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Master of Science in Architecture
Honors theses

Adaptive reuse of Bosa (NU) former tannery area

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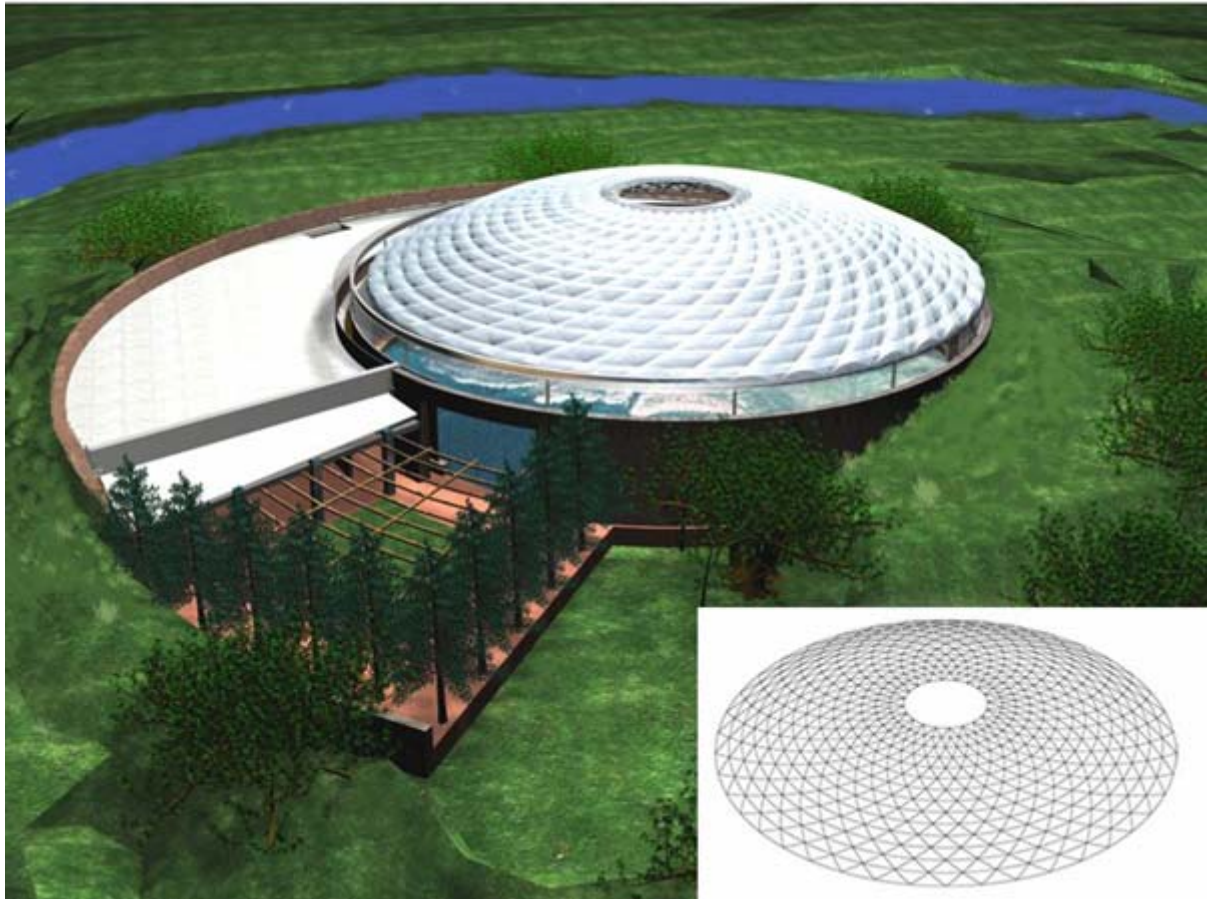
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The project for the adaptive reuse of the former tannery area “Sas Contzas” was driven by the need for a cultural/tourist service centre in the town of Bosa and the Planargia region; a reference point for discovering the area, conveniently located facing the city centre, in a symmetric position with respect to the axis of the river Temo. The intervention project is divided into two main parts: the **restoration and reuse of the former tannery buildings** and the ex novo creation of a **Pavilion**, covered by an *experimental dome made of bulrush bunches*, sitting on a prominent curve of the river, in the heart of a **well-equipped river park**. The *eastern wing* of the tannery buildings, facing the hinterland, and the *western one* facing the sea become respectively a *centre for culture, entertainment and commerce* and one for *tourist reception and educational purposes*, with access from the centre block.



Sas Contzas, project: plan, facade and section

The first of the two wings houses a performance/conference hall, an exhibition space and a series of small shops meant to promote the local enogastronomic excellences and handicrafts. **The second** one is dedicated to *handworking* and to the teaching of traditional local handicraft skills. The *pavilion*, named “*Kokòide*”, a downright modern prolongation of the tannery complex, expands westwards, following the river curve. The structure of its plan reproduces the matrix of a snail shell (in Bosan language called “*kokòide*”), whose outlines are reminiscent of an opening spiral which, together with the circle, is a recurring pattern and a distinctive feature of the project.



“Kokòide” pavilion and dome structure scheme: *standardized geometry*

The traditional Sardinian culture, based on circularity in all of its expressions, from architecture to music, from dancing to handcrafting, is the element that inspires, generates and shapes the spaces. Centrifugal and centripetal spaces coexist, merging into a cosy yet open space, intimate and bright, having the reconstruction of a sacred well as its centre and fulcrum point. The pavilion is meant as a sort of compass, a guide to the orientation in the bosan territory, as well as to its knowledge and interpretation.

The flooring of the central circular space shows a stylized scale representation of the territory, providing an overview that allows visitors to locate all distinctive areas, together with their landscape/productive connotations. It also includes detailed information about the local history, uses and customs and the relations and connections between different areas and their respective activities.



Pavilion interiors. A plan of the Bosan territory is reproduced on the stone flooring, while images of its different areas are projected on the concave walls. The sample bulrush bunch on the left has a 0.06 inches thick transparent resin coating and was subject to laboratory compression tests. Size: *height 35,4", diameter 2"*

An observation platform, allowing a 360° view of the surrounding territory, overlooks the *geographical map flooring*, which includes *five observation paths*, coinciding with the different *cultures* that arose from the territory itself (*fishing, wheat growing, farming, agriculture and viticulture*). Each path is 'offered' to visitors through a display of the relative enogastronomic and handcrafted products and the projection of images on the white concave pavilion walls. The circular internal space is covered by a 98-ft diameter dome, which evokes the inner curve of *nuragic tholos* roofs and whose configuration recalls a traditional **fishing pot**.

Indeed, its structure consists of crossed bulrush bunches, overlaying in a triple warping. Some of the bunches (in variable diameters, circled in small metal bands, both raw and resin coated) were laboratory tested, confirming the achievement of the calculation model required resistance values. The TEXLON (*Transparent Roof Systems*) external clad consists of pneumatic cushions in three ETFE foils (Ethylene Tetra Fluoro Ethylene); it allows natural sunlight to enter and is self-supported and self cleaning.

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