

BAMBOO IN CHILE

In Chile the bamboo formations, traditionally they have been conceived as not wanted species. In occasions it is paid by their elimination, or it is dedicated to uses of very little added value, as tutors for agriculture, rustic furniture, smaller uses in rural housings, supplementary forages, etc. The Chilean bamboo is not recognized as a bamboo among the Chilean society, if it's a canes or stands that generates problems to be invasive and to attract the plague of rat in its seedling time, mainly.



In Chile 12 bamboo species exist and all of the Genera Chusquea

The most common of recognizing are Chusquea Culeou and Ch. Quila. They have also been introduced from China and Japan 5 species of Phyllostachys, as the Ph. Viridiglanscens, Ph. Pubescens, Ph. Nigra.

The Chusquea are between the V and XI region of the country. This resource covers 900.000 ha, with productive potential, where 80% concentrates between the IX and XI regions. Chusquea Culeou, local name Coligue, it is the species of more commercial potential, and it covers a surface of 305.000 ha.

The good known and studied are: Chusquea Culeou, Coligue, it is characterized to have straight and not ramified culms that they are presented in masses of up to 100 culms, each culm has a basal diameter of 4 cm. And longitudinal of 7 to 11 meters, reached in a single vegetative period. (3 months) The culms is solids, non holes as other bamboo species. It grows in the counties from Talca to Palena mostly in the Andes but also in floors river – glacier 40–100% sun; minimum temperatures of -10°C Chusquea Tenuiflora is among the 900 to 1200metres s.n.m., it is of small masses they reach from 6 to 30 culms, the culms reaches up to 1cm. Of basal diameter and a longitude until of 3 meters

The species are:

Chusquea Culeou sp. Breviglumis phil Colihue
Chusquea Uliginosa phil. Quila del ñaqui
Chusquea Andina phil ciligue andino
Chusquea Sp. Aff. Ch. Culeou
Chusquea Argentina Parodi
Chusquea Tenuiflora phil. Tihuen
Chusquea Quila kunth quila
Chusquea Nicricans phil. quilatehuen
Chusquea Macrostachya phil quilaco
Chusquea Palenae quila de palena
Chusquea Cummingii phil, quila
Chusquea Valdivianis



Chusquea Quila



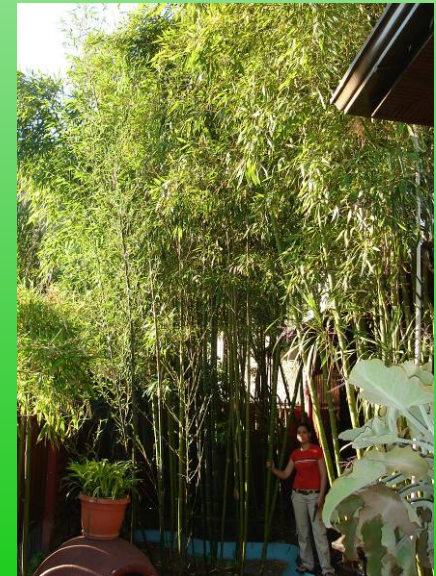
Chusquea Culeou

INTRODUCED BAMBOOS

Phyllostachys Viridiglaucescens had introduced for 10 years ago.

There are registrations of private lands that have bamboo introduced from China, for 20 years ago.

Today every day there is but designers and decorators looking for this cane type that it call **exotic bamboo**, for restaurants decoration, parks, etc... This is because of the great attraction that exists toward China. Today all that is Asian motive great interest. And believe a significant contribution, for the Chilean bamboo. More people know of the bamboo and their importance in Asia, and they take it as example and they look for their presence more every day in their houses, offices, public places. Accepting the Chilean bamboo little by little.



Phyllostachys Nigra, in the garden of my house.



Commercial potential:

Contrary to the commercial bamboos in the rest of the world the Chilean bamboos species is of solid culms. This factor can be outstanding in the measure that uses and products are developed in which its advantage this condition like comparative advantage.

The technological studies concluded that it is technically feasible the use of the national bamboo in the production of products like: ornamental boards, charcoal of activated bamboo, products to derive from carbonization, pulp and paper, boards of particles and other products.



Chusquea Valdivianis



Chusquea Quila

With the objective of transforming the bamboo in an economic and environmental resource. In the year 1999 Foundation Chile Austral University, they begin a project of exploratory character, guided to obtain basic antecedents to plan the development of the bamboo in Chile.

The existence study, handling and cultivation of the resource determined that it is possible to have a sustainable offer of raw material, for the implementation of alternative productive of industrial feature on the bamboo base in Chile.



The bamboo species in Chile are in a wild way in our mountains, hills, fields, in the rural areas mainly.

It doesn't exist cultivation or handling of the Chilean bamboos.

It is one of the reasons for the one that who have bamboo in their lands, they are threatened by the quick growth that it have and their lack use.

For this reason it is that we are implementing a training course, to give the tools and necessary knowledge to already begin an appropriate management of the bamboos existent.

And this way to obtain benefits, such as stand bamboo with good quality to be marketed in the area of the construction, design, decoration... to make consumption of the shoot, so much in a local way, as the implementation of a processing plant of bamboo shoots.

And for the last a **workshops for the young people**, giving the bases of the design, industrialization, commercialization of derived by-products of the bamboo. Giving them a diploma that certifies their technical studies regarding an area.



This initiative has thought to award to the women, and they involve to their families.

The proposal this thought to be carries out to the south of Chile, in the IX region, "Region of the Araucaria", specifically in the commune "Padre las casas", this commune has 90% Mapuches population, with near 969 families of which 767 families have bamboo plantations, without handling, and that at the present time it generates them problems of soil invasion, for its quick expansion and growth. And to the moment of the seedling, rats plague comes that not alone they raze with the bamboo seeds if not that also with their other cultivations, besides infections like the Hanta.

"Padre las casas", count with vast hectares of Chusqueas, mostly of Ch. Quilas and Ch. Associate, and it doesn't represent them a positive contribution, neither in economic terms, neither personal benefit some. For the opposite, it generates them the work of cutting up, and it stops then to burn them.

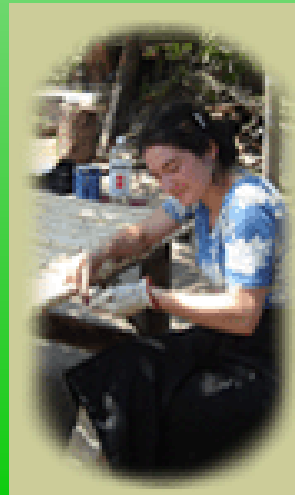


It is distributed in program in three phases:

The first one is as improving the ground to obtain cane of high quality, storage conditions and sale positions. Where the men can be taken carry.

The second are the use of the bamboo shoot, creating cooperative, so that they group and have their processing plant of foods, and their sale system. The women can lead this work.

The third are production workshops, giving design tools, construction, calculation and commercialization, being lead by their the young people.



OUR ETHNICS

In our Indigenous culture the Aymaras, Diaguitas, Onas, and the Mapuches those are indigenous of the south area of Chile that have used the bamboo Coligue from ancestral times in their constructions, domestic utensils and of hunt and they have taken advantage of the buds to eat. Conscience of their nutritious benefits.

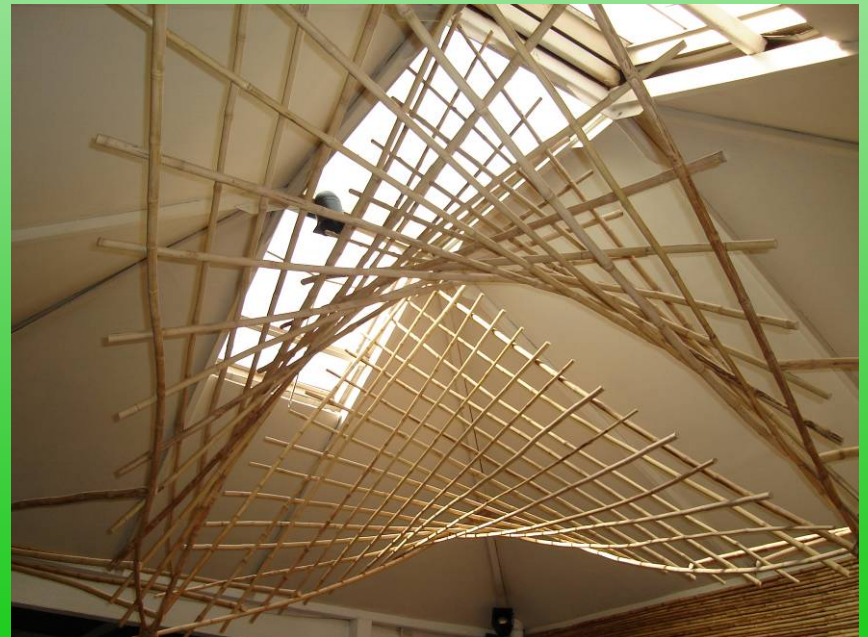
The Mapuches has known how the resources that the earth has granted them to take advantage, but the Chilean society ignores. This has happened because our government gave the back to our ethnic for many years and alone now they give this respecting and recognizing with the value that they deserve.



Through Bamboobiz company that begins with the intention of creating conscience regarding the bamboo in Chile, introducing products and by-products from the bamboo to the Chilean society.

Where it has been a difficult work, but through art sculptural works and conferences in the universities of Chile, it is this opening an interest every bigger time, in the use and application of this material.

The ecological benefit that contributes to our atmosphere and our society highlighting. Integrating the bamboo to our homes, work places and green areas.



Restaurant Rai, Santiago Chile. 2005



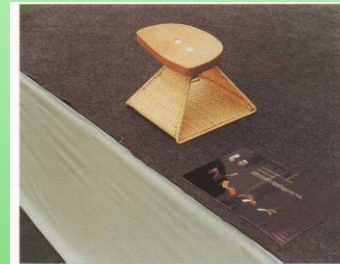
Ephemeral Architecture that doesn't have more intention than to invite people to be part of the construction of something different. Looking for two objectives. One that people are known and make but neighborhood life this way to be known, to worry more about the other one and to lower the level of delinquency. And on the other hand, to promote the Chilean bamboo, showing other application options.





Samples of the studies made in the Austral University.

Where gave good results the wall linings / coating, lathed bamboo, bamboo panels, bamboo agglomerates, bamboo particles, bamboo paper, activated charcoal of bamboo, brushed square sticks of bamboo... after this study, they have been carried out multiple workshops with design students and architecture to implement these materials in the daily use. With a contemporary design concept.



Some of Bamboobiz work



Valle del Elqui, IV region,
Ceiling bamboo Coligue.

Chilean bamboo with *Guadua Augustifolia* from Ecuador.



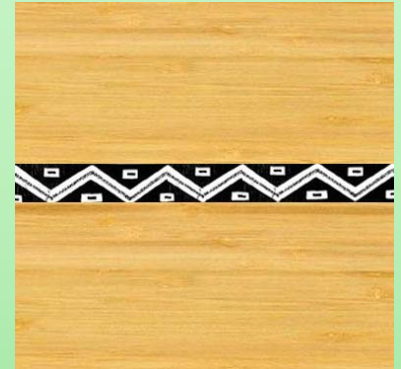


For 3 years that we are working with the objective of changing the perspective of the Chilean society regarding the Coligue, and begin to appreciate and to use the Chilean bamboo. This objective next to the search of rescuing the respect before our ethnics. It is for this reason that we are today in a new proposal.

That it is to create the Industry of the design with bamboo.



PRODUCTION AND DESIGN OF FURNITURE AND
OBJECTS OF CHILEAN NATIVE BAMBOO, APPLYING
THE SIMBOLOGY OF THE CHILEAN INDIGENOUS
ETHNOSES.



The bamboo boards in general and of Coligüe, in particular, they don't exist at the moment in the Chilean market. These boards are built with the help of taken out strips of the cane and for it is fundamental to have the appropriate machinery for this process. Today scheme them to work wood they help to their production but not in good way.

The manufactured products, furniture and decoration objects, they will be characterized by the incorporation of **Chilean ethnic elements**, their refined design and the technology used in the production of these and their components, what will allow to obtain products of high quality as for durability and terminations. It is also of highlighting the **modularidad** of the same ones (to see picture) and that **the price** of the same ones will be inferior to that of similar products manufactured based on wood. With the previous elements it is intend to position in the market with the image of products 100 Chilean%, highly ecological for the used material and of accessible cost to the population's wide segment, breaking up with the idea that the design and the quality are associated to high costs.



The innovative worthiness / merit, comes given from several points. The first one is for the material used for the production of the furniture. For it, boards will be manufactured with Chilean bamboo (Coligüe), those that later on will be used to manufacture the furniture. At the moment, in Chile, boards are not manufactured with this material.

In second place the used designs that will be with modern lines, will be added ethnic functional reasons. Functional in the sense that is not only an image recorded in the piece of furniture, but rather they complete additional functions in the decoration of the near atmosphere, as being the projection of the images in walls and roofs of the area. As for the differentiating elements, it can stand out that the material used for the production of the furniture is of more duration and lighter than the wood usually used in furniture.

On the other hand, the fact is that the coligüe is a renewable material, of quick growth and its **undone** are very recyclable. These can be used in paper production, bamboo particles (agglomerates).



Also, it is of highlighting that with the used material they can be carried out furniture with the same or bigger quality that furniture manufactured with traditional wood, with vanguard designs and everything it to low prices. With all this, they can surrender to the market furniture of first quality and design to affordable prices to the middle class.

Finally, it is aspired to rescue a Chilean native product, little valued and well-known in Chile but of high potentialities so much structural as of benefit in the environmental impact. To create a social conscience of the Chilean bamboo, as real material of construction of objects and residence solutions. Applying a current design that competes with the new thing, and unites with the presence of Chilean indigenous icons, so much of the Aymaras, Diaguitas, Mapuches, Selk`nam, among others.

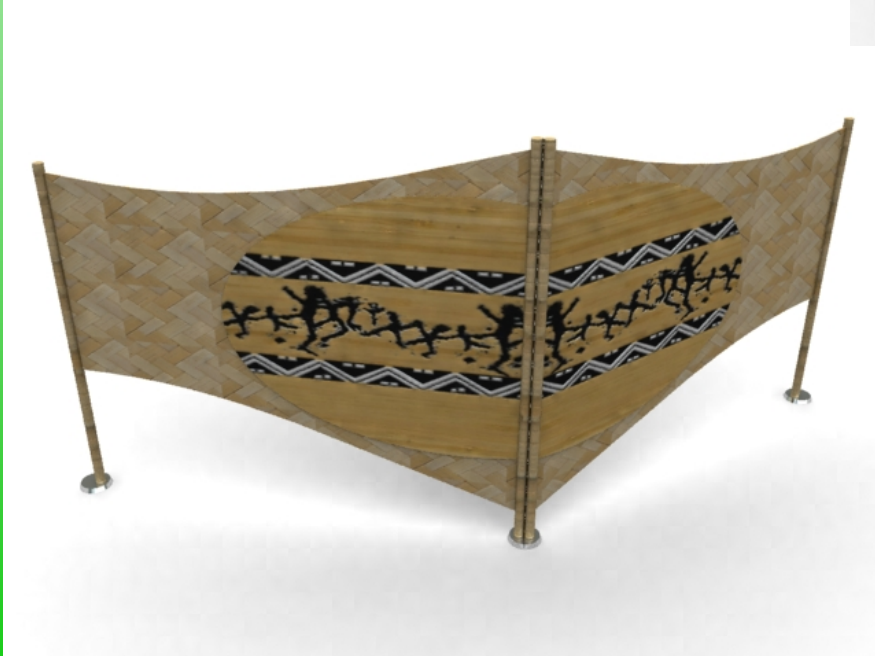
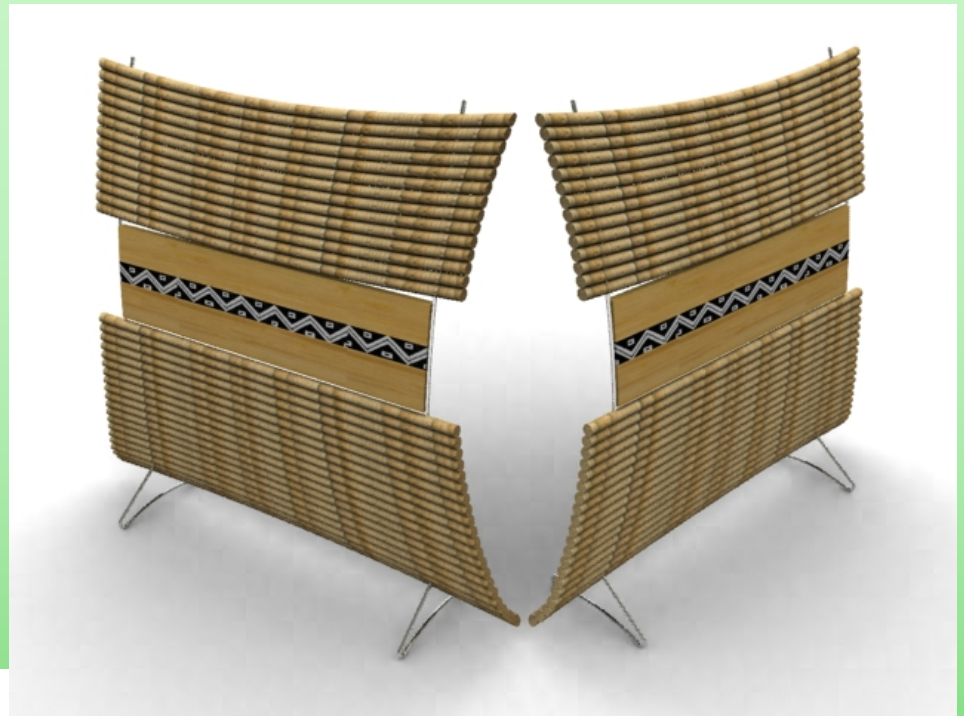
They will be the first inhabitable objects of sustainable material, with high design concept, with indigenous presence and at low cost.



Gracias

Thank you

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