

GOLD

Waterpower - Renewal Strategy for the Mulini Valley, Amalfi, Italy

Project data

Type of project **Urban planning**
 Start of construction **January 2008**



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Comment of the Holcim Awards 2005 jury for Europe

The project's overall strength lies in increasing the performative capabilities of the landscape and giving its inherent qualities a convincing architectural expression through the introduction of new sustainable uses for the recovered structures located on the site. Although proposed for a large area of the selected region, the work is scale independent and therefore applicable to other projects. Also to be credited is the collaborative symbiosis of university, private industry, and local representatives. The project demonstrates a high ethical standard in combining historic preservation and contemporary architectural expression to conserve the identity giving latitude of the structures. The concept for self-sustaining buildings – waterpower – is ecologically sensitive while at the same time introduces a convincing financial model for long-term improvement of the economic condition of the region. While the ensemble of the buildings was given special attention, the individual interventions manifest a successive, continuous impact, thus making a revitalization of the valley easily conceivable. With acute contextual awareness, the project displays a high degree of skill in coordinating diversity as well as maintaining an aesthetic balance between existing and new structures.

Project description by author

Set in the magnificent context of the steep valley of the river Canneto rising between Amalfi & Scala, this project aims to recover a landscape and a system of pre-industrial water mills (mulini) currently in danger of collapse beyond repair.

As described with a wealth of illustrations in Diderot and D'Alembert's Encyclopedie, from the early 15th century the paper mills, iron mills and later hydro-electric power stations exploited water power through ingenious systems of channels, tanks, level drops, funnels and water wheels to produce energy to make things.

The mills were carefully distanced one from the next to exploit the height differential and hence the potential power.

From the port of Amalfi the sequence of mills rises 2km inland and 350m in height.

Water was the moving force of the past and continues to be so in this strategy.

We chose 3 aspects:

1. Restoration - of the system of water channels to a- irrigate the man-made terraces
 b- supply the tanks that power the renovated mills
2. Water Power - as a source for hydro-mechanical engines for lifts, cranes, pumps, transport systems, air cooling and energy production and to illustrate the importance of water as a political issue in the world today.
3. New Energy - the production of renewable energy in the form of hydrogen or electricity to be used as an infrastructural resource to sustain the project as a whole.

The exclusively pedestrian access, once responsible for the demise of the area, that left it in splendid isolation, can now be considered as one of the strongest characteristics in its preservation. The waterfalls, the pools of clear, cool water, the irrigation channels together with the extensive terracing, woods and the typical species of flora (felce rara) constitute a unique legacy of biodiversity marking the respectful co-existence of man with nature.

The individual schemes are divided into privately and publicly financed projects. The privately funded ones are those cases where the size, condition and accessibility ensure a financial return. A complete renewal, catering to modern tourism, is envisaged within the strict ethical, ecological and historical criteria governing the overall project. Public financing goes to those elements of the terrain or buildings with infrastructural or public functions. The public initiative is directed to bringing the geographical, economic and social forces to focus on a realisable future.

The re-use and re-evaluation of Amalfi's heritage in which its natural and man-made histories are an asset to new forms of tourism based on cultural and environmental interests aims to contrast the approach whereby its legacy exists mainly as a burden to be protected.

ROTO - EMBT - KINGROSELLI - NEMESI - LABICS - nISTUDIO SUDARCH - A+AA - TECLA - UFO

Relevance to target issues (by author)

Quantum change and transferability

Let the past provoke the present - The overall programme for the landscape and mills sets up an open dialogue in which their unique qualities find a new expression through new sustainable uses. This strategy does more than simply recognize the value of the past in individual buildings. It emphasizes the context in which they are set in a particularly Italian approach. The quantum leap is in the progression from simple preservation to unapologetic integration with the architecture and uses of today.

Avoiding the bell-jar - The aim is to provide a new lease of life for this area by channelling local economical and social forces and thus avoid the museumification of a landscape. In this way a close participation by the community is guaranteed and the local identity is reinforced.

Ethical standards and social equity

Memory and collective identity can be revitalized through architecture and landscaping in the experience of the community of that place. The moral obligation to conserve these important buildings as testimony of ancestral working life is echoed in the response which nevertheless, corresponds to our times.

Ecological quality and energy conservation

The landscape and industrial model of the past indicates how the energy of falling water can be ingeniously transformed and utilized. In this scheme the original channels for irrigation and power are restored to provide clean energy, natural air conditioning, cool air currents and water for plants. All the technology has an imposed limit to be water-powered. The projects are energetically self-sustaining. Of the 4 public projects:
 2 projects aim to explain in architectural and mechanical terms the nature and uses of hydraulic power;
 2 projects are specifically dedicated to ecology and energy: the greenhouse for the preservation of flora unique to this area, under threat of extinction and the laboratory dedicated to the display of and information about renewable energy sources.

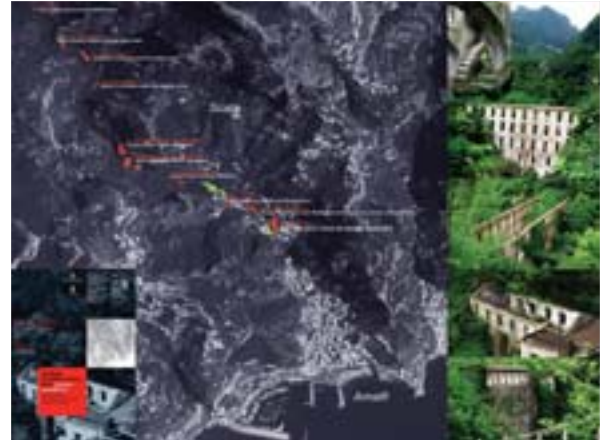
Economic performance and compatibility

The long term public-private investment programme amounts to 100 million euros. The modest public contribution already activated serves to fund the infrastructure, transport and essential consolidation works for a huge benefit to the local community.

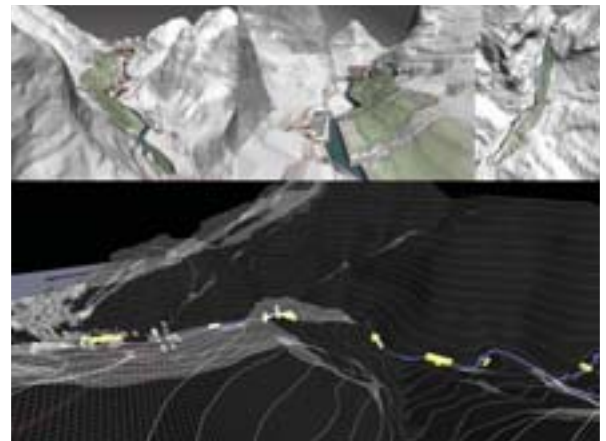
An area under UNESCO protection where new building is forbidden, paradoxically finds its only opportunity for the new in its built heritage.

Contextual response and aesthetic impact

The powerful context provokes answers and strategies to adopt in a dialogue where landscape and history are living participants. The instrumental reading of history translates into projects capable of maintaining themselves economically in a continuity of use with the past interpreted through an idea of architecture as catalyst: lightness, contrast, transparency and simplicity.



▲ Mulini Valley Masterplan, Amalfi Coast - CENTOLA & ASSOCIATI



▲ 3D Site and Buildings Digital Model - CENTOLA & ASSOCIATI



▲ Hydraulics Museum - SUDARCH



▲ Waterworks+Promenade - KING&RO



▲ Water Spa - ROTO / C. Stevens



▲ Lemon Terraces Hotel - EMBT



▲ Waterfall Studios - NEMESI



▲ CarPark+River Remodel - LABICS



▲ Local Products Shop - nISTUDIO



▲ Greenhouse/Energy - TECLA/AAA