

The Pursuit of a Local Identity Developed With Native Bamboo Design

Katia Sei Fong - 'Bambú en Uruguay' / Ministry of Education and Culture of Uruguay

Abstract

The search for local identity products and design objects made by the immediate communities from native bamboo is a social enterprise that emerges as the evolution of the cultural project 'Bambú en Uruguay', which was developed in 4 points of Uruguay where the material is significant and the concern of the population began to think of it as an opportunity to develop a social enterprise [in the incubation stage].

Introduction

Bamboo first of all develops roots and then simply rises to the surface. Bamboo is a sustainable and renewable material which adapts to the climate and soil of Uruguay, so its future development and evolution depends on each and every one of us citizens.

'Bambú en Uruguay' emerges as the first contact of bamboo to the population, seeking to arouse the interest of the people, achieving very positive and encouraging results for us to continue working with the material. While there is no tradition or culture of bamboo in Uruguay, the word 'bamboo' is incorporated into the name of a department and several cities to identify it in areas that have an abundance of it and that have no record of working with the material. After proper training, research and experimentation, I want to share and show what bamboo is and its other existing native species in the country which could be used as a prime material worldwide.

Cultural Project

'Bambú en Uruguay' is a project selected and financed in the design category by the Competitive Fund for Culture - Ministry of Education and Culture of Uruguay <http://www.fondoconcursable.mec.gub.uy>, which promotes the culture in the countryside of Uruguay, declared tourist interest by Natural Uruguay of the Ministry of Tourism and Sports, supported by the departmental governments of Tacuarembó, Artigas, Rio Negro and Montevideo, the R.P.China Embassy in Uruguay and Infanzoni, a brand of artistic materials.

'Bambú en Uruguay' [www.bambuenuuguay.com / www.facebook.com/bambuenuuy] promoted the use of the material at strategic points in Uruguay, where exists native bamboo and is transmitted through different experiences. This cultural project worked with different approaches, showing the possibilities of an exhibition that visited the different selected points in the countryside. For the workshops we developed a range of didactic materials and 20 workshops were performed with children and adults (of whom more than 5000 people).

Places

Four points from Uruguay were visited according to the existence of bamboo in the chosen territory and the relevance in their environment: Tacuarembó, Artigas and Rio Negro collaborated with Montevideo in order to expose the results achieved.

Tacuarembó refers to the word "*Tacuara*" derived '*ita cuara Guaraní*' (ita stone or hard stick, cuara hole). Another version of the origin of the name, the *Guaraní* word is used to describe the "shoots of tacuara". The name of the department and its capital city makes direct reference to the presence of the material in its territory; for example, the departmental shield depicts bamboo and other different local symbols. When travelling, Tacuarembó can be seen on the sides of streams, canes, and townhouses while bamboo bushes are "domesticated" by locals. On the grounds of each house and every block in the capital, there live tacuara canes. Local citizens live daily with bamboo adapting it to domestic uses: fishing rods, hangers, curtains.

Artigas, the native bamboo found in the insular area in the Uruguay River is a reference point for the whole country, climate, and seeds reaching the river in northern Argentina and southern Brazil. The seeds adapt to the Artiguense territory, where there is existence of various native species. Notably, in the department of Artigas there is already existing product development based on local raw materials such as deposits of semi-

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precious stones and sugarcane plantations [similar to the shape of bamboo] demonstrating that bamboo can be another example in the not so distant future.

Río Negro is located in the surroundings of the provincial capital on the banks of the Uruguay River that is close to the area of Las Cañas, whose name is given because of its abundance of native bamboo poles. Native bamboo featuring in the area are "domesticated" by man because it has thorns. Bamboo occupies the territory in its wet areas and empty spaces creating a microclimate with shadows and sounds of leaves and branches. The zone has been equipped with adequate facilities for tourist use of the Uruguayan coast. The use of bamboo in the region of Río Negro is limited to ornament and small craft productions. Historically the city of Fray Bentos (capital of the territory of Río Negro) has great bearing industries, despite the tourist influx from the neighboring country (Argentina).

Montevideo, the capital of Uruguay, was where the idea of the cultural project emerged. The experiences of the exhibition and workshops within this bamboo project were presented in the Botanical Garden in Uruguay. In Montevideo the majority of bamboo species are introduced in different areas and numerous others are hidden on private property. The Botanical Garden, where the exhibition is located, is a unique environment in the country where different species of native flora coexist therefore being the reference for excellence around the country.

Currently the exhibition in the 'Museum and Botanical Garden Professor Atilio Lombardo' in Montevideo holds many of the existing species of bamboo present in the country and today we are beginning research in planting native bamboo, experimenting with different methods. On the subject of 'Bambú en Uruguay' I presented a lecture to highlight its link with a course titled "Recognition of the autochthonous flora". (Figure1)

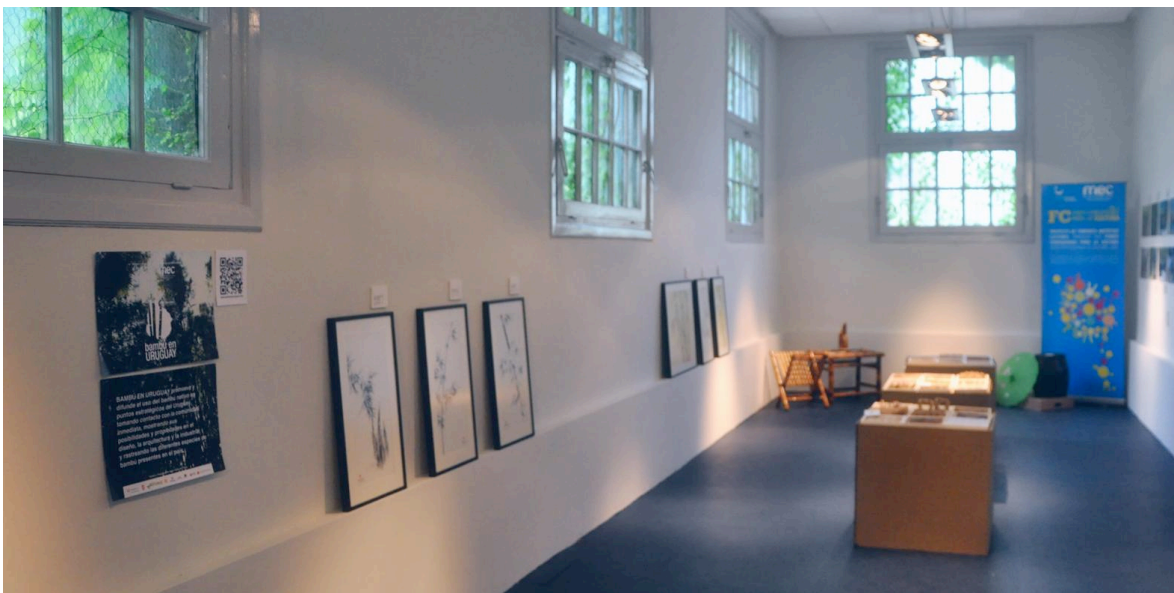


Figure 1- Exhibition at the Botanical Garden Professor Atilio Lombardo Museum in Montevideo

World Bamboo Day is a celebration to raise awareness worldwide of the importance of this noble material in contemporary culture. Bamboo grows naturally in many parts of the world and is an item used in the everyday lives of many cultures. On September 18th 2014, Uruguay's World Bamboo Day was celebrated for the first time through the 'Bambú en Uruguay' project which involves many different key activities in Río Negro and Montevideo. We visited native bamboo forests where I gave various workshops in which rural public schools participated, making direct contact with the species available and arousing great interest in future generations.

Exhibition

This was the first time that an exhibition, exclusively about bamboo, was held in Uruguay. The project aimed to show the nature of the material, sharing the enormous possibilities of its application in the design, architecture and industry. We demonstrated that bamboo is a material which is: sustainable; fast-growing;

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versatile; renewable; durable; and flexible with many other features and endless possibilities that makes it the resource-material of the future, transmitting the different sensations and textures of material.

The exhibition showcased 4 perspectives of the native bamboo plant, showing its potential in the local area as a starting point for its development. The exhibition consisted of photographs, Chinese paintings, experimental sculptures in 2D and 3D, and products from different cultures. These four expressions allow the visitor to perceive the broad range of possibilities and characteristics of bamboo as well as its limitations that exist in our environment. Each of the exhibition pieces played a fundamental and essential role in the whole exhibition.

The Chinese paintings, started with simple sketches and/or diagrams to elaborate on the direct observations of bamboo forests and bushes in different situations and locations. In design these paintings are abstract and emphasize everything about our senses and perceptions: the noise of leaves, the blow of the reeds, the hollow interior and exterior resistance, moving shadows and the presence of the different inhabiting animals. Transforming all sketches made at different times, in different expressions and surfaces, in the same expression; Chinese paintings, where the full and empty, colors and monochrome, try to simplify expressions transmitting the vivid sense an instant concentration and contemplation. The Chinese paintings are based on the four treasures of writing: brushes, made with bamboo and hairs of different animals, ink stick, slate and rice paper.

Bamboo is a symbol of traditional values found deeply embedded in Chinese culture, for example for its flexibility and harmony between nature and human beings. Its deep roots symbolizes its firmness, its stem represents honor, the hollow interior reveals its modesty and its exterior is clean and spontaneous while resistant.

Compositions of different diagonal sections of bamboo, straight or perpendicular (of different diameters, lengths and sections), generates rhythms, patterns, and textures which act as a source of inspiration for the creation of innovative products with existing native bamboo in the country.

The textures are divided into 3 categories: longitudinal sections, cross sections, and scale. The first two categories, the longitudinal and cross sections incorporate an outer -material; the third category, scale, is a limiting factor. The textures were categorized and contained in 20x20cm boxes and various mosaics were generated to be able to promote the creativity of each individual. We used two species at random, (one introduced and one native specie) where the typical characteristics of each individual specie generates sensations.

In the photo exhibition, there was the need to transmit the authentic essence of the natural environment and context. This gave a snapshot of the various situations of bamboo from the perspective of an observer looking for the true essence of bamboo material. The pictures were taken in forests, parks, factories, universities and shops in China, on the academic trip of architecture and in Uruguay also. In China, during the training course on Bamboo Technologies for Developing Countries in the CBRC, during two months, we visited the cities of Hangzhou, Shanghai, Anji, Suzhou, Nanjing where we also toured factories, plantations and institutes in which they operate a dynamic and fluid production. On the academic architecture trip we visited forests, parks, shops, universities, studios, and exhibitions in the United States, Japan, China, India, France, Netherlands, Denmark and Italy. In Uruguay, the different species were detected and we visited the Faculty of Agronomy UdelaR and the botanical garden <http://jardinbotanico.montevideo.gub.uy/>. The selection of photographs focused on conveying the different experiences and showing the wide range of possibilities and realities existing in other distant contexts; while at the same time showing the near proximity of globalization which enables the possibility to complement, enrich and nourish the reality of the local environment.

Through products of different origins, different cultures, with different technologies and different uses, we showed the possibilities of bamboo, from hand fans to furniture of which many are marketed locally. The exhibition incorporated products made by local artisans that were found during the tour. This dynamic and very much alive 'product catalog' shows the versatility of the material adapting to the different technologies and bamboo species, thus transmitting the essence to develop local creativity and its use thereafter.



Figure 4 - Workshops with prisoners in rehabilitation

Workshops

A total of 20 workshops were carried out in the country with children in rural public schools. After the workshop, the children showed their drawings at the exhibition. During the workshop, after explaining the basic concept and uses of bamboo, the children created a bamboo forest and built structures and spaces with sections of bamboo as a building material, a research tool to approach to architecture, and a way to develop creative thinking and sense of visual and spatial perspective as a game.

I added workshops for adults because of the interest of the local population with different profiles such as local artisans, with rehabilitated prisoners, and with teenagers who neither studied nor worked but had carpentry training.

Contact with people is one of the most fundamental points for the development of bamboo as material. (Figure4)

The workshops were divided into three main groups

1. Theoretical theme of material: parts, existing species, the way of working, possible applications and several examples.
2. Visits to the exhibition (if possible).
3. Practical experimental that works directly with native bamboo.

Didactic Materials

We developed two lines of products for educational institutions to work with children in schools as well as children's games at home.

The first product was 'bamboo stamps' where the children with different cuts of bamboo could create drawings and compositions to form a middle ground between finger painting and a brush but which allows thicknesses and mixtures of repetition. (Figure2)

The second product was 'building block toys' made with different pieces of bamboo and then incorporating children in the generated structures, working with a digital application for XO laptops and smartphones so any user can make the composition digitally with an application. (Figure3)



Figure 2 - Stamps with pieces of bamboo canes



Figure 3 - Construction structures composition of different pieces

Recognition of Species

In my observations, I collected the existing species in Uruguay during the exhibition tour (*Guadua Chacoensis*, *Guadua Trinii*, *Chusquea Kunth*, *Chusquea Ramosissima* and *Bambusa Tuloides*). I verified what is known, theoretically speaking, of the native bamboo of Uruguay. Currently I am starting to experiment with plantations on the local level. (Figure5)



Figure 5 - *Guadua Chacoensis* at the Botanical Garden, also seen in Artigas

Evolution from Cultural Project to Social Entrepreneurship

Upon finishing the ‘Bambú en Uruguay’ project, I realized its local impact through the amount of press coverage I received as well as the various inquiries about how to work with bamboo. This made me think about how to develop the material in the future in Uruguay.

Currently I am in a one-year incubation program at The DO School to launch my social enterprise. I was one of the 19 selected fellows, selected from over 1000 applicants around the world. The one-year program is a competitive fellowship enabling emerging social entrepreneurs to plan and implement their own ventures. Fellows receive start-up training, engage with current experts, and create change by implementing their social start-ups in their own communities.

Objective

My primary objective is to develop local communities with native bamboo in their immediate environment by creating products with local identity and working like an active laboratory. This objective is also accompanied with an overarching plan to promote the benefits of plantations as well as sustainable development. Bamboo training will teach the skills necessary in order to develop products by different local communities. I have found an opportunity to do this because the work with the bamboo has not been developed in Uruguay. Although there are other examples in the region, for example Argentina, Chile and Brazil all are home to different projects with bamboo. In Uruguay, the raw material evidently exists but it is not being utilized yet.

I am working on the idea of developing a key market strategy involving a basic business model, budget and a brand. But I am also thinking about the economic opportunities of producing and selling bamboo design products for rural Uruguayans. I am thinking seriously and researching widely about how I can scale the project in the future as well as continue to maintain an economically sustainable program.

Conclusions

As explained before, due to the successful work of the ‘Bambú en Uruguay’ project, funded by the Ministry of Culture of Uruguay, ‘Bambú en Uruguay’ is currently evolving into a social enterprise because of the increasing interest of the population. I am participating in the 10 week incubation phase of The DO School program, Hamburg, Germany; where we are working in partnership to make my bamboo enterprise more economically and logistically viable through methods such as market research and training curricula. Furthermore, I am currently developing possible designs of bamboo with Uruguayan local identities with the intention of implementing these designs (and the whole holistic program) in the next 10 months which form

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the implementation phase of The Do School program which will take place in Uruguay. By the conference date, I will most definitely have some concrete results from this phase of implementation).

Appendix

‘Bambú en Uruguay’, is a project by Katia Sei Fong, <http://www.katiaseifong.com>, an advanced student of architecture at the University of the Republic of Uruguay <http://www.farq.edu.uy/> and graduated in Industrial Design from Industrial Design Centre with ongoing thesis theme ‘bamboo’, in 2010 she obtained a scholarship for two months in a Training Course of Technology of Bamboo by the Government's China at the CBRC based in Hangzhou. In 2012 at the Academic Trip of Architecture she has interviews, visits studios and factories which work with bamboo, forests and some academic courses, competitions and international projects in Architecture and Design related to bamboo which allows her to specialize in the subject. Bamboo in Uruguay emerges from the industrial design thesis, because in the area where she lives there are many *Guadua trinii* around. The different experiences and training seek to contribute to the development of bamboo material in Uruguay, from the perspective of a native raw material in the country with great potential at different scales.

Academic Trip of Architecture, the trip made by architecture students from the University of the Republic - Uruguay is a special experience with 70 years of tradition, which allows - after 3 years of effort and coordination - to make a trip for 9 months around the world [including North America, Asia, Middle East and Europe]. This architecture trip tries to teach what was studied in classrooms in real life to make live, experiment, feel, analyze the masterpiece of architecture, the city, or any other space regardless of scale. The academic trip of architecture is part of a process and the end result of a collective effort that is prepared during the course, together with teachers and university authorities teams. It means a complement to the training received during the career in architecture. This tradition has promoted the knowledge of multiple cultures and its activities have played a key part in personal and professional lives of over 3500 Uruguayan architects. With the active involvement, support of the University and other institutions, national authorities, foreign governments through their embassies and organizations, it is mainly the people themselves who massively support the development of the trip.

The Competitive Fund for Culture is a program of the Ministry of Education and Culture of Uruguay that rewards artistic and cultural projects.

The Competitive Fund for Culture <http://www.fondoconcursable.mec.gub.uy/> was created by Law No. 17,930 of December 2005. It is a program that allocates public funds to Cultural Art Projects through competitive mechanisms. The main objective of this Fund is to democratize culture and equal access opportunities for cultural goods, stimulating concentration and decentralization of cultural activities, diversifying and strengthening cultural projects in different regions and regions of Uruguay. A public call per year aimed at artists and makers of culture to apply. Cultural Art Projects are evaluated by external jurors MEC [Ministry of Education and Culture]. In 2013, 406 projects among which was selected ‘Bambú en Uruguay’

The DO school <http://thedoschool.org/>

The One-Year program empowers talented young adults from around the world to learn by doing and start their own venture. It is designed to train, mentor, and empower emerging social entrepreneurs and entrepreneurs to work together on campus and then kick start their own ventures in their home country. The One-Year Program teaches the DO School Method. It allows each student – our Fellows – to learn how to become an innovative and impact driven entrepreneur, exchange with passionate peers, engage with leading experts and learn what it takes to turn their own ideas into a successful venture. The program connects you with experienced leaders, who share their knowledge and experience in a hands-on, effective and fun way. The program takes place in two phases, the ten-week Incubation Phase on campus and the ten-month Implementation Phase in the Fellows’ home countries.

The incubation phase

During the Incubation Phase the Fellows solve the Challenge – a hands-on group task given by a company, governmental agency or NGO, and prepare their own start ups.

The DO School Program Incubation Phase Guided by the DO School Method and supported by leading experts the Fellows work on the real life Challenge and learn hands-on what it takes to tackle a complex issue and implement a solution. By the end of the ten weeks Fellows have created a concrete service, product

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or campaign for the Challenger and have thereby received training on what it takes to turn an idea into action in real life. In addition, they work on their own mission-driven start-up turning their idea into a viable business plan that is ready for implementation. The Fellows are supported by three courses: the Challenge Lab, Venture Lab and Media Lab.

The implementation phase

The DO School Program Implementation Phase During the Implementation Phase, Fellows create their start-ups while being supported through the DO School Cloud online learning platform where they receive input through skill and value modules, as well as interact and exchange on a peer level, and receive feedback and advice from mentors as well as the DO School program team. The Implementation Phase supports the Fellows through their own start-up phase by providing the knowledge and skills that are relevant to get a social venture off the ground successfully where and when the Fellows need it. During the Implementation Phase each Fellow puts at least 500 hours of work into their venture and impacts on average over 100 direct beneficiaries.

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