INCONTRO INTERNAZIONALE ARCHITETTI 2006
"Architettura sostenibile & energie alternative"
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PROGRAMMA
ORE 16 INCONTRO ARCHITETTI SCUDERIA CANOVA
ORE 20 APERITIVO A BUFFET PIAZZA CANOVA
ORE 22 CONCERTO

E' richiesta conferma entro venerdì 9 giugno
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This conference is about “sustainability” and buildings. Our firm works on many kinds of sustainability projects. Some of our work involves using small airports as centers for creating new innovative technologies. Many businesses in this sector can benefit by being close to aviation, and vice versa. These projects are about sustainability being related to creation of sustainable “family wage jobs” and new technologies that can protect and “sustain” our environment in the long term.

We also work on projects that involve “bio-mimicry”. This is a very different kind of sustainability. In this case we use the brilliance of nature’s design as a model for the design of human facilities. In this case a braided walkway along a braided waterway at the South Slough National Estuarine Reserve.

I will have only two “theory” statements to make in this talk. First, the great American poet Charles Olson said: “form is never more than an extending of contents.” The etymology of words tells us a lot about what things mean. For me this phrase speaks about architecture: the form of the building is “never more” than what lives inside (the people, the contents) pushing and extending outward from that interior life force. The root here is “tent.” And a “tent” is literally the most basic form of building. It is not an accident that the word “sustainable” has that same root “tent” within it.

Second, the origins of the word “architect” come from roots meaning “one who may initiate” (archi) the building technologies (tect). The root “tect” comes from early Greek meaning “carpenter” or “one who performs waddle and daube”. And most importantly, the word “building” comes from the same root as “being”, and it is a verb not a noun. So my suggestion is that from the start we forget the sense of architecture which means an edifice or fixed thing, and for meaning in the context of “sustainability”, think of architecture as a verb, and fundamentally about being something that is at the edge between “contents” and the rest of the universe.
Where did my understandings about architecture and sustainability come from? I grew up for formative periods of my life in northern Ontario, Canada living on a remote lake.

The cabin on the left was built by my parents and grandfather. The cabin on the right was built later with my sister and brothers.

All travel is by boat. Drinking water comes from the lake. The sauna is on the right.

There are no telephones or electricity. A solar water heater and photovoltaic cell is on the roof.
The first cabin is built into the ancient Canadian Shield granite rocks, which are from the oldest mountains known to have existed on earth. I learned to walk on those rocks.

Here are my mom and dad.

My mother is very active as a potter. Some of the clay is dug from a clay deposit in a nearby swamp.

The newer cabin has stained glass windows created from colored bottle glass melted in a wood fire kiln. Noxema face cream bottles provide a beautiful blue glass. Beer bottles are brown, and so forth.
It is a big lake.

Sometimes we would travel by canoe in the far north for hundreds of miles.

Catching fish to eat.

And seeing how nature builds things.
Here is a bald eagle nest.

With two chicks.

The beauty of nature is astounding at times.

And sometimes the clouds even mimic the land.
For the past 30 years I’ve lived in Portland, Oregon practicing as an architect. Portland sits on the Willamette River near its confluence with the Columbia River.

Mt. Hood sits off to the east in the Cascade Mountains.

The Columbia River Gorge cuts through the Cascades.

And on the back side of the mountains the land is arid.
The Columbia River Gorge is now designated a National Recreation Area.

I hope you will all come and visit us. The winds through the gorge make it a world renowned wind-surfing area. Each of those specs in the water is a wind surfer.

So, what I am really here to talk to you about today? It is: “How do we use architecture to teach sustainability to the next generation?”

There is a small river which drains from the glaciers of Mt. Hood to the Columbia River just beside this small airport near Portland.

It is called the Sandy River, because when Lewis and Clark paddled by this site 200 years ago, it was all silted up from a recent volcanic eruption at Mt. Hood. Lewis and Clark tried to canoe up the river to explore it, but ended up wading knee deep in quicksand instead.

There is a YMCA Youth Camp located in this oxbow 10 miles upriver on the Sandy River that I have been working on for 15 years now. The purpose of the Y camp is to give children an experience of living in a natural environment, and the gaining of the complex social skills of living together as a group. For many kids it is an experience that they draw on and remember for their whole life.
A few years ago one of the camp directors wanted to create a climbing structure for the kids.

So we got the local power company to donate and install some 60 foot poles.

I designed a simple structure. But as you will see it was just a seed that later accomplished a great deal more.
And the camp uses climbing as a way to teach kids that they can do the “impossible”.

Working with the kids and staff, we came up with the idea that maybe a whole village of cabins could be placed up in the trees. This would allow the habitat of the shrubs and ground cover – where most of the animals and plants of the forest live – to remain.

We tried to find funders for this idea, and would bring them out to see the camp. The camp director asked if any of the visitors wanted to try the climbing wall. The man on the right owned and ran the largest construction company in Oregon. His son runs the company today.
He climbed the wall.

Got to the top.

Much to the delight of the kids, and his own son and grandchildren who were visiting with him.

While we were walking away to look at another project, he asked the camp director “what would it take to finish the climbing structure?”
He sent in a check the next week, and we were able then to create the suspension bridge connecting the upper camp to the climbing structure.

Which provided a sample of what living in the trees would be like.

And for me was great fun to design.
We then used this structure to give confidence that the “treetop village” concept was really possible.

And we were fortunate to find funders for it.

These slides show it in construction.

Walls and roofs going up.

Walkways up in the trees.
Decking of a material formed of 50% recycled plastic milk cartons and 50% sawdust.

The cabins and walkways have fully accessible ramps to get to them.

On the back side there is a walkway through the trees connecting the back porches.

The cabins each sleep 10 kids and 2 counselors, but can also serve as a retreat cabin for adults.
Each bunk has an operable window.

Rope netting is used along the walkways.

So that they are transparent.

A couple of years later the YMCA was approached by the local Rotary Club. To commemorate their 100th anniversary, they were looking for a project to sponsor.
The Rotary members visited the climbing structure and the suspension bridge, and other facilities at camp, and chose it as the place to do a new project.

After working with Rotary, the campers, and the staff, we came up with the idea of a new village of partially underground cabins.

In this case we preserve the habitat by putting the forest understory right onto the tops of the cabins. The kids are calling them Hobbit Houses.

These pictures show what they looked like just before I left to come here to Italy.

The cabins are set approximately 30 inches into the earth.
We are maximizing the use of recycled and sustainable products. This is wall and roof insulation made from recycled cotton clothing.

I offered to make the round doors.

Six in all, each with two little windows.

Here is a door being held in place.
And the view from the inside.

The roof soil is the excavated topsoil from the cabin site, with the salal, wild rose, blueberry, and ferns from the site ground up within it; it is hoped this soil and plant mixture will self-generate on the roof.

You can see here, that just before I left, the first sprouts were coming up. The kids will be part of the environmental education program that will monitor this growth and create a scientific paper on the results.

This final photo of Canova is my thank you for inviting me to visit your valley. As a visitor, I want to say that your work here in Italy, preserving, rebuilding and saving these century old stone buildings is very important. It speaks to the essential meaning of “sustainability.” The building walls, floors, and roofs are built of materials quarried right from the land. Each building’s forms directly reflect the generations of life which have occurred within their walls. They are also extremely valuable for teaching your next generation of youth about sustainability in your region. I encourage you in the audience and the larger community to support Association Canova’s efforts to restore and sustain these stone buildings as a continuing living part of your valley’s landscape.