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CHILDREN'S FURNITURE: TEACHING, PRACTICE AND SOCIAL COMMITMENT

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Abstract

This article aims to show a teaching practice that believes that the practical implementation of the ideas associated with the care of a local need can enhance the learning process, providing it with deeper layers of meaning both in the technical and the human realms. Through it students can learn from the successes and frustrations of the creative act and at the same time understand the relevance of their professional activity by realizing that the nature of their work only makes sense when it is able to include the "other" in the process of its execution. At the same time, the article is aimed at presenting the results obtained along the 12 years in which this experience is being carried out – its premises, transformations and the figures that have been achieved – and wishes to outline the identification of the qualitative achievements of this type of action.

Keywords: v!13; Teaching; Social commitment; Furniture.

Introduction

The theme of the formation of a consciousness with the knowledge acquired through the accumulation of experience – typical of the artisan's work – was what interested Walter Gropius (2004) at the time of the formulation of the Bauhaus' pedagogy. Gropius bet on structuring a school in which the traditional notion of creative genius was replaced by the rational systematization of sensitive knowledge and an integrated workshop practice.

The empirical way of learning, suggested by the Bauhaus school, reveals the belief that knowledge adheres organically to the subject who experiences the process of realization of "things." Within the course of objectification of ideas all experiences are significant and provide some layer of knowledge.

Setbacks, mistakes, difficulties, frustration, successes and surprises arising from the process will help the author in a future opportunity, to devise more accurate, efficient and consistent forms with the available materials and means for transformations.

Practical experience can be seen as a knowledge catalyst. It both accelerates the conclusion and understanding of the processes and generates greater adherence to the information that has been understood. The meaning of 'to learn', in this context, seems to intensify and approaches the meaning of "to apprehend", i.e., to take for oneself, to seize, to grasp, to incorporate the knowledge¹.

In addition to thinking about the methods to give form to "things", we need to ask ourselves why bring them to life. Thus every act of creation must pursue a purpose, a subject, to get a sense of being.

For architecture, the more the subject is "outside" its creator the more it is justified and becomes essential. To reach its greatest goal, the creative act should be put to service the needs of the "other." From this perspective, when working with real and practical demands of a context, the subject of the action must be capable of the altruistic gesture of understanding the needs of others. Only so will the fruit of his/her action become relevant.

The experience of Children's Furniture (Mobiliário Infantil in Portuguese) presented in this article brings in its essence the belief in the efficacy of a learning process that takes place by forming *layers of meaning*, which are deposited by successive experiences, resulting in the formation of an awareness of the professional's social role.

The experience

In order to contribute to the development of more provocative pedagogies and believing that the classroom is a potentially rich environment, I shall report an academic experience that completes, in 2016, twelve years of persistent and fruitful development.

Currently the experience is part of a discipline that aims to study Design and the scale of the object. Despite its extensionist character – since the result transcends the

classroom – it is part of the regular curriculum content of the course of Architecture and Urbanism of the Centro Universitário de Belas Artes de São Paulo.

This experience has its origin in a theoretical discipline – History of Architecture, of the course of Architecture of the Universidade Nove de Julho – which focused on the period of modern architecture, in particular the Bauhaus. It came up as a strategy to circumvent the apathy and a certain difficulty in retaining an exclusively discursive and theoretical content. The idea was to introduce a practical exercise that reflected the theoretical context of discipline.

The proposal was to create an object based on the following parameters: serial reasoning, rationalist aesthetic and economy of resources (control of remnants).

To build the furniture some parameters (taken from the theoretical basis of the discipline) should be respected by the students in the design and implementation of prototypes. Among them the main ones were:

- Use of a single material, a MDF board.
- Perform its function through a docking system; use of glue and nails was not allowed, the use of through-bolt, such as locking, was permitted.
- Devise a form that reflected Modern rationalism (the period studied by the discipline).
- Design a form exploring the visual and physical characteristics of the chosen material, considering its structural rationality.
- Design taking into account ergonomics and universal use.
- Ensure that in the board printing system, if subjected to an industrial process, waste would not exceed 20 percent.



Fig. 1: Conception stage – development of models. Source: Denise Mendonça, 2010.

The experience lasted two years and the results soon proved to be valuable, as well as the enthusiastic response of the students, who realized they were able to give materiality to an idea.

Given these results, especially the interest and enthusiasm of the students, in 2004 came an invitation to join a social project, linked to the course of Pedagogy (Education) at the same Universidade Nove de Julho, which was dedicated to children, to playing and to training *brinquedistas*². The idea was to use the prototypes produced in the discipline in partner institutions of the social project with the intention of creating, with the furniture, a suitable environment for a toy room.

For this reason, since 2004 the issue “child” has been part of our activities.



Fig. 2: Final model stage - finished prototype. Source: Denise Mendonça, 2010.

The practical exercise, while keeping the same theoretical basis and assumptions of the original challenge, has become more complex and, at the same time, expanded the results and the theoretical and pedagogical perspectives initially approached for the implementation of this type of practical activity.

Given this new focus of the discipline, the conclusion of the semester activities was no longer restricted to the grade evaluating the performance of the student with the product he/she presented, but also to the destination to a real user, which brought a new, unknown dimension to the exercise.

The weight of responsibility in meeting the needs of a specific and delicate target audience such as children imposed the need to work with low tolerance to design errors.

Since the topic childhood was not much discussed in the curriculum content we had to resort to professionals from other areas, such as pedagogues and psychologists specialized in childhood, giving the exercise an interesting multidisciplinary character.

Stages of development

In the course of twelve years the project Children's Furniture has undergone a number of modifications of various kinds. Thus there have been changes in the theme, the visual purpose, the service profile and even the academic context, but never losing sight of the communicative and educational focus of the form.

In each phase of development we thought over the results, trying to point out the achievements, frustrations and difficulties that implied the necessary reassessment of the direction that had been adopted, and then try a new step. This was always done as a team.

The presentation of these different steps can illustrate the maturation of the proposal and help the construction of new, unsuspected meanings when it reaches an interlocutor.

Stage one was *Furniture - A Utility*, an exercise in the discipline of History of Architecture and Urbanism IV developed in the course of Architecture and Urbanism at the Universidade Nove de Julho carried out from 2002 to 2004. Its purpose was to be a practical application of the theoretical premises of the Bauhaus school discussed in class. Students should adopt the role of a utility to develop a prototype respecting the paradigms they had learned. The final production of this discipline resulted in an exhibition at the institution that attracted the attention of the academic community.

With the impact of the exhibit, the discipline received an invitation to work with the issue of childhood.



Fig. 3: Exhibition of the first pieces – 2002- 2004. Source: Denise Mendonça, 2003.

The second stage was the *Interactive Children's Furniture*. The invitation to join the Universidade Nove de Julho's Social Project happens and redefines the purpose of the exercise of the discipline. The idea now is the execution of children's furniture for use in playrooms and whose products would be donated to institutions directed to give support to children. In this new format the selection of institutions was made by the university's Social Project Department, which also was responsible for the logistics and other arrangements involving the execution of the action. It was carried out in the period 2004-2012.

The idea of producing furniture for use in playrooms forced us to better understand our target audience and the activity in which it was involved – children playing. At that time, the assistance of the instructors of the university's course of Pedagogy involved in the project was essential to give us the basic instruments for the research and the theoretical basis.

When examining the subject we realized how much we should activate the capacity of communication of the objects, so that, when used, they would be able to create links with the user. We noted that, unlike other objects geared to adult audiences, the communicative capacity of children's furniture was so essential that it should precede even its function. It should itself become the reason of being for its creation.

Thus the discipline proposes that the concept of the object departs from a number of interactive concept words, such as: fold, turn, multiply, change, grow, hide etc. In this context, the form is the vehicle by which the child is encouraged to manipulate, explore and discover the properties of concepts.



Fig. 4: Pieces of *Interactive Children's Furniture* – 2004 - 2012. Source: Denise Mendonça, 2010.

The third stage was *Accessible Design - Children's Furniture*. The project was implemented at another institution, the Centro Universitário de Belas Artes de São Paulo, in a discipline with a practical character, Design. And in order to distinguish the production in this new context, the issue of inclusion and accessibility was adopted as a focus. The corresponding period was 2009 to 2010.

At this stage the discipline incorporates the management of contacts with the institutions that will receive donations. And in order to develop prototypes with a sense of accessibility for some years, the discipline sought to meet the needs of children with some kind of physical disability. We started by contacting two institutions geared to children with low vision and blindness. At that point we were interested in developing visual contents to amplify the communicative character of the objects for this type of child – thus concepts and actions of the visual realm, such as expand, fold, break, to bring the child closer to this universe.

To include all children in their various levels of apprehension, we introduced materials with contrasting colors, reliefs, textures and captions in Braille of the concept words, in order to increase the capacity of the child with disabilities to make discoveries when exploring the objects.

In the same period, in addition to children with visual disabilities and with the same approach to accessibility, we worked with other institutions geared to children with motor, cognitive and multiple disabilities. And likewise, just like in our first contact with the child, for each of these particularities of care we were led to expand the information specific to each group.



Fig. 5: Pieces of *Accessible design - Children's Furniture* – 2009 – 2010. Examples of furniture made with concept words – grow/ multiply/fold. Source: Denise Mendonça, 2010.

Children's Furniture - Visual Arts was developed in the years 2011-2015. Although the concern for accessibility and universal design continues to inform and guide the development of projects to date, in this period the issue of teaching arts to children was included as a subject for the motivation of the design of the forms. The fact that we are in an institution specialized on the subject opened the perspective of how timely would be the inclusion of this theme in the design of objects.

So the idea was to build furniture whose formal inspiration called forth an affiliation with a contemporary artist, turning him/her into the means of communication of visual principles that feed the universe of artistic expressions.

At this stage, the concept words were chosen from within the context of aesthetics. Thus terms like sinuous, rhythmic, fragmented, linear, among others, were used to guide the visual research of the objects.

Each group was given a concept word and had to find an artist that dealt with this subject in his/her work. From this choice the student should be able to communicate the concept and the expressive meaning of the work of art to children through the piece of design. The furniture would then be a stimulus for the development of pedagogical themes that addressed the visual issues.



Fig. 6: Pieces of *Children's Furniture - Arts - Cadeiras Pequenas* (Small Chairs) – Leda Catunda – 2011 - 2015. Source: Patricia Crispim, 2012.

During this period, to guide the work of the educators in the possibilities of exploring prototypes as a means for the development of teaching practices, we decided to draw up an assembly manual to be delivered along with the furniture. This folder has as content:

- The step by step assemblage of the object.
- The work of art that inspired the design.
- A short biography of the artist.
- The visual concept of the piece.

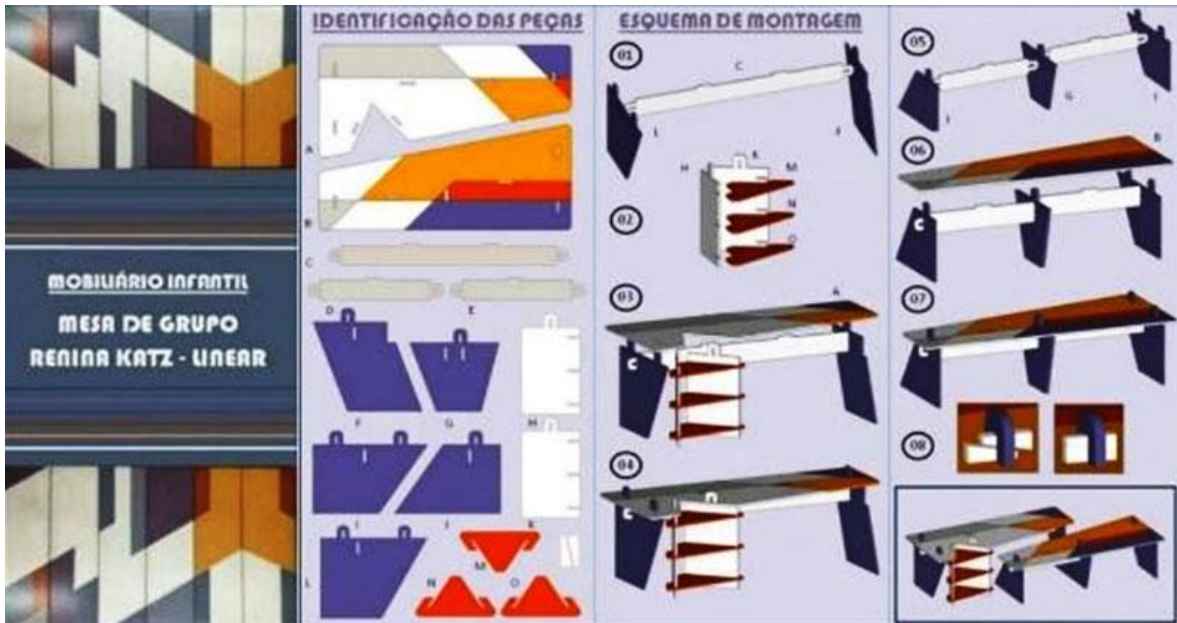


Fig. 7: An example of the Folder. Source: Denise Mendonça, 2012.



Fig. 8: Pieces of Children's Furniture – Arts. From the left: Esconderijo (Hiding Place), Sergio Tozzi. Shelf and Picture – Sacilotto. Source: Patricia Crispin, 2014.

In early 2016 was organized the *Children's Furniture - The Design that Plays*. This year some thematic changes, as well of materiality, were implemented in the project. The changes are aimed at getting out of the comfort zone and enhance the investigative character of the production. Thus in addition to the use of MDF, other materials were allowed for the soft parts of the composition. Each group could suggest a material according to the need of the project.

Regarding the theme, the focus on the visual arts gave way to the playful nature of the objects. Again this is not to discard the previous experience: by introducing the subject "to play", what is wanted is to point to the urgent need to ensure that right to children.



Fig. 9: Pieces of Children' Furniture – Design that Plays – 2009 - 2010. Source: Patricia Crispin, 2016.

In the beginning of the work the group must choose a children's book to guide it in the preparation of the proposals. Here the idea is to make the design become a means of potentiating the playful universe presented in the books, almost like an expanded reality. The design amplifies and materializes the setting of the story and invites the child to read. In this context, furniture and books form a cohesive whole and are donated together to the chosen institutions.

Metrics

In the course of the development of the experience, the Children's Furniture project produced figures that can attest the scale of its productivity and reach:

- It has existed for 12 years and has been implemented in two higher education institutions, in disciplines of the curriculum of the course of Architecture and Urbanism.
- It has had the collaboration of 28 instructors and 9 laboratory technicians who have passed through the disciplines.
- It has involved approximately 63 classes, and about 3,600 students.
- It has implemented 64 playrooms in child care institutions.
- It has produced and donated about 640 children's furniture prototypes.
- It has attended approximately 9,200 children.
- It has implemented playrooms in schools, daycare centers, NGOs that receive children after school, circus schools, institutions for handicapped children, institutions for children with cancer, institutions for children with visual, motor and cognition impairment; children's hospitals; temporary homes for children who are undergoing nephrology treatment and even in the children's visiting areas of two women's prisons.
- Four years ago we started a partnership with Masisa, which provides the MDF plates used in the prototypes.

The project also includes numerous and significant publications about the work, both in print and digital. And this year it received the invitation to join the Art and Design Market - MADE, which is part of the calendar of São Paulo Design Week - SPDW.

In the period of existence of this project we were able to follow the career development of a number of students who, impacted by experience, adopted furniture

as their professional field. Also, products conceived as part of the discipline have gained market versions³.



Fig. 10: From the left: Cadeira Jongo (Jongo Chair), by forME; Cadeira Kuka (Kuka Chair) – design in open source - Studio dLux. Source: Renata Carelli, 2016; Studio dLux, 2014

Beyond the numbers

These significant figures indicate for us the importance of a reflection on the process, the results and the development prospects, so that similar actions can be disseminated and contaminate many other educational initiatives.

The richness and the diversity of solutions found in the 640 prototypes produced in the twelve years of the project show that the trodden path is fruitful and results in an effective teaching strategy. However, if we pay too much attention to the quantitative figures that the project has produced we may miss the deeper dimensions of the qualitative achievements from the human point of view.

With this in mind, we highlight some of the qualitative achievements of the experience: the development of a responsible attitude, the formation of a social conscience, the expansion of the world view, the abandonment of the state of creative lethargy, the discovery of the importance of the other, the recognition of one's creative capacity, among others. While considering them the most important results, they are also the most difficult to measure. The difficulty in assessing them, however, should not prevent us from trying to find ways to measure the positive impact of the experience.

In this sense, the stages of execution and delivery of the furniture to the institutions are the moments in which there can be seen that the experience touched contents beyond the purely academic ones.

For example, the phase of execution of the prototypes, which occupies the last 6 weeks of class, requires students to multiply the 3 hours per week of the discipline to alternative hours, but even with the commitment of the evaluations of other disciplines they are able to organize themselves in shifts to complete the activities. At this stage it is common to see friends, partners and relatives in the classroom as volunteers to help in the execution of the pieces. The unusual presence of people from outside the



academic environment may indicate a different involvement of the students with the content of what is being produced.

A second significant point in the process is the moment of the party when the furniture is received by the children. This event alone has generated a series of countless surprising situations. In its various editions, in addition to the party, often organized by Architecture students, we have had the presentation of musical groups, dance groups, circus, theater and many other activities carefully prepared for the children. At this point it seems that the student realizes that, besides the product of his/her professional activity, he/she can give something personal too. So unsuspected talents of students manifest, as well as a desire to share a different kind of knowledge. Like in the execution stage, on these occasions we see the presence of relatives and acquaintances, who want to participate, register and contribute to the event.

All these spontaneous demonstrations, here synthetically reported, and the pleasure with the presence of witnesses from outside the academic circle, can point out to the character of a "great achievement" that the creative experience becomes to those who experience it.

The intensity of the pleasure associated with this kind of process reveals aspects and dimensions that must be analyzed and understood so they can be systematized and replicated.

Conclusion

The purpose of this reflection on an academic practice is underpinned by the belief that the academy has an immense capacity of action and creativity and, when properly stimulated, can become a nucleus of resistance to regressions typical of moments of crisis. To ignore this ability or to keep it captive to the closed environment of a classroom is to suppress the transforming power of knowledge when it reaches common goals.

The report of the experience of the project Children's Furniture thus wants to contribute to the dissemination of active teaching practices, which place students as makers of concrete things for the real world. It is believed that this type of experience in the academic period may contribute to form a professional conscious of the technical and human character of his/her activity, in addition to serve as a warning for the necessary involvement of academia in building a network of actions to shape a more equitable, healthier society.



Fig. 11: Images of parties for receiving the furniture. Source: Denise Mendonça, 2013.

Instructors who collaborated in the project

Ailton Santos, Aline Nasralla, Cristiana Sultani, Debora Faim, Debora Machado, Debora Sanches, Denise Xavier, Edson Tani, Flávio Moraes, Gabriela Mafra Barreto, Heber Claudio, Jaques Jesion, Jethero C. Miranda, José Alves, José Henrique Valerio, Keli Garcia, Liliane Simi do Amaral, Lucimeire Pessoa de Lima, Luis Octavio Rocha, Marcos Lopes, Mariana Rolim, Paulo Ferrara, Paulo Henrique Gomes Magri, Raphael Manzo, Roberto Fialho, Romulo Russi, Tiago Senem e Franco e Vagner de Oliveira Muniz.

Technicians who collaborated in the project

Antônio Bento da Silva; Catia Wellichan, Francisco Amorim, Fernando Nascimento, Jair Quirino dos Santos, José Guildenor Guedes, Osmar Brito, Raimundo Alves Nascimento, Umberto de Souza Telles.

Bruna Shayene; Laiz Carelli: Fernando Festa from the ForMe Company, authors of the Jongo chair - which was developed in 2014 for the discipline - since 2015 began to produce it commercially.

Notes

¹**Translator's note:** in Portuguese, aprender (to learn) and apreender (to apprehend).

²**Translator's note:** the professional that works in a brinquedoteca (playroom or toy room).

³Architect Denis Fuzii, from StudioDlux office, has works in the area of design. It started its activities in putting projects in open source - like Kuka chair. Currently the office, among other activities, represent the OpenDesk Company in Brazil.

Reference

Gropius, W., 2004. *Bauhaus Novarquitetura*. São Paulo: Perspectiva.