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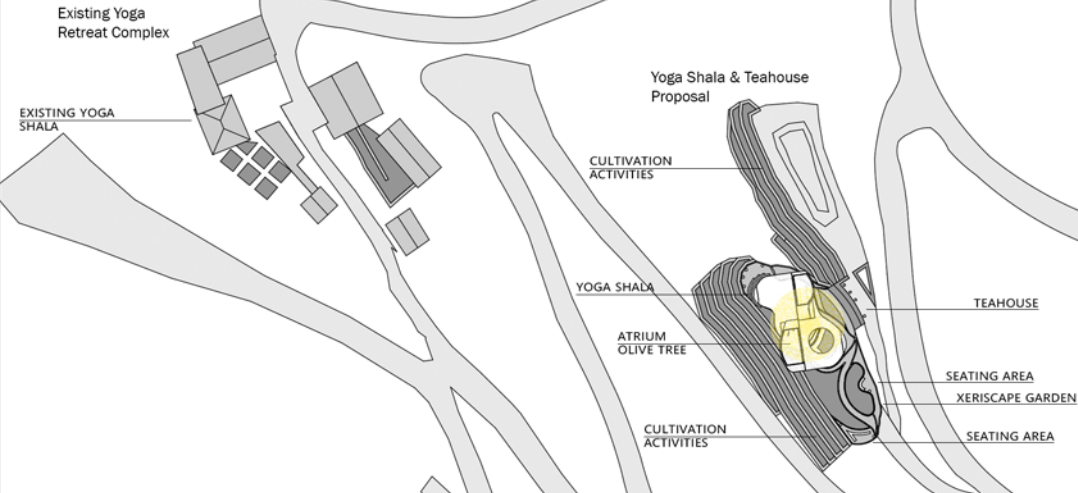
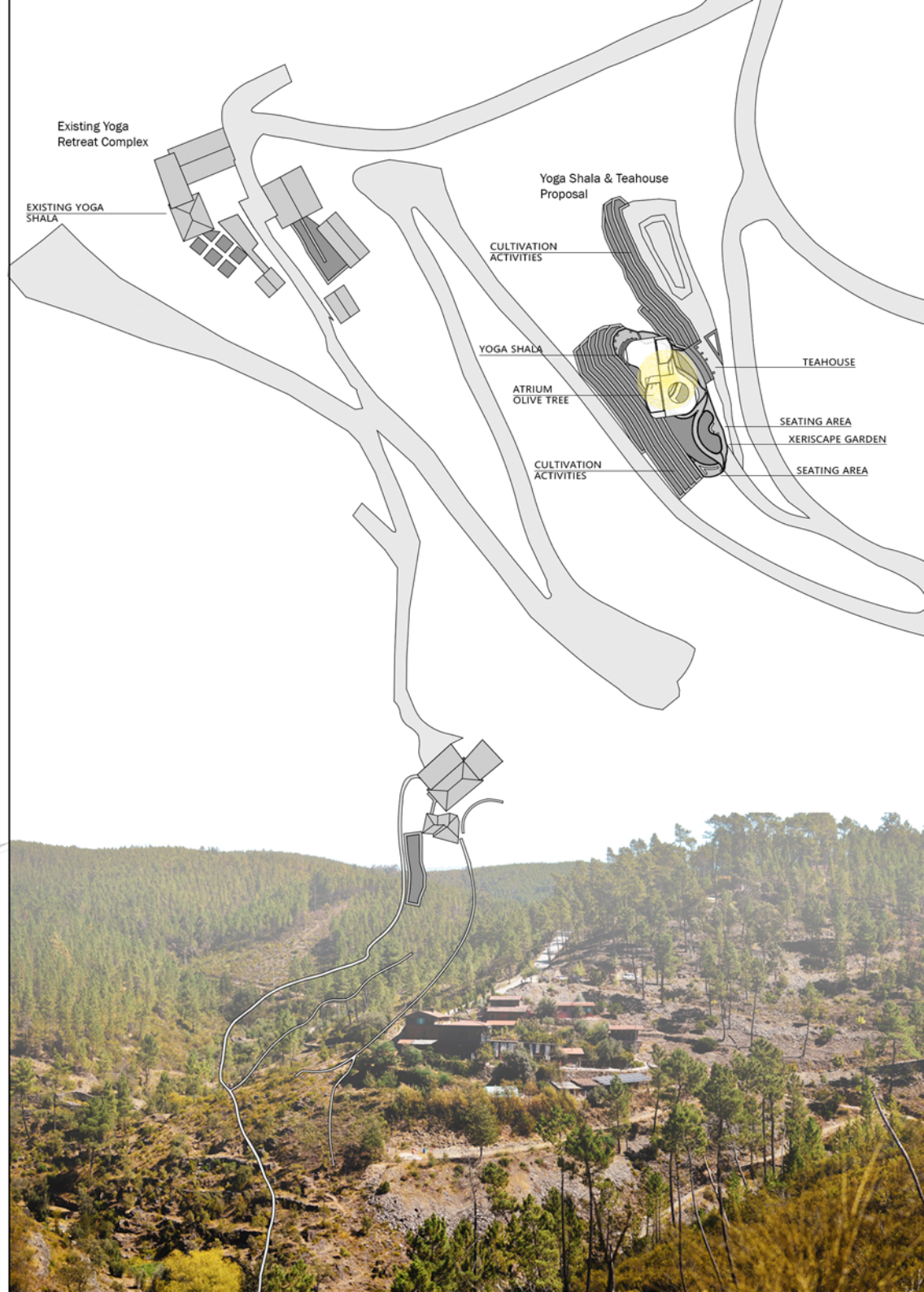
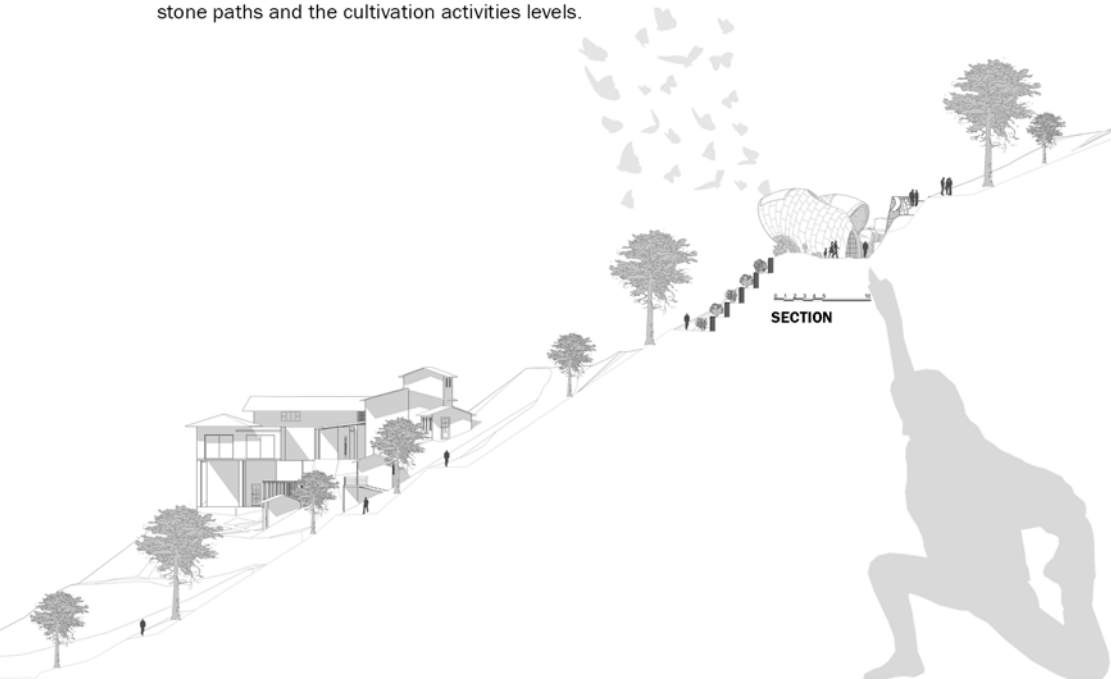
ਲਟਾ_ਲਾਰਫੋਡੀਏ Introduction

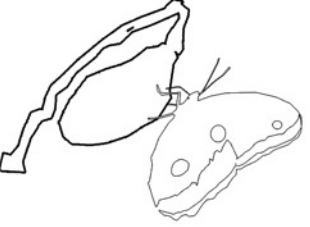
Inspiration

The geometry of the new Yoga Shala has been inspired by the Butterfly Cocoon. The Metamorphosis of the clumsy and worldly caterpillar which transforms through an extraordinary biological process to a graceful Butterfly, is the core idea behind the building form and construction. Yoga practice is a personal journey towards enlightenment and the True Self. It means Connection, and this journey will only be authentic through the conceptualization and realization that everything is interconnected.

Project About

This project is about a Yoga Shala proposal submitted in an International Architecture Competition Call. The site is part of a mountain Yoga Retreat Complex located in a breathtaking forest region of central Portugal. The new Yoga Shala building is inspired from the Yoga philosophy, being a spiritual practice rather than a physical exercise. The new development apart from the Shala with an atrium space, consists of the Teahouse cave volume. Both buildings are framed by the biomorphic xeriscaping garden islands, the curvilinear walking concrete stone paths and the cultivation activities levels.





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Inspiration & Modeling

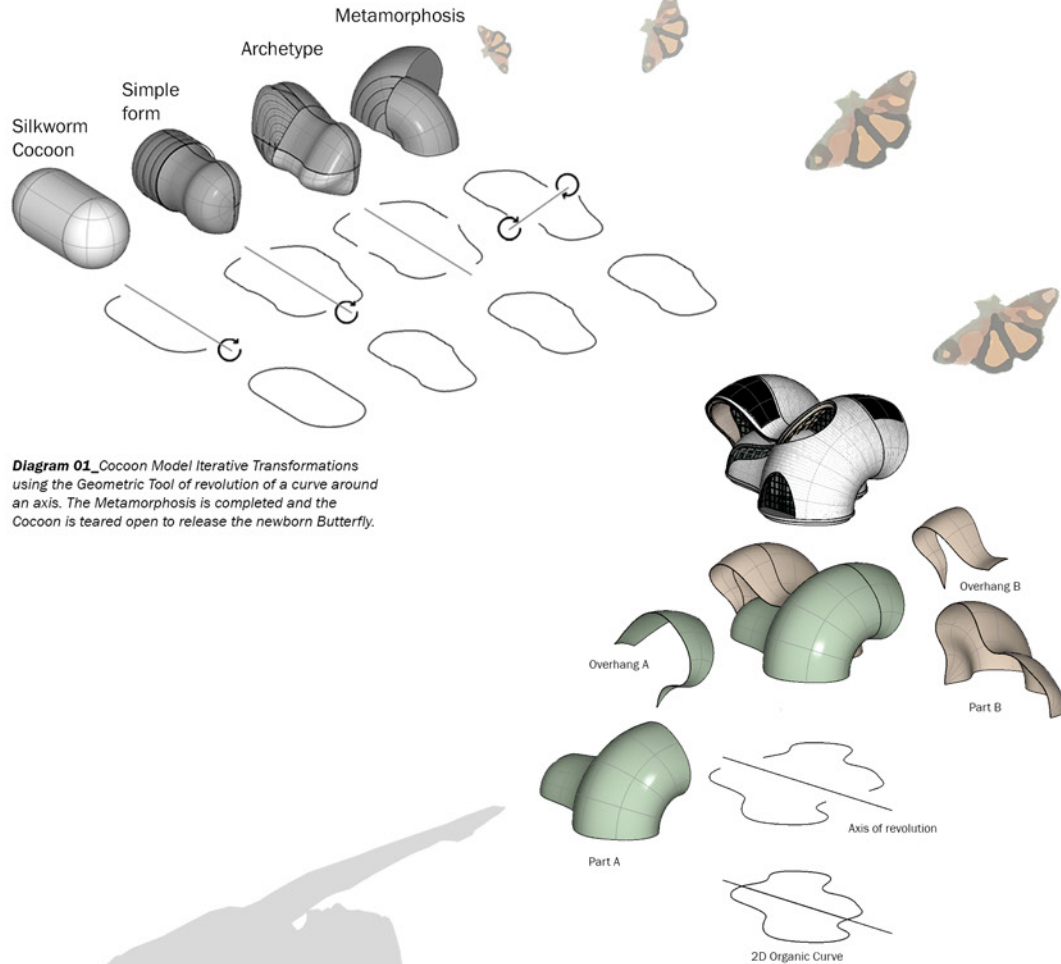
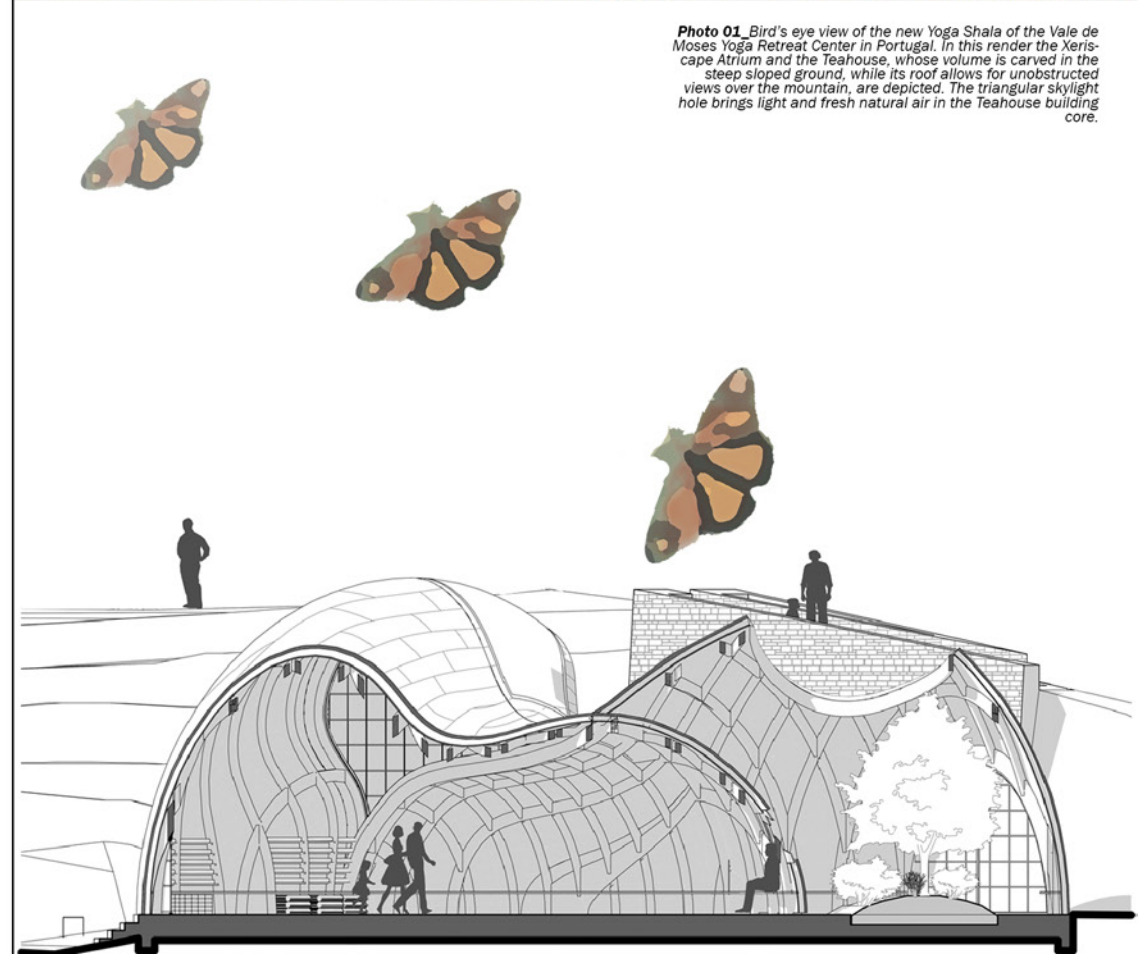


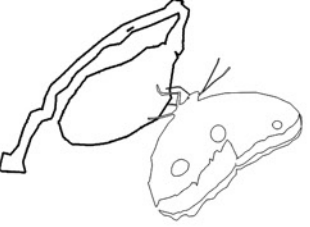
Diagram 01_Cocoon Model Iterative Transformations using the Geometric Tool of revolution of a curve around an axis. The Metamorphosis is completed and the Cocoon is teared open to release the newborn Butterfly.

Diagram 01_This diagram depicts the geometric generation of the Yoga Shala Cocoon and of the Xeriscape Atrium. All parts consisting the building construction, have been produced via the revolution of an organic form curve around an axis that divides the closed curve into two pieces.



Photo 01_Bird's eye view of the new Yoga Shala of the Vale de Moses Yoga Retreat Center in Portugal. In this render the Xeriscape Atrium and the Teahouse, whose volume is carved in the steep sloped ground, while its roof allows for unobstructed views over the mountain, are depicted. The triangular building hole brings light and fresh natural air in the Teahouse building core.





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Inspiration & Modeling



Photo 01_The term "vernacular architecture" in general refers to the informal building of structures through traditional building methods by local builders without using the services of a professional architect. It is the most widespread form of building.



Photo 03_The Indian Vernacular Architecture can be divided into more or less three categories, based on building materials and structure.

The form of the Yoga Shala building, is also connected to the Vernacular Indian Huts and is further enhanced by the geometrical transformation of the Butterfly Cocoon.



Photo 02_Indian vernacular architecture

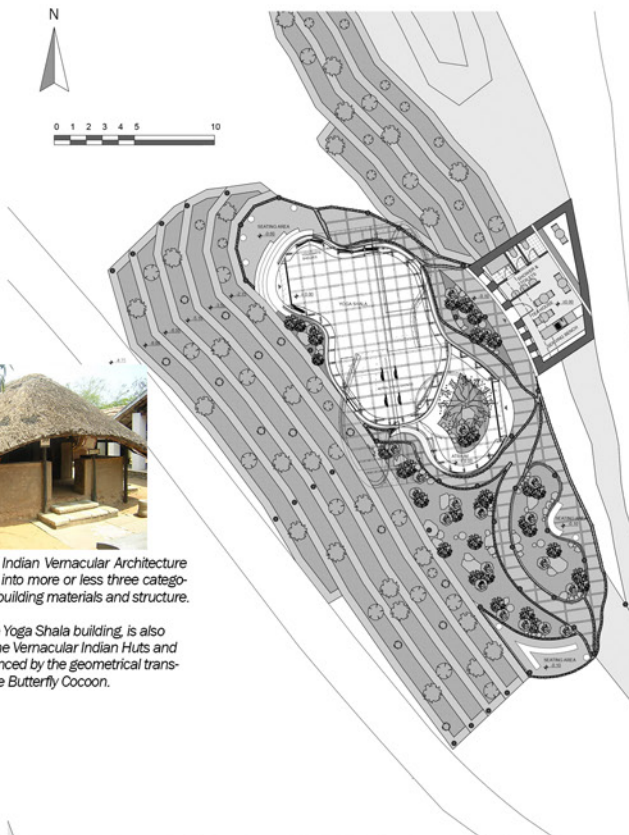


Photo 04_The new Yoga Shala references to the Indian Vernacular Huts through the bubble organic form. The Beam Contours and the wooden interior skin, strengthens this connection thus creating a warm and hospitable interior environment. The Teahouse with its inclined stone facade, provides a neutral background to reveal the form of the cocoon shaped Yoga Shala. The pavement of the external garden circulation paths, is shaped with the application of the structural grid of the Wooden Beams that form the primary and secondary support system of the building.

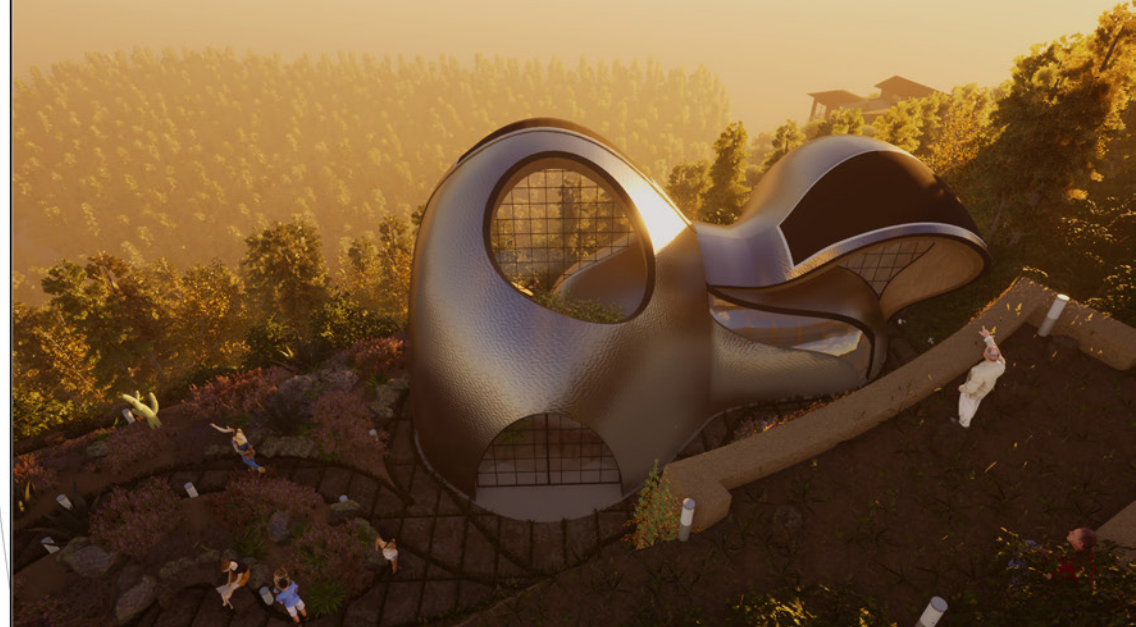
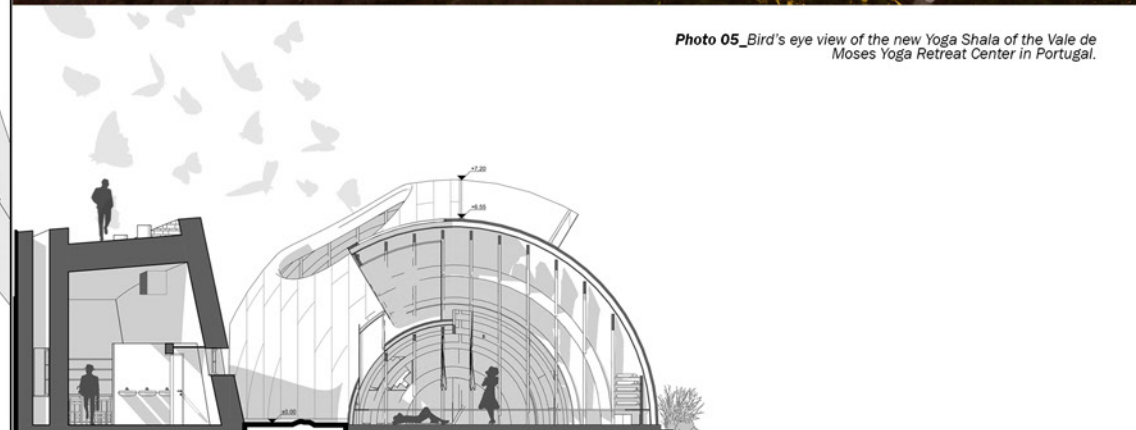
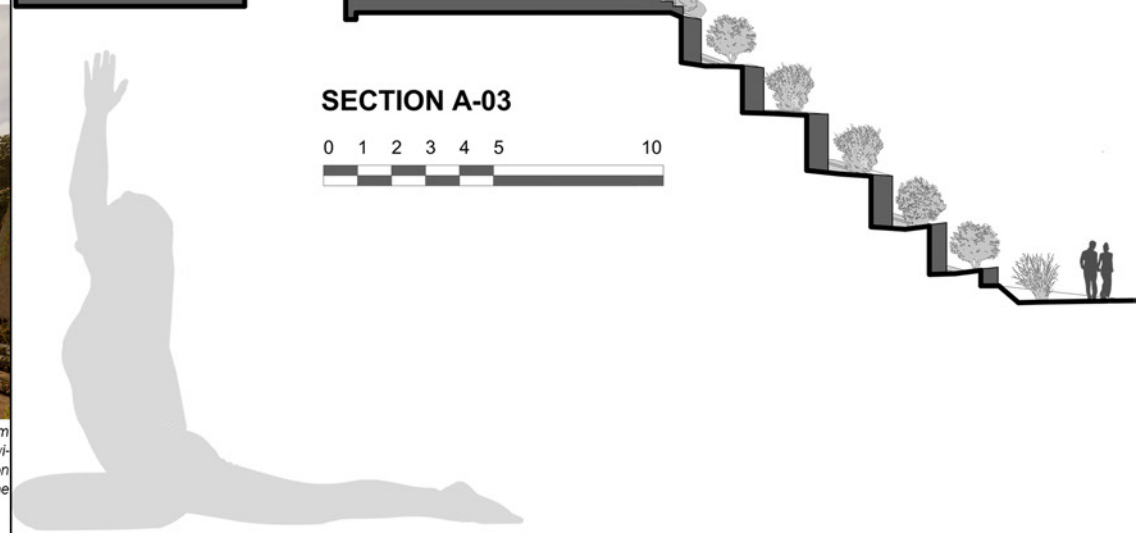
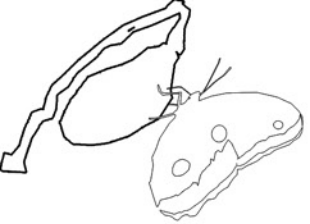


Photo 05_Bird's eye view of the new Yoga Shala of the Vale de Moses Yoga Retreat Center in Portugal.



SECTION A-03





लटा_लारफेडाई
Xeriscape Garden



Collection of Photos_Xeriscape Plants

- 01_Parsley
- 02_Lavender
- 03_Rosemary
- 04_Thyme
- 05_Purple Coneflower
- 06_Sage
- 07_Cactus
- 08_Agave

XERISCAPE GARDEN

The design of the Garden that complements the new Yoga Shala building is based on the sustainable Xeriscape practices. The Garden is formed by five islands. Four of them are exterior and the fifth is located in the Atrium of the building. The basic elements that comprise the garden are: local rocks and plants such as Lavender, Parsley, Sage, Rosemary, Thyme, Agave, Cactus, Purple Coneflower etc. A linear planting of colorful low bush is used to highlight the circulation paths.

GARDEN PRINCIPLES

In Latin 'xero' means dry and scape means landscape or view. Xeriscaping is the practice of designing landscapes to reduce or eliminate the need for irrigation. This means xeriscape landscapes need little or no water beyond what the natural climate provides.

Principles of Xeriscaping

1. Sound landscape planning and design
2. Limitation of turf (commonly referred to as lawn) to appropriate, functional areas
3. Use of water efficient plants
4. Efficient irrigation
5. Soil amendments
6. Use of mulches
7. Appropriate landscape maintenance

- New Yoga Shala Room
- Circulation Paths
- Indoor & Outdoor Relaxation
- Stone Seating Benches
- Xeriscaping Garden Islands
- Cultivation Activities
- Teahouse, Toilets & Showers
- Low Linear Bush
- Entrance Marks

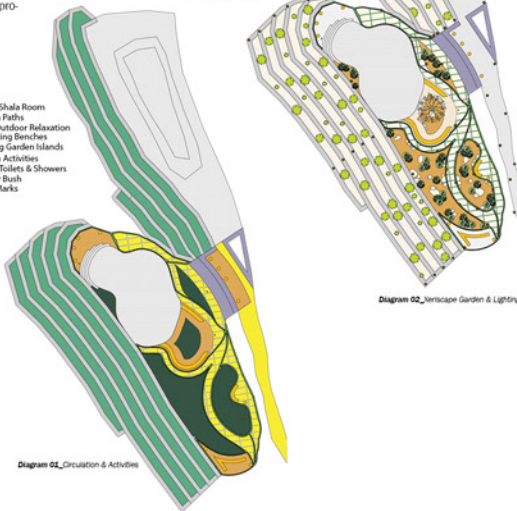


Diagram 01_Circulation & Activities

- New Yoga Shala Room
- Planted Atrium
- Seating Areas
- Circulation Areas
- Clay Soil & Mulching
- Cultivated Soil
- Low Linear Bush
- Wild Grass
- Cultivation Plantings
- Atrium Olive Tree
- Xeriscape Plants & Bush
- Local Rocks
- Solar Powered Garden Lights
- Stone Seating Benches
- Entrance Marks



Diagram 02_Xeriscape Garden & Lighting

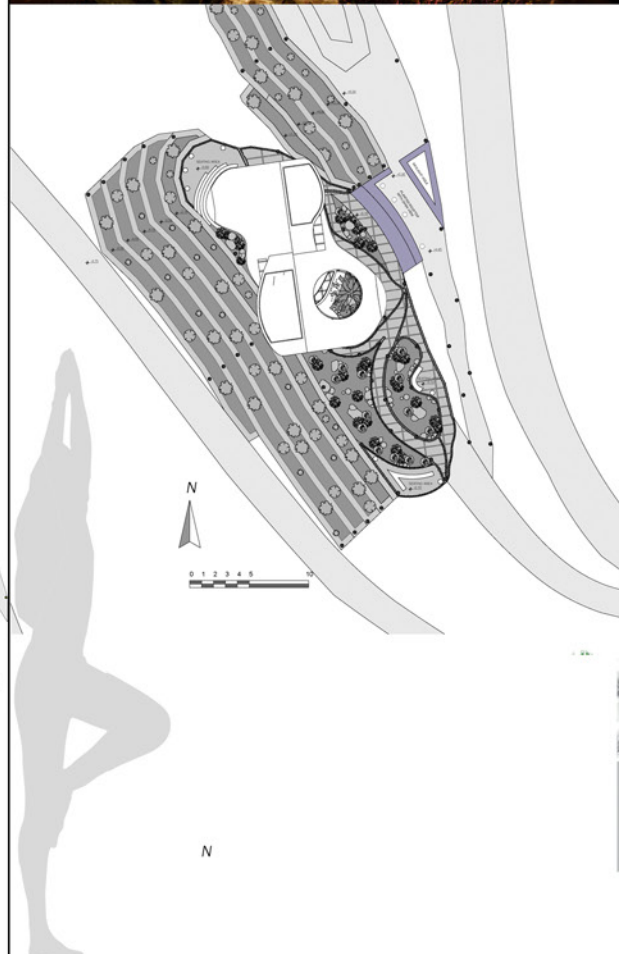
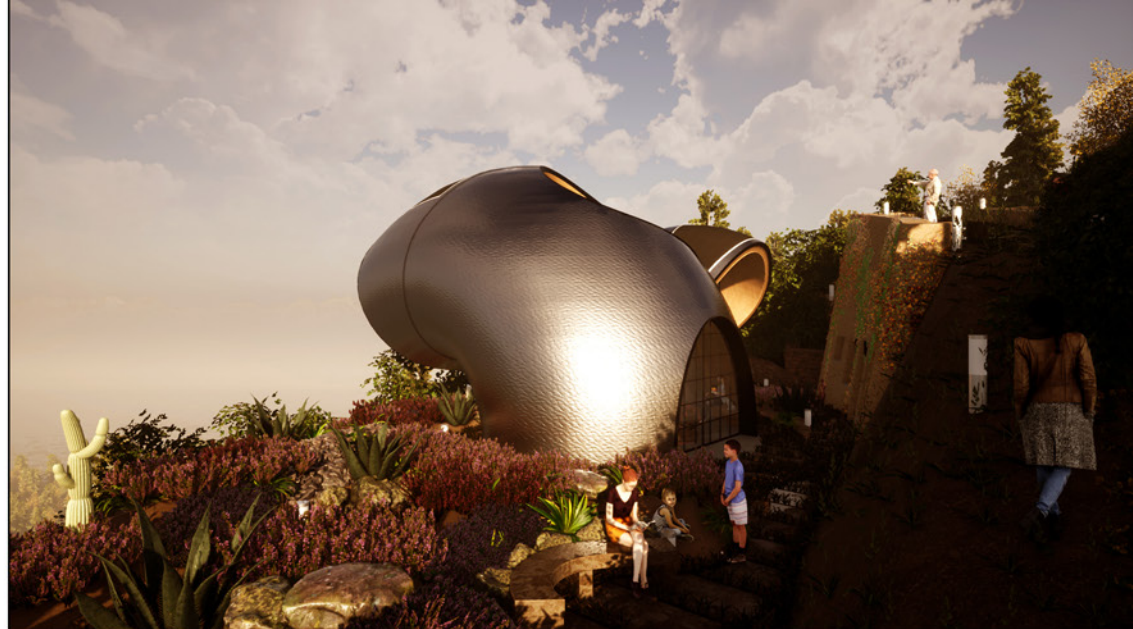
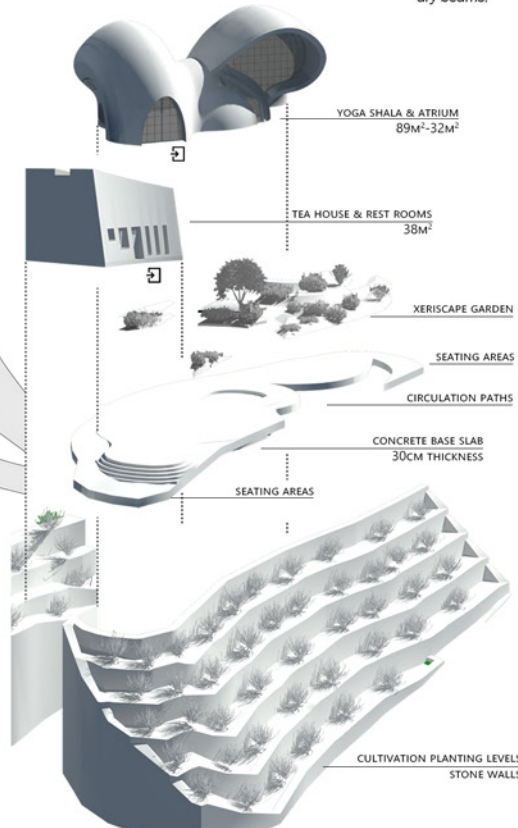
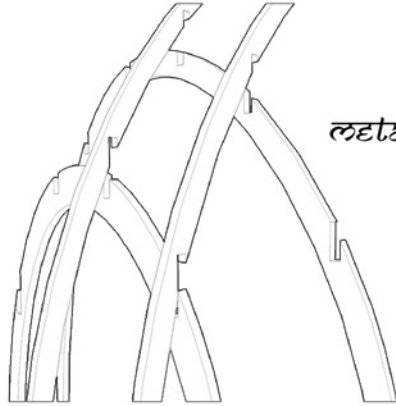
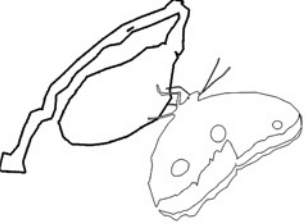


Photo 01_View of the Xeriscape Garden with regards to the new Yoga Shala building proposal. The Islands consist of plants and rocks. The circulation paths are highlighted through low linear planting and the seating areas include stone benches and cylindrical stone stools. The grid of the pavement is identical to the construction grid of the building formed by the contour primary and secondary beams.





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Construction

STRUCTURE

The structure of the building consists of primary and secondary structural wood contour beams grid, based on the yoga mat width. A horizontal perimetric bench-like shelf constructed by structural wood, reinforces the structure stiffness while serving as a seating bench. The skin of the building is comprised by layers of plywood sheets, thermal insulation and structured titanium panels. The Yoga Shala curved building skin incorporates photovoltaic panels. It has the adequate thermal insulation and a Passiv Haus construction envelope in order to maximize energy efficiency. The openings allow for adequate natural lighting and aeration. The rainwater and greywater are purified and stored in a water tank.



Photo 02 Interior View of the Xeriscape Atrium with the Olive Tree (Tree of Life). A window opening on the skin of the Shala, allows visitors to watch the Yoga practice. The wide and high Opening facing southwards fills the space with warm, immense, healing, natural light.

- 01 Titanium Metal Sheet, 2 mm
- 02 50x50 mm Metal Panel Supporting Grid
- 03 Water Proofing Membrane
- 04 Thermal Insulation, 100 mm
- 05 Plywood Sheets, 20mm
- 06 50x50x2 mm Metal Panel Supportiung Grid
- 07 120x60 Wood Beams
- 08 Wedge
- 09 Primary Wood Beam Contours
- 10 Secondary Wood Beam Contours
- 11 Titanium Sheet Metal Covering
- 12 Main Entrance Frame
- 13 Main Entrance Casement Frame
- 14 Double-glazed Glass Panes
- 15 Perimetric Seating Board
- 16 Primary Beam Connection to Floor
- 17 Industrial Concrete Floor, 60 mm
- 18 Subfloor Concrete Layer, 60mm
- 19 Thermal Insulation, 100 mm
- 20 Water Proofing Membrane

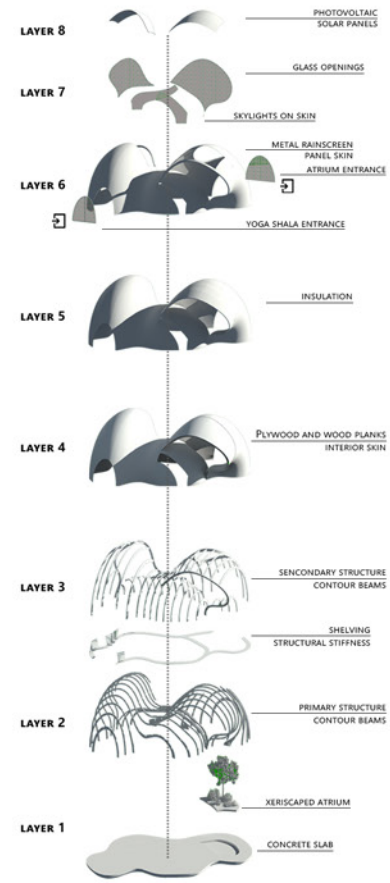
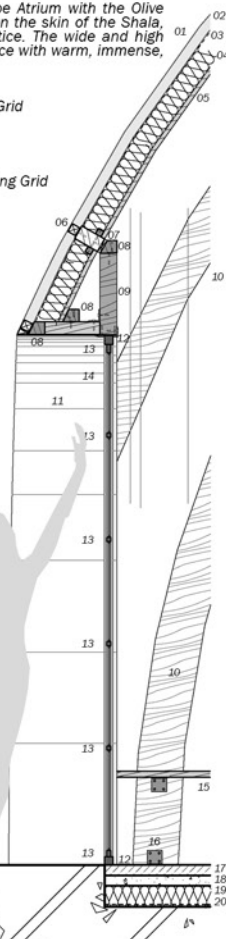


Diagram 01 Explosion Diagram of the layers that consist the cocoon structure.

Photo 01 The interior space of the new Yoga Shala is governed by the Structural Beam Contours that form the supporting structure of the building. The wood ceiling enhances the warmth of the space.

