous researchers.
2. *Mexico City History*. Motivated by Dr. O'Gorman, since the eighties of the twentieth century I promoted the continuation of the *Mexico City Town Meeting Minutes Guide*<sup>11</sup>, he had led in regard to the sixteenth century. In the carrying out more than twenty students participated, who obtained with it their bachelor's degree in History; five graduates and four academicians also participated, who supported at different times with the review of the students' work. The website is the culmination of this project that, after 30 years, we managed to open to the public through the internet page of the University's Library<sup>12</sup>. In it, those who research

8 Ricardo Rendón Garcini (1993), María Eugenia Ponce Alcocer (2000), Rubén Lozano Herrera (2000), María Cristina Torales Pacheco (2001) and Laura Pérez Rosales (2003).

9 Leonor Correa Etchegaray, Perla Chinchilla Pawling and Jane Dale Lloyd.

10 Cristina Torales, *Lands of indigenous peoples, lands of Spaniards, Confirmation and composition of lands and waters in the jurisdiction of Cholula (16th-18th centuries)*, Mexico, Universidad Iberoamericana, 2005.

11 Online: <http://www.bib.uia.mx/ciudad/actas.html>.

12 Online: <http://www.bib.uia.mx/ciudad/>.

our city can consult the Town Meeting Minutes Guide of the seventeenth to the twentieth centuries.

3. *New-Hispanic Elites History*. Specifically, I have dedicated myself to the study of individuals of the seventeenth and eighteenth century that achieved the configuration of substantial fortunes through the articulation of agricultural, mercantile and mining companies. In addition thereto, I assumed the challenge of identifying the main New-Hispanics, dispersed in the different regions of our territory, who communed with the Enlightenment and enrolled in the Royal Basque Society of Friends of the Country. Through these research I have been able to identify and appreciate the transoceanic social frameworks in which the New-Hispanics were inserted and strategically influenced the world market; they positioned our country as a substantive vertex between European and Asian markets and were substantive agents in the circulation of culture in the global monarchy territories. It remains to mention that the trigger for this line of research was the Merchant's Historic Collection of the eighteenth century that conserves the university, in which most of the documents correspond to the commerce company of the Yraeta e Yturbe family.
4. *The Society of Jesus Mexican Province*. The last three decades I have generated numerous texts inserted in collective works on the New-Hispanic Jesuits. From a global historical perspective, along with the understanding of the New-Hispanic elites and their transoceanic networks, I have been able to appreciate the Society of Jesus as the world corporation with the greatest cultural and economic impact in the New-Hispanic period. Jesuits exceeded political borders and achieved, from Rome, the global coordination of their multiple initiatives for the propagation of the Catholic faith. This, among other things, has motivated my studies of the Mexican Province physiognomy as a whole and of the individuals belonging thereto. I have approached both the missionaries in the Mexican northwest, as well as the trajectory of many Jesuit educators, writers and preachers who went into exile as a result of the Pragmatic Sanction issued by Charles III. Recently I study the economic means which were made use of for the attainment of their cultural purposes.

I consider the studies I have done on the Society a tribute to the Jesuit historians who left their mark on the History Department. Their wise and discreet

conversations about the remote past of their Institute motivated this facet of my research work. Therefore, I must mention here Dr. Manuel Ignacio Pérez Alonso, founder of our History program of studies. It was my responsibility to edit, in 1987, the *Letters to the Procurement of Missions (Cartas a la Procura de Misiones)*, written by Eusebio Francisco Kino, and I received numerous donations of his documents for the Historical Collections of the University. In addition, through his conversations and guided visits to the Archive and Museum of the Mexican Province, he introduced me to its history.

Two teachers, whose chairs were foundations of the research, contributed brief but substantive works on Jesuit thinkers: Xavier Cacho Vázquez, who introduced Bernard Lónergan's thought in his History Methodology courses and prepared the edition of the *History of the Antigua or Baja California (Historia de la Antigua o Baja California)*, by Francisco Xavier Clavijero, which we co-edited with the Northwest Campus (Tijuana)<sup>13</sup>; Jorge López Moctezuma was, in the eighties of the twentieth century, the first Spanish translator of the work of Michel de Certeau, *The Writing of History (La escritura de la Historia)*, and continued with *The Mystical Fable (La fabula mistica)*<sup>14</sup>. These works have been mainstays in the formation of historians of recent decades. At that same time, Father Esteban Palomera Quiroz, having concluded his tenure as president of the Association of Private Schools, went to the History Department to carry out his ambitious project of historical research on the educational work of the Society of Jesus in Mexico. The results of his thorough research on the Jesuit schools of Guadalajara, Tampico and Puebla<sup>15</sup> were co-edited.

One more initiative that, I consider, promoted studies on the Society of Jesus in the Iberoamericana took place at the end of the nineties. I requested MSc Patricia



Mr. Tulio Hernández, a member of the board of the Historic Downtown Area signs the collaboration agreement to carry out the Mexico City Town Meeting Minutes Guide, seventeenth to twentieth centuries.

13 Francisco Xavier Clavijero, *History of the Antigua or Baja California (Historia de la Antigua o Baja California)*, Xavier Cacho V. (editor), translation Nicolas Garcia de San Vicente, Mexico, Universidad Iberoamericana, Plantel Noroeste, 1986.

14 Michel de Certeau, *The writing of history*, translation by Jorge López Moctezuma, Mexico, Universidad Iberoamericana, 1986; *The mystical fable: XVI-XVII centuries*, Translation by Jorge López Moctezuma, Mexico, Universidad Iberoamericana, 1993.

15 Esteban Palomera Quiroz, *The educational work of the Jesuits in Tampico 1962-1987*. Historical

Torres, a History Department graduate, to prepare an international directory of Jesuit researchers. From the University Extension Directorate, we distributed it to the academic directors, in the spirit of promoting the exchange through continuing education courses aimed at postgraduates. Our main achievement in this line of action was the Diploma on the Society of Jesus, designed by Dr. Ernesto Meneses Morales and taught by Jesuit researchers from European and American higher education institutions. Students of that diploma are now researchers on such Society.



María Cristina Torales receives Manuel Ignacio Pérez Alonso recognition from the hands of Carlos Vigil, rector of the university and Imelda Baca, president of the Alumni Society of the History Department.

As way of an epilogue, I must mention that in the period 1983-1985 I assumed the presidency of the Teachers and Researchers Association —API—, who then joined the board of directors decided to promote numerous activities aimed at showing the thoughts and achievements of our associates, as well as supporting its introduction to technological tools in support of research. Among other things, I remember here the enthusiastic participation of associates in interdisciplinary discussion seminars, to contribute to the elaboration and community appropriation of the *University's Educational Philosophy (Filosofía educativa de la Universidad)* document. Also, together with the Research Coordination of the General Academic Directorate, the *First UIA*

*Research Diffusion Sessions (Primeras Jornadas de Difusión de la Investigación UIA)*, which took place on April 2-5, 1984, and we instituted the prize for the best research of the year. In order to promote the induction of our partners to computer technology, we taught the first computer course offered at the University outside the Engineering area.

More than years of collaborating with the Iberoamericana, it is a permanent attraction to feel part of a community that, with its limitations and successes pertaining to the human condition, aspires, through the constant exercise of its substantive teaching, research and academic dissemination functions, to put into practice a

vision of four centuries of cultural work, Guadalajara, Institute of Sciences, Mexico, Universidad Iberoamericana, 1986; *The educational work of the Jesuits in Tampico 1962-1987*, Tampico, Tampico Cultural Institute, Mexico, Universidad Iberoamericana, 1989; *The educational work of the Jesuits in Puebla 1578-1997*, Mexico, Universidad Iberoamericana; Puebla, Instituto Oriente; Universidad Iberoamericana, Gulf Center Campus; Benemérita Universidad Autónoma de Puebla, 1999.

university project inspired by Christian humanism, at the service of the country in its daily activity. ¶

Arcelia Maumejean Navarrete  
and Silvia García González\*

*Roberto Cruz Fuentes, S.J.*

Dr. Roberto Cruz Fuentes, more than a Doctor of Philosophy was a true philosopher with own ideas, who dedicated his life to the greater glory of God through his work. With inner freedom, he devoted himself tirelessly to researching deep questions. He found the basis for the development of his thought in the various philosophical research he carried out, for which he relied on his peculiar quality of reading the texts in the original language, as he dominated ancient Greek, Latin, English, French, German and some Russian. As a great connoisseur and researcher of Greek, medieval, modern and contemporary Philosophy, he managed to delve into the main philosophical approaches of the West. He was always faithful to a position: to seek truth.

\*

Former students of Roberto Cruz Fuentes, S.J.

Wanting to summarize in these pages the fruit of a lifetime of philosophical work is a task, if not impossible, somewhat illusory, so we will only briefly list the topics on which Dr. Cruz deepened and for which he has been recognized beyond our borders. We are aware in advance that many of them will escape us.

Roberto Cruz Fuentes was born in Tampico, Tamaulipas, on June 6th, 1927, and died on April 10, 2008. He joined the Society of Jesus at age 16 and, shortly thereafter, had to return from the Mexican seminary settled in Isleta, United States, where the Society had arranged to transfer him because of the Cristeros problem in Mexico. Thereupon began his love for the Church and a personal relationship with Christ, manifested in all his acts, since he always sought God in his life. After having directed—and practically created—the Ibero in Cerro de las Torres campus library, he dedicated the rest of his life to the art of being a teacher. Entire generations that had the privilege of being his students were surprised by his tireless teaching and philosophical research work. As a Jesuit and philosopher, he constantly tended to encourage in people the formulation of fundamental questions. In fact, his first publication bears the title of *The Man Asks. Towards a Metaphysical Anthropology*<sup>1</sup>, and during reading, the reader makes sure that this “Question” is, at the same time, verb and noun.

As for his work, although he researched much, published little, since the topics discussed are deep, sometimes obscure, and to bring them to light it was necessary what he himself called “the courtesy of the philosopher”; that is, to offer the greatest possible clarity without demerit of truth. For this reason much of his work was unpublished: pages and pages of manuscripts that sadly shall remain hidden.

When dealing with some philosophical issues, he was sometimes considered Heideggerian or Bubberian; but although he treated the positions of these thinkers, he went beyond them by correcting certain failures. He said: “I am only *Crucian*.” In his aforementioned publication, *The Man Asks...*, Dr. Cruz drew up a philosophical treatise on man. He began his research on the question, a fundamental act that distinguishes us as human. From there, he asked for the question itself that, as he claimed, seemed to be “centrifugal”, since it expels the very attempt to raise it. However, at the time of his reflections he left, from the being of the question to the question for the Being.

Just as Scholasticism speaks of the “transcendental of the Being”, he affirmed



Dr. Cruz, director of the University Library.

1 Roberto Cruz Fuentes, *The Man Asks. Towards a Metaphysical Anthropology*, Mexico, Universidad Iberoamericana, 1st ed., 1994.

that the “I am-here-now” and the Future are “transcendental” of the question. Through the previous reflections, he reached the intrinsic relationship between man, world and knowledge, where man is Presence and Presentation. With these reflections he established the unwavering relationship between Question and Philosophy.

The second publication of Dr. Roberto Cruz is *The First Hermeneutics. The Origin of Philosophy and origins in Greece*<sup>2</sup>. In this book he referred us the reason for his search on these topics, which he started because of a concern on the unexplained double rupture that, in its very beginnings, Philosophy had in Greece. He did an examination of the cosmogonic question: Why are there things? which he raised as fundamental. He treated, in broad strokes, the cosmogonic myth, placing himself in Greece in the pre-Philosophical era, to establish continuity and, at the same time, the difference between Myth and Philosophy. He dwelled in the research, after the transition located in Homer and Hesiod. With Thales of Miletus, he raised the metaphysics of water in a transcendental movement, that is, “Metaempirical.” He presented an original look in his study of Anaximander, whom he called the *Zenith* of the Milesian Philosophy, and to whom he devoted deep reflections on the two original paragraphs that have broken Philosophers’ heads for twenty-six centuries.

After Anaximenes recovered *Hermeneutics* in the inheritance of Miletus, he exposed *Arje* as a synthesis of the Milesian thought. That is where Dr. Cruz gave way to the fundamental exposition on the transition from monism to dualism to resolve the Milesian aporia. Through that transit the reflection on Pythagoras arises. By substantiating this dualism with *to peras* (τὸ πέρας) and *γ to apeiron* (τὸ ἄπειρον) from which *peritton* arise, he was able to resolve the Milesian aporia. The other is a tendency towards One. He proposed a series of derivations that helped to understand the “how” of this dualism and, therefore, the importance of Pythagoras and the misfortune of books that do not clarify this transit.

Subsequently, with these bases, Dr. Roberto Cruz found how the basic notions in Philosophy of power and act were derived, as well as of matter and form, since the Greek does not support the lack of definition, for which he elaborated his amazing acousmatic dialogue. Another contribution in his research was the one to which he arrived on Heraclitus. In this work he clarified the existing black legend about this magnificent thinker and his method; did not study it in contraposition to Parmenides, but saw it as the Philosopher of change, the becoming of fluidity, by means of the symbolic of fire and the *Logos*. Dr. Cruz did not forget the repercussions of aporia and confusions that gave rise to today misunderstandings, with respect to

2 Roberto Cruz Fuentes, *The First Hermeneutics. The Origin of Philosophy and origins in Greece*, Mexico, Herder/Universidad Iberoamericana, 2005.



Dr. Cruz was distinguished with the Jose Sanchez Villaseñor Gold Medal in 1991.

the first Hermeneutics in ancient Greece.

Perhaps, one of the greatest contributions we have from the Philosophy of Roberto Cruz is the fruit of the research that gave rise to his Philosophy of Communication. This is where he has been confused with other philosophers who dealt with the subject, but failed to support the being of communication, as our philosopher did so masterfully. With that thought, he certainly revolutionized the existing parameters regarding the confusion between information and communication; which made of this a topic, not only current, but incidental in society and in the twenty-first century man thinking. For Dr. Roberto Cruz, it was an indispensable requirement to make a clear distinction between information science and communication philosophy. Briefly, the topics he developed and presented for years are unveiled.

It began with the historical loss of consciousness of man transcendental unit, which transits to incommunicativeness in our time. The more technology we are offered in being, the more losses we suffer in our being. To solve the problem, he entered fully into the Metaphysics of Communication, in which *“the media mediates, and the intermediate hinders, by generating a dominance process through the establishment of non-relevant information.”* He masterfully introduced the symbol, in counter position to the sign based on words; foundation that, beyond other thinkers,

established in the “We”. It is not surprising that with these approaches Dr. Cruz led us to a Communication Anthropology, through a phenomenological gap narrowing in which he showed us the human paradox: understanding You as another, that is, as a thing, separating us from our own humanity, erasing the person.

It is necessary, therefore, to address an ethical posture of Communication, supporting the freedom of being, rejecting alienations and raising true justice. To reach the basic stages of dialogue, Dr. Cruz presented the different forms of search, loss and encounter between human beings. Doing a study on life as meaning, not as duration, establishes the purpose of his Philosophy.

Dr. Roberto Cruz Fuentès generated multiple papers, conferences, seminars and courses in his academic life. He studied and researched different Philosophical subjects, such as Philosophical Physics, Metaphysics, Modern and Contemporary Philosophy, Philosophy of Science, Theory of Knowledge and Philosophical Foundations of Psychology. He always amazed us with the depth and solidity of his research, as well as the simplicity and humility of who was a true sage. ¶

Francisco V. Galán Vélez

## *Lonergan's impact on research*

When it was my turn to study the bachelor's degree and great part of the postgraduate degree in Philosophy, the emphasis was mostly on teaching. Many of my Thomistic professors, magnificent teachers, encouraged us little into research work. An exception was Father José Rubén Sanabria, director of the *Journal of Philosophy*, who encouraged us to publish. In the metaphysics class with Father Raúl Durana, S.J., I received the boost towards an alternative path to orthodox Thomism, which did not condemn modern Philosophy, but presented it as an incentive for the renewal of Thomism. Father Durana explained the metaphysics of Emerich Coreth, an Austrian Jesuit, who made a fruitful dialogue with German idealism, especially Hegel<sup>1</sup>. I was interested in other contemporary thinkers, first on Heidegger<sup>2</sup>. However, something

1 Emerich Coreth, *Metaphysics: a methodical-systematic foundation*, translator Ramón de Areitio, Barcelona, Ariel, 1964.

2 I mention of those years: "What has Heidegger left us?", in *Revista de Filosofía*, year XIX, no. 56, Universidad Iberoamericana, Mexico, 1986, pages 151-165; "The notion of truth in *Being and*



Francisco Galán received the José Sánchez Villaseñor Gold Medal in 2015.

similar to what I found in the Thomistic environment happened to me in the Heideggerian environment: Philosophy seemed to be a thing of finding the great master of the past and repeating his wisdom with maximum fidelity.

Something that definitely marked my research trajectory was the encounter with Bernard Lonergan's thought. I received a postgraduate course on Lonergan with another dear Jesuit teacher, Father Jesús Vergara. There I had the opportunity to live with Francisco Quijano, of the Preachers Order (Dominicans), —translator of one of Lonergan's main works *Insight: a Study of Human Understanding*<sup>3</sup>— and with Andrés Ancona, who was the main disseminator of Lonergan's ideas in the Ibero, as such it was not the course that led me to the discovery of a new path. Due to a twist of fate, through Andrés Ancona, I received an invitation to apply for a Lonergan's Post-doctoral Fellowship at Boston College —BC— fortunately they accepted me, although I had not yet

received my PhD. Those ten months, between 1991 and 1992, were fundamental in my philosophical life. Without a doubt, it was there I began to properly do research.

It was the year of 1991; computers were beginning, and I was computer illiterate. Used to search bibliographic files. I still remember the impact of arriving at the BC library and not knowing what to do. As at that time I thought that being famous was the important thing, I told myself that studying Lonergan was not really worth it, since he was not well known; that is why I had proposed a comparison of Lonergan with Habermas as a research project, who had just published his *Postmetaphysical Thinking* at that time. I had learned to research the bibliography in two specialized journals that arrived at the Ibero library, the *Philosopher's Index* and the *Répertoire bibliographique de la philosophie*, published and still publishes —although now in digital format— the University of Leuven (the Neuve). Of course, being printed on paper and published semiannually, the information was late and limited, but the worst part was that most of those resources were virtually unattainable.

Regarding the above, in the O'Neill library in BC it was possible to access digitized databases and the magnificent collection. All this, today we are not surprised

*Time* in the *Revista de Filosofía*, year XXII, no. 66, Mexico Universidad Iberoamericana, 1989, pages 412-437.

3 *Insight: Study on human understanding*, translator Francisco Quijano, Salamanca, Universidad Iberoamericana/Sígueme, 1999.

at all, but in those days discovering that the library had over 800 titles that alluded to Habermas, completely discouraged me in my initial project and I decided to invest the ten months of my scholarship in reading the most that I could from and about Lonergan, from whom at that time I found around 200 records. This was only in the main library, since Boston College also has a Lonergan program and, in the old Bapts library, there is a Lonergan Center, a space where many books were found at the University to which Lonergan alludes to, as well as a wide variety of hemerographic resources.

It was a wonderful time to clarify things for oneself.

It was fascinating to be able to complete the bibliographical references; books that I always heard mention, there they were at my disposal: Marechal, Rousselot, several treaties of Saint Thomas that are now accessible in Spanish, the doctoral theses that could be requested and consulted in filmstrip, but the most valuable thing was the discovery of a great thinker who gave me back the pleasure of studying other authors and, above all, it broadened my philosophical panorama by discovering that metaphysics today is a task that must be interdisciplinary.

I continued my research at the Ibero, however I held administration positions in academics, for almost fifteen years. For this reason, I couldn't really solidify what I had started at Boston College.<sup>4</sup> Upon my return to the Philosophy Department as a full-time academician, in 2010 and from the sabbatical of 2011, I can say I began my formal trajectory as researcher. What a difference with the sabbatical of 1991 in which I traveled to BC. In 2011 I could stay at home and do home office, since with Internet you now have access to a lot of resources. The fruit of this sabbatical period was the publication of my book *Metaphysics for Post Metaphysical Times: Bernard Lonergan's Proposal for a Metamethodology*.<sup>5</sup> That same year I made my application to the National Researchers System —SNI— and I was accepted for the period 2012-2015. Undoubtedly, entering the SNI has been a decisive support for research, both as regards a greater dedication of time thereto, as well as the economic stimulus.

Since 2012 I have submitted three projects at the Research Directorate —DINV—, the three related to Lonergan. The first, "The First Philosophy as



Francisco Galán as moderator of the University Senate.

4 With the exception of the article "What is doing Metaphysics according to Lonergan's *Insight*?" *Gregorianum*, vol. 85, no. 4, Rome, 2004, pages 757-773.

5 Francisco V. Galán Vélez, *Metaphysics for Post-Metaphysical times: Bernard Lonergan's proposal of a Meta-Methodology*, Mexico, Universidad Iberoamericana, 2014.

Meta-Methodology” (2012-2014) was a continuation of my doctoral thesis and a deepening of the ideas I presented in my book. The main products of this project were:

- “Pragmatic truth and consensual truth in Habermas: A Lonerganean reading”, *Universitas Philosophica*, year 31, no. 62, Colombia, January-June 2014.
- “Back to the future: from Insight to Method”, *Revista de Filosofía*, year 45, no. 135, Mexico, Universidad Iberoamericana, 2013.
- “Rendering it explicitly accountable: shedding light on Lonergan’s ‘pragmatism’ through Robert Brandom’s normative pragmatics”, *Method: Journal of Lonergan Studies*, n.s. vol. 3, no. 2, Boston College, Fall 2012, pages 45-72.

As well as the book chapters:

- “Metaphysics, Cosmopolis, Violence. Philosophy: reason and violence”, *XVI International Congress of Philosophy*, Mexico, Philosophical Association of Mexico, 2012, pages 2970-2987.
- “The First Philosophy as a Meta-Methodology”, in *The First Philosophy*, Ediciones Dialogo Filosofico, Publicaciones Claretianas Coleccion Jornadas 8, Madrid, Spain, 2012, pages 621-626.

In 2014 the Research Directorate approved the project “The method of metaphysics”, for the period 2014-2017. In it, I tried to go from the metaphysics of *Insight* to the functional specialties developed by Lonergan in *Methodology in Theology*.

The products of this project were articles in refereed journals:

1. “Kant and Darwin? a critical examination of Habermas’s weak naturalism in the light of the problem of freedom and determinism”, *Signos Filosóficos*, vol. xx, no. 39, Mexico, Universidad Autonoma Metropolitana, January-June 2018, pages 60-87.
2. “Sensitive perception and language in Heidegger, Zubiri and Lonergan”, *Enclaves del pensamiento*, year XI, no. 21, Mexico, Instituto Tecnológico y de Estudios Superiores de Monterrey, January-June 2017, pages 127-156.
3. “Lonergan, reader of the *Essay to contribute to a grammar of assent*”, *Open Insight*, vol. 8, no. 13, Mexico, Centro de Investigacion Social Avanzada A.C., January-June 2017, pages 217-244.
4. “Is it appropriate to do Philosophical Anthropology from a vision of nowhere?”, *Metaphysics and Person: Philosophy, Knowledge and Life*, year 8, no. 16, July-December 2016, pages 53-74.
5. “The new realism of Maurizio Ferraris and Markus Gabriel: a critical analysis”, *Horizontes filosóficos: Revista de Filosofía, Humanidades y Ciencias*

*Sociales*, year 6, no. 6. Argentina, Universidad Nacional del Comahue, 2016, pages 137-150.

And the book chapters:

- “How does the soul know itself in Thomas Aquinas”, in Diana Alcalá Mendizábal and Mauricio Beuchot (comp.), *Aproximaciones hermeneuticas a la filosofía medieval*, Mexico, Institute of Philological Research-UNAM, 2017, pages 41-61.
- “Apel and the first Philosophy”, in Luis Guerrero Martínez (coord.), *Ensayos para una hermeneutica de la filosofía*, Mexico, Universidad Iberoamericana, 2016, pages 165-182.
- “Towards the complexity of the subject”, in Benilde García Cabrero and José Bonifacio Barba Casillas (coord.), *Construcción de la educación ciudadana: miradas contemporáneas y retos futuros*, Aguascalientes, Universidad Autónoma de Aguascalientes, 2016, pages 24-41.
- “Self-appropriation and cosmopolis: Lonergan’s philosophy of education”, in José Alfonso Villa Sánchez (coord.), *Filosofía, Cultura y Educación*, Mexico, Universidad Marista Valladolid/Plaza y Valdés, 2016, pages 15-36.
- “Lonergan in the University (Iberoamericana)”, in Gerard Whelan (ed.), *Lonergan’s Anthropology: The next fifty years of Vatican II*, Rome, Gregorian & Biblical Press, 2015, pages 391-396.

I must also mention that, in 2015, I requested and obtained the renewal in the SNI, Level 1. Finally I indicate the approval of the Project “The ontology and epistemology of the new realism” for the period 2018-2020. Project I am currently working on. ¶

Virgilio Ruiz Rodríguez

*Research in Philosophy*

I heard Father Rubén Sanabria<sup>1</sup> say: Philosophy is a way of life; science is a way of knowing. Philosophy is a knowledge to live and to die.

In a world where what attracts attention and where the effort of man is focused is economic, someone could say that Philosophy is not useful in any way. In this regard, Dr. Sanabria writes: “Philosophy is essentially a selfless knowledge, a knowledge of the truth for what it is. It is not a utilitarian knowledge. That is why we need it today more than ever.”<sup>2</sup> It is a knowledge to live and to know how to die. Philosophy teaches to live as a proper man, because man is too big to be self-sufficient.<sup>3</sup>

1 Of happy memory, since he encountered with the Absolute (to whom he dedicated one of his books: *Philosophy of the Absolute*, Editorial Progreso, 1966).

2 Rubén Sanabria, *Introduction to Philosophy*, Mexico, Editorial Porrúa, 14th edition, 2001, p. 31.

3 *Ibid*, p. 303

Hearing him express himself this way, moved my life and marked my job in the field of knowledge, in such a way that I felt the pleasure of knowing grow. This prompted me to devote more time to study, so having started a bachelor's degree in Philosophy in January 1978, by May 1981 I was about to conclude the studies required for that purpose; without stopping there, until 2008.



Dr. Virgilio Ruiz Rodríguez, student of the bachelor's degree in the eighties, now a full-time academician of the Philosophy Department.

Dr. Jaime Ruiz de Santiago is also one of the great teachers who left their mark on my life, for the dedication, love and responsibility he manifested in his pleasure of giving us something of what he is full of: wisdom. Not only in the speculative field but accompanied by the life experience in which he converted Philosophy. In this way, he emulated what Father Sanabria left written in *Ethics* when talking about speculative science and practical science. According to him, the first remains in pure contemplation of the truth. It is knowledge for knowledge. The second tends to realize what is known. It is the knowledge to act. It is the embodiment of the contemplated.<sup>4</sup>

I thank MSc. Ruiz de Santiago who has sown in me the zest for Aristotelian-Thomistic thought and doctrine, a line of thought that for a long time marked the Philosophy Department of this university, in such a way that he was identified and known for it. From him I received his support and example to study a Law degree that, in a first consultation, told me: "Do not study that, finish the Philosophy studies first". And not budging an inch, for the second time I looked him up to ask about my concern and he said: "Forget what I said on that occasion. Yes, study Law because it is the landing of Philosophy". Over time I confirmed it in my professional work, both in teaching (*in lato sensu*), —as I have also been invited to give courses, talks and conferences by the Supreme Court of Justice, the Federal Council of the Judiciary, Human Rights Commission of Mexico City and the State of Mexico, as well as the Supreme Court of various states of the Mexican Republic: Zacatecas, Chihuahua, Sonora, Chiapas, Veracruz, among others— as in some writings I have made, which I will mention later.

I speak of all teachers in the present, even though some have already died because they are still alive among us, in their thoughts and figure. Such is the case of MSc. Miguel Mansur, a third pillar of Philosophy at the Universidad Iberoamericana. Finding him in the hallways of the Churubusco campus was very pleasant; hearing him speak, a delight. He was a true teacher, like few others. I talked with him in the

4 Rubén Sanabria, *Ethics*, Mexico, Editorial Porrúa, 1971, p. 21.

seventies, when he was then director of the Philosophy Department, thanks to his guidance and advice, I entered the university.

I return to Father Sanabria, who in his philosophical line does not forget, of course, the great thinkers of antiquity such as Plato and Aristotle, for example, by accepting that the origin of philosophizing is in the ability of man to admire himself. From the first quotation: "Certainly the feeling of admiration is typical of the Philosopher, as it is no other the Philosophy origin". From the second: "As men begin and began to philosophize moved by admiration." On which, his comment is the following: "The admiration is capture of the external illuminated by the reflective interiority. Therefore, to be amazed at things is to open to them without being absorbed by them. When we admire things, we do not fall in love with them; we get something we don't understand".<sup>5</sup>



MSc. Miguel Mansur Kuri.

In relation to the previous quotation, it could be said from my perception, —although there is always something to admire— that today, science and technology have been given a lot of authority and credit, as if they had the last word. This diminishes to some extent the reasons for continuing to give man the ability to admire himself and, therefore, the possibility of philosophizing will also be diminished. However, it is also possible to affirm that whenever man has or finds a reason to ask about something he does not know, he will be doing Philosophy *in lato sensu*.

For the above reasons and some more, I find myself facing ignorance of many things. I ask myself a lot of questions and I want to find some explanation, which is the same as wanting to find the truth. In this regard, another of my great teachers, Father Héctor González Uribe, told me: "You have to be open to see or find the truth wherever it is or from where and from whom it comes".

Pushed-motivated, both by my teachers and by these stated factors, I began my adventure in the sea of research and, I began —as expressed by the Mexicanism— "to make my first efforts." In the beginning I published the paper "Power in Aristotle and Romano Guardini" (1985) in the *Revista de Filosofía* of the very Philosophy Department, followed by "Virtue and fair middle"; thereafter, other papers followed, around 50 in estimated numbers, for various national and foreign magazines in Colombia and Spain, for example. I have also participated in some book chapters,

5 Rubén Sanabria, *Introduction to Philosophy*, *op. cit.*, p. 25.

trying to say in all of them something about “the truth of man” (expression of John Paul II) that has been the central concern of my philosophical-legal work: from ethics, politics and the law, through the figure of “human rights”.

It should be clarified that although I have highlighted the presence of these teachers in my being a Philosophy student, this does not mean that I do not know or deny the knowledge that the other professors —who then formed the cloister of the Philosophy Department— planted in me, because there is always someone who leaves you a mark or marks you in some way.

As a result of all of the above, I must say that I do not know if I do it well, but little by little I got into me the pleasure of writing and has led me to put my thoughts captured in some books, such as: *Abortion, Human Rights in the Laws of the Second Post-War* (*Aborto, Los derechos humanos en las legislaciones de la Segunda Posguerra*), *Theory of Criminal Law* (*Teoría de la ley penal*), *Tolerance, Ethics and the Current World* (*Tolerancia, ética y mundo actual*), *Philosophy of Law* (*Filosofía del Derecho*), *Ethics and legal deontology* (*Ética y deontología jurídica*), *The Right to Freedom of Speech and Information in the European and Inter-American Systems: Special Attention in the Guarantee of Rectification Compared for the Spanish Citizen and the Mexican* (*El derecho a la libertad de expresión e información en los sistemas europeo e interamericano: atención especial en la garantía de rectificación comparada para el ciudadano español y el mexicano*), *Democracy and Human Rights in Mexico. Current Situation and Discrimination: Denial of the Person.* (*Democracia y derechos humanos en Mexico. Situación actual y Discriminación: negación de la persona*)

In every text my central concern, as I already mentioned —for which I try to modulate, emphasize and insist on it— is the *dignity of the human being*: valuable and great for what it is, not for what it has, shows or manifests. That is to say, its dignity is for being, it is ontological dignity: in it there are no degrees. Some human beings are not worth more and others less, but we are all equal even though different and whose protection should be oriented to the power of any State or nation in the world. In previous report, Ronald Dworkin points out two things: “We must say that the fundamental human right is the right to be treated with a certain attitude, an attitude that expresses the recognition that every person is a human being whose dignity matters.”<sup>6</sup> And, “There is no more serious accusation against a government than that of having violated human rights.”<sup>7</sup> ¶

6 Ronald Dworkin, *The possible democracy. Principles for a new political debate*, translation by Ernest Weikert, Barcelona, Paidós, 2007, p. 53.

7 *Idem*, p. 45.



Dr. Virgilio Ruiz Rodríguez.

Víctor Manuel Pérez Valera, S.J.\*

*Victor Manuel Perez Valera, S.J.  
His Research into Law, Philosophy,  
Theology and Thanatology*

Dr. Víctor Manuel Perez Valera, S.J., began his undergraduate studies in Philosophy at the Instituto Libre de Filosofia y Ciencias, between 1960 and 1963. There he studied four years of Theology, then left for Rome, where he obtained the degree of Doctor of Theology from the Gregorian University, towards the year of 1977. He completed his solid formation studying Law at the Universidad Iberoamericana, obtained a bachelor's degree in 1987 and a master's degree in 2001. His interests have been varied and has developed transcendental contributions in each of the branches in which he has specialized.

Within the trajectory of Dr. Pérez Valera, what is most interesting for this book is the dedication he has shown for research: more than 150 lectures at national

and international conferences, on topics ranging from Judaism to the Philosophy of Law, going through Euthanasia and Thanatology.

The books he has written demonstrate his interest in Law, Philosophy, Theology and Thanatology. The first of them saw the light in 1980, under the title *God and the renewal of man, religious Anthropology of A.J. Heschel*.<sup>1</sup> We find his contributions around the relationship of the human being with his death, in his books: *Euthanasia ¿Piety, Crime?*<sup>2</sup> and *Man and His Death, Preparation for Life*.<sup>3</sup> The contributions he has made to Law are varied and denote his commitment to highlight the value of the human person in the legal area: *Legal Deontology, Ethics in the Being and Work of the Lawyer*<sup>4</sup>, *Legal Argumentation*<sup>5</sup>, *To Be More Human, Reflections on Ethics and Law*<sup>6</sup> and *In the Light of Values*<sup>7</sup>, it also has 4 pocket books: *Word of God: Spirit and Life: Advent, Christmas and Epiphany Homilies; Lent and Easter; and Special Holidays and Ordinary Time*.<sup>8</sup>

As you can see, his pen has been remarkably prolific, so it is impossible to list all his published papers. Suffice it to say that it has more than 350 texts published in the newspaper *El Financiero*, and more than 80 texts in books and magazines. From as early as the 1970s he already published works on the famous Rabbi Abraham Joshua Heschel, as “L’Experience religieuse d’Abraham Joshua Heschel”<sup>9</sup>, “The Divine Pathos in the Thought of A.J. Heschel”<sup>10</sup> and, by now in the eighties, “Prayer and its Dimensions in the Thought of Abraham Joshua Heschel”<sup>11</sup>, and recently “Some Aspects of Theology of Liberation in Abraham J. Heschel”<sup>12</sup> There are many

- 1 *God and the renewal of man, religious Anthropology of A.J. Heschel*, 2nd. Ed., Mexico, Alhambra, 1980.
- 2 *Euthanasia, Piety, Crime?* 6th Reprint, Mexico, Ed. Noriega, 2002.
- 3 *Man and his death, preparation for life*, Mexico, Ed. Dabar, 6th Reprint, 2010.
- 4 *Legal Deontology, Ethics in the being and work of the Lawyer*, Mexico, Ed. Oxford, 2013.
- 5 *Legal argumentation*, Mexico, Ed. Oxford, 2011.
- 6 *To Be More Human, reflections on Ethics and Law*, Mexico, Ed. Porrúa/UIA, 2005.
- 7 *In the light of values*, Mexico, Ed. Tirant lo Blanch, 2013.
- 8 *Word of God: spirit and life, Advent, Christmas and Epiphany Homilies; Lent and Easter; Special Holydays and ordinary time*, Mexico, Buena Prensa, 2016.
- 9 “L’Expérience religieuse d’Abraham Joshua Heschel”, published in SIDIC, vol. no. 1. Rome, Italy, 1973.
- 10 “The Divine Pathos in the Thinking of A. J. Heschel” in *Miscelanea Comillas Revista de Estudios Historicos*, vol. XXXIV no. 64, Madrid, Spain 1976.
- 11 “Prayer and its dimensions in the thought of Abraham Joshua Heschel” in *Rumbos en el Judaismo, el Sionismo e Israel*, no. 17-18, Israel 1986.
- 12 *Some aspects of liberation theology in Abraham J. Heschel*, Commemorative book in the 50 years

more texts that he has produced to date on Theological questions, on religiousness in general and on the Catholic and Jewish religions in particular.<sup>13</sup>

He has also been prolific in topics of Law, in matters of extreme importance—urgency would be said—for the contemporary world. For example, “Ethics in Law Studies”<sup>14</sup> and “Historical Outline of the Birth and Evolution of Labor Law.”<sup>15</sup> His interest in the human person, his rights and value, is reflected in publications such as “The Human Person and the Theory of Law”,<sup>16</sup> “Torture, Man Dehumanization”<sup>17</sup> and “Lack of Ethics and Work Harassment: *Mobbing*.”<sup>18</sup> Likewise, we find in the area of Thanatology: “Death and Transcendence”<sup>19</sup> and “Integral Accompaniment to the Dying.”<sup>20</sup>

In collective works we can mention, as a simple sample, the following texts:

- “The Meaning of Suffering in the Thought of Abraham Joshua Heschel”<sup>21</sup>.
- “The teaching of Law at the Universidad Iberoamericana”<sup>22</sup>.

of ICALA and of Professor Hünermann, Germany, Ed. Grünewald, 2018.

- 13 To mention just a few: “The Religion of Mexicans” in *How We Mexicans Are*, Mexico, Centro de Estudios Educativos, A.C./CREA, 1987. “Kirche, Kultur und Gessellschaft in Denken von B. Lonergan”, in *Kirche und Theologie im kulturellen Dialog*, ed. Herder, Germany, 1994. “The Jewish religion from Buber and Heschel to postmodernity, in Jewish identities in modernity”, in *Historia y Grafia* magazine, Universidad Iberoamericana, History Department, no. 28, Mexico, 2007.
- 14 “Ethics in Law studies”, Colombia, Pontificia Universidad Javeriana-Faculty of Legal Sciences, 2004.
- 15 “Historical outline of the Birth and Evolution of the Labor Law”, in *The Work and the Future of Man*, Buenos Aires, Ed. San Pablo, 2006.
- 16 “The Human Person and the Theory of Law”, in *ICADE*, Journal of the Facultades de Derecho y Ciencias Economicas y Empresariales, no. 57, Madrid, 2002.
- 17 “Torture, A dehumanization of Man”, *Calidad de Vida y Exigencias Eticas*, Third International Symposium, Universidad Iberoamericana, Mexico, 1996.
- 18 “Lack of Ethics and Work Harassment: *Mobbing*”, in *Ibero*, Journal of the Universidad Iberoamericana, Year V, no. 28, October-November 2013.
- 19 „Death and Transcendence“, in *Jahrbuch des Stipendienwerkes Lateinamerika-Deutschland*, Intercambio ,90 published by Stipendienwerk Lateinamerika-Deutschland E.V., Germany, 1990.
- 20 “Integral accompaniment to the dying”, in *Revista Internacional de Tanatologia y suicidio*, vol. II, no. 1, 2002.
- 21 “The Meaning of Suffering in the Thought of Abraham Joshua Heschel,” in *Shofar, An Interdisciplinary Journal of Jewish Studies*, vol. 26, no. 1, Purdue University Press, 2007. ISSN 08828539.
- 22 “The Teaching of Law at the Universidad Iberoamericana”, in *La enseñanza del Derecho en Mexico*, Mexico, Porrúa, 2007.

- “Civil disobedience in Mahatma Gandhi”<sup>23</sup>.
- “Integral Accompaniment of the Sick. Spiritual and Religious Aspects of Grief. The Challenge of Euthanasia”<sup>24</sup>.
- “The Argumentation and Generalized Empirical Method of Bernard Lonergan”<sup>25</sup>.

Finally, the mastery of different languages and erudition of Dr. Perez Valera have allowed him to participate in the translation of the works: *The Internal Experience of Law*<sup>26</sup> and *Politics and God*.<sup>27</sup>

In the area of teaching, it should be noted that between 1978 and 2015 he served as a full-time professor at the Universidad Iberoamericana in its different campuses, in the Religious Sciences and Law Departments. He supported the formation of students in the various chairs he taught, including: Theological Anthropology, Fundamentals of International Law, Humanism at Work, Theory of Law I and Legal Deontology, Philosophy of Law and Seminar of Excellence. Within the area of Integration he taught: Contemporary Faith and Atheism and Man and his death. And finally, he taught the Ethics module in several diplomas at the Universidad Iberoamericana of Santa Fe and León. He taught Philosophy of Law at the Escuela Libre de Derecho, where he also advises thesis and workshops on Law Theory. The above has only been possible thanks to his varied interests and multifaceted formation.

In the management area, we could highlight that for eight years he was the Religious Sciences Department director of the Universidad Iberoamericana Santa Fe campus (1980-1988). From 1985 to 2014 he presided the Mexican Council of German Latin American Cultural Exchange (ICALA), and from the very 1985

23 “Civil Disobedience in Mahatma Gandhi”, in *Ciudadania, democracia y derechos humanos*. Reflections in view of the commemoration of the Bicentennial of Independence, Quito, Ecuador, Ed. Abya-Yala, 2009.

24 “Integral Accompaniment of the Sick Person. Spiritual and Religious Aspects of Grief. The Challenge of Euthanasia”, in Gutiérrez Robledo, Picardi Marassa, Aguilar Navarro, *et. al.* (coords.), *Gerontologia y nutricion del adulto mayor*, Mexico, McGraw-Hill, 2010, pp. 355-388.

25 “The Argumentation and Generalized Empirical Method of Bernard Lonergan” in *Estudios de Derechos Humanos, Derecho Constitucional y Libertad Religiosa*, Tribute book to Raúl González Schmal, José Luis Caballero Ochoa and Emilio Margain Barraza (coords.), Mexico, Editorial Porrúa, 2017, pages 463-482.

26 Granfield, *The Internal Experience of Law (La experiencia interna del derecho)*, Mexico, ed. UIA-ITESO, 1996 (English).

27 J.Y. Calvez, *Politics and God (La politica y Dios)*, Mexico, ed. IMDOSOC, 1990 (French).

to date he presides the Katholischer Akademischer Ausländer Dients (KAAD). Other positions of great academic relevance have been those of Academic General Director of the Universidad Iberoamericana Northwest campus (1989-1994), Rectorry advisor during the periods of Father Enrique González Torres (1996-2004) and of Father José Morales Orozco (2004-2005), member of the Law Department Academic Council (2000-2007), academicians representative of the Universidad Iberoamericana Ciudad de México campus before the Higher Education Council of the Society of Jesus Mexican Province (2002-2006), member of the Governing Board of the Universidad Loyola del Pacífico (2005-2010), and member of the Universidad Iberoamericana México City campus University Senate (2013-2016).

Such a wide trajectory has earned him, as is logic, the membership in different instances and institutions. Among the main ones: PROUNIVAC, currently the Rectorry team (1978 to date), founding member of the International Thanatology Association (1992), member of the Bioethics Committee of the Cardiology National Institute (1996-2004), member between 2001 and 2008 of the National Researchers System (SNI), member of the Mexican Bar, Bar Association, Ethics Committee (2001 to date) and founding member of the Judeo Christian Fraternity (2001-2005).

His rich and multifaceted trajectory, his tireless commitment to teaching, and his ability to put his findings in writing, have made Dr. Víctor Manuel Pérez Valera, S.J., beyond any doubt, one of the pillars of research at the Universidad Iberoamericana. This is reflected in the awards he has obtained throughout his trajectory: Recognition to the University Merit (Universidad Iberoamericana, 1997), Medal to the University Merit (Universidad Iberoamericana, 2002), and the rank of Emeritus Academician (Universidad Iberoamericana, October 22, 2007). ¶



Dr. Víctor Pérez Valera, Religious Sciences Department Director.

\* With the collaboration of Dr. José Fernando Madrid Quezada.

Carlos Mendoza Álvarez, O.P.

*Barbara Andrade or the relentless  
question about the person*

**Notes for an intellectual biography**

Barbara Anna Max Hoseit arrived in Mexico, from Germany, at the end of the 70s of the twentieth century, accompanying her husband Rafael Andrade Malabehar, an eminent Yucatecan doctor, with whom she lived in Paris and in New York. Her children subsequently migrated for university studies to the United States and Germany, while she preferred to do her academic career in Mexico.

Her closeness with the Jesuits neared her to Theology, always with the desire to study the human condition from Anthropology and the Humanities, to even include Psychiatry in her incessant research. She studied Philosophy in Heidelberg. Her approach to the founding Book of the Hebrew and Christian tradition was

carried out with great passion in her research in Mexico, as a student of the Colegio Máximo de Cristo Rey, of the Mexican Province of the Society of Jesus. After several years free of Theology and Bible studies, the Jesuit Faculty of Sankt-Georgen in Frankfurt allowed her to complete the doctorate she had begun with her biblical studies, under the guidance of a rabbi in New York.

Her doctoral thesis, advised by Prof. Peter Knauer in Frankfurt, was published in Germany under the title *Got mitten unter uns*. The work was translated into Spanish under the title *Dios en medio de nosotros (God in our midst). Essay of Kerygmatic Theology*, with the support of her colleague and friend Xabier Pikaza<sup>1</sup> and was published by the Salmantine publishing house *Secretariado Trinitario*.<sup>2</sup>



Barbara Andrade, designated Tenure Academician on 1990.

She was the first woman with a doctorate in Theology to teach in Mexico, not without difficulties with a part of the Catholic hierarchy, who considered then —and still today— that Theology is linked to the priestly order. Barbara Andrade first was teacher at the Colegio Máximo de Cristo Rey and then at the Universidad Iberoamericana de la Ciudad de México. She also collaborated with great dedication and affection in the centers of theological studies of various religious orders, such as the Escuela Dominicana de Teología, to then collaborate in the Instituto de Formación Teológica Intercongregacional de México.

Barbara Andrade was the first Theologian to enter the National Researchers System of Mexico in the year 2000, public institution characterized by its positivist and secular vision of sciences and humanities. Despite this adverse context, her publications in Philosophical Anthropology had high scientific quality, and her participation as an expert in Ethics Committees in public hospitals. These activities undoubtedly contributed elements that gave credibility to her research, which were recognized inside and outside of Mexico. I was her disciple from 1984, when I responded to her Theological Anthropology courses. Later, I followed in her footsteps and entered the SNI a year after her, due to my work of fundamental Theology, in direct and explicit

- 1 See the interesting interview on the central Theological ideas of Barbara Andrade, published after her death in 2014, at the age of eighty, in the online journal *Periodista Digital*. X. Pikaza (2014). Barbara Andrade, an “essential” Theologian. May 2, 2018, from *Periodista Digital*. Online: <http://blogs.periodistadigital.com/xpikaza.php/2014/01/21/barbara-andrade-una-teologa-essential->.
- 2 A tribute from her Ibero colleagues can be seen at: Javier Quezada del Río (coord.), *God forgiving and merciful: Anthropological approach: tribute to Barbara Andrade*, Mexico, Universidad Iberoamericana, 2012.

relationship with Philosophical Phenomenology, Epistemology, Philosophy of religion, as well as Social and Philosophical Anthropology.<sup>3</sup>

For more than thirty years of teaching and theological research, Barbara Andrade was the first academician to receive *ex aequo*, together with Dr. Francisco Merlos of the Universidad Pontificia de México, the Theological Merit Medal “Fray Pedro de la Peña, O.P.”, awarded in its first edition by the Union de Instituciones Teológicas Católicas en México, A.C., in 2010. On that occasion she gave a memorable keynote lecture titled “Structures of forgiveness”<sup>4</sup>, where she synthesized, in sapience tone, her research for several decades.

### Relational ontology

In this brief essay I wish to gather some ideas that —in my opinion— characterized Barbara Andrade’s thinking about the relational Ontology that underlies her Theological thinking. The latter focuses on the idea of person as “self-presence in relation”, in a sense close to the transcendental Theology of Karl Rahner and Peter Knauer, German Jesuits who renewed, from that perspective, the studies of Theological Anthropology.

I will evoke some of the conversations I had with her in the classroom, as a Theological Anthropology teacher at the Ibero of Churubusco, when I was a young student. In addition, I will allow myself to remember, as an affectionate testimony, some memorable evenings around a glass of champagne, where we shared intuitions about various Theological and Social problems, in their relationship with Theological Anthropology she worked, and with the mimetic theory in which I was involved. We both shared the desire to take on the challenge of thinking about the increasing violence in Mexico and in the world —as a radical disregard for human dignity— from the heart of Christian faith.

These are topics that we continued to discuss as colleagues later, in various colloquiums at the Ibero and in other ecclesial and social forums. I especially wish to highlight the debate on the Thomistic idea of *person*, who first appeared in a colloquium that I organized at the Centro Cultural Universitario of the Dominicans

- 3 Barbara Andrade, “Structures of forgiveness” in Carlos Mendoza Álvarez (ed.), *Medal “Fray Pedro de la Peña O.P.” Master lectures. Barbara Andrade and Francisco Merlos Arroyo*, Mexico, Union de Instituciones Teológicas Católicas en México, 2011, pp. 5-10.
- 4 Boecio. *De Duabus Naturis*, 3.

of Mexico, in 1999.<sup>5</sup> At that time I invited three innovative voices from Europe, the United States and Mexico to talk about the Theology of the new millennium that was approaching: Barbara Andrade of the Ibero, Francis Schussler-Fiorenza of the Harvard *Divinity School*, and James Alison of the *Instituto Pedro de Córdoba* in Santiago de Chile. On that occasion, Barbara Andrade expounded her central ideas about the person as a being in permanent relationship, always unfinished, where only the grace to receive from others is the path of redemption.

To affirm her idea of person in relation, Barbara disqualified the traditional concept that the Catholic Church had handled for centuries, and that, according to her, derived from a Theological rationalism she attributed to Thomism. Barbara Andrade's constant objection to Saint Thomas Aquinas Theology consisted in affirming that the idea of Aquinate's person depended entirely on Boecio. Certainly, the Roman Philosopher had defined—in the first decades of the sixth century—the human person as an “individual substance of a rational nature”<sup>6</sup>. This idea, undoubtedly, prevailed in medieval scholasticism, first developed by Franciscans and Dominicans, and persisting until the Baroque scholasticism developed by Jesuits, which was subsequently reaffirmed in the nineteenth-century anti-modernist Apologetic Theology, which enshrined the Pontifical teaching as *theologia perennis*.

However, on several occasions I had memorable conversations and debates with Barbara, in which I referred to her the texts of Thomas Aquinas in which he criticized Boecio. Judging himself too Aristotelian, the Angelic Doctor went to various biblical sources to describe the actions of the divine persons and find the novelty of Christian revelation, beyond Philosophy, thus overcoming the famous definition of Boecio.

It was a subject that I had discovered and worked thoroughly in Freiburg with Professor Jean-Pierre Torrell, the main modern exegete of Thomas Aquinas, and who used the historical-critical method to read the Aquinate. In his work *De Trinitate*, first, and then in the *Summa Theologiae*, Thomas Aquinas defined—with the rigorous logical and metaphysical method of *quaestio* that characterized him in the full thirteenth century—to the divine person as a “subsistent relationship”, only explainable in the context of the communion own of Trinitarian life. The Father, the Son and the Holy Spirit, by virtue of their common divinity, are consubstantial; but insofar as they are the fontal opening of one person to the other, and in their

5 “The individual substance, distinct and incommunicable, in God has to be understood as the relationship.” cf. Saint Thomas Aquinas, *Theological Sum I*, q. 29, a. 4, obi. 3.

6 See Barbara Andrade, “What human dignity? Some anthropological and theological clarifications”, *Revista Iberoamericana de Teología*, no. 1, Mexico, July-December 2005, pp. 13-50.

divine missions with creation, they are *relationality*. Hence, Thomas Aquinas defined the divine persons, not as separate and individual substances, nor as pure relationships without metaphysical consistency, but—with a surprising Philosophical-Theological oxymoron—defined the divine person as a “subsistent relationship”<sup>7</sup>.

In spite of those *Thomasian* textual evidence, Barbara Andrade always maintained her harsh criticism of Thomism which, as the prevailing ideology in the Catholic Church, became an “unredeemed rationalism,” she said; same that did much harm to Theological Anthropology in the West, to Christian moral and, above all, to the pastoral itself, in the accompaniment of people in their learning to become merciful people such as the *Abbá* of Jesus.

### Beyond Philosophy: Trinitarian Theology

But the main source of *Barbarian* thought—as her students used to say—was the Hebrew and Christian Bible, not Philosophy. Her Theological Anthropology courses at the Ibero of Churubusco were memorable because of the attachment to the original languages of the founding texts: in Hebrew, for the creation stories of the book of Genesis, and for reading in detail the stories of the prophets of Israel who spoke of the names of God: “I am for you without condition or measure” was the *barbarian* way of translating the Tetragram “I am who I am” from the book of Exodus—3, 14—, and other expressions of the First Testament on divine names.

I also remember how the German-Mexican Theologian delighted in describing, with philological precision, the technical terms of the vocabulary of St. Paul's letters, written in *Koine* or common Greek, to speak of the body according to the flesh—*kata sarx*—, trapped in the law of sin—*hamartia*—; or, of the body according to the Spirit—*kata Pneuma*—, opened by the gift of resurrection of the living Crucified. Thanks to this unfathomable gift of Christ's redemption, we have the life experience of grace inscribed in subjectivity as “love without condition or measure”—as she loved to underline—to indicate, with that expression, the infinite priority of divine mercy over evil provoked by the human being. Therefore, as a synthetic concept of this whole process of human-divine life, Barbara Andrade spoke of grace—*xaris*— as “forgiven sin”, since it redeems us from the supreme contradiction of human freedom, conditioned by the perception of the other as enemy and rival, surpassed only by the existence of “love without condition or measure” which is the God revealed by the Spirit of Christ.

Following St. Augustine, Barbara also evoked the two foundational metaphors of Christian Anthropology employed in the West, to talk about us humans, created in the image and likeness of divine life: language and love. Just as who wants

to say a word of love to someone thinks it first and then says it, thus generating a loving bond that endures, so is the divine procedure in its eternal being: the Father thinks eternally of his Son in the eternal love of his Spirit, then communicate it to the entire creation in the world of history. Therefore, for Barbara Andrade it was essential to first tell people: “Tell me about your experience of God”, both in her teaching in the classroom, and in her therapy and spiritual accompaniment sessions, to which she also dedicated herself as a lay Theologian.

In the last years of her life, a painful family circumstance led our author to study Psychiatry to understand the memory dysfunction associated with Alzheimer’s disease. Thus she had to further refine her understanding of the person as “being in relationship”, based on a radical questioning about the person as an always unfinished process of self-presence, more here even of memory, language and mutual recognition.

### **A legacy to be discovered**

Barbara Andrade did not consider herself a feminist Theologian because, for her, thought was always an emancipatory act, whatever the person’s gender status. Based on her idea “person as self-presence in relation”, class or gender specifications of that community in gestation passed to second place, since what mattered to her in her thinking was to discover the person-in-relationship that constitutes us all, as the image and likeness of the divine persons of the Christian Trinity.

The ethical, spiritual and therapeutic dimensions of her thinking were developed in her latest publications, and especially in the Ethics Committees in public hospitals, where she participated with constancy and rigor, despite her illness. She also deepened in the topic of human dignity from the relational perspective.<sup>8</sup> However, the political and gender dimensions remained in the shadow of her thinking. Those who wish to continue her reflections will have to include new theoretical and methodological tools, in a long and thrilling way yet to be explored.

Perhaps one of the main questions of *barbarian* thought in years to come will be the existing relationship between the Trinitarian life that inhabits believers of all religious wisdoms, and its consequent linguistic and practical explicitation in communities of life and commitment to the more vulnerable, in the context of the global violence we live. Otherwise, the Theology of any sign becomes an accomplice of injustice and suffering, caused by social, economic, political and religious systems of discrimination and hate. A question of the times of cultural and religious pluralism, not corresponding to the historical moment of the German Mexican Theologian, but which is an urgent task for those of us who survived her memory. ¶

# Annexes

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**Carlos Mendoza Álvarez, OP**

***Barbara Andrade o la incesante pregunta por la persona***

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Physics and Mathematics

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Law

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International Studies

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Studies on Engineering for Innovation

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Communication

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Social and Political Sciences

Dr. Carlos Mendoza Alvarez  
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Religious Sciences

Dr. Ruth Pedroza Islas  
Science, Art and Technology  
Industrial and Food Chemical Engineering

Dr. Enrique Pieck Gochicoa  
Humanities and Communication  
Education Development Research Institute

Dr. Olga Rodriguez Bolufe  
Humanities and Communication  
Art

Dr. Abelardo Rodriguez Sumano  
Social Studies  
International Studies

Dr. Carlos Rafael Rodriguez Solera  
Humanities and Communication  
Education Development Research Institute

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Industrial and Food Chemical Engineering

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Science, Art and Technology  
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Education Development Research Institute

Dr. Heidi Jane Smith Grunwalt  
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Dr. Isidro Soloaga  
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Economy

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Social and Political Sciences

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Science, Art and Technology  
Physics and Mathematics

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Social Studies  
Law

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Architecture, Urbanism and Civil Engineering

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Law

Dr. Giovanni Azael Figueroa Mejia  
Social Studies  
Law

Dr. Francisco Vicente Galan Velez  
Humanities and Communication  
Philosophy

Dr. María Cristina Gomez Johnson  
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Dr. Eduardo Gamaliel Hernandez Martinez  
Science, Art and Technology  
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Dr. Sonia Lizeth Hernandez Cordero  
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Dr. Jose de Jesus Legorreta Zepeda  
Humanities and Communication  
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Law

Dr. Hilda Patiño Dominguez  
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Education

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Humanities and Communication  
Communication

Dr. Gloria María Prado Garduño\*  
Humanities and Communication  
Literature

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Science, Art and Technology  
Industrial and Food Chemical Engineering

Dr. Martha Areli Ramirez Sanchez  
Social Studies  
Social and Political Sciences

Dr. Esther Ramirez Meneses  
Science, Art and Technology  
Industrial and Food Chemical Engineering

Dr. Andres Ramirez Portilla  
Social Studies  
Business Studies

Dr. Miguel Santiago Reyes Hernandez  
Social Studies  
Equity Development Research Institute

Dr. Virgilio Ruiz Rodriguez  
Humanities and Communication  
Philosophy

Dr. Hugo Octavio Salcedo Larios  
Humanities and Communication  
Literature

Dr. Cecilia Salmeron Tellechea  
Humanities and Communication  
Literature

Dr. Gilberto Santa Rita Tames  
Social Studies  
Law

Dr. Stefano Claudio Sartorello  
Humanities and Communication  
Education Development Research Instituto

Dr. Rene Torres Ruiz  
Social Studies  
Social and Political Sciences

Dr. Ana María Torres Arroyo  
Humanities and Communication  
Art

Dr. Javier Urbano Reyes  
Social Studies  
International Studies

Dr. Helena Varela Guinot  
Social Studies  
Social and Political Sciences

Dr. Ruben Cesar Vasquez Medrano  
Science, Art and Technology  
Industrial and Food Chemical Engineering

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Social Studies  
Psychology

Dr. Mario Humberto Buenrostro Jauregui  
Social Studies  
Psychology

Dr. Edwin Culp Morando  
Humanities and Communication  
Communication

Dr. Juan Pablo Vazquez Gutierrez  
Social Studies  
Social and Political Sciences

Dr. Sandra Vera Zambrano  
Humanities and Communication  
Communication

Dr. Luis Vergara y Anderson\*  
Humanities and Communication  
History

Dr. Mireya Vilar Compte  
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Development with Equity Research Institute

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Dr. Laura Zamudio Gonzalez  
Social Studies  
International Studies

Dr. Carlos Alberto Diaz Gonzalez Mendez  
Social Studies  
Social and Political Sciences

Dr. Alexander Galicia Palacios  
Science, Art and Technology  
Physics and Mathematics

Dr. Jose Alberto Lara Pulido  
Social Studies  
Business Studies

Dr. Brenda Mariana Mendez Gallardo  
Humanities and Communication  
Religious Sciences

Dr. Miguel Ricardo Nava Murcia  
Humanities and Communication  
History

Dr. Cristina Oropeza Barrera  
Science, Art and Technology  
Physics and Mathematics

Dr. Sergio Rodriguez Blanco  
Humanities and Communication  
Communication

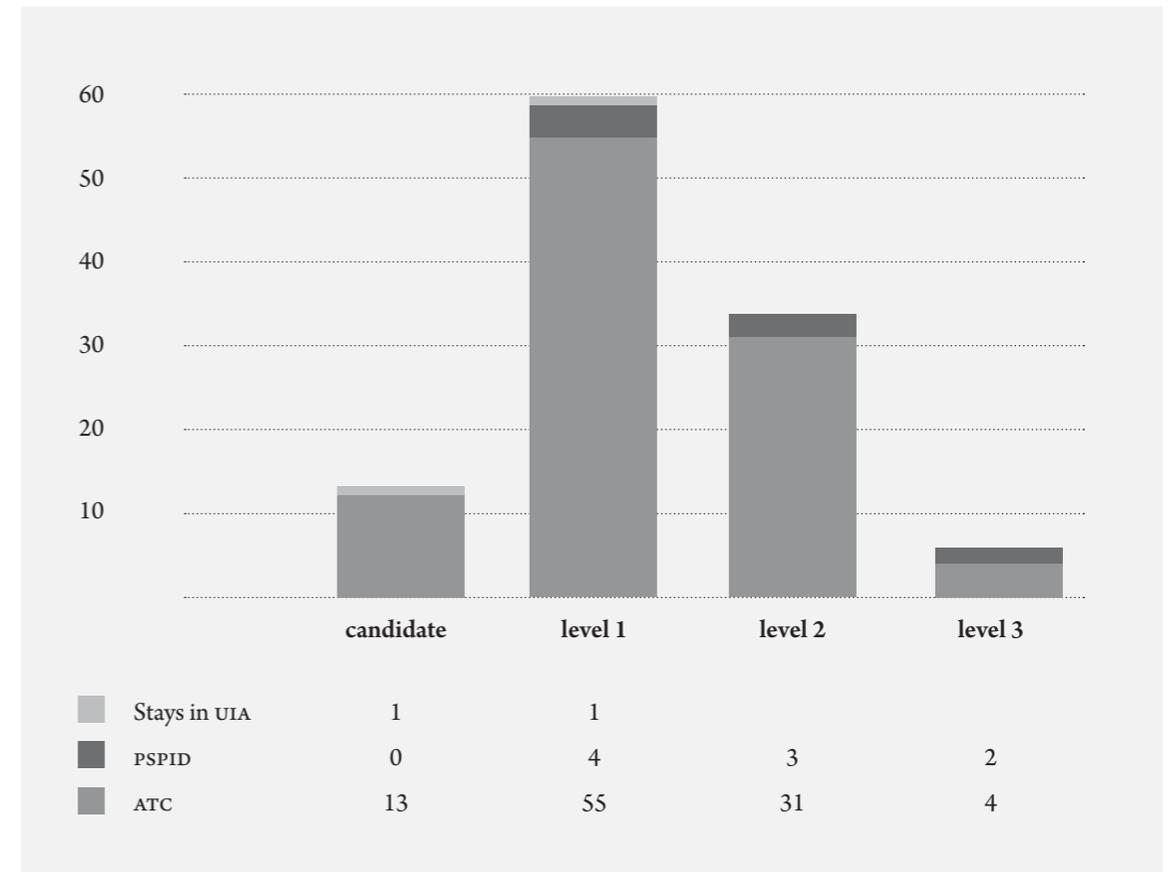
Dr. Ricardo Velazquez Leyer  
Social Studies  
Social and Political Sciences

Dr. Hugo Alberto Yam Chale  
Social Studies  
Psychology

Dr. Emiliano Zolla Marquez  
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Social and Political Sciences

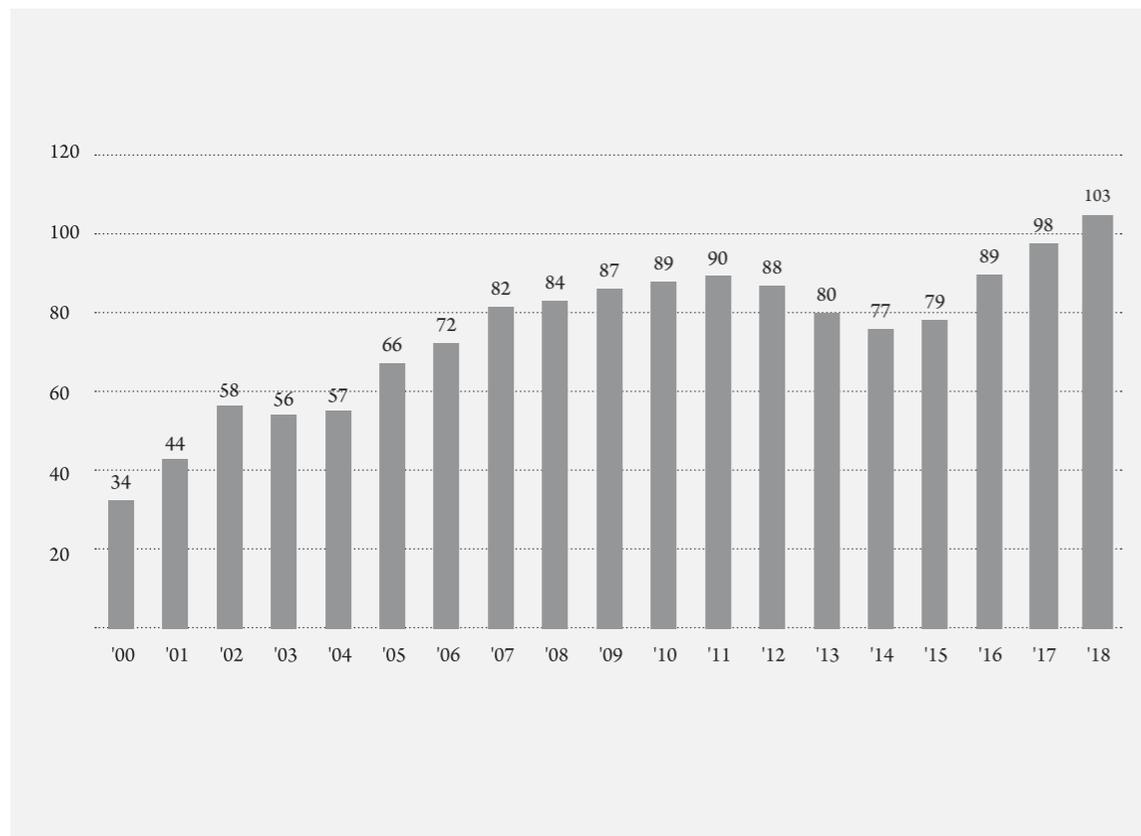
Dr. Ivonne Linares Hernandez  
Level I, Sabbatical stay 2018-2019  
Science, Art and Technology  
Industrial and Food Chemical Engineering

Dr. Paola Ortelli  
Candidate, post-doctoral stay 2018-2019  
Social Studies

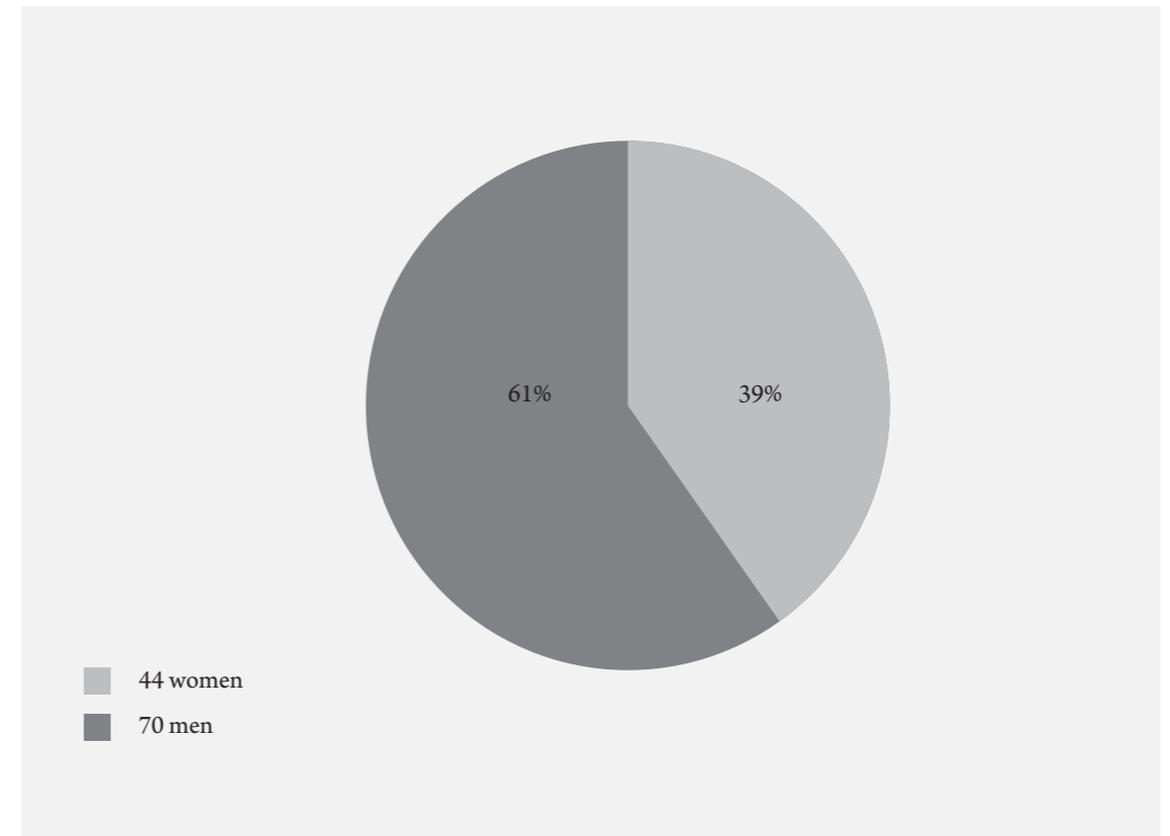


Researchers in SNI by adscription type.

\* Research and teaching services providers (PSPID)



Full Time academicians in the SNI 2000-2018.



UIA researchers in the SNI.

# Registered Research 1974-2018

María Eugenia Ponce Alcocer

The Historical Archive of the Universidad Iberoamericana, located in the Historical Collections area of the Library, safeguards, among others, the section relative to the Research Historical Archive. This section includes the years from 1974 to 2015, with a total of 292 boxes: 123 relative to mail and minutes of the sessions of the Research Commission; and 169 that have information on registered research projects.

Based on this Archive, we can know that between 1973 and 1974 there are the first records of research with institutional support, as well as some in collaboration with other universities and national and foreign bodies.

As part of this section of the Research Directorate, there is an electronic file of 2005-2012 management, containing correspondence with researchers, presented research projects external opinions, calls from FICSAC, FICSAC-UIA research and stimuli to research.

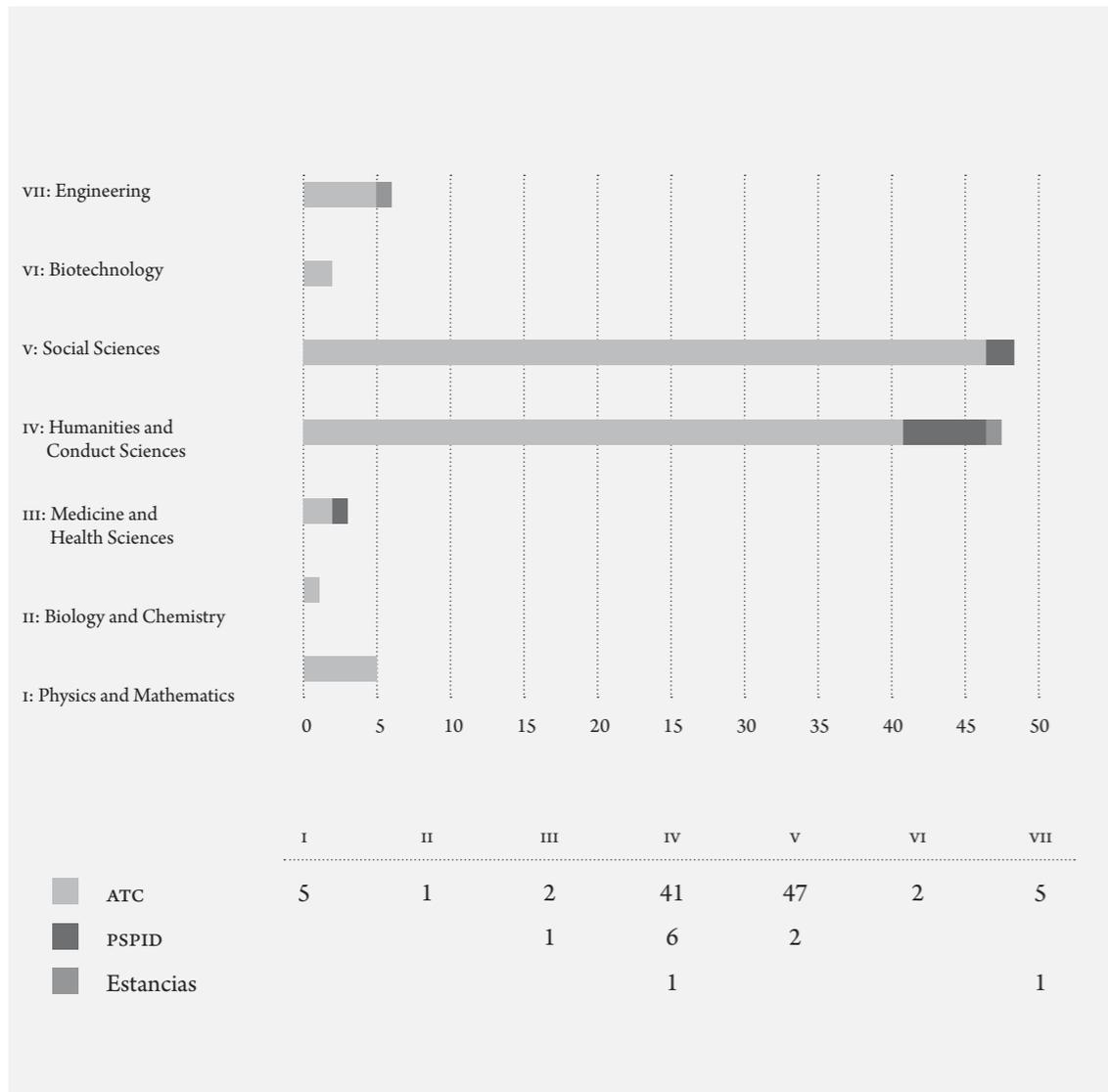
The Archive of the Research Directorate allows us to know the development of research at the University, through the projects registered since 1974.<sup>1</sup>

Of the 65% of the registered projects there is a follow-up by the agency that was in charge of the research:<sup>2</sup> of progress, of the budget granted to the researcher, of documentation relative to projects that were canceled, such as letters, minutes of the Board of Directors of the Departments that reported on the development of the projects, and those that were canceled, some with explanation why this decision was taken and others without it.

Within the archive there is a wide variety of documents relative to the research registered as completed: executive reports, theses and publications, both articles and books on paper and in electronic archives.

1 Of about 35% of registered projects, there is no evidence of the finished product.

2 Since 1985, the Research Directorate was created.



SNI Researchers by knowledge area.

From a first look at the set of documents that are preserved, it can be seen how, little by little, the Departments began to conduct research. In 1978, Architecture made one; Religious Sciences, three; Law one; Human Development, one; Economy, two; Philosophy, two; History, one; Literature, one, and Psychology, seven. The Centers also initiated research: Didactics made two; Psychological Orientation, one, and Social Service and Promotion carried out one. By the year mentioned, all of them were already completed.<sup>3</sup>

The fall of the main buildings of the University, caused by the earthquake of March 14, 1979, did not prevent the continuity of research.

Thus, from 1974 to 1990, 475 research projects were completed in 20 Departments, in the six existing Centers in the University, in the Centers Directorate, in the Rectoría and in the Institute of Humanistic Research. The most productive Departments were, in descending order: Political and Social Sciences, Physics, Philosophy, Psychology, Nutrition, Engineering and Chemical Sciences and History. Of the Centers, Didactics was the most productive (see Table 1).

In the years from 1991 to 2000, 203 research projects were carried out at the University, distributed among almost all the Departments and in three Centers. As can be seen in Table number 2, Psychology was the most productive department, followed by Political and Social Sciences. In the area of basic sciences, the Nutrition and Food Science Department was the one that carried out the most research.

From 2001 to 2010, 187 research projects were carried out in 18 Departments, the Library and the Research Directorate. The Departments that conducted more registered research projects were: on the one hand, Political and Social Sciences; on the other, Chemical, Industrial and Food Engineering (see Table 3).

It should be noted that, between the years of 1998 and 2002, there were also changes in different Departments of the University, some merged and others became independent.<sup>4</sup> These changes are already seen in Table 3.

<sup>3</sup> AHDI, boxes corresponding to 1974-1980.

<sup>4</sup> The Physics and Mathematics Department ceased to belong to the Basic Sciences Department in 2002; the Engineering and Chemical Sciences Department separated from the Engineering Department and became the Chemical, Industrial and Food Engineering Department in 2002. The Health Department was created in 1998; four Departments: Civil Engineering, Mechanical and Electrical Engineering, Industrial Engineering, and Systems Engineering were combined in the Engineering Department. Human Development passed to Education in 2002. International Studies ceased to belong to the Social and Political Sciences Department, and the International Studies Department was created in 1998. Also in this last year, the Center for Psychological Orientation disappears while the Center for Academic Information becomes a Library again. A year later, the Social Service Center, the Teaching Process Center and the Humanist Formation Center, before of ntegration,

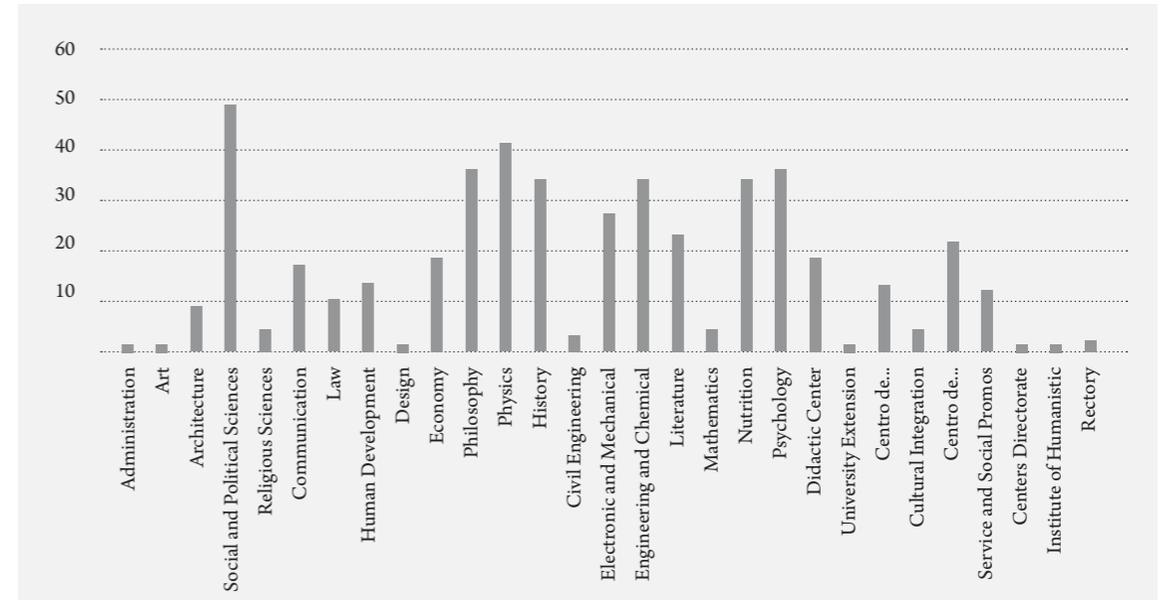


Table 1. Own preparation. Source: AHDI, boxes 1974-1990.

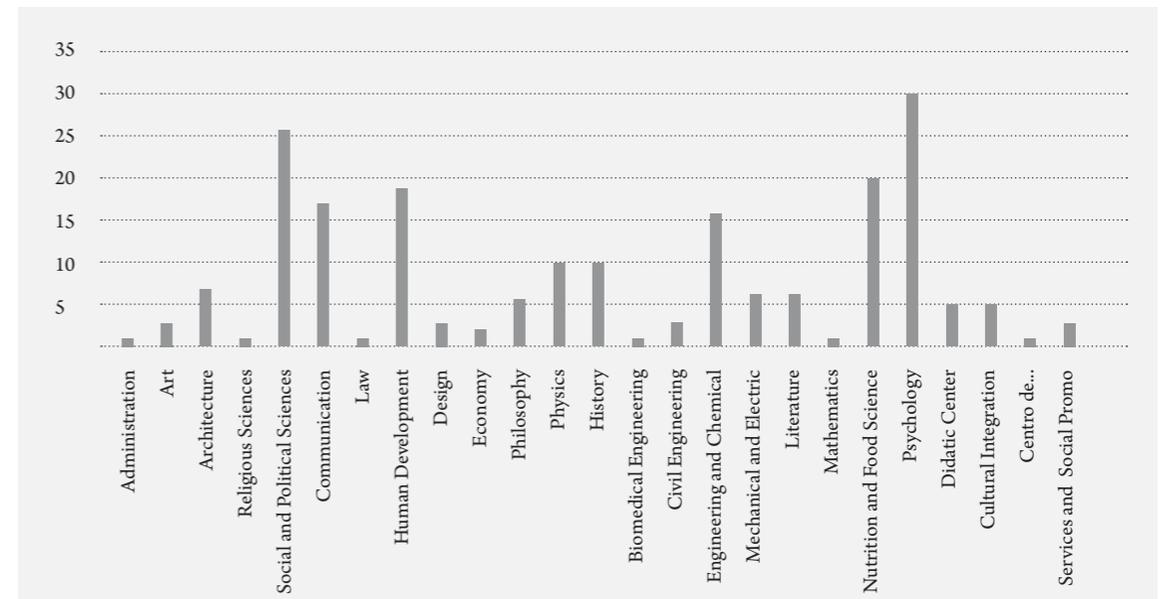


Table 2. Own preparation. Source: AHDI: corresponding boxes to 1991-2000.

become part of the new Values Formation Directorate, in the Francisco Xavier Clavigero Library. Historical Archive. Authorities and other officials of the Universidad Iberoamericana Ciudad de México, 1943-2015. Optical laser disk.

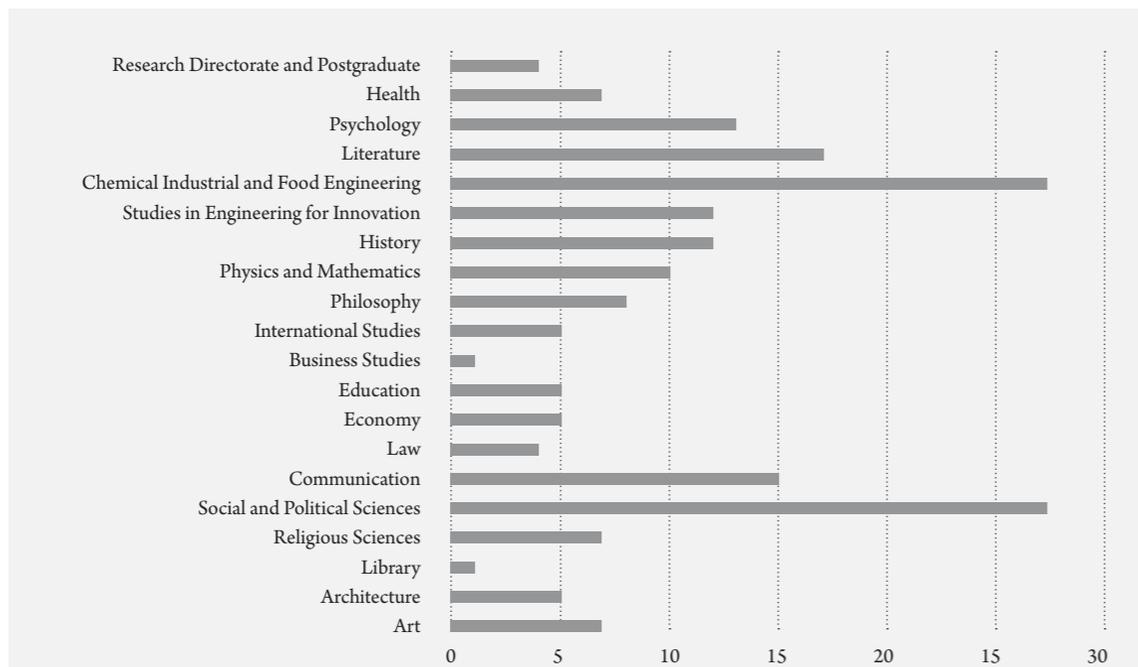


Table 3. Research completed 2001-2010. Own preparation. Source ADHI, boxes corresponding to 2001-2010, and information provided by the Research Directorate.

From 2011 to the present, 180 research projects have been carried out and continue to be performed in 17 Departments of the UIA. The Value Formation Directorate, the Library and Service and Social Promotion did not register any research (see Table 4).

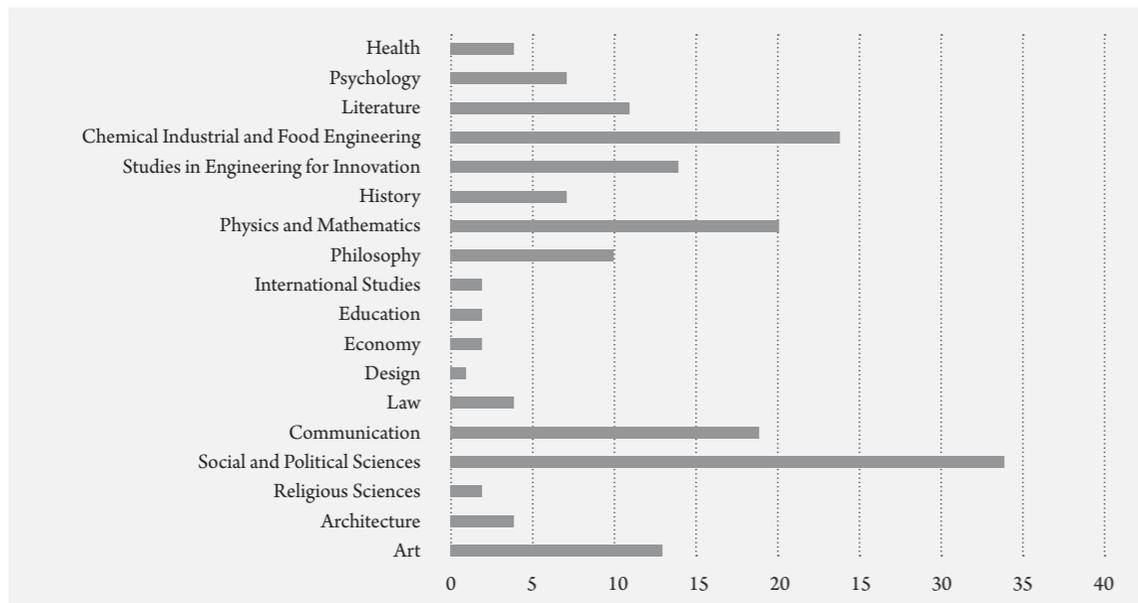


Table 4. Research performed 2011-2018. Own Preparation. Source: Research Directorate, Information provided by researchers, Library catalogue and Google Academic.

From 1974 to 2018, 1018 research projects that were registered have been completed. One of the Departments that in these years had more registered and completed research was Social and Political Sciences.<sup>5</sup>

Over almost 45 years, most of the results of the registered research have been known and disseminated through articles published in specialized journals, in papers presented in academic forums and in books, edited by both the same University and by other institutions or publishing companies.

It is noted that the topics of the research carried out at the Universidad Iberoamericana have tried to respond to the needs of our country. Relevant issues have been, and continue to be, those that study the problems that Mexico lives daily: poverty, inequalities, absence of democracy, social justice, violence, corruption, political and economic crises. In the basic sciences, the University has excelled in topics such as prototypes of instruments for medicine, nanotechnology and robotics.

In the first years, the great majority of research projects were individual and with topics of personal interest; however, little by little, the University established a preference for interdisciplinary research and research lines established by the Departments.

The purposes of research have been framed within the basic documents of the University, which have reaffirmed the commitment to the search for Truth and a more just, more humane society.

<sup>5</sup> It should be noted that the tables were made based on research projects concluded.

# Registered Research Projects by Divisions, 1974-2018

## Humanities and Communication Division

### Art

1983  
Amerlinck, Ma. Concepción.  
The Architecture of the Nunneries  
in Mexico City, from their founda-  
tion to exclaustation.

1984  
Morales, Leonor. The 1970-1980  
Decade of Art Criticism in Mexico.  
Cordero, Karen. The Politicization  
of Popular Art. A Study of Visual  
Culture in Mexico, 1915-1925.  
Morales, Leonor and Rabinovich,  
Margry. Structuring of the Master's  
and Specialties of Art History.  
González Rosas, Blanca. Didactics  
of Art History.

1985  
Acevedo, Esther. Guide of  
Murals of the Historic Center  
of Mexico City.  
Morales, Leonor. The 1971-1978  
decade of Art Criticism in Mexico.  
Velasco, Ma. Teresa. Work of Art  
Technology in Colonial Mexico.

1986  
González Rosas, Blanca. Anthology  
of Texts of Art Theory of the  
Twentieth Century.

1990  
Barrera, Rebeca Ofelia. Information  
Bank on Mexican Codices.

1992  
Eguiarte Sakar, Estela and Barrios,  
José Luis. Art and the Sacred:  
History and Artistic Form of  
Christian Culture.

1997  
Cordero Reiman, Karen. Gender  
and Sexual Identity as Analysis  
Categories of Mexican Art  
1920-1940.

1998  
Cordero Reiman, Karen.  
Politicization of Popular Art:  
a Study of Visual Culture in  
Mexico 1915-1925.

2005  
Cordero Reiman, Karen.  
Art Historiography in Mexico:  
between the Word and the Wall.

2007  
Barrios Lara, José Luis. Colossal  
and Terrifying: The Construction  
of Ghosts and Technoscientific  
Imaginary of Horror in Culture and  
Contemporary Art.

2013  
Torres Arroyo, Ana María.  
Aesthetic and Political Confron-  
tations During the Cold War.

2014  
Cuesta Hernández, Javier. New  
Spain Architecture and Sculpture  
in the Seventeenth Century. A  
Cultural History

2015  
Rodríguez Bolufé, Olga María.  
Memory and Representation in  
Latin American and Caribbean Art.  
López Ruiz, José Francisco.  
Narrative Speeches,  
Transdisciplinary and Museums.

2017  
Comisarenco Mirkin, Dina.  
A New Visibility Spell: Introducing  
Genre in the Study of Modern  
and Contemporary Mexican Art.  
Torres Arroyo, Ana María.  
Aesthetics and Politics in Modern  
and Contemporary Mexican Art.  
Comisarenco Mirkin, Dina. To  
Unlearn Oblivion: Re-visitations  
to Mexican Muralism of the  
Twentieth Century.  
Soto Cortés, Alberto. v  
Visual Culture in New Spain:  
Creation, Circulation and  
Consumption of Printed Matter  
and their Influence on Plastic Art,  
16<sup>th</sup> to 18<sup>th</sup> Centuries.  
Cuesta Hernández, Javier. The  
Construction of a Culture of  
Images: Novo Hispanic  
Architecture and Sculpture in  
the Seventeenth and Eighteenth  
Centuries.

Barrios Lara, José Luis. Aesthetics  
and Representation Policies:  
Violence and Exclusion, the  
problem of the Naked Life.  
Cordero Reiman, Karen.  
Dialogue Devices: Art, Archiving,  
Writing and Cultural Memory  
in Modern and Contemporary  
Mexico.

2018  
Torres Arroyo, Ana María.  
Public Art as a Platform for  
Cultural Memory.  
Rodríguez Bolufé, Olga María.  
Encounters and Disagreements  
in the Art of Latin America and  
the Caribbean.

### Theological sciences

1976  
Loza, José. Introduction to  
the Pentateuch. The Literary  
Problematic.  
Bazdresch, Juan E. The theory  
of knowledge of Ludwig Feuerbach.  
Concha Malo, Miguel. Research  
on the Socio-Economic-Political  
Conditioning of the Greek Fathers  
to Athanasius of Alexandria.

1983  
Andrade, Barbara. The  
Theological and Anthropological  
Characteristics of the Main Sources  
of the Pentateuch.

1994  
Sota García, Eduardo. Cultural  
Frames in Mexican Youth.

2001  
Soltero Gómez, Carlos.  
Commentary to the Deuteronomy.

2004  
Legorreta Zepeda, José de Jesús.  
Catholics and their Church:  
Images and Contrasts in the Federal  
District.

2005  
Sota García, Eduardo. Religion in  
Young University Students.  
Comparative Diachronic Study.

2006  
Andrade, Barbara. Two  
Fundamental Ethical Principles and  
their Application in Psychiatry.  
Mendoza Álvarez, Carlos.  
Theological Hermeneutics of  
Postmodern Religious Experience.

2008  
Mendoza Álvarez, Carlos.  
Hermeneutics of Religious  
Experience.

2009  
Quezada del Río, Javier.  
Translation into Spanish of the  
Greek Bible of the LXX. Books of  
Ezekiel and Jeremiah.

2010  
Balderas Vega, Gonzalo. Pre-  
Hispanic and Viceroyalty History  
of the Church in Mexico.

2013  
Carlos Mendoza Alvarez. History,  
Violence and Redemption.  
Pragmatism of the Postmodern  
Religious Experience.

2017  
Mendoza Álvarez, Carlos. History,  
Violence and Redemption.

### Philosophy

1978  
González Uribe, Héctor.  
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In 1996 starts Depending of the Psychology Department.  1997 Segrera Miranda, Alberto. Constitution and Operation of the International Archives of the Person-Centered Approach. García Garduño, José María. Reasons for Admission, Expectations and Attitudes Towards the Elementary School Teachers Career. A Comparative Study Between Normalist Students of a Bachelor's Level and a Generation that Studied at the Higher Middle Level. Ortega Pacheco, Lucia. Analysis of Anxiety and Depression in Response to Caesarean Section and its Relationship with the Control Locus. García Garduño, José María. Origins and Development of Curriculum Discipline in Latin America.	In 2002 goes to the Education Department.  2005 Mancillas Bazán, Celia. Construction of Intimacy in Current Partner Relationships and Interrelation with Gender and Identity Roles. Segrera Miranda, Alberto. AIECP: Third phase.  2006 Martínez Sánchez, Jorge. Education and Values: Ethical Decision Profiles in a University Community.	<b>Communications</b>  1974 Rota, Joseph. Effects of Various Types and Intensities of Televised Violence, with and without Inoculation, on Primary School Children.  1975 Jara, José Rubén. Internal Communicative Behavior in the Company: Opinion Leaders.  1977 Jara, José Rubén. Some Communication Strategies in the Legal Context: A simulated Trial Study. Cortina, Jesus María. Interaction Patterns and Communication Styles of a Rural Region and the Variables That Influence Them.	1986 Gomez Mont, Carmen. Anthology of Communication New Technologies. Casares Arrangoiz, Pablo. Basic Development of Human Resources Formation in Communication for Development. Rebeil, María Antonieta. Television and Regional Systems. The Beginnings of Independence from Centralism. Alcocer, Martha. Analysis of XEYT Radio Station Audience, Radio Cultural Campesina, of Teocello. Rebeil, María Antonieta. Critical Reception and TV-Viewers Associations. Casares Arrangoiz, Pablo. Television in Latin America, the Case of Mexico, First Phase. Lara López, Guido. The Complex	1993 Cornejo Portugal, Carmen. Mediation Practices of Indigenous Communities in Radio Reception. Santacruz Moctezuma, Lino Leopoldo. Chronology on Communication Satellites in the World.  1994 Orozco Gómez, Guillermo. Family and school Mediation Practices at Children's Television Reception. Gómez Mont, Carmen and Gómez Mont, Francisco. Eye Movements Secondary to Visual Stimuli in Students. Orozco Gómez, Guillermo and Renner, Martha. Family Mediation and Communication Practices. Cornejo Portugal, Inés and Orozco, Guillermo. Psychodrama Applied for the Study of Children's Television Reception. Orozco Gómez, Guillermo. Reception and Social Use of Tele- vision News Around the World.	2001 Benassini Felix, Claudia. Professional Fields and Labor Markets. Third stage: Labor Market. Rebeil Corella, María Antonieta. Maturation Processes of Social Enterprises. Warketin de la Mora, Gabriela. Narratives and Interactive.  2003 Cornejo Portugal, Ines. Social Representations and Cultural Practices: Modernity and Media.  2004 Elizondo Martínez, Jesús Octavio. Applied Semiotics Workshop. Guerrero Martínez, Manuel

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1995	Ávila Rosas, Juan Antonio.			Labarthe, Eduardo. International Inflation and Domestic Inflation: a Monetary Analysis.	Barrera Flores, José Guadalupe. Financing of Development in Mexico.
Pedroza Islas, Ruth and Vélez Ortega, Gisela. Development of a Cheese Type Product from Caseinates.	Evaluation During Three of the Metabolic Variations of Women with a History of Preeclampsia, Gestational Diabetes and/or Overweight.	2013	1991	Labarthe, Eduardo. A Theory of Economic Development: a Methodological Note.	Barquin, Julian. Technological Change and Factorial Density.
Ochoa Rivera, Teresa.	Cruz Rodríguez, Isabel. Validation of a Formative Evaluation Instrument for Teachers.	Hernández Guerrero, César A. Association of Ala-9-Val Polymorphisms Superoxide Dismutase and Pro-198-Leu Glutathione Peroxidase in Individuals Who are Overweight and Obese.	Massieu, Guillermo. The Furniture Industry and its Needs to Meet Demands in the Face of the Challenges of Modernization.		
Validation of the Guide to Elaborate Didactic Material in Nutrition and Food Education.	Monroy Ruiz, José. Astaxanthin of Prawn Pleuroncodes Planipes and its Use in Pigmentation of Rainbow Trout <i>Oncorhynchus Mykiss</i> Under Culture Conditions.	2014	1997	1980	1993
1997		Escalante Izeta, Erika Ileana, Mena Rangel, María del Carmen and Radosh Sverdlin, Adina. Food Explorers: Workshop.	Lomelin Tapan, Raul. Training Program for Consultants for Micro and Small Business.	Rozada, Agustín. Recent Evolution and Perspectives of the Mexican Economy.	Ramírez Solano, Enrique. Currency, Banking and Financial Markets in Mexico.
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Ochoa Rivera, Teresa. Evaluation of the Acceptance and Consumption of Products Made from Amaranth.	2001	Hernández Guerrero, César Ángel. Molecular Characterization of the Intestinal Microbiological Consortium in Obese Individuals Who Present Food Insecurity and Changes in the Consortium Under a Food Intervention.	Estrada, Enrique. Development of Practical Cases in Administration (for Initial Semesters).	1981	Calderón, Francisco. Indicators of the Economic-Social Evolution of Our Country.
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	Pérez Lizaur, Ana Bertha. Effect of Increased Physical Activity on Some Health Indicators in a Group of UIA Employees, Santa Fe Campus.		Gutierrez Niebla, Rafael. Tourism Development in the Southeast Region of the State of Mexico.	Quiroga Lam, Juan Manuel. Applications of the Input Product Matrix, the Case of Mexico.	Barquin Liaño, Julian. Corruption, the Dark Side of the Mexican Economy.
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Cejudo Gómez, Héctor	2006		2008	1982	Velázquez Guadarrama, César. Public Financing of Electoral Campaigns.
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Vega Lomelí, Juan. Evaluation of Skills Developed by Students of the Nutrition and Food Sciences Degree.	Perichart Pereira, Otilia. Pilot Study to Identify Variables Indicating the Health Impact of Overweight and Obesity, in Children Between Six			Von Bertrab, Hermann. Model for an Economic Policy.	Cotler Ávalos, Pablo. The Current State and Outlook of Microfinance Institutions in Mexico.
Monroy Ruiz, José. Study of the Existing Relationships Between		<b>Business Administration</b>	<b>Economy</b>	1983	Cotler Ávalos, Pablo. Nacional Financiera: an Analysis of its Experience.
				Rozada, Agustín. Data Bank (ECOMEX).	Rodríguez Arana, Alejandro. Tax Reform in Mexico.
				Labarthe, Eduardo. The Mexican Monetary Experience 1935-1940.	
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				Bello, Rafael. General Scheme For Public Finances.	
				Barquin Liaño, Julian. Comparative Advantage and Protection Policy in Mexico, 1940-1980.	
				Bello, Rafael. Public Spending.	

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<b>Science, Technology and Art Division</b>	1991 Santacruz, María del Carmen. The Professional Practice of New University Degrees: the Case of the Urbanism Degree in the UIA.	Lee Alardín, Gabriela. Urban History for Mexico City: a Morphological and Cultural Perspective. Carozzi Arosio, Gigliola. Ideas and Representations of Trans Modernity in the Architecture of Mexico City.	1975 Letichipia Moreno, Jorge. Manual Seeder. Goffaux Hulbert, Joseph Francis. 35 mm Project. with Coleman Lamp. Goffaux Hulbert, Joseph Francis. Intimate Diameters Meter of Water Pipes. Goffaux Hulbert, Joseph Francis. Pipe Driller. Goffaux Hulbert, Joseph Francis. 35 mm Project.	1978 Díaz Arias, Herman. Development of a Method for the Design of Electronic Circuits Through Energy Balances. Díaz Arias, Herman. Design and Construction of a Demand Pacemaker.	1985 Ortiz Rebolledo, Armando. Electronic Semiconductor Structures. García Valdez, Emilio. Electroretinograms. Molinar de la Parra, René. Low Cost Digital Thermometer Design at Hundredths of a Degree.
<b>Architecture</b>	1998 Leo Gándara, Carlos de. Public Spaces in Housing Developments. Catalysts of Social Structure? Nava Requesens, José Raymundo. The Point of View of an Ibero-American, the Viennese Secession. Ruiz Gomez, Santos E. The Formal Categories of Architecture: the Metric. Aguilera González, Alejandro. The Illegal Occupation of Urban Land, the Motivations to Evade. Case Study: Colonia Camino Verde in Tijuana, B.C. Lee Alardín, Gabriela. Commented Bibliography of Interpretations of 20 <sup>th</sup> Century Architectures in the Mexican Republic. Reyes Vicite, Raymundo. Models for Describing and Formulating Problems in Coordination and Organizational Control Based on a Specific Exploratory Study and on Environmental and Architectural Design Projects.	2012 Carozzi Arosio, Gigliola. Time and Narration of Industrial Archeology, a Silent Hermeneutics. Silva Contreras, Mónica E. Architecture and Reinforced Concrete: the First Decade of the 20 <sup>th</sup> Century in Mexico.			
1978 Lara, Victor. Relating to: Resistant Elements and Climatology.		2015 Martínez Flores, Leonardo. Introduction to Urban Ecosystems.		1979 Sánchez Aguilera, Enrique. Determination of Relative Humidity of Soils with Microwaves. Fernández del Busto, Ricardo. Self-Tuning Controller. An Alternate Proof. Soto de la Vega, Gustavo. Evaluation of Teaching in Laboratories. Gen Mora, Antonio. Experimental Determination of Properties of Alpha, Beta Particles and Cosmic Rays. Castro Tello, Jesus. Electron Spin Resonance (ESR) Study. Díaz Arias, Herman. Design and Implementation of an Oncometer.	1986 Finck Pastrana, Adolfo. Interference Filters (Manufacture and Characterization). Cárdenas Oviedo, Juan Cristóbal. Study of the Motivating Aspects in Engineering Degrees. Finck Pastrana, Adolfo. Construction, Characterization and Optimization of a Tunnel Without Structure for Coffee Drying by Means of Solar Energy. García Valdez, Emilio. Biophysics of the Eye. Finck Pastrana, Adolfo. Degradation Measurement of Selective Surfaces.
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1983 Aceves Estrada, Luis Mariano. Master's in Solar Architecture (Sun Architecture).		<b>Physics</b>			
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Graciela and Mondragón, Humberto. Solar Dryers for the Food Industry.	1987	Wenzelburger, Elfriede. Preliminary Study for the Design of the Project “Use of Computers as Didactic Support in the Prerequisites Mathematics Courses”.	the Environment and a Bird in Danger of Extinction.	Simultaneous Modeling of the Planetary Nebula Spectra and their Central Star.	Fernández Anaya, Guillermo. Study of Dynamic Properties in Complex, Fractional and Integer Systems.	Doria Serrano, Ma. del Carmen. Development of Options for Research in Biotechnology Oriented Towards Chemical Engineering.
Alvarado Monterrubio, Hugo. Development of Audiovisuals to Support the Teaching of Physics Using Television as a Teaching Resource.	1990	Fernández Anaya, Fernando. Attached Morphisms and Linear Systems.	2005	2013	Cervantes Sodi, Felipe. Bio membrane Nanoengineering for Regeneration of Cardiac Tissue.	Donoso Arce, Liliana. Heterogeneous Catalysis, Study of a Ketoenol Balance in Naphthalenediols.
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Finck Pastrana, Adolfo. Solar Water Purification for Consumption.	Fernández Anaya, Guillermo. Algebraic Methods in Control of Linear Systems II.	Fernández Anaya, Guillermo. In 1998 it merges with the Physics Department and is called Physics and Mathematics	Flores Godoy, José Job. Synchronization of PID's Controllers Coupled Using Genetic Algorithms. Palacios Pastrana, Edmundo. Hypertext Approach to the Teaching of Differential Equations.	Carrillo, Salvador. New Physics Searches and Measurements of Electroweak Theory in CDF and CMS of CERN.	Carrillo Moreno, Salvador. Measures of Electroweak and Quark B Physics Theory in CMS Collaboration of the Large Hadron Collider of CEREN.	Miramontes Cárdenas, Luis. Development of Basic Engineering of a Plant for Chinese Palm Seed Components Separation.
García Colín Scherer, Leopoldo. Generalized Thermodynamics: an Approach to the Study of Materials with Structure.			2009	Arrieta Ostos, Anabel. The Optical and Robotic Telescope of San Pedro Mártir.	Cervantes Sodi, Felipe. Acquisition of an X-Ray Diffraction Equipment for the Characterization of Polycrystalline Materials in the Materials Research Area.	Correa Pérez, Jorge. Synthesis of Asymmetric Sulfoxides and their Study with Displacement Reagents in Nuclear Magnetic Resonance.
1994			Carrillo, Salvador. High Energies Experimental Physics.	Fernández Anaya, Guillermo. Study of Dynamic Properties in Nonlinear Dynamic Systems.	Arrieta Ostos, Anabel. Role of Rotation in the Enrichment of O and N in Massive, Isolated Stars with Winds.	Rugarcía Torres, Armando. Development of A Laboratory-Level Process to Obtain “Latex” of a Desert Plant (Guayule).
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1997	<b>Physics and mathematics</b>		Sandoval Villalbazo, Alfredo. Dissipative Processes in Relativistic Astrophysics.	2015	Fernández Anaya, Guillermo. Deterministic and Quantum Dynamic Systems of Low Dimensionality, of Fractional And Integer Order with Applications.	Miramontes Cárdenas, Luis. Study of Fermentation Using the Pulp of the Chinese Palm Fruit.
Fernández Anaya, Guillermo. Software for Control and Linear Systems on Rings.	1998		Arrieta Ostos, Anabel. Characterization of Winds in EC of NP and their Dynamic Evolution in the Circumstellar Environment.	Cervantes Sodi, Felipe. Quasi Uni- and Bi-Dimensional Materials: Synthesis, Properties and Applications.	Carrillo Moreno, Salvador. Laboratory of Development of Muon Cosmic Ray Detectors and Muon Telescope.	1976
<b>Mathematics</b>	García Valdez, Emilio. Multimedia Technology for Courses at the UIA. Estrada Guerrero, Rodolfo Fabián. Physical-Chemical Modification of Cellulose.		Fernández Anaya, Guillermo. Mathematical Control Theory in Dynamic Systems.	2016		Miramontes Cárdenas, Luis. Pilot Mini Plant for the Concentration of this Steroid of Sisal Leaf Juice.
1983	Soto de la Vega, Gustavo. Impact of Modifications to University Physics Courses.		2011	Cervantes Sodi, Felipe. Nanoscience and Nanotechnology. Quasi-Uni- and Bi-Dimensional Materials: Synthesis, Properties and Applications.	<b>Engineering and Chemical Sciences</b>	Sanz Castaño, Ramón. Optimal Separation of a Mixture of Methanol Water via Distillation.
Ulloa, José Ramón and Aguirre Sola, Jorge. Evaluation of Departmental Exam System Used by the Mathematics Department.	Finck Pastrana, Adolfo. Solar Cookers.		Carrillo, Salvador. High Energy Particle Colliders.	2017	1974	Pereyra, Pedro. Reagents for Qualitative Analysis of Carboxylic Acids and Phenols.
1986	Gen Mora, Antonio. Support Videos in the Teaching of Physics.		2012	Arrieta Ostos, Anabel. Search for Rotating Spectral Features in Hot Stars.	Miramontes Cárdenas, Luis. Gasoline Additive to Reduce Vehicle Emission of Pollutants.	Miramontes Cárdenas, Luis. Tigogenin Conversion of Pregnane Derivatives.
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Obeid Layon, Catalina.  
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Mainero Mancera, Rosa María.  
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Ruiz Treviño, Francisco Alberto.  
Development of a Dynamic Simulator for Distillation Column.  
Ibáñez Cornejo, Jorge Guillermo.  
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Porras, Octavio. Awareness Program to Improve the Environment by Recycling Waste.  
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Moreno Terrazas, Rubén Casildo.

Characterization of Biopolymers and their Application in the Microencapsulation of Specific Release Probiotics in the Colon. Quezada Gallo, Jesús Alberto. Study of the Barrier Properties, Thermodynamics and Structures of Biopolymeric Membranes Carrying Microcapsules and their Effect on the Functional Properties of Edible Food Covers.	the Scheme of a Biorefinery. Ortiz Estrada, Ciro. Formulation of Functional Microstructural Materials in Supercritical Carbon Dioxide.	Flores Tlacuahuac, Antonio. Increasing the Use of Renewable Energy: Efficient Sustainable Conversion of Waste Energy into Electricity.	Rivera Toledo, Martín. Design of the Bioturbosin Production Process from Vegetable Oil (jathropa curcas L.). Vásquez Medrano, Rubén César. Treatment of Water Contaminated with Herbicides Using Advanced Oxidation Processes.	1990 Márquez Calderón, Rafael. Project Formulation/Bibliographic Research on Aquifers Pollution and Phreatic Waters.	Cardiotachometer and Electrocardiograph. Pantoja Fernández, José Luis. Adaptive Control of Navigation Stability. Pantoja Fernández, José Luis. Flow Control in Open Channel. Baron Gaggiona, Anton. Internal Combustion Engine with Blades. Pantoja Fernández, José Luis. Antenna Control for Maximum Gain.
2009 Pedraza Segura, Lorena. Ethanol Production from Organic Waste from the Central de Abasto of the Federal District. Ibáñez Cornejo, Jorge Guillermo. Enviredox: Treatment, Recovery and/or Destruction of Contaminates Through Redox Processes.	2013 Vásquez Medrano, Rubén César. Characterization, Selection and Control of the Isolated Microbiota of Fermented Agave Drinks. Ibáñez Cornejo, Jorge Guillermo. Electrochemical and Photochemical Reactions to Make Energy Use Efficient and for Water Treatment. Rivera Toledo, Martín. Mathematical Modeling and Acrylic Fiber Production Process Optimization. Pedroza Islas, Ruth. Optimization of Techniques for the Development of Double Emulsions Stabilized with Natural and Synthetic Polymers: Potential Application and Functionality. Ramírez Meneses, Esther. Design and Construction of a Chemical Vapor Deposit Equipment and its Evaluation in Obtaining Thin Films of Nanostructured Metal and Ceramic Oxides.	2016 Flores Tlacuahuac, Antonio. Energy recovery from Low Temperature Sources Under Uncertainty Conditions. Ramírez Meneses, Esther. Metal Nanoparticles with Different Stabilizing Agents: New Materials for Electrochemical Systems. Quezada Gallo, Jesús Alberto. Study of Emulsified Polymer Solutions Functional Properties as Active Coatings of Mexican Regional Export Fruits. Quezada Gallo, Jesús Alberto and Pedroza Islas, Ruth. Study of the Functional Properties of Emulsified Polymer Solutions. Moreno Terrazas, Rubén Casildo. Processes. Production and Conservation of Metabolites with Commercial Potential from Isolated Strains of Organic Ferments.	2018 Neri Torres, Elier Ekberg. Obtaining Biopolymers Through Anaerobic Microbial Consortia from Food Waste (PDA). Vásquez Medrano, Rubén César. Destruction of Plaguicides Through Electron Exchange Processes Assisted by an Imposed Potential and Solar Energy. Quezada Gallo, Jesús Alberto. Study of the Structures in Active Coatings of Mexican Regional Export Fruits (Prickly Pear and Xoconostle).	1992 Chavez Gomez, Carlos Alberto. Wastewater Treatment Plant for the UIA.  1997 Celis Colín, Guillermo. Psychological Types of Applicants and Students of Science and Engineering Division ('92 Autumn Generation).  1998 Martínez Hernández, Santiago. Teaching Research in Civil Engineering.	1978 Adame Goddard, Javier. The Occupational Field of Electronic Engineering in Mexico.  1979 Leyva Ramos, Jesus. Design and Implementation of Adaptive Filters.
2010 Hernández Esparza, Margarita and Vásquez Medrano, Rubén César. Treatment of Industrial Wastewater and Bio Recalcitrant Systems Through Advanced Oxidation Processes. Pedroza Islas, Ruth. Obtaining Bakery Products for Specific Needs. Flores Tlacuahuac, Antonio. Reducing Dependence on Fossil Fuels: Bioethanol Production from Cellulosic Waste. Moreno Terrazas, Rubén Casildo. Microbiota Involved in the Fermentation Process of Non-Distilled and Distilled Agave Drinks (Pulque and Mezcal).	2015 Ibáñez Cornejo, Jorge Guillermo and García Pintor, Elizabeth. Experience, Touch and Contact. Experimental Chemistry for People Visually Impaired. Pedraza Segura, Lorena. Scaling of Biorefinery Processes. Vásquez Medrano, Rubén César and Ibáñez Cornejo, Jorge Guillermo. Electrochemical and Photochemical Reactions to Make Efficient 2 <sup>nd</sup> . Phase Energy.	2017 López Suero, Carolina del Carmen. Synthesis and Characterization of Ionic Liquids (ils) for Application in the Detection, Extraction and Recovery of Metal Ions from Aqueous Phases. Quevedo Partida, Iván Rafael. Experimental Determination of Stability, Transport and Transformation of Nanometer Size Contaminants in Aquatic Environments. Ramírez Meneses, Esther. Synthesis of Nanostructured Materials for Application in Fuel Cells.	<b>Civil Engineering</b>  1981 Aguirre Balcellis, José Antonio. Aerodynamic Profiles and their Applications in the Energy Problem.  1982 Celis Colín, Guillermo. Bending Behavior of Pre-Stressed Steel. Martínez Hernández, Santiago. Evaluation Indices for Social Function Roads. Celis Colín, Guillermo. Productivity of Equipment Operators throughout the Workday.  1988 Celis Colín, Guillermo. Atmospheric Pollution.	2004 Texcalpa Villarreal, Uriel. Development of Construction Materials Composed of Cement Polymers. In 1998 joined the Engineering Department  <b>Electronic and Mechanical Engineering</b>  1974 Oviedo Rosales, Ignacio. Design and Construction of an Exams Automatic Proofreading Reader. Pantoja Fernández, José Luis. Identification and Control of a Distillation Tower.  1975 Chavez, Armando. Technological Development and Construction of an Electrocardioscope with	1981 Martín del Campo, Francisco. Development of Electrocardiographic Transmitter Prototypes for Voice Channels. De la Serna, Dagoberto and Marticorena, Oscar. Shell Aeroelastic Instability. Martín del Campo, Francisco. Modular Unit for Recording and Telemetry of Biological Signals.  1982 Corona Torres, Ricardo. Design and Construction of a Universal Programmer of Non-Volatile Digital Memories. Peynetti, Héctor and Corona Torres, Ricardo. Telephone Traffic Control and Analysis System.  1983 Corona Torres, Ricardo. Computer Terminal 1983-1985.

Stevens, Michael. Digital Taximeter Peynetti, Hector. Development of an Electrocardiograph.	Savin, Consuelo. Effects of Air Pollution on Tissues of the Upper Respiratory Tract.	Development of an Increased Communication Device for People with Disabilities. Osornio Correa, Cuitlahuac. Development of Hybrid Power Transmission Trains for Motor Vehicles and their Optimization.	of Packaging Materials through Worm Composting Process. Ruiz Treviño, Francisco Alberto. Evaluation of Organic and Hybrid Polymers as Polymeric Membranes for Separation of Gases and/or Protons in Fuel Cells. Texcalpa Villarruel, Uriel. Develop- ment of Permeable Concrete with Hydraulic and Non-Hydraulic Cementitious Matrix, for its Application in the Pavements Design and Construction.	Mobile Robot Groups. Letchipia Moreno, Jorge. Transfer to the Clinic of the Manufacturing System of Shaped Seats for Children With Disabilities. Martínez Alarcón, Jorge. Development of an Augmented and Alternative Communication Application for Mobile Platforms with Adaptable Interfaces for Different Devices.	Espinosa Velasco, Juan. Catalog of Books in Latin in the Section of Ancient and Rare Books. Quiñones, Columba. Commented Bibliography on Epistemology. Theory, Methods and Techniques. Guinea Trigo, Gabriela. UIA Artistic Heritage Catalogs.
1984 Corona Torres, Ricardo. Universal Programmer of Memories and Logical Arrays. Martín del Campo, Francisco and Ordoñez, Alejandro. Thermometer-Chronometer for Laboratory Use. Ruiz Mijares, Andrés. Infrastructure Development for the Mechanical Engineering Area.	1995 Mayagoitia Hill, Ruth. Students with Disabilities: A Practical Guide.	2008 Pedroza Islas, Ruth. Characterization of Biopolymeric Molecules for Membranes Formation. Ruiz Treviño, Francisco Alberto. Evaluation of Transport Properties in Membranes of Organic and Hybrid Polymers. Letchipia Moreno, Jorge. Developing of Plastic Foam for Shaped Seats.	2012 Ruiz Treviño, Francisco Alberto. Evaluation of Organic and Hybrid Polymers as Polymeric Membranes for Gases and/or Protons Separation in Fuel Cells. Villegas Quezada, Carlos. Face Recognition in an Infinite Space. Software Technologies for the Development of Multi- disciplinary Applications	2015 Ruiz Treviño, Francisco Alberto. Synthesis and Performance Evaluation of Polymeric Membranes for Gas Separation. Hernández Martínez, Eduardo G. Coordination of Movement of Heterogeneous Multi-Agent Robots.	1983 Torales Pacheco, Ma. Cristina. Ephemeris of the Universidad Iberoamericana. Muggenburg Rodríguez Vigil, Ma. Eugenia. Designs of Three Educational Psychology Guides to be Taught Between Different Academic Levels. Alonso de Florida, Elena. Bibliography for the Degree in Sociology.
1985 Corona Torres, Ricardo. Computer Terminal. Sánchez Torres, Fernando and Salgado Aguirre, Mauricio. Modular System for Monitoring Vital Signs and a Defibrillator with Cardioversion. Salgado Aguirre, Mauricio. Design and Construction of a Defibrillator-Cardioverter, as Part of an Intensive Care Unit.	1998 Mayagoitia Hill, Ruth. Gait Stabilometry through Accelerom- etry: Study of Performance Parameters in Various Pathologies. Ortiz Loyola Rivera Melo, Edgar. Distributed Instrumentation based on Lonworks. Van der Mersch Huerta Romo, Bernard. Methods for Evaluating Educational Quality in Electronic and Communications Engineering Education. Martínez Cervantes, Luis Miguel. Magneto-Optical Residual Current Devices.  In 1998 joined the Engineering Department	2009 Lobato Calleros, María Odette. Establishment of the Mexican Index of User Satisfaction. Osornio Correa, Cuitlahuac. Analysis of the Influence of a Flexible Transmission on the Torque Flow and Angular Velocity of the Power Train of a Hybrid Electric Vehicle. Ruiz Morales, Mariana. Production of Earthworm Humus (vermicom- post) from Food Remains, Fallen Leaves and Garden Trims. Letchipia Moreno, Jorge. Design and Development of Conformed Seats for Children with Disabilities. Martínez Alarcón, Jorge. Development of An Increased Communication Device for People with Speech Disabilities.	2013 Texcalpa Villarruel, Uriel. Development of Permeable Concrete with Hydraulic and Non-Hydraulic Cementitious Matrix, for its Application in Pavements Design and Construction. Lobato Calleros, María Odette. Design and Implementation of a Methodology for the Establish- ment of the Mexican Index of User Satisfaction of Social Programs.	<b>Academic Information Center, today Library.</b>	1985 Ruiz Otero, Silvia. The Meaning and Characteristics of Dissem- ination in the Academic Information Center. Alcantara Mejía, Ramón. The Role of the Consultant in the University Library.  In 1998 it becomes Francisco Xavier Clavigero Library.
1986 Ulloa Rojas, Raul. Synthesis and Automatic Voice Recognition. Salgado Aguirre, Mauricio. Development of ThermoFluid Instrumentation.	<b>Innovation Engineering</b>	2011 Ruiz Morales, Mariana. Analysis of the Biodegradability	2014 Moral Dávila, Manuel del. Evaluation of The Environmental Impact of Logistics Processes. Hernández Martínez, Eduardo G. Movement Coordination of	1979 Gómez de la Fuente, Ma. Aurora. Application of the Library of Congress of the United States of America System to "Latin American" Libraries.	1981 De la Torre Champsaur, Lucrecia. Catalog of Handwritten Works. Gola Massola, Hugo. Preparation of an Anthology for Teenagers.
1990 Salgado Aguirre, Mauricio. Design and Construction of a General Application Robot.	2005 Estrada Guerrero, Rodolfo. Porosity Control in Polymeric Membranes and their Biophysical and Filtration Applications.	2010 Rivera Aguilera, Alma Beatriz, Harari Betancourt, Victor, Tellez Bertadillo, José Juan and Rendón, Juan Pablo. Reuse of Digital Teaching Materials in Higher Education.	2010 Muggenburg Rodríguez Vigil, Ma. Eugenia. The Pre-University Library in the Context of the Universidad Iberoamericana. Arnal, Mercedes. Bibliography for the Bachelor of Philosophy.	1982 Muggenburg Rodríguez Vigil, Ma. Eugenia. The Pre-University Library in the Context of the Universidad Iberoamericana. Arnal, Mercedes. Bibliography for the Bachelor of Philosophy.	
1991 Mayagoitia Hill, Ruth. Design and Construction of a Programmable Surface Muscle Stimulator for Rehabilitation Use.	2006 Nava L., Margarita. Characterization of Biopolymers and their Application in Microencapsulation of Specific Release Probiotics in the Colon.				
	2007 Letchipia Moreno, Jorge.				

**Didactic Center**

1977

Gutierrez Sáenz, Raul. Text for Philosophical Anthropology.

1978

Blanco Beledo, Ricardo. Teacher Update Course.

Outón Mato, José Antonio. Diagnosis and Analysis of the Academic Situation of the Universidad Iberoamericana.

1980

Moreno López, Salvador. Design and Preparation of a Questionnaire to Measure the Facilitating Conditions of Meaningful Learning.

Ramos Gómez, Raymundo. People and Their Group.

Ulloa Herrero, José Ramón. Validity of Departmental Exams.

Rugarcía Torres, Armando. Towards a Model to Grant Honorable Mentions.

1984

Luciardi Bonari, Ana María. An Experience in Teaching the Principles of Processes.

Morales Gómez, Eudora. Integration Process of High School Final Grades to the Admission Criteria to the Universidad Iberoamericana.

Ulloa Herrero, José Ramón. Teaching Methodology at the Universidad Iberoamericana.

1985

Morales Gómez, Eudora. Comparative Study of the Results Obtained in the DAT of the Admission Exam to the UIA and

the Academic Performance by the Bachelor, for the periods of 0-81 and P-82.

Garduño García, José María and Rugarcía, Armando. The Profile of the Motivating and Demotivating Teacher in Engineering Degrees. Ulloa Herrero, José Ramón. The profile of the Motivating and Demotivating Teacher in the Administration Area.

1986

Morales Gómez, Eudora.

Comprehensive Study of Educational Classifications (Taxonomies) Through Clinical Analysis.

Alvarado, Francisco. Degree of Interference of Special Exams in the Admission Criteria of the Universidad Iberoamericana.

1989

Alvarado García, José Francisco and Robredo Uscanga, Juan Manuel. Basic Academic Skills Handbook: Preliminary Version.

Argudín Vázquez, Yolanda. Development of Strategies for the Development of Reading Skills.

1990

Robredo Uscanga, Juan Manuel. Evaluation of the Impact on the UIA in the Humanist Formation of its Students.

1993

Argudín Vázquez, Yolanda. Piloting of the Specific Sections for the Teacher of "Teacher's Handbook". Reading Skills at a Higher Level. Learn to THINK WELL. Robredo Uscanga, Juan Manuel.

The Evaluation of the Operation of the Curriculum of the Universidad Iberoamericana.

1994

Argudín Vázquez, Yolanda. Reading Skills in University Teaching. A Teaching-Learning Proposal.

1997

Piastro Behar, Estrella. Evaluation of the Effects of Teacher Training Courses of the Didactics Center on the Teaching Activity of Teachers of at least Six Departments of the UIA. Delgado, Araceli and Piastro Behar, Estrella. Evaluation of the Teaching Development Diploma.

In 2001, the Centers disappeared and became part of the Value Formation Directorate.

**Cultural Integration Center**

1983

Anaya Duarte, Gerardo.

Realization of Christian Values. Saab Hassen, Faisal. Needs Analysis, Development of an Evaluation System and Design of a Pilot Course in Reading Comprehension in English.

1986

Bazdrech Parada, Juan. How About Social Justice in the Students of the Universidad Iberoamericana? Bazdrech Parada, Juan. Design and Application of a Reliable Instrument for the Evaluation of Achievements in the Transmission of Values to the Students of the Universidad Iberoamericana.

1992

Bazdrech Parada, Juan. How Does a Truly Philosophical Thought Acts in the Student of the Universidad Iberoamericana?

1998

Morales Gil de la Torre, Héctor. The Production of Senses in the Educational Act.

Anaya Duarte, Gerardo. The Anthropological Thinking of Pierre Teilhard de Chardin.

Crispin Bernardo, Ma. Luisa.

Evaluation Model of the UIA Formative Objectives in Undergraduate Students.

Morales Gil de la Torre, Héctor. The Production of senses in the Educational Act.

Andrade Ramírez, Maricela. Citizen Participation of Mexican Children in the School Environment, Family and Community. For a Proposal of Social Participation Policy.

**University Extension Center**

1985

Martínez Ateca, Isabel. Diagnosis and Development of a Model of University Continuing Education.

**Psychological Orientation Center**

1975

Chavez, Blanca Patricia. Internal Reliability of the Knowledge Test.

1976

Luviano Bosdet, Virginia. Standardization at the Universidad Iberoamericana of Subtests:

Verbal Reasoning, Abstract Reasoning and Spatial Relationships of the Differential Aptitudes Test (DAT) of Bennett, Seashore and Wesman.

1977

Nieto Zermeño, Olga. Family Structure in a Marginalized Families Group.

Nieto Zermeño, Olga. Effects of the Joint Application of the Family Orientation Program and the Learning Skills Development Program on Children and their Families.

1984

Chavez Silva, Blanca Patricia.

The P.I.C. (Personality Inventory for Children) Applied to Mexican Children.

1985

Carrillo Babani, Marcelo and Ordiales de la Garza, Guadalupe. Group Psychodynamics Workshop, as a Form of Intervention with UIA Students, and of Institutional Diagnosis.

1986

Cherbowsky Zundevich, José. The Process of Group Occupational Choice. Realities and Perspectives.

1988

Luviano Bosdet, Virginia. Implementation of a Preventive Program of Low Academic Performance in the UIA.

1991

Tinoco, Margarita, Uribe, Martha and Allendes, Luz María. Health Practices, Behaviors

and Beliefs in the Students of the Universidad Iberoamericana.

**Service and Social Promotion Center**

1975

Santos Maldonado, José. Technological Research of Processes Applicable to Industrial Activities in Rural Areas.

1978

De la Breña Vadillo, David. Guide for the Social Evaluation of Research Projects.

1981

Gómez Álvarez, Gabriel. Program to Improve the Growth, Mental Development and Health of Children Under 5 Years of Age in a Community in the Southern Area of the Toluca Valley.

1982

Muñiz Martelón, Emma Patricia. Rural Housing in Mexico (a Case in the Southern Area of the Toluca Valley).

Esteinou Madrid, Javier. Media in Latin America.

Bascuñán Termini, Lucia Gabriela. Socio-Cultural Dimensions of the Festivities in the Village of San Miguel Tlaixpan.

1983

Charles Creel, Pilar, Mejía Guzmán, Laura and Cervantes Villarreal, Margarita. The Workshop Methodology in the Popular University Promotion Project of the UIA. (Systematization of an Experience).

1985  
Riquer Fernández, Florinda,  
Charles Creel, Pilar and Lozoya,  
Carolina. Women in the Popular  
Movement of Peoples and  
Neighborhoods in the South:  
A Discourse About Themselves.  
Esteinou Madrid, Javier.  
The Morelos Satellite System  
and Mexican Society.

1986  
Esteinou Madrid, Javier. Media and  
Transformation of the National State.

1990  
Mejía Guzmán, Laura.  
Popular Promotion Work Teams.  
Morales Soto, Marta Sol.  
Exploratory Study in Patients with  
Head and Neck Cancer.

1991  
Riquer, Florinda. The Social  
Construction of Female Identity  
Among Women in the Popular  
Sector of Mexico City.

1993  
Cuellar, Oscar. Professional  
Formation and Insertion of UIA  
Graduates.

1994  
Bascuñán Termini, Lucia Gabriela.  
Institutional Experience of  
Promotion and Social Service in a  
Private University.

#### **Research Directorate**

1993  
Garay Sánchez, Adrián de.  
Comparative Study of the Genesis,  
Evolution and Current Situation

of the Academic Body of Higher  
Education Institutions in Mexico.

2000  
Muñoz Izquierdo, Carlos and  
Rubio Almonacid, Maura.  
The Postgraduate Studies of the  
UIA: General Characteristics  
of the Programs, Opinions of the  
Students on the Quality of the  
Programs, Analysis of the Academic  
Personnel.

Agüero Servin, Mercedes de. Adult  
Learning With and Without  
Schooling. Mathematizable  
Situations of Everyday Life.  
Rubio Almonacid, Maura. Work  
Culture and Productive  
Development in Small Scale  
Companies in Mexico City.

2004  
Muñoz Izquierdo, Carlos.  
Education and Socio-Economic  
Development in Latin America  
and the Caribbean:  
Development of a Proposal for  
the Construction of Indicators  
of the Effects of Formal Education  
on the Economy and Society.

#### **Humanistic Research Institute**

1976  
González, Héctor and Brehn,  
Fernando. The New Theater in  
Mexico.

#### **Rectory**

1980  
Ledesma, José de Jesús. Historic-  
Ideological Trajectory of the  
Universidad Iberoamericana.

1983  
Anaya, Juan. Commemorative  
Works Edition on the Occasion  
of the Fortieth Anniversary of the  
Founding of the Universidad  
Iberoamericana.

# Ephemeris on research

Karen Gen Campos and José Fernando Madrid Quezada, under the supervision of María Cristina Torales Pacheco

**1969**

*September 30<sup>th</sup>.*

The General Academic Committee pointed out the importance of promoting that the University professors who carry out research collaborate with articles to be published in the magazine *Comunidad*. (CAG, October-December 1969, Vol. 5, Minute No. 33).

**1970**

*April 14<sup>th</sup>.*

Regarding organizational projects in collaboration with the University's industrial service, it was proposed to carry out research projects, mainly in science, as was done by the Chemistry Department. (CAG, 1970, Vol. 6, Minute No. 69).

*June 4<sup>th</sup>.*

The plan was approved in general, with some remarks, for the creation of the Humanistic Research Institute. (CAG 1970, Vol. 7, Minute No. 79).

*October 1<sup>st</sup>.*

Dr. Héctor González Uribe was appointed the Institute of Humanities Director. (CAG,

September 1970-February 1971, Vol. 9, Minute No. 93).

**1971**

*February 4<sup>th</sup>.*

It was proposed to seek the opinions of Mr. Jaime Torres Bodet, among other aspects, on research financing alternatives. (CAG, September 1970-February 1971, Vol. 9, Minute No. 121).

*February 11<sup>th</sup>.*

The General Academic Committee discussed whether the Iberoamericana should be a culture reproducer or a reproducer and creator; it was considered that the best education is achieved in living with research. (CAG, 1971, Vol. 10, Minute No. 123).

**1972**

It was decided to communicate to Conacyt the conditions under which the University would participate in a research project to which it was being summoned, through the Communications Department, together with UNAM, the IPN and the Colegio de Mexico. The project aimed at measuring

different advertising parameters. (CAG, July-December 1972, Vol. 14, Minute No. 244).

**1973**

*January 11<sup>th</sup>.*

A research project was presented to be carried out in coordination with the School of Medicine of the UNAM, of the MSc. Antonio Montalvo (Mathematics Department of the UIA), titled "Development of the methodology to evaluate myocardial contractibility". (CAG, December 1972-March 1973, Vol. 15, Minute No. 259).

*August 15<sup>th</sup>.*

The Communications Department obtained the provisional approval of a "Specialty in Communication Research". (CAG, June-December 1973, Vol. 18, Minute No. 293).

*October 10<sup>th</sup>.*

The members of the Academic Committee were asked to submit ideas for an evaluation model of self-analysis, including research (CAG, June-December 1973, Vol. 18, Minute No. 295).

*October 17<sup>th</sup>.*

Criteria for evaluating Research in

self-analysis were presented in the General Academic Committee, as well as some recommendations in the matter. (CAG June-December 1973, Vol. 18, Minute No. 26).

*December 11<sup>th</sup>.*

The Academic Committee of Bachelor Studies approved a collaboration agreement between the University and the Center for Higher Research of the Instituto Nacional de Antropología e Historia (CISINAH). (Official Communication, No. 6, February 1<sup>st</sup>, 1974).

*December 11<sup>th</sup>.*

An agreement was approved between the UIA and the Mexican Center for Drug Dependency Studies (CEMEF), whose purpose was to assist the government in drug dependence research in the country, with the special collaboration of the Psychology Department. (Official Communication, No. 6, February 1<sup>st</sup>, 1974).

**1974**

*January 15<sup>th</sup>.*

Dr. Ernesto Domínguez was appointed by the Rector as Coordinator of Research and Institutional Services of the University, depending directly from the Rector. (Official Communication, No. 5, January 15<sup>th</sup>, 1974).

*February 15<sup>th</sup>.*

Due to the abundance of research projects at the University, Dr.

Domínguez was in charge of coordinating and promoting the institutional research projects that were usually carried out in the Institutes and those that were done as service to the industry. This function would be performed through delegation of the Academic General Directors of Bachelor and Academic Degrees. (Official Communication, No. 7, February 15<sup>th</sup>, 1974).

*October 15<sup>th</sup>.*

The Evaluation Instrument for the Academic Personnel was approved. The aspects towards which it was focused were teaching, research, dissemination, academic and/or administrative services and university formation. (Official Communication, No. 15, November 1<sup>st</sup>, 1974).

*December 12<sup>th</sup>.*

The University Senate approved the creation of the Center for Consulting and Applied Research, whose project was prepared by Mr. Jorge Corzo. (Official Communication, No. 17, January 15<sup>th</sup>, 1975.).

**1975**

*May 1<sup>st</sup>.*

Some aspects of the Regulation of Academic Personnel were published in the Official Communication; specifically, Rights and Duties of Academic Personnel. For example, the right of full-time personnel to enjoy a sabbatical period, with its

corresponding conditions; the feasibility of taking advantage of scholarships and permits for their formation, and to express and publish their ideas. (Official Communication, No. 21, May 1<sup>st</sup>, 1975).

*May 6<sup>th</sup>.*

Jorge Corzo was appointed as interim Director of the Center for Consulting and Applied Research. (Official Communication, No. 22, June 1<sup>st</sup>, 1975.)

*October 1<sup>st</sup>.*

The general procedures for the registration and financing of research projects ("General Academic Directorate of Postgraduate Studies", in Official Communication, No. 26, October 1, 1975).

*November 12<sup>th</sup>.*

The General Academic Committee added to the document of Relations between the Service and Social Promotion Center and the academic departments, a section entitled: "The Service Mission to the Community, or Application of Knowledge, is a University Action". In it is highlighted the importance of linking research and the transmission of knowledge to society's specific problems and with critical awareness. (CAG, July-December 1975, Vol. 22, Minute No. 374).

*December 1<sup>st</sup>.*

The Academic Committee of Postgraduate Studies of June 3<sup>rd</sup> of that year formed as Standing

Committee of said Committee, the Research Council of the University, replacing the Research Projects Evaluation Committee that since August was made up of Doctors Juan Lafarga and Arturo Warman, Luis Miramontes, Engineer, Gabriel Anaya, Physicist, and Jorge Corzo, Engineer. (Official Communication, No. 29, December 1<sup>st</sup>, 1975).

*December 4<sup>th</sup>.*

The Academic Committee of Postgraduate Studies presented to the University Senate a "General Research Policies Project of the Universidad Iberoamericana", for its study and eventual approval. (University Senate, July-December 1975, Vol. 7, Minute No. 81, December 4<sup>th</sup>, 1975).

**1976**

*January 1<sup>st</sup>.*

Jorge A. Corzo was appointed permanent Director of the Center for Consulting and Applied Research. (Official Communication, No. 30, January 15<sup>th</sup>, 1976).

*January 15<sup>th</sup>.*

The document "Mission and Prospective of the Universidad Iberoamericana" was made known in the Official Communication, whose essential purpose was the description and analysis of the model of the institution proposed for the future, in the light of its ideario and its mission in Mexico. ("University Senate", in Official

Communication, No. 30, January 15<sup>th</sup>, 1976).

*February 1<sup>st</sup>.*

The "Research Inventory in the UIA During the 1974-1975 School Year" was published in the Official Communication. They added 60 projects -25 of them completed- that were itemized by Department, by Researchers and by Specific Project. ("Academic Committees", in Official Communication, No. 31, February 1<sup>st</sup>, 1976).

*March 18<sup>th</sup>.*

The University Senate approved the Research Policies of the Universidad Iberoamericana, which were published in the Official Communication, no. 34, April 1<sup>st</sup>, 1976. (University Senate, January-July 1976, Vol. 8, Minute No. 87, March 18<sup>th</sup>, 1976).

*May 25<sup>th</sup>.*

Research priorities were ratified for the 1976-1977 academic year (in order): social and economic problems of Mexico and Latin America; technology for individual and social development with emphasis on its application to marginalized groups; and History, Philosophy, Religious Sciences, Art and Literature of Mexico. ("Research Priorities of the Universidad Iberoamericana", in Official Communication, No. 36, June 1<sup>st</sup>, 1976).

*August 1<sup>st</sup>.*

The Terminal for the retrieval of bibliographic information, available at the Academic Information

Center of the university, was placed at the service of the academic community.

Through Conacyt-SECOSI (Information Bank Consulting Service), this device could set a connection with the computers where Databases or Databanks were located to offer bibliographic information. (Official Communication, No. 38, August 1<sup>st</sup>, 1976).

**1977**

Mr. Luis Vergara y Anderson, was appointed assistant for Postgraduate Affairs of the General Academic Directorate and Research Coordinator, a position he held until September 1979.

*March 1<sup>st</sup> - 8<sup>th</sup>.*

Funding for research projects corresponding to the spring semester of 1977 was approved. ("Financing for Research Projects", in Official Communication, No. 49, May 1<sup>st</sup>, 1977).

*May 1<sup>st</sup>.*

The General Academic Directorate of Postgraduate Studies informed researchers that everything related to the protection of industrial productivity deriving from the research procedures carried out at the University through patents, markets, etc., with the possibility of marketing was a matter of the competence of the Consulting and Applied Research Center (Official Communication, No. 49, May 1<sup>st</sup>, 1977).

May 31<sup>st</sup>.  
The implementation of a Seminar on Research Methodology, with academic credit for its participants, directed by Luis Vergara was authorized. (Official Communication, No. 51, July 1<sup>st</sup>, 1977).

July 1<sup>st</sup>.  
The Research Coordination Program for the 1977/78 school year was announced. ("Postgraduate Studies General Academic Directorate, Program of the Coordination...", in Official Communication, No. 51, July 1<sup>st</sup>, 1977).

August 10<sup>th</sup>.  
The terminal option project for the Accounting bachelor's degree was discussed; in attached document was indicated that the theses should constitute an original contribution to the theoretical, scientific, technical and research development in the field of Public Accounting. (CAG, August-December 1977, Vol. 27, Minute No. 433).

September 1<sup>st</sup>.  
Approved funding for research projects to be developed during the fall semester of 1977 was announced. ("Academic Committees", in Official Communication, No. 53, September 1<sup>st</sup>, 1977).

October 1<sup>st</sup>.  
The "Guidelines for the Registration and Resources Obtention for Research Projects at the Universidad Iberoamericana" was published. (Official

Communication, No. 54, October 1<sup>st</sup>, 1977).

December 6<sup>th</sup>.  
The current research priorities were ratified for a period of six months, and a commission should be appointed to study the issue and present a new proposal, formulated around issues. ("Academic Committee for Postgraduate Studies, Priorities for Research", Minute No. 133, in Official Communication, No. 58, February 1<sup>st</sup>, 1978).

## 1978

January-October.  
In studies on Food Sciences, Chemical Engineering, Physical Engineering, Civil Engineering, Communication, Law, and Mechanical and Electrical Engineering, it was sought to apply research to the student, in each of the specialized degrees, directing the student not only to professional practice but to research and knowledge as support and source of services to the community. (CAG, January-October 1978, Vol. 28).

February 2<sup>nd</sup>.  
In the "Work Program and Goals of the University for 1978" it was included the right of full-time academic personnel to enjoy a sabbatical period, of attending courses and receiving discounts on the purchase of university publications. ("University Senate", in Official Communication, No. 59, March 1<sup>st</sup>, 1978).

April 6<sup>th</sup>.  
The Rector informed the University Senate about the relations between the University and Conacyt. (University Senate, February-November 1978, Vol. 12, Minute No. 124, April 6<sup>th</sup>, 1978).

May 1<sup>st</sup>.  
The suspension of Institutes operations was published. (Official Communication, No. 61, May 1<sup>st</sup>, 1978).

May 1<sup>st</sup>.  
The Sabbatical Period Regulations were announced. (Official Communication, No. 61, May 1<sup>st</sup>, 1978).

May 2<sup>nd</sup>.  
The General Academic Committee approved the project regarding research priorities at the Universidad Iberoamericana. (CAG, volume IX, January-October 1978, Session 138).

May 18<sup>th</sup>.  
A discussion took place in the University Senate -within the framework of the Statutory Charter (Estatuto Orgánico) reform- regarding the re approach of the Institutes. Many of the causes of this re approach related to research work. It was approved that the departmental and interdisciplinary coordination be provisionally in charge of the General Academic Directorate of Postgraduate Studies, through the General Research Coordination; the article indicating that the institutes were interdisciplinary academic units dedicated to

research was also approved. Proposals by Dr. Ernesto Domínguez and Mr. Luis Vergara were submitted, regarding the definition of master's and doctoral programs. (University Senate, February-November 1978, Vol. 12, Minute No. 128, May 18<sup>th</sup>, 1978).

June 1<sup>st</sup>.  
The document "Priorities for Research in the UIA" was published in Official Communication. (Official Communication, No. 62, June 1<sup>st</sup>, 1978).

September 28<sup>th</sup>.  
The Rector informed the University Senate of the donation of the Archive of General Porfirio Díaz to the Institution, made by the descendants of the General himself. (University Senate, February-November 1978, Vol. 12, Minute No. 134, September 28<sup>th</sup>, 1978).

October 1<sup>st</sup>.  
It was announced that the Graduate Studies Academic Committee began the renewal of research projects and corresponding financing for the fall semester of 1978. ("Academic Committees, Postgraduate Studies Academic Committee", in Official Communication, no. 66, October 1<sup>st</sup>, 1978).

November 8<sup>th</sup>.  
The Rector commissioned Luis Vergara the care of the Center for Consulting and Applied Research, due to the retirement from the university of Jorge Corzo. ("Appointments", in Official

Communication, No. 67, November 1<sup>st</sup>, 1978).

## 1979

January 24<sup>th</sup>.  
The document on the "Ideal Profile of the UIA Professor" was approved, which includes its research characteristics. (CAG, October 1978-December 1979, Minutes 1-23, Session 6).

March 1<sup>st</sup>.  
Approved research projects for the spring semester of 1979 were announced. ("Academic Committee of Departments, Approved Research Projects ...", in Official Communication, No. 71, March 1<sup>st</sup>, 1979).

March 14<sup>th</sup>.  
An earthquake devastated the facilities of the Universidad Iberoamericana in the Campestre Churubusco neighborhood.

April 1<sup>st</sup>.  
The review by the University Senate of the Statutory Charter of the Universidad Iberoamericana was published, prepared by the University Senate between May 4<sup>th</sup> and February 22<sup>nd</sup>, 1978, with provisions related to research. ("University Senate", in Official Communication, No. 72, April 1<sup>st</sup>, 1979).

June 9<sup>th</sup>.  
An agreement was entered into with Editorial Alhambra, to make easier for the academic personnel to

publish their research and work. ("Academic General Directorate", in Official Communication, No. 77, August 1<sup>st</sup>, 1979).

July 1<sup>st</sup>.  
The Academic Personnel Regulations were published, which include research functions. ("University Senate", in Official Communication, No. 76, July 1<sup>st</sup>, 1979).

November 16<sup>th</sup>.  
An agreement was signed with Editorial Edicol, S.A., to allow the dissemination of research. ("General Academic Directorate", in Official Communication, No. 81, December 1<sup>st</sup>, 1979).

## 1980

May 21<sup>st</sup>.  
The Commission for Evaluation of Research Projects was constituted, for the current semester, by MSc. Arturo Frago, Research Coordinator; Mr. Armando Rugarcía, Dr. Luis Ledesma and Mrs. Sara Ortiz. ("Academic Committee of Departments", Session 33, in Official Communication, No. 88, June 1<sup>st</sup>, 1980).

June 5<sup>th</sup>.  
The Rector informed of the contacts made with Conacyt to explore the different aids that said agency could provide to the University. (University Senate, January-June 1980, Vol. 14, Minute No. 161, June 5<sup>th</sup>, 1980).

*July 1<sup>st</sup>.*  
The Academic General Directorate announced the “Instructions for the Registration and Obtaining Resources for Research Projects at the Universidad Iberoamericana”. (Official Communication, No. 89, July 1<sup>st</sup>, 1980).

*December 4<sup>th</sup>.*  
The University Senate ratified and made his the list of goals and general policies that should guide the academic operation of the university, presented by the General Academic Committee to the General Academic Directorate. Several different documents were attached, some of which addressed the reasons why research had not been carried out at the university. (University Senate, August-December 1980, Vol. 15, Minute No. 167, December 4<sup>th</sup>, 1980).

#### 1981

*June 15<sup>th</sup>.*  
The Rectorate made known the clauses of the “Agreement of Scientific and Technological Collaboration entered into by the Science and Technology National Council (Conacyt) and the Universidad Iberoamericana”. (Official Communication, No. 103, June 15<sup>th</sup>, 1981).

*August 13<sup>th</sup>.*  
Dr. Edmundo Flores, Director of Conacyt, visited the Universidad Iberoamericana and was delivered the Electrocardiographic Signal Transmitter, the result of the Shared

Risk Research conducted at the University with support from Conacyt.

*September 30<sup>th</sup>.*  
The Mechanical and Electrical Engineering Department notified on the projects undertaken with Conacyt under the Shared Risk Research Program. The first was the “Development of an Electrocardiographic Transceiver”, from which the “Electrocardioscope with Graphing Device” was developed. (CAG, August-October 1981, Vol. 5, volume III/IV, Session 67).

*October 1<sup>st</sup>.*  
The document “Nature and General Structure of Postgraduate Studies” was published. It was mentioned how one of the main goals of these postgraduate courses to “contribute to the advancement and dissemination of culture through scientific research and a learning methodology oriented more to critique, improvement and creation than to the simple transmission and reproduction of existing models”, with which was framed said research in a clear awareness of service to society. (Official Communication, No. 108, October 1<sup>st</sup>, 1981).

*October 21<sup>st</sup>.*  
The University Senate defined the general research policies and the General Academic Committee, its instrumentalization. (University Senate, August-November 1982, Vol. 19, Session 202).

*November 4<sup>th</sup>.*  
The General Academic Committee approved that proposed research projects by the Centers be evaluated by the Academic Committee of Centers. (“University Council”, Session 71, in Official Communication, No. 110, December 1<sup>st</sup>, 1981).

#### 1982

*January.*  
The Research Coordination presented to the University Senate a report on the research projects concluded during the fall semester of 1981. (University Senate, January-July 1982, Vol. 18).

*March 1<sup>st</sup>.*  
The “Prospective of the Universidad Iberoamericana” was approved, where, among other things, research was pointed out as one of the fundamental purposes of the institution. (“University Senate, University Prospective ...”, in Official Communication, No. 113, March 1<sup>st</sup>, 1982).

*April.*  
It was informed that the Nutrition and Nutrition Sciences Department began several projects, in aspects of didactics and food technology and an agreement was signed with CONAFRUT for research on fruit technology. (CAG, January-April 1982, Minutes LXXIV/LXXXII Vol. 6, Session 78).

*April 28<sup>th</sup>.*  
The commission of the COPEP

postgraduate evaluation project presented to the General Academic Committee different guidelines aimed at generating an instrument to determine the quality of the programs offered by the UIA, including research. (CAG, January-April 1982, Minutes LXXIV/LXXXII Vol. 6, Session 82).

*May 5<sup>th</sup>.*  
The Academic Committee of Departments agreed that all types of external agreement related to research projects should be approved by the Technical Council and notified to the Academic Committee of Departments. (“Academic Committees, Approval of external agreements...”, Session 72, in Official Communication, No. 118, June 1<sup>st</sup>, 1982).

*May 12<sup>th</sup>.*  
The Art Department notified on the registration of six research projects, and on the increase in the number of its publications. CAG, May-July 1982, Minutes LXXXI-II-LXXXVIII, Vol. 7, Session 83).

*May 26<sup>th</sup>.*  
The General Academic Committee approved updates to the Sabatical Period Regulations. (CAG, May-July 1982, Minutes LXXXIII-LXXXVIII, Vol. 7, Session 84).

*June 16<sup>th</sup>.*  
The Academic Committee of Departments agreed that with the budget allocated will not finance research activities after the conclusion report of a research. (“Academic Committees, Related

to the Research Budget”, Session 75, in Official Communication, No. 121, September 1<sup>st</sup>, 1982).

*June 16<sup>th</sup>.*  
The Academic Committee of Departments approved the opinion and recommendations on research programs of the 1982 autumn, as well as the addendum submitted by the Research Commission. (“Academic Committees, Programs and Research Projects”, Session 75, in Official Communication, No. 121, September 1<sup>st</sup>, 1982).

*July 1<sup>st</sup>.*  
It was published in the Official Communication the “Regulation of the Sabbatical Period”, updated. (“Academic Committees, Sabbatical Period Regulation”, in Official Communication, no. 119, July 1<sup>st</sup>, 1982).

*July 8<sup>th</sup>.*  
Regarding the 1981 message of the Rector of the university, MSc Agustín Rozada made an outline of the university model contained in it, and the senators externalized some suggestions to favor interdisciplinarity and communication between the different sectors of the UIA. It was agreed on this date to dedicate a Session of the Senate to the study of the state of research in the university and its projection outside it. (University Senate, January-July 1982, Vol. 18, Minute No. 198, July 8<sup>th</sup>, 1982).

*September 22<sup>nd</sup>.*  
The Academic Committee of Departments agreed that with the

research budget would not be paying fees to the researcher if he was in a Sabbatical Year period. (“Academic Committees, General Academic Committee, Research and Sabbatical Period”, Session 81, in Official Communication, No. 124, November 1<sup>st</sup>, 1982).

*September 29<sup>th</sup>.*  
The “General Policies Related to Research in the Universidad Iberoamericana” were approved, as well as the format for the registration of the semiannual research program. (CAG, August-November 1982, Minutes LXXXIX-LCVI, Vol. 8, Session 92).

*October 13<sup>th</sup>.*  
The subsistence of the Center for Consulting and Applied Research was not considered feasible. Provisionally, it was responsible for the academic and management monitoring of the research projects linked to it to technical councils and boards of directors. (CAG, August-November 1982, Minutes LXXXIX-LCVI, Vol. 8, Session 93).

*October 21<sup>st</sup>.*  
The General Academic Committee submitted to the University Senate five general policies related to research at the Universidad Iberoamericana. It was decided that the Senate would only set general research policies and let the General Academic Committee instrumentalize them. (University Senate, August-November 1982, Vol. 19, Minute No. 202, October 21<sup>st</sup>, 1982).

*November 10<sup>th</sup>.*  
The Director of the Philosophy Department informed the General Academic Committee about the research carried out during his period. He pointed out a possible resistance from the teaching personnel of the department to the research institutional management procedures. He called to review some guidelines that, in his opinion, could suffocate the incipient research work. (CAG, August-November 1982, Minutes LXXXIX-LCVI, Vol. 8, Session 95).

*November 22<sup>nd</sup>.*  
The Academic Committee of Departments approved the Departmental Research Programs presented by the Research Coordination, for the period from January to July 1983. (Official Communication, No. 126, January 15<sup>th</sup>, 1983).

*November 22<sup>th</sup>.*  
The Academic Committee of Centers approved the research projects submitted by the Research Coordination, for the period from January to July 1983. (Official Communication, No. 126, January 15<sup>th</sup>, 1983).

**1983**  
The taxonomy of academic tasks was prepared. In it, the types of research, dissemination and publications that the professor could have were defined. Research was defined as “activities aimed at increasing and expanding human knowledge and towards the creative application of new knowledge”

(Official Communication, No. 136, October 1<sup>st</sup>, 1983).  
A study of the University’s teaching personnel was submitted to the General Academic Committee: 141 professors had an average of 5.5 hours allocated to conduct research; of these, 53 professors notified their research linked to the development of their thesis (37.6%). (CAG, April-July 1983, Minutes 103-110, Vol. 10, Session 105, May 18<sup>th</sup>, 1983).

*February 9<sup>th</sup>.*  
The General Academic Committee approved, with modifications, the semi-annual report Format of the departments, in which the research development of its academics should be mentioned. (CAG, January-March 1983, Minutes 97-102, Vol. 9, Session 99).

*February 10<sup>th</sup>.*  
The Rector informed the University Senate about the visits that had recently been made to the Secretary of Public Education, Mr. Jesús Reyes Heróles; to the Under Secretary of Higher Education and Scientific Research, Dr. Jorge Flores; and to the Director of Conacyt, Dr. Héctor Mayagoitia Domínguez. (University Senate, January-July 1983, Vol. 20, Minute No. 205, February 10<sup>th</sup>, 1983).

*February 10<sup>th</sup>.*  
The General Academic Committee proposed in a letter to the University Senate the “General Policies Related to Research in the UIA”. (University Senate, January-July 1983, Vol. 20, Minute No. 205, February 10<sup>th</sup>, 1983).

*February 10<sup>th</sup>.*  
The University Senate ratified the “General Policies Related to Research in the UIA”. (Official Communication, No. 130, April 1<sup>st</sup>, 1983).

*February 15<sup>th</sup>.*  
The List of Projects Registered in the 1983 Spring Research Coordination. (Official Communication, No. 128, February 15<sup>th</sup>, 1983).

*May 18<sup>th</sup>.*  
The General Academic Committee defined the goals and characteristics that the thesis work of the postgraduates should fulfill. These should be the product of “a scientific research with learning methodology, representing a contribution to the advancement and dissemination of culture, oriented more to critique, improvement and creation than to the simple transmission and reproduction of existing models”; and should “give the examinee an opportunity to show its disciplinary criteria in the search for models applicable to the satisfaction of the country’s needs” (CAG, April-July 1983, Minutes 103-110, Vol. 10, Session 105).

*May 26<sup>th</sup>.*  
At the request of the Rector, the University Senate approved three million Mexican pesos for the expansion of the Nutrition and Food Sciences laboratory, with a view to guaranteeing the execution of the UIA-Conacyt-OEA project. (University Senate, January-July 1983, Vol. 20, Minute 209, May 26<sup>th</sup>, 1983).

*June 1<sup>st</sup>.*  
The Academic Committee of Departments agreed that the Technical Councils that did not send their “Departmental Research Program”, on the indicated dates, to the Research Coordination, would be out of the budget for that period. (“Academic Committees, Academic Committee of Departments”, Session 96, in Official Communication, No. 133, July 1<sup>st</sup>, 1983).

*June 29<sup>th</sup>.*  
It was presented to the Sociedad Mexicana de Ingeniería Biomédica, A.C., the paper “Cooperation Between Universities and Business for Technological Development”, made by Francisco Martín del Campo and Jorge Takenaga, academicians from Mechanical y Electrical Engineering Department, and Ricardo Montelongo, General Manager of Técnico Electro Médicos, S.A. Such work dealt with the Shared Risk Agreements in which the University, Conacyt and the Electro Médicos Technical Company had participated. (University Senate, August-December 1983, Vol. 21).

*July 1<sup>st</sup>.*  
The Academic Committee of Departments decided that the departments would send their Research Program on the dates set by the Research Coordination. Otherwise, they would not be assigned a budget for it. (“Academic Committee of Departments, Request for Research Budget”, in Official Communication, No. 133, July 1<sup>st</sup>, 1983).

*August 1<sup>st</sup>.*  
The list of projects registered in the Research Coordination was published. (“Academic Committees, Academic Committee Centers” and “Academic Committee of Departments”, in Official Communication, No. 134, August 1<sup>st</sup>, 1983).

*December 8<sup>th</sup>.*  
The Rector informed the University Senate that Dr. Ernesto Meneses’ book, *Official Educational Trends in Mexico, 1861-1911* was published, financed by Conacyt, the UIA and PROUNIVAC. (University Senate, August-December 1983, Vol. 21, Minute No. 221, December 8<sup>th</sup>, 1983).

#### **1984**

*January 1<sup>st</sup>.*  
The Academic Committee of Departments studied the Departmental Research Programs, corresponding to the period from January to July 1984, and approved all the projects that were submitted in full, as well as all the projects that requested renewal. (Official Communication, No. 139, January 1<sup>st</sup>, 1984).

*February 1<sup>st</sup>.*  
The Academic Committee of Centers agreed to recover its agreements regarding research, to make a document, linked to the general research policies and agreements of the University Senate. It also decided to emphasize that the Technical Councils should dedicate more to monitoring

research programs and review the Research Indicative Programs of the Centers. (Official Communication, No. 140, February 1<sup>st</sup>, 1984).

*March 27<sup>th</sup>, 1984.*  
A Co-edition Agreement was entered between Probusa, S.A. de C.V., and the Universidad Iberoamericana, to co-publish the work *Hidden Treasure of Fray Agustín de la Madre de Dios*, research performed by Manuel Ramos Medina, an academician from the History Department. (Official Communication, No. 144, May 1<sup>st</sup>, 1984, and corrected in Official Communication, No. 148, September 1<sup>st</sup>, 1984).

*March 29<sup>th</sup>.*  
A General Agreement of Academic Collaboration and Exchange was entered between the Universidad Iberoamericana, A.C., and the University of Georgia, to exchange academic and operational support for academic improvement, teaching, research, academic-professional services and dissemination. (Official Communication, No. 145, June 1<sup>st</sup>, 1984).

*March 30<sup>th</sup>.*  
An Academic Collaboration Agreement was entered into between the Instituto Mexicano del Seguro Social and Universidad Iberoamericana, A.C., to contribute to the expansion of formation alternatives for professionals and qualified personnel in the field of Systems and Information Technology. (Official Communication, No. 145, June 1<sup>st</sup>, 1984).

*March-April.*  
The Lists of Research Projects approved by the Academic Committee of Departments and the Academic Committee of Centers were announced for spring 1984. (Official Communication, Nos. 142 and 142, March 1<sup>st</sup> and April 1<sup>st</sup>, 1984).

*April 2<sup>nd</sup>-5<sup>th</sup>.*  
The First UIA Research Dissemination Conferences were held, organized by the Research Coordination of the General Academic Directorate in collaboration with the Teachers and Researchers Association.

*May 18<sup>th</sup>.*  
An Agreement of Technological Development between Educal, S.A. de C.V., and Universidad Iberoamericana, A.C., to develop technological development projects in Electronic Engineering. (Official Communication, No. 146, July 1<sup>st</sup>, 1984).

*June 1<sup>st</sup>.*  
The Research Calendar approved by the Academic Committee of Departments for 1984 was published. (Official Communication, No. 145, June 1<sup>st</sup>, 1984).

*June 8<sup>th</sup>.*  
A Collaboration Convention between the Sociedad Mexicana de Psicología and Universidad Iberoamericana was entered into, to contribute to the promotion of Mexican contributions and formation of professionals in the field of psychological science. Also to publish the Mexican Journal of Psychology (Revista Mexicana de Psicología). (Official Communication, No. 148, September 1<sup>st</sup>, 1984).

*August 7<sup>th</sup>.*  
A Collaboration Convention between the Institut Français d'Amérique Latine (IFAL) and the Universidad Iberoamericana was entered into, with the goal of exchanging academic and operational support to carry out their respective activities. (Official Communication, No. 152, January 15<sup>th</sup>, 1985).

*August 9<sup>th</sup>.*  
The Rector informed the University Senate of the agreement entered into with Conafe for the publication of a "Murals Guide in the Historical Center of Mexico City", prepared by the Art Department. (University Senate, August-November 1984, Vol. 23, Minute No. 231, August 9<sup>th</sup>, 1984).

*August 9<sup>th</sup>.*  
The University Senate approved the "Policies for the Promotion of Agreements with Other Institutions", with their corresponding philosophical basis and background. (Official Communication, No. 148, September 1<sup>st</sup>, 1984).

*August 15<sup>th</sup>.*  
The Nutrition Sciences Department Director informed the General Academic Committee of the measures it had undertaken to promote research. Among them, the installation of a research laboratory, in the space reserved for food technology practices (a large part of the equipment was designed and built by full-time professors of the Department). The research program was ascribed to the graduate program; a graduate professors college and mandatory research seminars were established; support for research projects was requested from Conacyt, the OAS, the SEP and the UIA and the Department's research lines were structured. (CAG, August-September 1984, Minutes 132-135, Vol. 15, Session 132).

*August 15<sup>th</sup>.*  
The Law Department Director notified on the importance of the journal Jurídica for the publication of research, especially those developed at the Universidad Iberoamericana. (CAG, August-September 1984, Minutes 132-135, Vol. 15, Session 132).

*September 1<sup>st</sup>.*  
The Rectory informed the university community about the incorporation of the UIA into the ISBN (International Standard Book Number) system with the works that will be published institutionally. ("Rectory, International Standard Book Number (ISBN)", in Official Communication, No. 148, September 1<sup>st</sup>, 1984).

*September 13<sup>th</sup>.*  
The Rector informed the University Senate of the inauguration of the exhibits "The Bible in History" prepared by Dr. Manuel Ignacio Pérez Alonso S.J. and organized by the Historical Collections Area and "The Egyptian Papyrus" organized by the Teachers and Researchers Association; he highlighted the donation of a papyrus made to the university by the Egyptian embassy. (University Senate, August-November 1984, Vol. 23, Minute No. 232, September 13<sup>th</sup>, 1984).

*September 13<sup>th</sup>.*  
The Rector informed the University Senate of the publication of the Murals Guide of the Historical Center of Mexico City. (University Senate, August-November 1984, Vol. 23, Minute no. 232, September 13<sup>th</sup>, 1984).

*September 19<sup>th</sup>.*  
The Didactics Center Director of the UIA notified the changes in research orientation of the academicians of said center, which was aimed at strengthening teaching; five research projects were registered and the degree of interdisciplinarity and the relationship with other agencies of the Institution increased. (CAG, September-October 1984, Minutes 136-138, Vol. 16, Session 136).

*October 10<sup>th</sup>.*  
At the initiative of the History Department, the acquisition of a specialized library in History of Mexico with 265 volumes and the archives of the Tepetates hacienda, Hidalgo were managed before the Academic General Directorate; 49 rolls of microfilm were recovered containing documents on the Porfiriato and the Mexican Revolution. (CAG, September-October 1984, Minutes 136-138, Vol. 16, Session 138).

*November 5<sup>th</sup>.*  
The Academic Committee of Centers approved the research projects of the Psychological Orientation Center. ("Academic Committees, Research Projects, beginning 1985", in Official Communication, No. 152, January 15<sup>th</sup>, 1985).

*November 5<sup>th</sup>.*  
The Academic Committee of Centers approved the research projects of the Academic Information Center. ("Academic Committees, Research Projects, beginning 1985", in Official Communication, No. 152, January 15<sup>th</sup>, 1985).

*November 15<sup>th</sup>.*  
A Support Agreement was entered into between Conacyt and the UIA to channel economic resources, carry out studies and research, and for the creation and strengthening of the institution's human and material infrastructure, through the implementation of the project "Effect of the Concentration Process on Quality and Acceptance of Reconstituted Mexican Lemon Juice." ("Academic Exchange General Directorate, Agreements signed for 1985", in Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*November 22<sup>nd</sup>.*  
A Collaboration Convention with the Universidad Autónoma de Hidalgo was entered into, to exchange academic and operational support for the Systems Specialty Program and Planning of the UAH.

("Academic Exchange General Directorate, Agreements signed for 1984", in Official Communication, No. 152, January 15<sup>th</sup>, 1985).

*November 23<sup>rd</sup>.*  
A General Agreement of Academic Exchange with the Instituto Tecnológico Autónomo de México was entered, to collaborate in the fields of academic excellence, teaching, research, Academic-professional services and dissemination. ("Academic Exchange General Directorate, Agreements signed for 1984", in Official Communication, No. 152, January 15<sup>th</sup>, 1985).

*November 27<sup>th</sup>.*  
A Collaboration Agreement with the Instituto de Ciencias de Guadalajara was entered into, to carry out research on the work of the Jesuits in that city, by Dr. Esteban Palomera, S.J. ("Academic Exchange General Directorate, Agreements signed for 1984", in Official Communication, no. 152, January 15<sup>th</sup>, 1985).

*November 30<sup>th</sup>.*  
An Edition Agreement was entered into with the Editorial Alhambra Mexicana, S.A. de C.V., to edit the work "Alternatives for Dialogue with Marginalized Communities". ("Academic Exchange General Directorate, Agreements signed for 1984", in Official Communication, No. 152, January 15<sup>th</sup>, 1985).

*December 1<sup>st</sup>.*  
The Academic Committee of Departments approved the

academic units research report progress for the period of 1984, submitted by the Research Coordination, as well as the Research Budget for 1985. ("Academic Committees", in Official Communication, No. 151, December 1<sup>st</sup>, 1984).

*December 1<sup>st</sup>.*  
The Academic Committee of Centers approved the new research projects of the Didactics Center for 1985, as well as the renewal of the Service and Social Promotion Center project. ("Academic Committees, Academic Committee of Centers", in Official Communication, No. 151, December 1<sup>st</sup>, 1984).

*December 5<sup>th</sup>.*  
The Academic Committee of Departments approved the opinion of the Postgraduate COPLÉ regarding the Master's Program in Construction, which would start from 1985 autumn. ("Academic Committees, Graduate Program. Master's Degree in Construction", in Official Communication, No. 152, January 15<sup>th</sup>, 1985).

## 1985

*January 14<sup>th</sup>.*  
A General Collaboration and Exchange Agreement with the Universidad Autonoma Metropolitana for mutual support in the fields of teaching, research, cultural dissemination, university extension, planning, management, academic-professional services and

academic excellence was entered into. (in Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*January 15<sup>th</sup>.*  
A General Agreement of Collaboration with Gklemm Bohrstechnic was entered into, in order to exchange academic and operational support in the fields of academic excellence, teaching, research, academic-professional services and dissemination. ("Academic Exchange General Directorate, Agreements signed for 1985", in Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*January 17<sup>th</sup>.*  
The Rector informed the University Senate of the academicians of the History Department participation in the preparation of several volumes of the Mexico and its History Collection, edited by UTEHA. (University Senate, January-June 1985, Vol. 24, Minute No. 235, January 17<sup>th</sup>, 1985).  
*January 17<sup>th</sup>.* The text "Educational Philosophy of the UIA", prepared by Dr. Juan Bazdresch and reviewed by Luis Mariano Acévez was presented to the University Senate. Stands out the section on research. (University Senate, January-June 1985, Vol. 24, Minute No. 235, January 17<sup>th</sup>, 1985).

*January 28<sup>th</sup>.*  
A Co-edition Convention with Ediciones El Caballito was entered into, for the publication of the Archives and Libraries Guide prepared with students of the History Department. (Official

Communication, No. 157, June 1<sup>st</sup> 1985).

*February 14<sup>th</sup>.*  
A Convention of Technological Development was entered into with Alfredo Díaz Fernández, to develop a computer program for numerical control. ("Academic Exchange General Directorate, Agreements signed for 1985", in Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*March 1<sup>st</sup>.*  
The Research Projects List approved by the Academic Committee of Centers was published in its Sessions 247 and 248, of October 22<sup>nd</sup> and November 5<sup>th</sup>, 1984. ("Academic Committees", in Official Communication, No. 154, March 1<sup>st</sup>, 1985).

*March 1<sup>st</sup>.*  
The Research Projects List approved by the Academic Committee of Departments was published in the Official Communication. ("Academic Committees", in Official Communication, No. 154, March 1<sup>st</sup>, 1985).

*March 18<sup>th</sup>.*  
An Experimentation in Laboratory Agreement was entered into with ICA Industrial Ingeniería, S.A. C.V., for the design of a plant to produce thioglycolic acid and isoocetyl thioglycolate. ("Agreements signed for 1985", in Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*March 19<sup>th</sup>.*  
An Academic Exchange General Agreement with the University of Colima was entered into, to exchange academic and operational support. (Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*March 20<sup>th</sup>.*  
A Collaboration Convention with the Government of the State of Tlaxcala and the Universidad Autonoma de Tlaxcala was entered into, to organize the First International Symposium of Socio-Historical Research about the State of Tlaxcala, from October 16 to 18, 1985 in the city of Tlaxcala. (Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*March 25<sup>th</sup>.*  
A Collaboration Agreement was entered into between PROUNIVAC and PILAC (Patronato Economico de la UIA-León) to collaborate with the UIA-León and contribute to the promotion and dissemination of the objective culture for the improvement of Mexico, especially the Bajío region. (Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*March 29<sup>th</sup>.*  
A Collaboration and Research Convention with the Geography Institute of the UNAM was entered into, to carry out the research project: "Studies on Solar Radiation and its Applications in Architectural Design". (Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*April 1<sup>st</sup>.*  
A Collaboration Convention between the International Center of Communication Higher Studies for Latin America (CISEPAL) and the UIA for CISEPAL to advise the Communication Department in the postgraduate area. (Official Communication, No. 157, June 1<sup>st</sup>, 1985).

*May 8<sup>th</sup>.*  
The Academic Committee of Departments approved the creation of a Permanent Commission to attend postgraduate matters, chaired by the Director of Postgraduate and Research, with five professors and a representative of the Professors Majority Association. (Official Communication, No. 159, July 1<sup>st</sup>, 1985).

*September 1<sup>st</sup>.*  
It was announced that the University Senate approved the document "Postgraduate and Research Director Position Profile". (Official Communication, No. 161, September 1<sup>st</sup>, 1985).  
September 1<sup>st</sup> to March 1988. Luis Vergara y Anderson served as the first Director of Postgraduate and Research.

*October 16<sup>th</sup>.*  
The Civil Engineering Department Director highlighted new research and laboratory projects. Expected the projects to be medium and large in scope to support the victims of the earthquakes. He proposed the development of the hydraulics laboratory and the meteorological

station. (CAG, October-November 1985, Minutes 159-160, Vol. 23, Session 159).

*November 5<sup>th</sup>.*  
The Academic Committee of Centers approved research project of the Service and Social Promotion Center titled: "Women in the Movement of Popular Neighborhoods in the South. A Speech About Themselves." (Official Communication, No. 152, January 15<sup>th</sup>, 1985).

## 1986

*January 16<sup>th</sup>.*  
The University Senate was informed that Dr. Héctor Ortiz, Rector of the University of Tlaxcala, visited the University to establish the collaboration in the field of research, which was to be signed on February 28. (University Senate, January-July 1986, Vol. 26, Minute No. 253, January 16<sup>th</sup>, 1986).

*February 12<sup>th</sup>.*  
The General Academic Committee was informed of the establishment of relations between the Communication Department and other entities of the university, through academic teaching and research programs. A review of the research programs was made to fit the goals of the department. Different agreements with international entities were also notified. (CAG, November 1985-April 1986, Minutes 161-167, Vol. 24, Session 164).

<p><i>February 13<sup>th</sup>.</i> The delivery of research projects carried out from the agreement signed with Hewlett Packard was carried out. (University Senate, January-July 1986, Vol. 26, Minute No. 255, February 27<sup>th</sup>, 1986).</p>	<p>temporarily deferring funding to research programs. (University Senate, January-July 1986, Vol. 26, Minute No. 259, May 8<sup>th</sup>, 1986).</p>	<p>Agreements with Other Institutions”, prepared by the Academic Exchange General Directorate. (University Senate, August-November 1986, Vol. 27, Minute no. 265, August 28<sup>th</sup>, 1986).</p>	<p>organized by the Postgraduate and Research Directorate and the Professors and Researchers Association. The Symposium were held semiannually.</p>	<p>Agreement and the Specific Collaboration Agreement in the fields of Anthropology and History, entered into with the Universidad Autonoma de Querétaro. (University Senate, January-July 1987, Vol. 28, Minute No. 274, February 12<sup>th</sup>, 1987).</p>	<p>University of California, Santa Barbara, of Dr. Henry Weaver and Dr. Juan Antonio Palerm, to address coordination issues of Anthropological research programs. (University Senate, January-July 1987, Vol. 28, Minute No. 279, May 21<sup>st</sup>, 1987).</p>
<p><i>February 24<sup>th</sup>.</i> An agreement was signed with Dr. Manuel Salas, Executive Director of the UN, with the special participation of the Social and Political Sciences Department, in the development of an extensive interdisciplinary study on population, led by Dr. Luis Leñero. (University Senate, January-July 1986, Vol. 26, Minute No. 255, February 27<sup>th</sup>, 1986).</p>	<p><i>June 4<sup>th</sup>.</i> It was agreed to form a commission under the General Academic Committee for matters related to research at the University. (CAG, May-July 1986, Minutes 168-172, Vol. 24, Session 169).</p>	<p><i>September 1<sup>st</sup>.</i> The General Academic Committee approved new articles for the Sabbatical Period Regulation. (Official Communication, No. 175, September 1<sup>st</sup>, 1986).</p>	<p><i>October 23<sup>rd</sup>.</i> The Rector informed the University Senate on the success of Research Symposium (University Senate, August-November 1986, Vol. 27, Minute no. 270, October 23<sup>rd</sup>, 1986).</p>	<p><i>January 28<sup>th</sup> and February 4<sup>th</sup>.</i> Dr. Edmundo O’Gorman pronounced to the academic governing body the conference “The Invention of America”, divided into two parts. (University Senate, January-July 1987, Vol. 28, Minute No. 274, February 12<sup>th</sup>, 1987).</p>	<p><i>August 19<sup>th</sup>.</i> Some determinations were made regarding the Research Commission and the projects that would begin in September of that year. (CAG, August-November 1987, Minutes 193-197, Vol. 31, Session 193).</p>
<p><i>April 15<sup>th</sup>.</i> The List of Research Projects approved by the Academic Committee of Centers, approved on October 7th, 1985, and the List of Research Projects approved by the Academic Committee of Departments, on October 9th, 1985 were announced. (Official Communication, No. 169, April 15th, 1986).</p>	<p><i>June 18<sup>th</sup>.</i> The final wording of the part of the sabbatical period regulation regarding its relationship with personal permits was approved. (CAG, May-July 1986, Minutes 168-172, Vol. 24, Session 170).</p>	<p><i>September 11<sup>th</sup>.</i> The Rector informed the University Senate about the promising progress in the request made to the Public Education Secretariat for the University researchers to participate in the National Researchers System. (University Senate, August-November 1986, Vol. 27, Minute No. 266, September 11<sup>th</sup>, 1986).</p>	<p><i>November 13<sup>th</sup>.</i> The Rector informed the University Senate of the need to link the different entities of the university, for which he proposed to homogenize publications such as research notebooks, using the magazine La Palabra as an example. (University Senate, August-November 1986, Vol. 27, Minute No. 272, November 13<sup>th</sup>, 1986).</p>	<p><i>February 24<sup>th</sup>.</i> The Mechanical and Electrical Engineering Department Director notified the technological developments: Cardiovascular Defibrillator (IEMSA), Automatic Electrocardiograph (IEMSA), Cardioscope (IEMSA), Wireless Telemetry System (Schlumberger) and Digital Tachograph (FLUIDS LAB). (CAG, January-March 1987, Minutes 182-186, Vol. 27, Session 185).</p>	<p><i>October 22<sup>nd</sup>.</i> The Rector notified that the III Symposium of History of Tlaxcala was held, in which, out of a total of 12 papers, the University researchers presented 6. (University Senate, August-December 1987, Vol. 29, Minute No. 290, October 22<sup>nd</sup>, 1987).</p>
<p><i>April 24<sup>th</sup>.</i> The Rector notified the granting of postgraduate scholarships by Conacyt. (University Senate, January-July 1986, Vol. 26, Minute No. 258, April 24<sup>th</sup>, 1986).</p>	<p><i>June 30<sup>th</sup>.</i> Holding the forum “Reconstruction and Prevention: Psychosocial Aspects of the Catastrophe”, by the Psychology Department. (University Senate, January-July 1986, Vol. 26, Minute No. 263, July 10<sup>th</sup>, 1986).</p>	<p><i>October 8<sup>th</sup>.</i> In the General Academic Committee, the draft of the Research Projects Evaluating Commission Regulation was submitted, discussed and approved. (CAG, August-November 1986, Minutes 173-181, Vol. 24, Session 177).</p>	<p><b>1987</b></p>	<p><i>May 1<sup>st</sup>.</i> The Research Projects List approved by the Academic Committee of Departments was announced at its Session of October 15<sup>th</sup>, 1986. (Official Communication, No. 184, May 1<sup>st</sup>, 1987).</p>	<p><i>November 9<sup>th</sup>.</i> The conference “Meaning of Research in the UIA” took place, at the inauguration of the VI Research Symposium. (University Senate, August-December 1987, Vol. 29, Minute no. 292, November 12<sup>th</sup>, 1987).</p>
<p><i>May 8<sup>th</sup>.</i> To face the precarious situation of the budget, the University Senate took some measures, among them, giving priority to teaching and</p>	<p><i>July 1<sup>st</sup>.</i> The “Regulation of the Permanent Postgraduate Commission”, as well as the “Rules and Sanctions of the Academic Information Center” were announced. (“Academic Committees, Academic Committee of Departments”, in Official Communication, No. 172, July 1<sup>st</sup>, 1986).</p>	<p><i>October 20<sup>th</sup>.</i> The Academic Committee of Centers appointed MSc José Ramón Ulloa as its representative in the Research Commission (Official Communication, No. 179, December 1<sup>st</sup>, 1986).</p>	<p><i>January 14<sup>th</sup>.</i> The Systems Department Director notified on the agreements with Hewlett Packard (training), ARMEX, S.A.. (training and collaboration in development and implementation of a long-distance rate system) and INCOREC, S.A. (to perform a systems audit and a design for finance management). (CAG, January-March 1987, Minutes 182-186, Vol. 27, Session 182).</p>	<p><i>May 21<sup>st</sup>.</i> The Rector notified the University Senate of the visit of Dr. Daniel Aldrich, Chancellor of the</p>	<p><i>December 16<sup>th</sup></i> The History Department notified obtaining a collection of documents from the 18<sup>th</sup> and 19<sup>th</sup> centuries, as well as the Pedrero Archive. (CAG, December 1987-February 1988, Minutes 199-202, Vol. 33, Session 200).</p>
<p><i>October 20<sup>th</sup>.</i> The Fifth Research Symposium</p>					

1988

January 27<sup>th</sup>.

The Physics Department notified on the agreement concluded with the Universidad Politecnica de Madrid. (CAG, December 1987-February 1988, Minutes 199-202, Vol. 33, Session 201).

April 27<sup>th</sup>.

The General Academic Committee agreed to work on the "Research Profile". In the initial document were analyzed different statistical aspects of the university's research in 1987. (CAG, April 1988, Minutes 205-207, Vol. 35, Session 207).

May 5<sup>th</sup>.

The Rector appointed the academician Galo Gómez Oyarzún as Postgraduate and Research Director. He concluded his efforts in 1991. (Official Communication, No. 197, June 1<sup>st</sup>, 1988).

June 15<sup>th</sup>.

Aspects related to the Research Profile were discussed. It was agreed that postgraduate and research commissions send concrete proposals to improve research. (CAG, May-October 1988, Minutes 208-216, Vol. 36, Session 211).

June 15<sup>th</sup>.

The agreements taken by the Research Commission between 1986 and 1987 were ratified; these agreements defined numerous aspects related to how research should be conducted and managed at the University. It was stated that research archive

should be assumed by the Directorate and the Research Coordination. (CAG, May-October 1988, Minutes 208-216, Vol. 36, Session 211).

June 15<sup>th</sup>.

The General Academic Committee appointed MSc. Carlos Muñoz Izquierdo as member of the Research Commission, replacing academician Galo Gómez Oyarzún. (Official Communication, No. 200, September 1<sup>st</sup>, 1988).

June 16<sup>th</sup>.

The Rector notified to the University Senate about the inauguration of the Radio Laboratory of the Communication Department, donated by Mrs. Ma. Esther Gómez de Aguirre, president of the Board of Directors of Grupo Aguirre. (University Senate, January-July 1988, Vol. 30, Minute No. 305, June 16<sup>th</sup>, 1988).

July 21<sup>st</sup>.

The Rector notified to the University Senate that students of the Architecture and Urbanism Department presented five works at the Royal Institute of British Architects Competition, one of which was selected for the exhibit of the Royal Academy of London and the other four for the catalog and for a prestigious magazine. (University Senate, January- July 1988, Vol. 30, Minute No. 308, July 21<sup>st</sup>, 1988).

August 24<sup>th</sup>.

Different proposals of the Research Commission were approved as

research policies, making some additions in attention to the Ideario, Mission and Statutory Charter of the University, such as contributing to the performance of fundamental institutional purposes, promoting the link between research and teaching at postgraduate level, promote research activities in an interdisciplinary manner and promote research relevant to the university, the country and/or its regions, that were original, relevant, rigorous and critical. (CAG, May-October 1988, Minutes 208-216, Vol. 36, Session 213). September 14<sup>th</sup>.

Priority criteria guiding the promotion and selection of research projects were approved. The Research Commissions and the Postgraduate Permanent Commissions were merged. (CAG, May-October 1988, Minutes 208-216, Vol. 36, Session 214).

October 6<sup>th</sup>.

Within the framework of the formulation of the University's planning policies towards the year 2000, José Cano Vallado presented to the University Senate a proposal on two institutional activities: the permanent research of Mexico's reality and a teacher formation program. (University Senate, August-December 1988, Vol. 31, Minute No. 312, October 6<sup>th</sup>, 1988).

October 20<sup>th</sup>.

The University Senate was notified that during the spring of 1988 two research projects were canceled and two were initiated, which implied a

decrease compared to 1987. The recommendations for each postgraduate study made by the Postgraduate and Research Directorate were approved in the study "Evaluation of Postgraduate Programs and Review of the Study Plans thereof", from 1986-1987. (University Senate, August-December 1988, Vol. 31, Minute No. 313, October 20<sup>th</sup>, 1988).

December.

The agreement of the General Academic Committee regarding the Research Commission and the Permanent Postgraduate Commission merged into a single body, dependent on the General Academic Committee. ("Academic Committees, General Academic Committee", in Official Communication, No. 203, December 1988).

1989

January-March 1989.

Different indicators were entered to consider research evaluation. (CAG, January-March 1989, Minutes 224-228, Vol. 38, f. 269).

January 19<sup>th</sup>.

The Rector notified of the project to prepare the Guide of the Municipal Council Minutes in the History Department. (University Senate, January-July 1989, Vol. 32, Minute No. 319).

January 19<sup>th</sup>.

The University Senate was notified of the inauguration of the Nutrition

Symposium. (University Senate, January-July 1989, Vol. 32, Minute No. 319.).

January 19<sup>th</sup>.

A document on the structural and operational model was submitted to the University Senate, with some indications related to research. (University Senate, January-July 1989, Vol. 32, Minute No. 319).

March 1<sup>st</sup>.

The list of "Research Projects Approved for 1989 by the General Academic Committee at its Session No 221 of November 30<sup>th</sup>, 1988" was made known. (Official Communication, No. 206, March 1<sup>st</sup>, 1989).

March 1<sup>st</sup>.

By agreement of the General Academic Committee, the "Priority Criteria Guiding the Promotion and Selection of Research Projects" were published, with multiple considerations around the research work within the Institution. (Official Communication, No. 206, March 1<sup>st</sup>, 1989).

May 31<sup>st</sup>.

The Academic Committee of Departments ratified the "Policies and Procedures that should be Considered in the Study and Presentation of the Academicians Background Who Apply to the National Researchers System". (Official Communication, No. 210, July 1<sup>st</sup>, 1989).

July 5<sup>th</sup>.

The Art Department notified the

General Academic Committee about research work carried out with the Instituto Nacional de Antropología e Historia, the Isidro Fabela Museum, the Museo Nacional de Arte and Museo Carrillo Gil. (CAG, June-August 1989, Minutes 234-239, Vol. 41, Session 236).

July 13<sup>th</sup>.

Three projects submitted to the Chemical Engineering Advisory Council were notified in the Senate. One for a pilot plant in order to develop research required by the national industry, financed by several industries; another for a Biochemistry Laboratory; and the foundation of chairs to obtain greater academic excellence. (University Senate, January-July 1989, Vol. 32, Minute No. 333, July 13<sup>th</sup>, 1989).

August 3<sup>rd</sup>.

The document "Short-term Institutional Goals for 1990" of the Universidad Iberoamericana was presented in the Senate. Among these, it was proposed to "strengthen institutional research and postgraduate programs". (University Senate, August-December 1989, Vol. 33, Minute No. 334, August 3<sup>rd</sup>, 1989).

August 25<sup>th</sup>.

The Rector notified the University Senate that the research macro programs were already in place, so it was necessary for the Research Directorate to begin coordinating programs and procure external financing. (University Senate,

January-July 1989, Vol. 32, Minute No. 332, August 25<sup>th</sup>, 1989).

*November 1<sup>st</sup>.*

The decision of the Technical Council of the Administration Department regarding the Master's in Administration would only be opened in the autumn period. ("Academic Committee", in Official Communication, No. 216, February 1990).

*December 6<sup>th</sup>.*

The Mechanical and Electrical Engineering Department notified the General Academic Committee about the installation and operation of new equipment in laboratories for the processing of research projects in agreements with companies, mainly in the biomedical field. (CAG, November 1989-January 1990, Minutes 248-253, Vol. 44, Session 249).

*December 13<sup>th</sup>.*

The Civil Engineering Department notified the General Academic Committee of the operation of its new equipment in the materials, soil mechanics, hydraulics and photointerpretation laboratories. (CAG, November 1989-January 1990, Minutes 248-253, Vol. 44, Session 250).

**1990**

*February 7<sup>th</sup>.*

The General Academic Committee reviewed the "Handbook for Academic Personnel Promotion". In it, the criteria to promote

academicians in the "Research" category were pointed out. (CAG, February-March 1990, Minutes 254-258, Vol. 45, Session 255).

*March 8<sup>th</sup>.*

Different documents related to research at the Universidad Iberoamericana were submitted to the University Senate. Among others, the inauguration speech of Rector Carlos Escandón, of March 16<sup>th</sup>, 1988; and the Senate Minute 269 of October 9<sup>th</sup>, 1986. The purpose of their presentation was to be considered in the study of the proposal of the Rectory for "Academic Restructuring". (University Senate, January-July 1990, Vol. 34, Minute No. 348, March 8<sup>th</sup>, 1990).

*July 9<sup>th</sup>.*

The Engineering and Chemical Sciences Department Interim Director informed the General Academic Committee about the consultancy given to the personnel of the Instituto Politecnico Nacional for the manufacture of measles vaccine in Mexico. (CAG, June-October 1990, Minutes 266-277, Vol. 48, Session 268).

*August 8<sup>th</sup>.*

Several recommendations were made regarding university research, for example, that academicians who failed with the delivery or corresponding research progress report be admonished; that clarity be given to academic personnel regarding the term "Research" that is handled in the university; that the type of research to be registered

and notified to the Directorate of Research be regulated; among other. It was approved to give a direct talk between General Directors, academicians, General Director of Educational-University Services, Division Directors and Research Director to address these issues. (CAG, June-October 1990, Minutes 266-277, Vol. 48, Session 270).

*August 9<sup>th</sup>.*

The Rector submitted to the University Senate the Institutional Goals for the 1990-1991 academic year, among which the following stand out: strengthening the infrastructure for the development of research programs and promoting the dissemination of university work. (University Senate, August-December 1990, Vol. 35, Minute No. 357, August 9<sup>th</sup>, 1990).

*September 6<sup>th</sup>.*

The Rector notified the University Senate of the meeting he had with Mr. Guillermo Fúnez, of the Science, Technology and Investment Promotion Unit, on the occasion of the technology transfer and possible relations with the University in the area of engineering. (University Senate, August-December 1990, Vol. 35, Minute No. 358, September 6<sup>th</sup>, 1990).

*December 6<sup>th</sup>.*

MSc José Cano expressed his disagreement on the grounds that a model of the "institutes" project was being displayed, which had not been submitted to the Senate. The Rector noted it was a project of the Board of Trustees for postgraduate

and research. (University Senate, August-December 1990, Vol. 35, Minute No. 364, December 6, 1990).

*December 11<sup>th</sup>.*

The General Academic Committee agreed to propose to the Rectory the promulgation of the Historical Archive of the University regulations, with provisions regarding research products made in the institution. (CAG, November 1990 - April 1991, Minutes 275-282, Vol. 49, Session 277).

**1991**

*March 14<sup>th</sup>.*

A document was submitted indicating the percentage distribution of the part of the budget associated with substantive academic functions of 1991, which highlighted that 11% was directed to dissemination and 7% to research. (University Senate, January-December 1991, Vol. 36, Minute No. 368, March 14<sup>th</sup>, 1991).

*August 8<sup>th</sup>, 1991.*

The proposal for the formation of the "Engineering and Science" and "Economic-Administrative Sciences" institutes was submitted to the University Senate. (University Senate, January-December 1991, Vol. 36, Session 374).

*August 30<sup>th</sup>.*

In general, the Permanent Commission on Research and Postgraduate Regulation was approved. (CAG, June-October

1991, Minutes 287-296, Vol. 52, Session 291).

*September 13<sup>th</sup>.*

MSc Guillermo Celis Colín was named representative of the General Academic Committee before the Permanent Research and Postgraduate Commission. (CAG, June-October 1991, Minutes 287-296, Vol. 52, Session 292).

**1992**

The University awarded the first issue of the Research Quality Awards (Premios a la Calidad Investigativa).

*February 7<sup>th</sup>.*

The History Department informed the General Academic Committee of the "Haciendas de Tlaxcala 1857-1884" research publication, winner of the Banamex-Atanasio G. Saravia prize in 1990. (CAG, November 1991-February 1992, Minutes 299-304, Vol. 54, Session 302).

*February 7<sup>th</sup>.*

The Commission in charge for transforming the Academic Personnel Regulation pointed out the need to change the criteria for classifying academicians according to four functions: teaching, research, professional services and dissemination. (CAG, November 1991-February 1992, Minutes 299-304, Vol. 54, Session 303).

*March 6<sup>th</sup>.*

It is presented in the General Academic Committee the

document "Academic Personnel Regulation Proposal", which establishes the classification criteria of academicians in Adjunct, Associate, Full and Tenured, in part, attending to their research work. (CAG, March-April 1992, Minutes 305-308, Vol. 55, Session 305).

*April 24<sup>th</sup>.*

The General Academic Committee agreed that, when the Academic Units Directors submitted their reports, it would be evaluated which University officials were to be invited; pursuant to the Rector's recommendation about inviting the Research and Postgraduate Studies Director to those reports in which his presence was relevant. (CAG, April 1992, Minutes 310-311, Vol. 58, Session 311).

*October 9<sup>th</sup>.*

The General Academic Committee discussed and modified the Diagram for the approval procedure for postgraduate curricula. It was requested at commissions and/or committees that had worked on the formulation of the awards programs for the research sector, centers and administrative of the academic, to resume their work based on the attached criteria and recommendations. (CAG, September-October 1992, Minutes 328-331, Vol. 62, Session 330).

*October 21<sup>st</sup>.*

Signing of the agreement with the Instituto Politecnico Nacional to carry out joint researches.

*November 6<sup>th</sup>.*

The CAG elected Dr. Julián Barquín

Liaño as its representative in the Research and Postgraduate Permanent Commission of. (CAG, November 1992, Minutes 332 A, Vol. 63, Session 332 A).

*December 10<sup>th</sup>.*

The Rector submitted to the University Senate the document "Proposals for the Creation of Research Institutes". (University Senate, January-December 1992, Session 393, Vol. 37).

### 1993

The University awarded the second issue of the Research Quality Awards.

*January 22<sup>nd</sup>.*

In relation to changes in Academic Personnel Regulations, modifications made to the taxonomy of the academic tasks of the university were approved. The idea of standardizing the awards program in charge of the Permanent Research and Postgraduate Commission with the other award programs was emphasized, with respect to criteria of the quantitative type. (CAG, November 1992-February 1993, Minutes 333-339, Vol. 65, Session 335).

*November 27<sup>th</sup>.*

Regarding the document "Awards for commitment and research quality of the UIA", it was suggested to the Research and Postgraduate Permanent Commission to ponder the teaching activity within the research program and to clarify on the quantification of the prizes

levels. (CAG, April-May 1993, Minutes 350-356, Vol. 70, Session 350).

*June 11<sup>th</sup>.*

The General Academic Committee approved the Commitment and Research Quality Awards Program at the Universidad Iberoamericana, applicable to the year 1992. (CAG, June-September 1993, Minutes 357-362, Vol. 71, Session 357).

*June 11<sup>th</sup>.*

The General Academic Committee agreed to approve the Commitment and Research Quality Awards Program at the Universidad Iberoamericana applicable to the year 1992. (CAG, June-September 1993, Minutes 357-362, Vol. 71, Session 357).

*June 28<sup>th</sup>.*

The Research and Postgraduate Permanent Commission approved the Master's program in Quality Engineering, with some remarks. (Research and Postgraduate Permanent Commission, Session 36, Monday, June 28<sup>th</sup>, 1993).

*June 28<sup>th</sup>.*

On the recommendation of the Literature Department, the creation of a Research Seminar on Humanities was approved. (CPIP, Session 36, Monday, June 28<sup>th</sup>, 1993).

*July 16<sup>th</sup>.*

The Academic Committee agreed to approve the Postgraduate Degree in Chemical Engineering in the context of institutional development towards the Science

and Engineering Institute and the Master's Program in Quality Engineering. ("Academic Committee", in Official Communication, No. 253, August 1993).

*October 15<sup>th</sup>.*

It was agreed in the Academic Committee to follow up on the proposal for the creation of the Human Sciences and Humanities Institutes. ("Academic Committee", in Official Communication, No. 256, November 1993).

### 1994

*February 18<sup>th</sup>.*

The formation of a commission in charge of studying the regulation of sabbatical period then in force was proposed, in order to make proposals for the sabbatical to last one year. (CAG, February-March 1994, Minutes 383-386, Vol. 75, Session 385).

*March 18<sup>th</sup>.*

The General Academic Committee agreed that for the year 1993 the stimulus programs be applied to the commitment and quality of teaching, research and educational-university services. (CAG, March-April 1994, Minutes 387-389, Vol. 76, Session 387).

*April 26<sup>th</sup>.*

After reviewing and analyzing the proposal for the new Sabbatical Period Regulation, it was decided in the Academic Committee its approval to enter into force. ("Academic Committee", in Official

Communication, No. 260, April 1994).

*August 26<sup>th</sup>.*

The General Academic Committee approved the "Policies, Criteria, Rules and Procedures for the Research Approval of Human Sciences, Humanities and Art Divisions of the Universidad Iberoamericana". (CAG, August-September 1994, Minutes 403-406, Vol. 81, Session 404).

*September 30<sup>th</sup>.*

The Academic Committee approved the institutional program of academic preparation and excellence, highlighting the policies in the university teaching, research, dissemination and education areas. (CAG, September-November 1994, Minutes 407-411, Vol. 82, Session 407).

### 1995

*October 12<sup>th</sup>.*

The Rector notified the Senate that the Research Programs Coordinators proposed the creation of a Research Committee to guide and regulate this activity in all University instances. (University Senate, January-December 1995, Vol. 40, Session 425).

*November 17<sup>th</sup>.*

The Division Academic Committees were requested to allocate budgets to research projects that they deem appropriate and in amounts appropriate to the feasibility of their implementation, based on new criteria prioritizing

the University's full-time academician. (CAG, November-December 1995, Minutes 457-460, Vol. 92, Session 457).

### 1996

*March 8<sup>th</sup>.*

The Academic Committee was informed about the meeting that took place in Venezuela with the Universities of the JAL University Senate and whose purpose was to develop a joint project of inter-institutional research on poverty, considering: 1) causes, 2) proposals, 3) solutions. (CAG, March 1996, Minutes 468-470, Vol. 94, Session 469).

*June 14<sup>th</sup>.*

The donation of the Manuel Arango collection was notified, which has more than 1200 old and rare books, as well as numerous documents from the Mexican Independence Period. (CAG, June 1996, Minutes 481-483, Vol. 100, Session 482).

*September 6<sup>th</sup>.*

The document "Research and Postgraduate Studies Strengthening at the Universidad Iberoamericana" was submitted to the General Academic Committee. (CAG, June 1996, Minutes 484-490, Vol. 101, Session 490).

*September 13<sup>th</sup>.*

The work carried out by the Academic General Directorate Team for the research development plan was submitted to the General Academic Committee. (CAG,

September-November 1996, Minutes 491-501, Vol. 102, Session 491).

*September 13<sup>th</sup>.*

The members of the General Academic Committee were requested to prepare remarks and/or suggestions to the documents: "Research Rules and Procedures", proposed by the research commission of the Human Sciences Division, and "Proposals for Institutional Research Lines" (CAG, September-November 1996, Minutes 491-501, Vol. 102, Session 491).

*September 27<sup>th</sup>.*

In response to the proposal for strengthening research and postgraduate studies, the General Academic Committee recommended the creation of a Research and Postgraduate Studies Deputy Directorate. This should be composed of a representative from the postgraduate area and a representative from the research area of each of the Divisions, and by two representatives from the Centers area. (CAG, September-November 1996, Minutes 491-501, Vol. 102, Session 493. Official Communication, No. 287, October 21<sup>st</sup>, 1996).

*October 1<sup>st</sup>.*

MSc Jesús Luis García was appointed Research and Postgraduate Studies Deputy Director. He ended its role on February 20th, 1998. (Official Communication, No. 287).

<p><b>1997</b></p> <p><i>March 14<sup>th</sup>.</i> The General Academic Committee approved the initial purposes and functions of the Research and Postgraduate Studies Deputy Directorate. (CAG, March-April 1997, Minutes 505-506, Vol. 105, Session 505).</p>	<p>(CAG, September 1999, Minutes 561-563, Vol. 124, Session 563).</p> <p><i>October 14<sup>th</sup>.</i> The “Regulation of the Research and Postgraduate Studies Commission of the Universidad Iberoamericana Santa Fe” was approved. (CAG, October 1999, Minutes 566, Vol. 126, Session 566).</p>	<p>Instruments. (CAG, Minutes 634-637, Vol. 145, Session 637, 2001).</p> <p><b>2002</b></p> <p><i>May.</i> Creation of the Rehabilitation Engineering and Technology Center.</p>	<p><i>August 14<sup>th</sup>.</i> The General Academic Committee approved the documents “Criteria and Procedures for the Approval of Editorial Proposals of the Academic Units” and “Policies and Rules for the Dissemination of Editorial Proposals of the Academic Units”. They highlighted the publication sections of the research carried out by both graduate students and academicians during their sabbatical periods. (CAG, Minutes 684-690, Tome III-IV, Vol. 153, Session 684, 2003).</p>	<p>(CAG, Minutes 715-721, Tome v-vi, Vol. 159, Session 719, 2004).</p> <p><b>2005</b></p> <p><i>February.</i> The Research Directorate under the responsibility of Dr. Alberto Ruiz Treviño was reinstated, after a period in which the projects administration and research lines were in charge of the Research and Postgraduate Commission which reported to the Academic Vice Rector.</p>	<p>representative be guaranteed and that in the Advisory Council of the Research Directorate would proceed in the same manner. (CAG, Minutes 742-747, Tome IV-V, Vol. 161, Session 742, 2005).</p>
<p><b>1998</b></p> <p><i>February 20<sup>th</sup>.</i> MSc Jesús Luis García was appointed Postgraduate Studies and Research Director and Interim Acting Manager of the Interdisciplinary Studies Division. In 2000, he finished his role in the Postgraduate Studies and Research Directorate. (Official Communication, No. 301)</p>	<p><b>2000</b></p> <p><i>August 31<sup>st</sup>.</i> The document “General Policies, Rules and Procedures for Research at the Universidad Iberoamericana” was approved. (CAG, January-March 2000, Minutes 574-583, Vol. 129, Session 601).</p>	<p><i>June 20<sup>th</sup>.</i> The creation of the Research Institute for the Development of Education was agreed. (“UIAC Associates General Assembly”, in Official Communication, No. 355, May 2002).</p>	<p><b>2004</b></p> <p><i>February 26<sup>th</sup>.</i> The Research and Postgraduate Studies Commission carried out the approval and distribution of the budget for the research lines and projects for 2004. Among the priorities in the affairs of this Commission, there was to specify the research lines concept, monitor more carefully the results of researches and make a new proposal on research policies. (CAG, Minutes 695-700, Tome I-VI, Vol. 155, Session 697, 2004).</p>	<p><i>February 3<sup>rd</sup>.</i> Dr. Alberto Ruiz Treviño was appointed Research Director. He concluded his role in 2014. (Official Communication, No. 383).</p>	<p><i>October 21<sup>st</sup>.</i> Dr. Carlos Muñoz Izquierdo was ratified as Director of the Research Institute for Research Development. (Official Communication, No. 391).</p>
<p><i>October 23<sup>rd</sup>.</i> It was notified that the financial situation of the university presented itself not flattering, so measures were taken to save and stay fundamentally at the operation level. In the area of research, the existing projects and those registered by the SNI and that met the goals were kept. In the field of dissemination only the UIA journals were maintained. (CAG, October 1998-April 1999, Minutes 537-540, Vol. 114, Session 537).</p>	<p><b>2001</b></p> <p><i>April 19<sup>th</sup>.</i> The General Academic Committee was notified about the beginning of the operation of the University telescope, one of the largest in Mexico City. (CAG, April 2001, Minutes 618-619, Vol. 140, Session 618).</p>	<p><i>September 30<sup>th</sup>, 2002.</i> The Procedure for the approval of new postgraduate programs and the modification of postgraduate programs was approved. (“Academic Committee”, in Official Communication, No. 358, September 2002).</p>	<p><i>October 14<sup>th</sup>.</i> It was notified that the Universidad Iberoamericana received an invitation to participate in an advisory forum, of national nature, in Science and Technology, which addressed the issue of investment in research. Likewise, the Academic Committee approved the document “Policies, Rules and Procedures for Research at the Universidad Iberoamericana, Mexico City”.</p>	<p><i>June 9<sup>th</sup>.</i> The Academic Committee, after assessing the consequences and scope of the current situation, dissolved the Research and Postgraduate Studies Commission (CIP), repealing both the regulations of the Research and Postgraduate Studies Commission of the Universidad Iberoamericana Santa Fe -published in Official Communication No. 322, dated October 22<sup>nd</sup>, 1999–, like any other related provision, as long as this does not affect the regulations of other academic instances. Likewise, with the intention of ensuring an adequate link between postgraduate studies and research, it was requested that in the Postgraduate Sub commission, under the Postgraduate Directorate, the participation of a research</p>	<p><b>2006</b></p> <p><i>May 25<sup>th</sup>.</i> The Academic Committee examined the document “Regulation for Research carried out at the Universidad Iberoamericana, Mexico City”. (CAG, Minutes 758-762, Tome II-IV, Vol. 162, Session 759, 2006).</p>
<p><b>1999</b></p> <p><i>September 23<sup>rd</sup>.</i> The proposal for the creation of a commission delegated by the Academic Committee for research and postgraduate matters was raised.</p>	<p><i>October 31<sup>st</sup>.</i> The Rector informed the Community of the five institutional priorities that would guide the plans and actions over the next few years: Strengthening Postgraduate Studies and Research, Academic Excellence and Capacity Building, Search for Transcendence, Improvement of the Academic Administration, and Adequacy of Normative and Administrative</p>	<p><i>October 31<sup>st</sup>.</i> Several remarks were made on the formats, information and quality of sabbatical periods researches. (CAG, Minutes 664-670, Vol. 150, Session 665, 2002).</p>		<p><b>2007</b></p> <p><i>October 4<sup>th</sup>.</i> The Rector notified the General Academic Committee of his visit to the Conacyt Directorate, in order to request payment by this instance of 50% of the stimuli received by members of the SNI If this</p>	

negotiation is completed, the excess amount of money the University would invest in research. (CAG, Minutes 784-786, Vol. 168, Session 784, 2007).

*November 29<sup>th</sup>.*

The Academic Vice-Rector informed the General Academic Committee of its five strategic institutional projects in planning 2007-2011: 1) Research project linked to the postgraduate studies led by Dr. Alberto Ruiz Treviño; 2) Internationalization Project, led by MSc. Luis Nunez; 3) Online education project, led by MSc. Humberto Barquera; 4) Academic personnel roster consolidation project, led by MSc. Alejandro Mendoza; 5) New Study Plans Project, led by MSc. Araceli Delgado. (CAG, Minutes 788, Vol. 170, Session 788, 2007).

**2008**

*January 1<sup>st</sup>.*

Conacyt assumed the payment of 30% of the stimulus to researchers of the Universidad Iberoamericana members of the National Researchers System.

*October 2<sup>nd</sup>.*

The assembly of CUPRIA (Institutions of private education that are affiliated to ANUIES) was held and an agreement was signed under which Conacyt would contribute 30% of the stimuli to the SNI, with the only condition that that money be allocated to research. The Rector initiated a reflection with

Conacyt authorities on the need to generate stimuli that would propitiate research focused on scientific and technological advances required by the country's situation, and not a research interested only in remaining in the SNI for the economic benefit that it entails. (CAG, Minutes 800-802, Vol. 175, Session 802, 2008).

**2009**

*April 1<sup>st</sup>.*

FICSAC Prizes were awarded (Economic and Development Board of the Universidad Iberoamericana) to the development of high-quality research of 2008.

**2010**

*January 14<sup>th</sup>.*

Institutional policies regarding patents and technological developments were approved, establishing policies, procedures and rules on research and generated products that are patented and about technological development and innovation. ("Academic Committee", in Official Communication, No. 437, January 2010).

*January 14<sup>th</sup>.*

The Criteria Reform for Functions Assignment, with four topics: Curricular Teaching, Around Teaching, Research and Excellence or Academic Actualization. ("Academic Committee", in Official Communication, No. 438, February 2010).

*March 10<sup>th</sup>.*

FICSAC Awards for the development of high-quality research were awarded for 2009.

*June 11<sup>th</sup>.*

The General Academic Committee approved the document "Institutional Policies in relation to Patents and Technological Developments", in addition to the International Doctorate in Communication. (CAG, Minutes 825-827, Vol. 185, Session 826, 2010).

**2011**

*April 29<sup>th</sup>.*

FICSAC Awards for the development of balanced and high-quality research in 2010 were awarded.

*June 2<sup>nd</sup>.*

A digital media laboratory was inaugurated. (CAG, Minutes 848-852, Vol. 191, Session 851, 2011).

**2012**

*February 23<sup>rd</sup>.*

The General Academic Committee approved the formation of a Research Bioethics Committee. (CAG, Minutes 863-867, First Extraordinary Session, 868, Vol. 194, Session 866, 2012).

*April 19<sup>th</sup>.*

FICSAC Awards for the development of balanced and high-quality Research in 2011 were awarded.

*May 17<sup>th</sup>.*

The General Academic Committee approved the formation of a Research Ethics Committee. (CAG, Minutes 869-874, Vol. 195, Session 870, 2012).

**2013**

*August 15<sup>th</sup>.*

The document "Guidelines for Quality Research linked to Postgraduate Studies" and the Research Ethics Committee of the Universidad Iberoamericana were approved. (CAG, Minutes 884-889, First Extraordinary Session, Second Extraordinary Session, Vol. 198, Second Extraordinary Session, 2013 and Official Communication, No. 477, November 2013).

*August 20<sup>th</sup>.*

FICSAC Awards for the development of balanced and high-quality Research in 2012 were awarded.

*August 22<sup>nd</sup>.*

The Academic Committee confirms the creation of a Research Ethics Committee of the Universidad Iberoamericana, whose purpose is the observance of physical integrity, confidentiality and the basic principles of bioethics such as: beneficence, non-maleficence, respect for Human rights, justice and autonomy. ("Academic Committee", in Official Communication, No. 477, November 2013).

**2014**

*January 1<sup>st</sup>.*

The Conacyt changed its

Regulations to assume the payment of 100% of the stimulus to the researchers of the Universidad Iberoamericana members of the National Researchers System (SNI).

*April 29<sup>th</sup>.*

ficsac Awards for the development of balanced and high-quality research of 2013 were awarded.

*October 1<sup>st</sup>.*

The role of doctor Alberto Ruiz Treviño as Research Director concluded. As of this date, said Directorate was assumed by Dr. Thomas Legler.

*December 5<sup>th</sup>.*

The Institute of Applied Research and Technology was founded

**2015**

*January 16<sup>th</sup>.*

Jesús Campos Orozco was appointed Director of the International Center for Social and Solidarity Economy Research. (Official Communication, No. 489).

*April 30<sup>th</sup>.*

The proposal for the New Institute of Applied Research and Technology was approved. ("Academic Committee", in Official Communication, No. 491, May 2015).

*June 11<sup>th</sup>.*

FICSAC Awards to the academic-scientific research productivity of 2014 were awarded.

**2016**

*January.*

The interdepartmental and interdisciplinary chairs began their research activities:

Deterritorializations of power: body, diaspora and exclusion (Aesthetics, Politics and Violence in Globalized Modernity), Territorial dynamics and well-being and Disability, technology and inclusion. The Institute for Research on Sustainable Development (IIDSDES) changes its name to the Research Institute for Development with Equity (EQUIDE)

*March 31<sup>st</sup>.*

The General Academic Committee approved the name change of the "Research Institute on Sustainable Development and Social Equity" to "Research Institute for Development with Equity". ("Academic Committee", in Official Communication, No. 504, June 2016).

*July 5<sup>th</sup>.*

FICSAC awards to research productivity of 2015 were awarded.

**2017**

*September 13<sup>th</sup>.*

FICSAC awards to research productivity of 2016 were awarded.

**2018**

*July 4<sup>th</sup>.*

On the official website of the Universidad Iberoamericana was

made known the project for the construction of the new research and postgraduate facilities, as well as to house the School of Social Entrepreneurship (EDES), designed by architect Francisco Serrano. ("IBERO will have new facilities to house research and postgraduate courses", July 4<sup>th</sup>, 2018, on the UIA website: [<http://ibero.mx/prensa/ibero-tendra-nuevas-instalaciones-para-albergar-investigacion-y-posgrados>] consulted on August 6<sup>th</sup>, 2018).

*October 11<sup>th</sup>.*

FICSAC awards to research productivity of 2017 were awarded. In 2018, the Universidad

Iberoamericana commemorates 75 years of the founding of the University Cultural Center, a work that Mexican Jesuits of the twentieth century, in collaboration with numerous intellectuals, undertook for the humanist higher education of Mexican youth.

In 1968, the Iberoamericana promulgated its Ideario in which it made explicit its Christian Inspiration and its commitment, not only to be a transmitter of knowledge, but to become a generator and diffuser of them at the service of Mexico.

Commemorating two such important events in the history of the Universidad Iberoamericana is the purpose of the book *Universidad Iberoamericana generator of knowledge: Witnesses and authors seeking to attune their polyphony*. This work gathers essays in which numerous researchers and officials of the institution,

with extensive trajectory in research, share their experiences and achievements. Many of them, by way of legacy, offer from their horizon some prospective for new generations of academicians with vocation on research.

**Universidad Iberoamericana,**  
**Generator of Knowledge**  
*Witnesses and Actors*  
*Seeking to Attune their Polyphony*  
December 2019  
Mexico City.  
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