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## CONCLUSION

by Christophe Girod

Over the last four years the Institute of Landscape Architecture at the ETH Zurich has developed a precise topological design methodology applied to large-scale sites across the alpine territory. Seasonal floods due to climate change have seriously disrupted the summer activities of certain alpine regions, causing important material damage and endangering the population. Landscape topology has become a tool of environmental design, not only for the precise regulation of water flow across urbanized areas, but also to draw and qualify new limits to urban growth. The success of this method also lies in the precise reading of broader structures and systems that exist within the landscape and in the positive orchestration of these elements. We believe that a contemporary approach to landscape architecture must necessarily address this large scale of design, a scale situated between that of object design and regional planning. The areas corresponding to this scale range from several hundred to several thousand hectares. It actually fixes the limits of a comprehensive approach to an area. At the large scale the landscape can be looked at systematically and understood as a whole. We believe that it is precisely this scale and only this scale that will yield answers in matters of sustainable design in the future.

The main landscape structure of the Santa Gilla site follows three important principles: the first is to remodel vast areas of the lagoon, riverfront and beach to enable the natural purification of runoff water and river water, the second is to insure a new infrastructure of roads, canals and paths that would enable the uninterrupted flow of slow and pedestrian traffic across the site in all major directions, and the third is to attribute a new urban function

to the Porto Canale area as a green energy-efficient water-based city. The thorough conceptual outcome is able to transcend levels of design resolution from the 1/10,000 scale down to the 1/100 scale. The high precision of the CNC milled model shows quite realistically a beautiful landscape partition for the site resembling the wing of a butterfly. Although actual variations in height levels on the lagoon remain extremely minimal, the strength of the proposal lies precisely in the precision of the instruments and the adequacy of the response to intrinsic site conditions. Could it be that landscape architecture in the future will become a measured expression and response to given site conditions? Landscape architecture in this particular context answers the most pressing problems of the site both culturally and systemically. It can become the larger canvas of countless other interventions and works much more convincingly at the large territorial scale than as a smaller fragment.

It would be mistaken to believe that a single semester landscape design studio at the ETH could solve all the planning problems of a site as complex as the Santa Gilla Lagoon in Cagliari; but the precision and seriousness of this student proposal opens the debate amongst decision makers, planners, and engineers about the urgent necessity of such an integrated large-scale approach to the landscape architecture of a region. It shows us that by implementing tools of precision and a common computer language between disciplines, preliminary concepts can be developed that are then easily transferred to the fields of engineering, hydraulics, as well as urban and environmental planning. Restoring the primacy of large-scale landscape architecture is the fundamen-

tal premise of such a studio. The work that we have started at Cagliari has only just begun, and despite the recurrent cataclysms that happen there, it will probably take time for such an integrated approach to materialize into an invaluable project for the region. But one thing is certain, after showing to the public the extraordinary potential of such a comprehensive approach for the Santa Gilla Lagoon, it will be difficult for authorities to continue to ignore the question of environmental value and coherence for the lagoon.

This method of advanced topological design and modeling was developed five years ago at the ETH and the Santa Gilla experiment is the first attempt to apply the methodology outside an alpine context. It has clearly shown that the method of large-scale landscape architectural design is also transferable to the coastal areas of the globe, where the interface between saline waters and sweet waters will become a growing problem in years to come. The positive reception that the students received from architects, politicians, and engineers alike means that our approach was eminently transdisciplinary and understandable for all related fields of building, engineering, and design. It is our hope that the younger generation of designers that we have now trained at the ETH and in other schools will be able to engage actively in such vital scales of territorial design, thus ensuring a strong response to the future challenges facing landscape architecture.





CNC model  
of the project proposal





