

Origins of Industrial Design Education at the University of Guadalajara: Pratt Institute influence in the mid 1970's

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The first influence on the school of design of the University of Guadalajara, came from the pedagogical program developed at Pratt Institute. Although many years had passed since its creation at Pratt Institute, the design curriculum known as *foundation*, that was initiated by Alexander Jusserand Kostellow and later perfected by Rowena Reed Kostellow remained as a model for the institution and for design programs abroad the United States of America.

Designer and design educator Gerald Gulotta, a former student of industrial design at Pratt Institute, took this curriculum with him in the seventies in two different design projects abroad the USA: Portugal and Mexico. The Portugal project was oriented to open a Design Centre in that country, but as the Carnation Revolution took place, it soon came to an end and saw the Design Centre's completion interrupted. The Mexico project was an invitation to help the opening of an industrial design school for the University of Guadalajara, which became a receptive space to establish its roots in the early stages of its development. The original curriculum of the school of design was heavily oriented to the technical aspects of design but lacked the aesthetic focus that industrial design schools are known for. When Gerald Gulotta introduced these aesthetic principles with the *foundation* course most of the faculty, architects for the most part, were unaware that the course's origins were from the Midwestern United States and not from Central Europe.

The purpose of this paper is to show that still, there are Euro-centric issues in the way design history is being written.

Keywords: Alexander Kostellow, Rowena Reed, Gerald Gulotta, Pratt Institute, organic form

Introduction

By the 1970's Mexico faced the challenge of offering higher education to a rapidly growing population. In this context, new professional studies appeared in public universities, especially for those outside Mexico City. In general, Industrial Design programs emerged inside schools of architecture, having these the pedagogical models "imported" from the Bauhaus, the Modern Movement or Functionalism (either American or European). We must understand that many generations of architects were educated under the *dogma* of Functionalism and rejected the idea that

there were other theories of visual education outside it or the Modern Movement. This was the case of the school of Design of the University of Guadalajara in 1976.

University of Guadalajara's school of architecture was founded in 1948 by architect Ignacio Díaz Morales. In 1930 he met with architect José Villagrán García, who was known for introducing the International Style in the Mexican architecture scene. Under the influence of architect Villagrán, Ignacio Díaz Morales developed his own pedagogical model of what visual education should be in a school of

architecture. He also traveled to Europe where he learned about different schools and curriculums and returned to Mexico with a group of teachers from Germany, Austria, Italy and Spain who had accepted his invitation to teach at the new school of Architecture in Guadalajara. This school became well known abroad and served as an example to other architecture schools in Mexico. It also kept the philosophy developed by architect Díaz Morales on through the seventies.

As mentioned before, the Mexican economy of the early and mid seventies was not able to provide enough jobs for its entire population, so at this point the Federal Government needed to create other opportunities for those unable to find work. This condition turned into a new offering of professional studies across a wider geographical distribution throughout the country, not centralized in Mexico City.[1] Among these new disciplines were: Psychology, Business Administration, International Business, and Industrial Design. In 1971 there were only two schools that offered degrees in Industrial Design: the one at Universidad Iberoamericana (1961) and the other at Universidad Nacional Autónoma de México (1969), both programs were dependent on their schools of architecture.

It is also important to mention that during the beginning of this period (1971) Mexican exports of non-petroleum goods were increasing. Some official organizations were created to support these businesses in terms of international trade procedures, packaging, and of course, design. One of the most well known was the Design Centre (Centro de Diseño) created by the Mexican Foreign Trade Institute (Instituto Mexicano de Comercio Exterior, IMCE). This organization was perhaps the first serious attempt to promote design in the Mexican industry[2]. Many students came to work for this organization but its activities, were mainly centered in Mexico City since there were

no other schools at that time. This situation would change in the mid seventies.

By the end of 1975, the rector of the University of Guadalajara, Jorge Enrique Zambrano Villa, instructed the director of the School of Architecture, Vicente Pérez Carabias to study the feasibility of creating a School of Industrial Design within the school of architecture[3]. Vicente Pérez Carabias traveled to Europe and North America gathering information on how Industrial Design was being taught outside Mexico and to understand the curriculums of these schools. In this short trip he also attended the ICSID Congress that took place in Belgium.

Back in Guadalajara, in March of 1976, Pérez Carabias organized a seminar in order to determine if there was even a need for such a profession in the region. Other institutions that helped to organize the seminar were the IMCE office of Guadalajara, where young architect Daniel Gonzalez Romero worked as a designer, the office of Consejo Nacional de Ciencia y Tecnología (National Council of Science and Technology, CONACyT) and el Centro Regional de Tecnología Educativa (Regional Centre of Educational Technology, CRTE) of the University of Guadalajara. It is important to note that representatives from the schools of Design from Universidad Nacional Autónoma de México (UNAM) and Universidad Autónoma Metropolitana (UAM) participated in this forum as well as representatives from the local industries and other federal institutions. The forum's conclusions were published in the magazine of el Colegio de Arquitectos de Jalisco (the Architects' College/Association of Jalisco) in April of 1976.[4]

Pérez Carabias worked with his team to present a final report to the rector of the University of Guadalajara. It was evident that there were several

problematic structural issues in the local industry and economy and that the presence of industrial design professionals was required to solve many of those problems. Thus, the mission of the new school would be to prepare them for that task. The research and the conclusions were presented to the rector on the 9th of August of 1976. The final report concluded that there was a need for industrial design professionals and included specific curriculum and course of study guidelines. So great was the need for designers and so convinced was Pérez Carabias by his research, that 3 days before presenting his final report the courses to train the faculty had started. Two intensive courses were scheduled to give proper training to the faculty, all of whom were new to Industrial Design.

As a result of the trips to Europe and North America, Pérez Carabias, with the help of Daniel González, was able to contact Gerald Gulotta, an industrial designer who taught at Pratt Institute as adjunct professor and as professional designer. He would become the guest mentor for the foundation of the school and the trainer of the new faculty. That faculty included young architects who had recently finished their professional studies who joined fine artists, an engineer, and a mechanical technician who were willing to get into the new academic adventure of creating an Industrial Design School.

The pedagogical influence of Pratt Institute on Gerald Gulotta

Gerald Gulotta was born the 17th of April 1921 in Rockford, Illinois. Shortly after his return from the Second World War he studied design at a commercial design academy in Chicago. During his studies, he had the opportunity to attend an exhibition of student's work from Pratt Institute. The quality of the work caught his eye and he

decided that Pratt would be the place to study industrial design.

At Pratt Institute, Gerald Gulotta's formation as a designer came under the pedagogical model developed by Alexander Kostellow -considered by many to be the "father of industrial design education"^[5] in the USA- and his wife, Rowena Reed Kostellow. Both of them, Alexander and Rowena, were invited by Donald Dohner in 1938 to join him and start a degree program similar to the one they had been previously working on at Carnegie Institute of Technology (now Carnegie Mellon), where they had met in 1934. This program of industrial design education at Carnegie Tech is believed to be the first of its kind in the USA, and perhaps the world. At Pratt Institute, Alexander Kostellow (and Rowena Reed Kostellow after his death) was responsible for the "foundation year" curriculum, which focused on developing the power of abstract conception and visualization with a strong emphasis on aesthetics but without making this the means of personal expression. It is important to mention that Donald Dohner had already been working on the establishment of the Industrial Design program at Pratt Institute since 1936 and that the Kostellos arrived at New York in 1938, one year after the New Bauhaus opened in Chicago in 1937. As Arthur Pulos states "with Kostellow representing the philosophical, Rowena Reed Kostellow the aesthetic, and Dohner the practical, they laid the triangular foundation for Pratt's industrial design program".^[6]

Comparisons between both design programs became inevitable. Historian Arthur Pulos and writer Gail Greet Hannah note that these programs shared the same artistic and intellectual assumptions. As Mrs. Greet Hannah says "their methodologies drew on modern scientific method and applied it to teaching the fundamentals of art making".^[7] They identified elements such as line,

shape, form and space. But visually the Bauhaus approach was merely reductive, as historians like Lucila Fernández Uriarte call it: geometric abstraction, the visual language that the Bauhaus is so well known for, developed during the late Weimar and the Dessau periods. During these two periods, from 1923 to 1930, the Bauhaus definitely abandoned the Expressionist visual experimentation praised by Johannes Itten and entered the machine-driven geometric abstraction phase, promoted by Walter Gropius, Lazlo Moholy-Nagy and, indirectly, Theo Van Doesburg. Classic examples of the geometric abstraction commitment are the steel furniture by Marcel Breuer, the glassware by Wilhelm Wagenfeld and the metal work of Marianne Brandt, just to mention a few.

On the other hand, Kostellow's approach developed organic forms, focused on an industrial machine-driven economy. As Pulos states, "the essence of the foundation program was that it taught the student to create organic entities by transposing forces analogous to those in nature into expressive symbols, using dynamic balance, tension, form integration, opposition and rhythm as design tools".[8] An example of this is the Rondure flatware designed in 1997 by Gerald Gulotta (Figure 1).



Figure 1. Gerald Gulotta, *Rondure*, for *DANSK*, 1997.
(Photo: Author)

Another important difference, and perhaps the most obvious, the Bauhaus approached the study of form from the perspective of architecture, while Alexander's approach emphasized space as a structural element of design, the visual relationships themselves and a broad culture on history and social studies. This point of view facilitated educating designers "who can work within the requirements of trade and industry"[9] as Kostellow would say. He also stated: "I have never agreed with the premise that function as such gives birth to esthetic expression. I feel that function is an expression of a time and that esthetic reactions influence man-made form, and we in turn are influenced by them".[10] In addition to this, during the 1940's, the debate on moving industrial design programs from schools of art into schools of architecture had become intense. Those who saw design logically taught in schools of art won the day for a while. In this context, Kostellow knew that very few art students would have great success as artists, but having an industry providing "formally inept products" he knew that many could be talented, capable and willing art consultants to provide a far better quality of life for everyone and make a "decent living in the bargain"[11]. A decade earlier Walter Dorwin Teague, Henry Dreyfuss, Raymond Loewy, Donald Deskey and others emerged as industrial art specialists, laying the groundwork for what would later be the industrial design profession.

It is well known that Pratt graduates continued the work of the Kostellows, at Pratt, like Robert Kolli, Yasuhiko Okuda, Giles Aureli, Gerald Gulotta and Joseph Parriot; or at other schools within the USA where they carried their philosophy, like Marc Harrison at Rhode Island School of Design, Robert Redman at the University of Bridgeport, Jay Doblin at the Institute of Design in Chicago, James Pirkl and Lawrence Feer in Syracuse University, Robert

McKim in Stanford University. Other graduates took this philosophy of work beyond the borders of the country: Craig Vogel to New Zealand, Cheryl Akner-Koler at the Department of Industrial Design at the University College of Art, Crafts and Design in Stockholm and Gerald Gulotta at University of Guadalajara's School of Design, Mexico.

Gerald Gulotta: the Designer

Two years after finishing his professional studies at Pratt, Gerald Gulotta started working for recognized designers of that time: Eva Zeisel, whose ceramics class had a great influence on him; Raymond Loewy and George Nelson. While he was gaining professional experience with these figures, he also worked as an adjunct professor at Pratt, eventually taking over Eva Zeisel's ceramics class after her resignation from the institution in 1955. By the 1970's, he had established himself as a tableware and glassware designer and had developed his own *clientele*. Among his clients, was the Block China Corporation. This company would have most of its production done in Portugal, Spain, Switzerland and Germany. This opened the door of the European market for him.

In 1974 the Fundo de Fomento de Exportação (Portuguese Fund for Exports), an agency of the Ministry of Economics, invited him to submit a proposal "for an experimental program to explore the potential of industrial design for Portuguese industry".[9] Gerald Gulotta published the experiences of this workshop in the *ID magazine* issue of March 1975. In this article, he explains that the purpose of this program was to start a short term training program to introduce 12 students to industrial design. Since it was difficult to condense a four year program into nine weeks, the ultimate purpose of this course was to demonstrate the process of design and encourage these students to

study abroad at qualified professional schools. The participants then would return to Portugal, form the profession and open the Design Centre to give support to the industry. The course was held in summer of 1974 and he called it "Workshop 74".

The Carnation Revolution took place in April 1974 and many actions done under the regime of General Antonio de Oliveira Salazar were dismissed by the opposition, socialists for the most part, and so was the case of the Design Centre project. Fate had prevented the birth of an industrial design institution but the Revolution did not interrupt the workshop. The workshop projects of the students were presented in January 1975 at an exhibition held in Lisbon. Although the results were successful, the idea of opening a Design Centre in Portugal did not find support from the new government that replaced the old dictatorship structures.

After the Portugal experience, Gulotta traveled to Mexico for sabbatical, in summer of 1975, at San Miguel de Allende. When he returned to New York City, in December of 1975, he met with two Mexican architects who were doing a research trip to understand what industrial design was, its education, methodologies and philosophy in order to open an industrial design school. They were Daniel González Romero and Vicente Pérez Carabias. Daniel González was responsible for contacting all the schools in the trip. After learning of Gulotta's experience in Portugal, the idea of inviting him as the foundation mentor of the school of design at the University of Guadalajara began taking shape. Shortly after, both architects finished their trip and returned home with their research on this new profession.

The foundation of the school of industrial design of University of Guadalajara

As mentioned before, the final report was

delivered on the 9th of August to the Consejo General Universitario (University General Council) where the opening of the school of design would be decided. The program submitted by Gulotta contemplated two separate workshops based upon the two semesters of the new foundation year. The first workshop would take place from the 6th of August to the 4th of September 1976. The second course was held from January 21st to February 25th. 1977. This is a partial list of the faculty who attended these courses: architects Vicente Pérez Carabias, Francisco Medina Robles, José Marull, Pablo Robles Gómez, Jesús Hernández Padilla, Martha Maldonado, Ana Lilia Mares Sánchez, Agustín Parodi Ureña, Armando Sánchez, Alfonso Gutiérrez, Carlos Veytia Ávalos, León Iñigo, Antonio Vázquez and Jorge González Claverán; plastic artists Dolores Ortiz de Robles and Humberto Ortiz Rivera, and technician David Ruvalcaba. Newcomers to the second course were: Ricardo Robles, Miguel Ángel Jiménez, Sergio Zepeda, y Héctor Navarro, all of them architects. (Many of these people today are well respect artists, designers and architects of the region).

The program was divided into six main areas on design education: aesthetic fundamentals of form, social/cultural philosophy of industrial design, methodology of the industrial design process, materials & structures, production methods, and skills for professional performance. In the letter addressed to Pérez Carabias, Gulotta points out that the first workshop will focus on the first year training, emphasizing that it is the course of fundamentals of design, providing the abstract principles of visual relationships (the *foundation* course created by Alexander Kostellow and Rowena Reed). He explained that it would also contain the basic philosophy of the industrial design program and that it would be necessary to demonstrate its effectiveness through practical

design assignments.[13]

He also recommended that for a four year program, the student should take other courses that complement or relate to the industrial design program. As an example he suggested a course on the history of Mexican culture in tandem with the industrial design course in order to understand contemporary cultural implications.

Since Gerald Gulotta didn't speak Spanish, he asked two of his senior students to work for him as translators and assistants in each of his workshops. In the first workshop, Mr. Gulotta was accompanied by Mauricio Olarte, a Colombian student who today is the owner of a large seating company called Series International, based in Miami. With his help, he worked on the aesthetic foundation of form, industrial design methodology and the basic skills for professional performance. In the case of the latter, one of the things that drew most of the attention of the faculty was the drawing technique of the *scroll*, which allowed the student to see his own learning evolution and understanding of free hand sketching. On the 20th of August the University General Council announced that the foundation of the School of Design of the University of Guadalajara was officially approved. According to the announcement, the foundation of the school would take place on the 21st of August and on the 24th the director of the school should take his place. This first director was architect Pablo Robles Gomez.

When Gerald Gulotta returned for the second workshop, in January 1977, he was accompanied by another senior student who also worked as translator and assistant, Gregg Davis, who today is the cofounder and head of Design Central in Columbus, Ohio. This time, the course focused on the completion of the aesthetic foundations of form, the other areas previously mentioned, and on visiting different fabricating facilities to illustrate

manufacturing processes. This second course allowed new faculty members to get involved with the foundation process and the curriculum modification that took place almost immediately after the school's foundation.

The profiles of the Industrial Designers of the University of Guadalajara

It is important to point out that although the preliminary research was finished and that the final report included a general outline and course of studies, the new director, Pablo Robles Gomez, and his board became aware that the program submitted by Pérez Carabias had serious absences, such as aesthetics and the basic skills for design performance. The important trait of this first educational program is that it had three orientations: machines and tools, industrial development promotion, and product design. The designer profile was oriented to the engineering skills, the knowledge on materials and transformation processes, but had very few tools for professional performance (such as drawing, drafting, presentation techniques, photography, model making and prototypes). In other hand, the program had three terminal areas for specialization: wood work, metal work and conglomerate materials. Pérez Carabias points out that the program submitted is only developed for the product design orientation but the other two require a more profound research to establish the structure of studies and its implementation.

The report also included two non degree areas with undergraduate recognition, allowing those who had completed their studies up to 5th and 7th semester, to work as technicians. These were called "subprofessional" studies.

The educational program was 10 semesters long and it was visibly saturated to allow students to work satisfactorily on their degree projects.

From the point of view of the six main areas described by Gulotta, this program lacked the aesthetic principles and the methodologies of design but included those oriented to some of the basic skills for professional performance, such as drafting and ergonomics. It is also apparent that it is influenced by historical-dialectic materialism (ironically this ideological orientation was about to interrupt the Portugal workshop, while in Mexico, it didn't seem to be an obstacle to embrace the vision from an "imperialist" school of design), but by contrast, there are some subjects such as Business Administration and Commerce and Sales. Another aspect to mention is that the program included courses on technical English. It is quite possible that this was due to the idea that this knowledge seemed to be part of the legacy from the Modern Movement, Functionalism or the Bauhaus, although the visual language didn't confirm this assumption. The figures of Kostellow, Reed, Dohner and the origin of the design curriculum of Pratt Institute were, and still are, unknown to the original faculty of the school of design of the University of Guadalajara, although the institution recognizes Pratt Institute as one of the most important schools of arts and design related studies in the United States of America.

The influence of professor Gulotta was decisive to redesign the educational program of the newborn School of Industrial Design of the University of Guadalajara, not only in terms of visual education but also in terms of humanistic and methodological subjects: the legacy of the Kostellos. In spite of dropping some ideas of the original plan, such as the "subprofessional" studies and technical English courses, the new program was stronger on the methodological foundations of the design discipline. These methodological foundations were reinforced with the arrival of young designers from other Mexican schools of industrial design, who, ironically, also were

influenced by the philosophy of Functionalism, and some others by the late HfG Ulm. These young designers would become new members of the faculty and therefore bring their own visions of the profession without completely understanding the legacy of Pratt Institute. This would constitute a different influence to discuss in a further occasion.

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Endnotes

- [1] Castrejón, 1986, p.114.
- [2] Salinas, 1992, p. 281.
- [3] Zambrano Villa, 1975.
- [4] El Colegio de Arquitectos, 1975, pp. 4-11
- [5] Pulos, 1988, p.166
- [6] *Ibid.*
- [7] Greet Hannah, 2003, p. 28
- [8] Pulos, *Op. Cit.*, p.178
- [9] Greet Hannah, *Op. Cit.* p. 28
- [10] *Ibid.*
- [11] Greet Hannah, *Op. Cit.* p. 29
- [12] Gulotta, 1975, p.58
- [13] Gulotta, 1976, facsimile

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