

| Casa Katāna |

A crooked line engraved in the Southern Cretan landscape



Casa Katana

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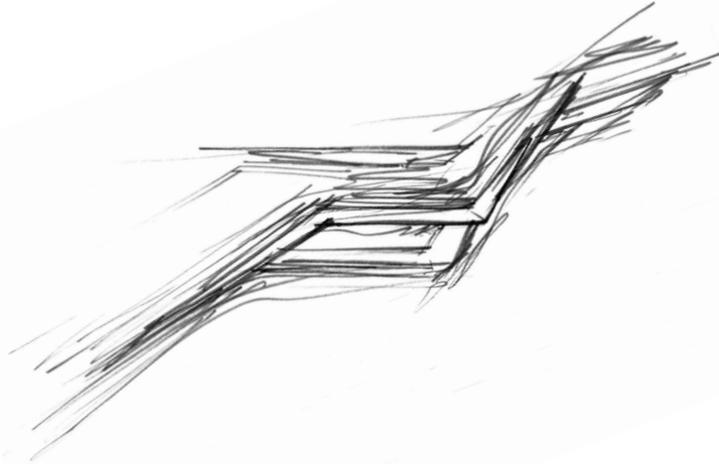
In the Southern part of Crete near the Agios Pavlos graphic beach is designed our unique leisure residence **Casa Katana**. The inspiration of this innovative design came out by closely observing the parameters of the site and asking the right questions. The landscape with its unique morphology, southern mediteranian beauty, the views towards the libyan sea and the climate conditions are the main factors influencing the architectural synthesis. In the above factors are added the contemporary needs and amenities that a luxurious villa may possess in order to constitute a state of the art modern structure.

One of the first concerns was the residence to be fully integrated in the landscape, living untouched the beauty of the plot. Towards this direction after lots of sketches the idea came up in the form of a **soft crooked line** that delimits the borders of the residence. This gesture of a continuous concrete blade is engraved in the plot resembling the mark of a sharp yet gentle Katana sword, thus gave its name Casa Katana. The components of the synthesis are sized in a harmonic ratio that provides motion to the whole composition and gives the feeling of a very contemporary structure.

The residence is carefully placed above the rock formations of the site and high enough to give outstanding views of 160°-180° and privacy at the same time. Casa Katana is partially underground in order to present excellent thermal and **sustainable behaviour** and is carefully studied according to the mediterranean-North african climatic conditions, sun light movement and orientation. Natural light and ventilation are basic elements giving a natural feeling and well being to the habitant. The main Material selected is a colored concrete mixture that integrates to the palette of the landscape providing at the same time durability and minimum possible maintenance.

In terms of numbers Casa Katana constitutes of around **600 sq.m of living areas** that are analysed at, one open plan living-dining area, four large bedrooms with ensuite bathrooms, one large Office with loft bedroom and extra semioutdoor or possible indoor area, one spa wellness area and storage spaces. Because the mediterranean climate promotes an outdoor living, around **307 sq.m** are entirely deticated for **outdoor and semi outdoor living areas** and exta amenities. A large crooked infinite pool of 250 sq.m borders with the outdoor spaces and around 150 sq.m are deticated to the parking and other auxiliary areas. An extra 111 sq.m have been given in the indoor technical room, water tanks, overflow tank etc.

Casa Katana is designed according to the **highest aesthetic and scientific standards** in concern to the sustainability factor and the art of architecture. It provides the feeling and privacy of a sea-front villa yet it combines it with the benefits of a higher leveled plot 62 meters above sea level thus giving an excellent feeling with unobstructed view. The habitant is urged to live and explore the natural beauty of Southern Crete combined with a unique architectural experience.



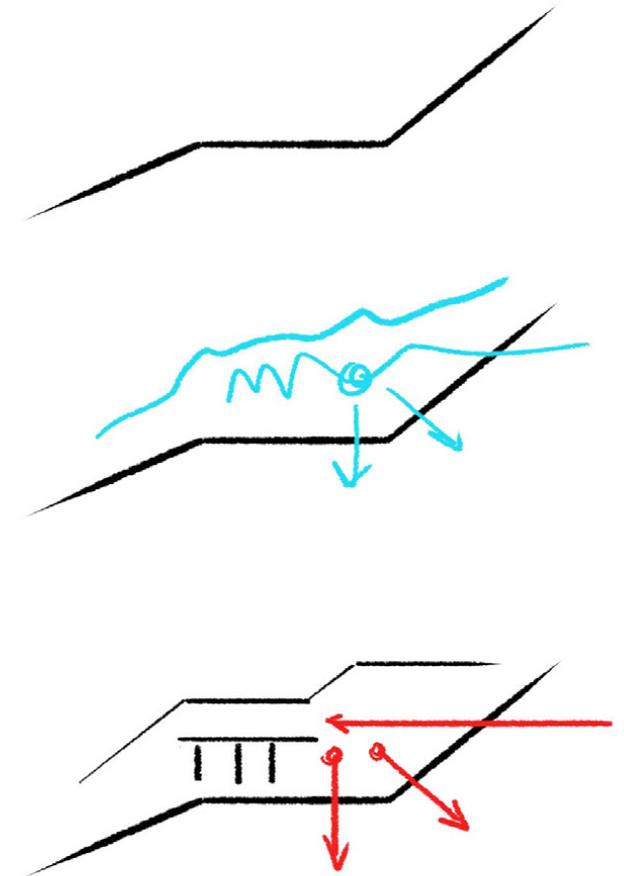
Development: **TETRAKTYS**

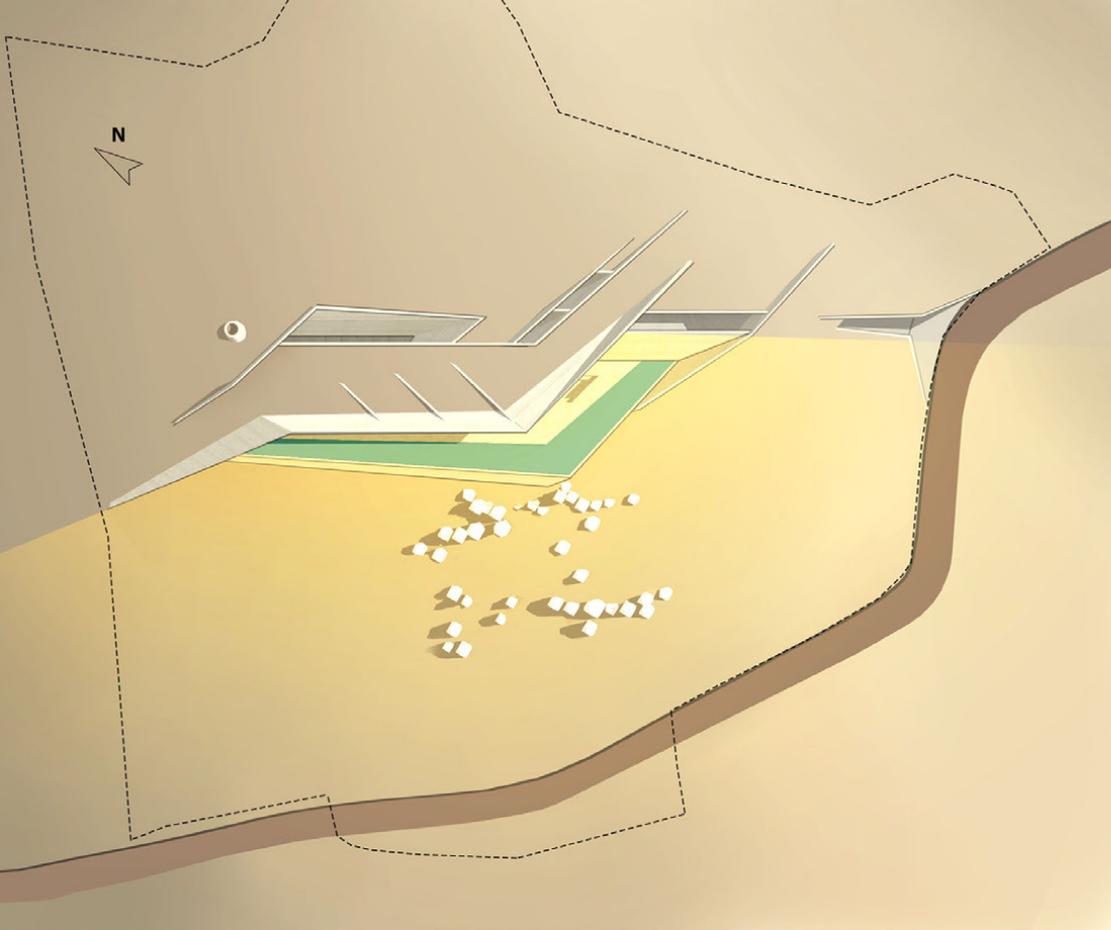


Idea

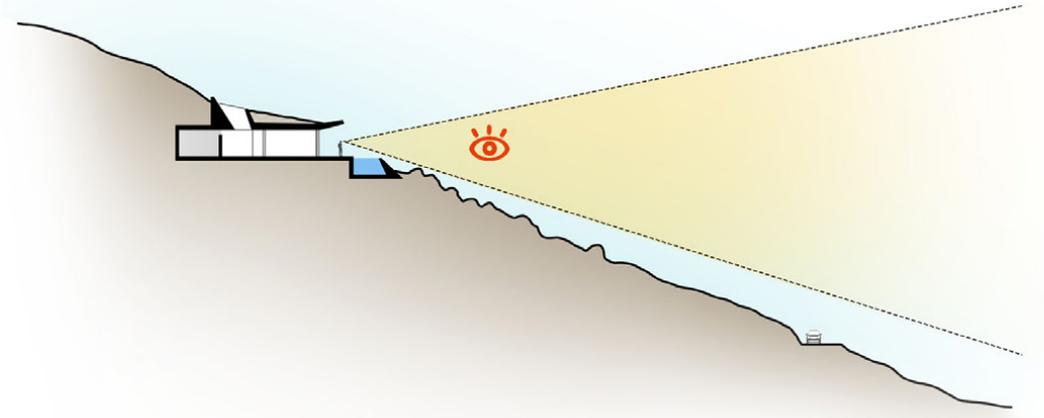
The Idea is inspired by the unique morphology of the plot and the particular characteristics of the site, rock formations, orientation, views.

A soft crooked line delimits the borders of the synthesis and provides broader view in two basic directions. All the elements of the composition are constructed in accordance to the basic crooked line that acts as the backbone of the residence





Topographic & View Analysis



The site has a magnificent panorama wide view of the area. The synthesis is being placed in such a way, taking advantage of the view, while at the same time is masking unnecessary elements like the local rural road and other dwellings towards West. In that way it provides silence, a sense of privacy and an ideal view to the sea and the local morphology.

Panorama 180°

Field of View



Axonometric-diagram

CUT.

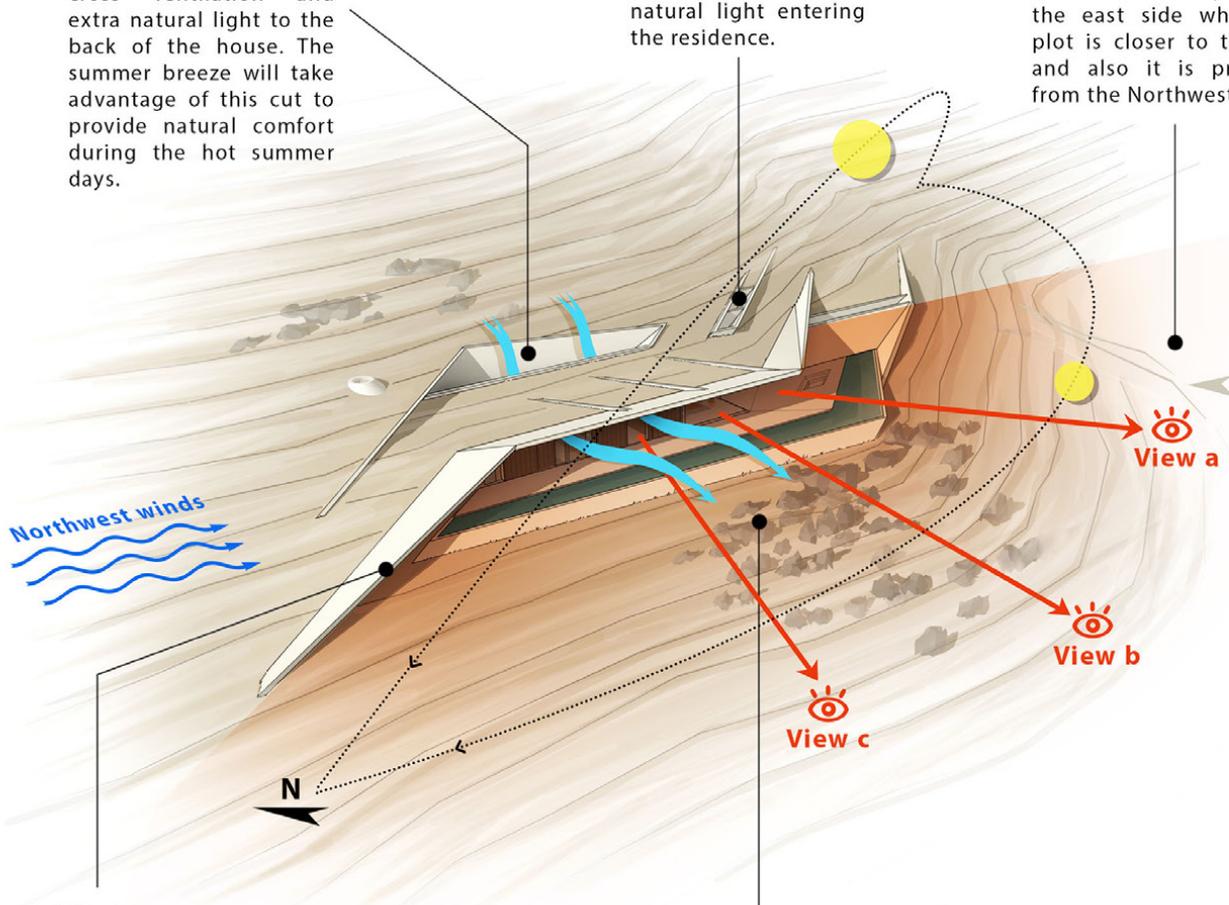
This upper cut serves us a cour-angleise that allows cross ventilation and extra natural light to the back of the house. The summer breeze will take advantage of this cut to provide natural comfort during the hot summer days.

CUT 2.

In continuance this cut will assist the cross ventilation and extra natural light entering the residence.

Entrance.

The entrance is placed at the east side where the plot is closer to the road and also it is protected from the Northwest winds.



1st Blade.

The 1st part of the crooked line that defines the synthesis is emerging from the ground. It is placed in an ideal angle in order to protect from the strong Northwest winds that take place often in the region.

Natural Rock formations.

The residence is placed right above these rocks in order to leave them untouched, yet in proximity with the swimming pool. In that way the swimmer-habitant will feel in contact with nature and he will be able to admire the unique local topography.



View a.
towards Southeast
& Paximadia Islands

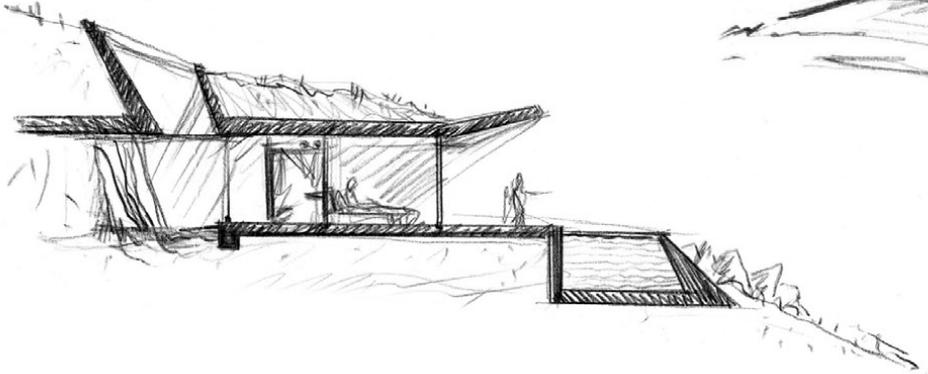


View b.
towards South-West
& the front Bay



View c.
towards Southwest,
the front Bay & Faros

Section analysis & sketches



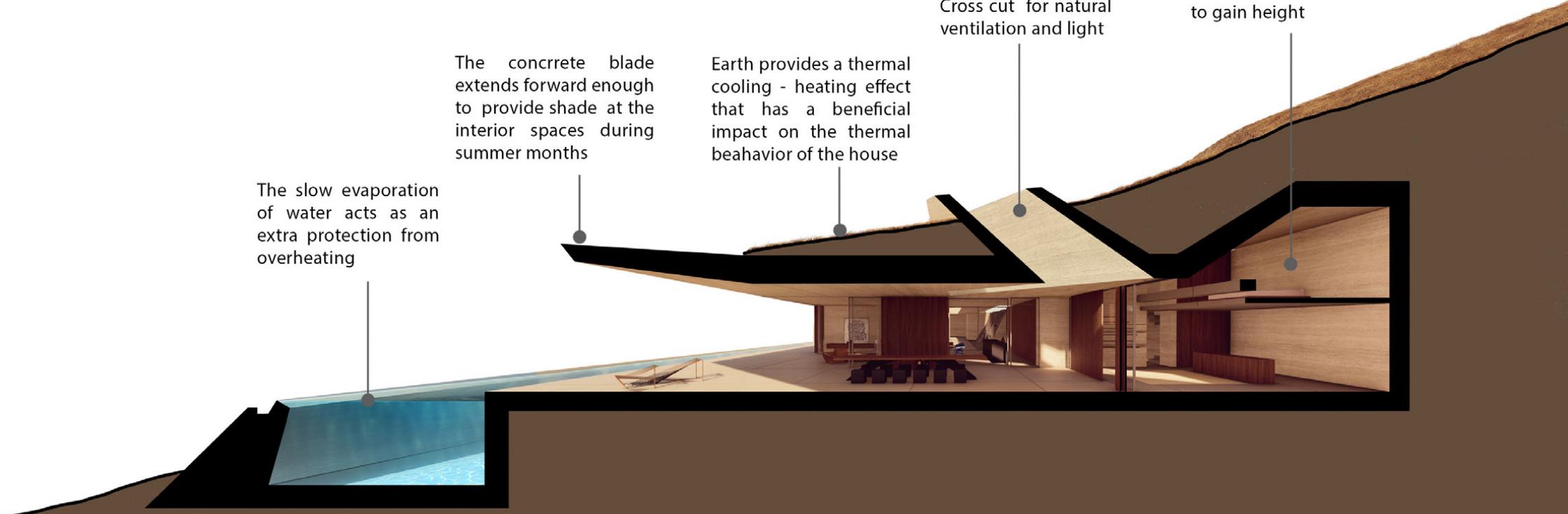
The slow evaporation of water acts as an extra protection from overheating

The concrete blade extends forward enough to provide shade at the interior spaces during summer months

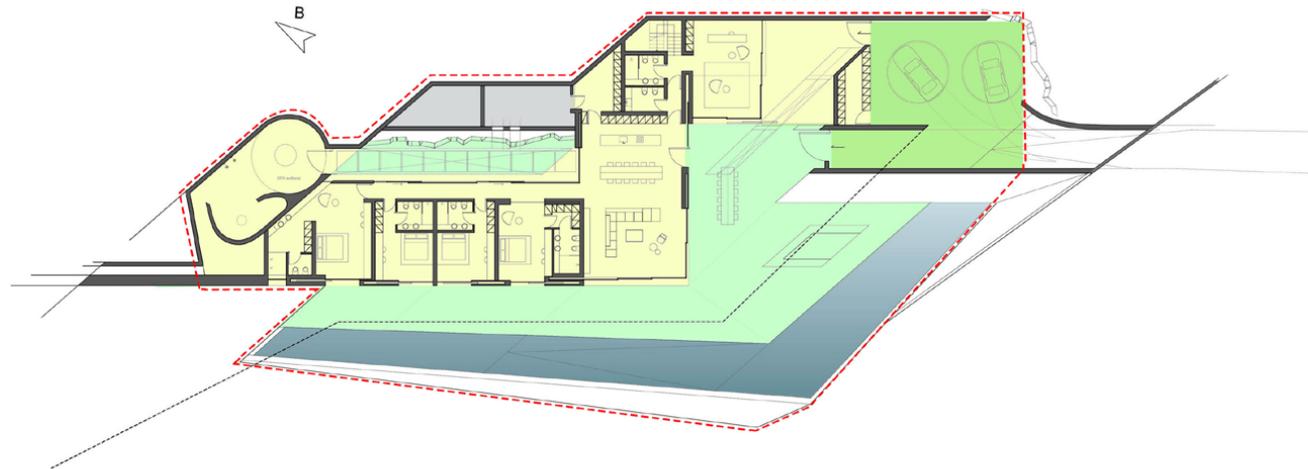
Earth provides a thermal cooling - heating effect that has a beneficial impact on the thermal behavior of the house

Cross cut for natural ventilation and light

An office with loft bedroom is created taking advantage of the plot's inclination to gain height



Plan Analysis



 Ground level Hardscape area ~1470m²

residencial area ~600m²
(~574m² ground level+26m² loft)

Indoor technical area ~51m²

Semi-outdoor & outdoor living area ~307m²
+33m² cour anglaise

Semi-outdoor auxiliary area ~150m²

Open plan Living area ~103m²
living room/ kitchen/ dining

Master Room 1 with ensuite WC ~57.6m²

Room 2 with ensuite WC ~31.2m²

Room 3 with ensuite WC ~31.2m²

Master Room 4 with ensuite WC ~44m²

Office - Room 5 (groundfloor) ~58m²

Office - Room 5 (loft) with ensuite WC ~26m²

Extra outdoor/indoor space ~56m²

Spa Wellness ~76m²

Guest WC ~7.5m²

Laundry-storage ~13.6m²

Mechanical Room ~26m²

Water Tank ~21m²

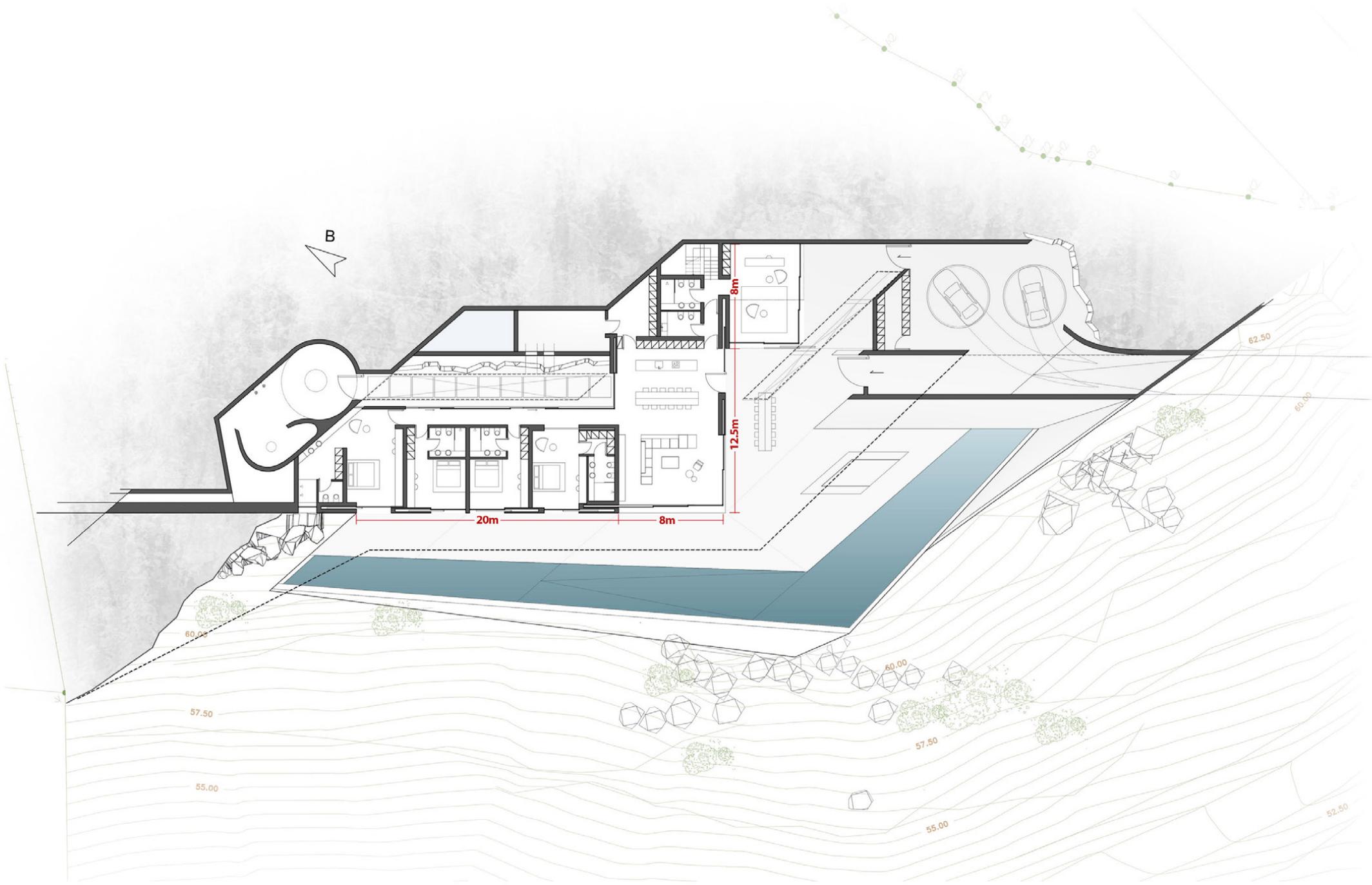
Additional storage ~12.5m²

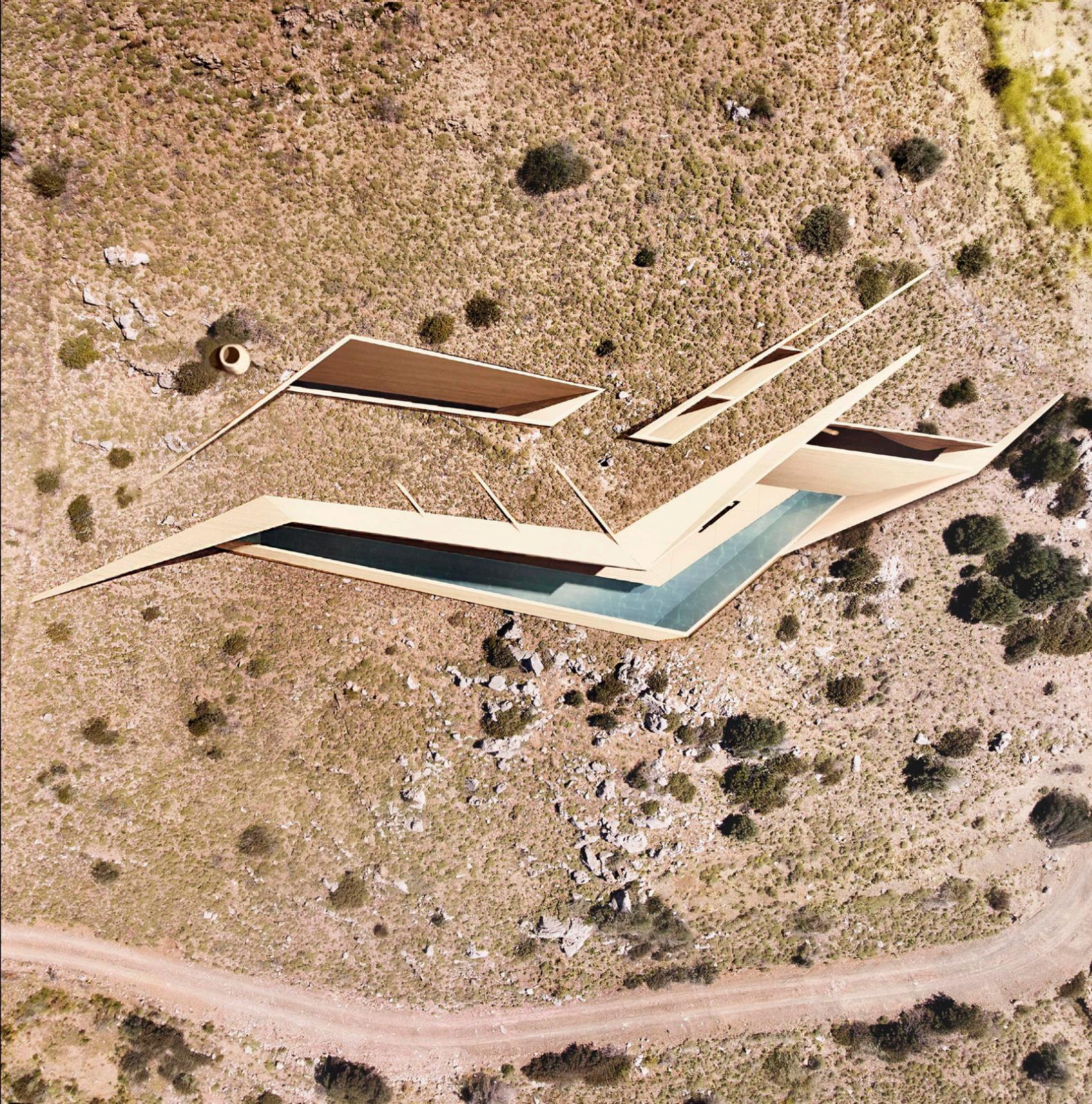
Parking area ~95m²

Swimming pool ~250m²
(water surface ~208m²)

Overflow tank & pool Mechanical room (Level -1) ~60m²

Plan

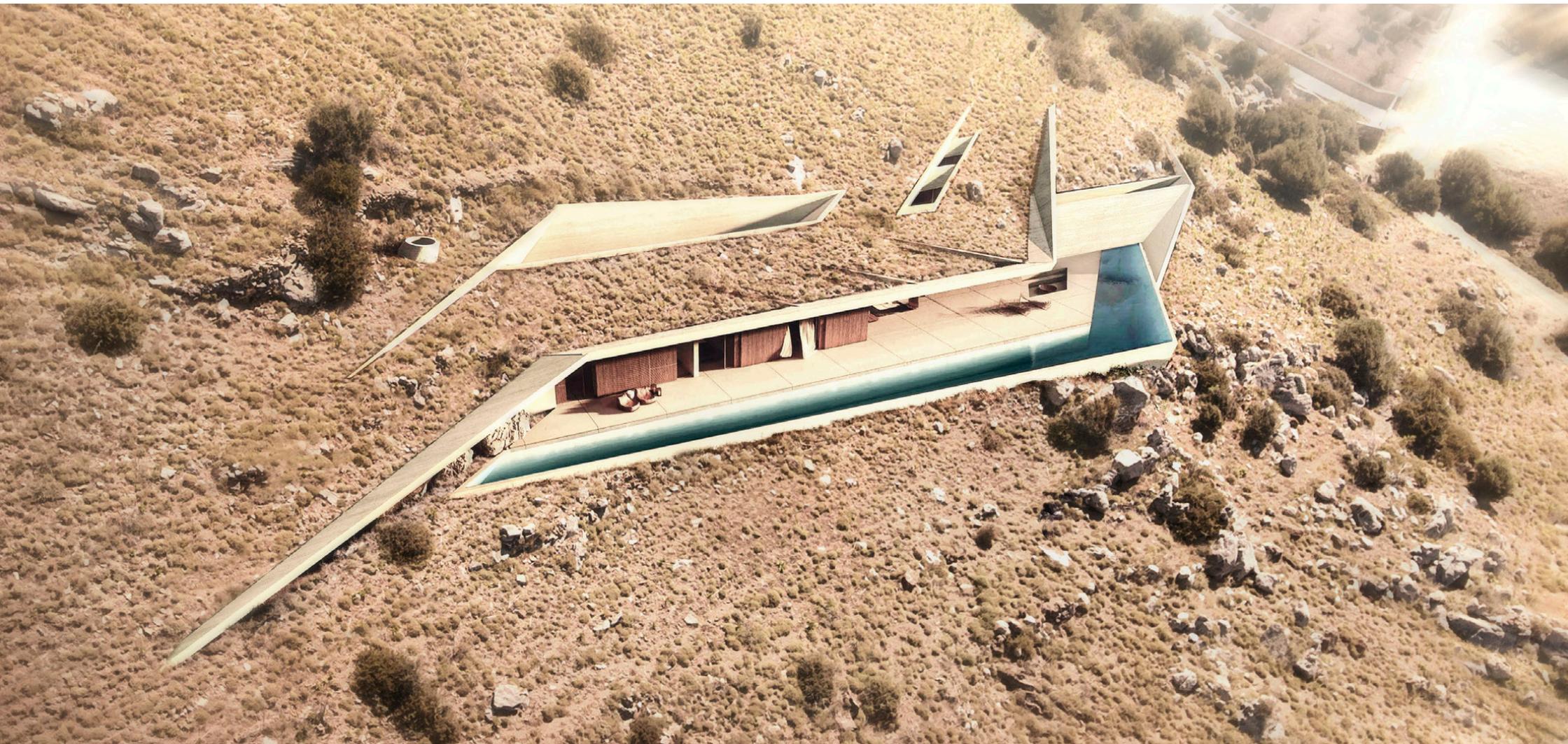




View from above



View from the South



View from the West



View towards Northwest



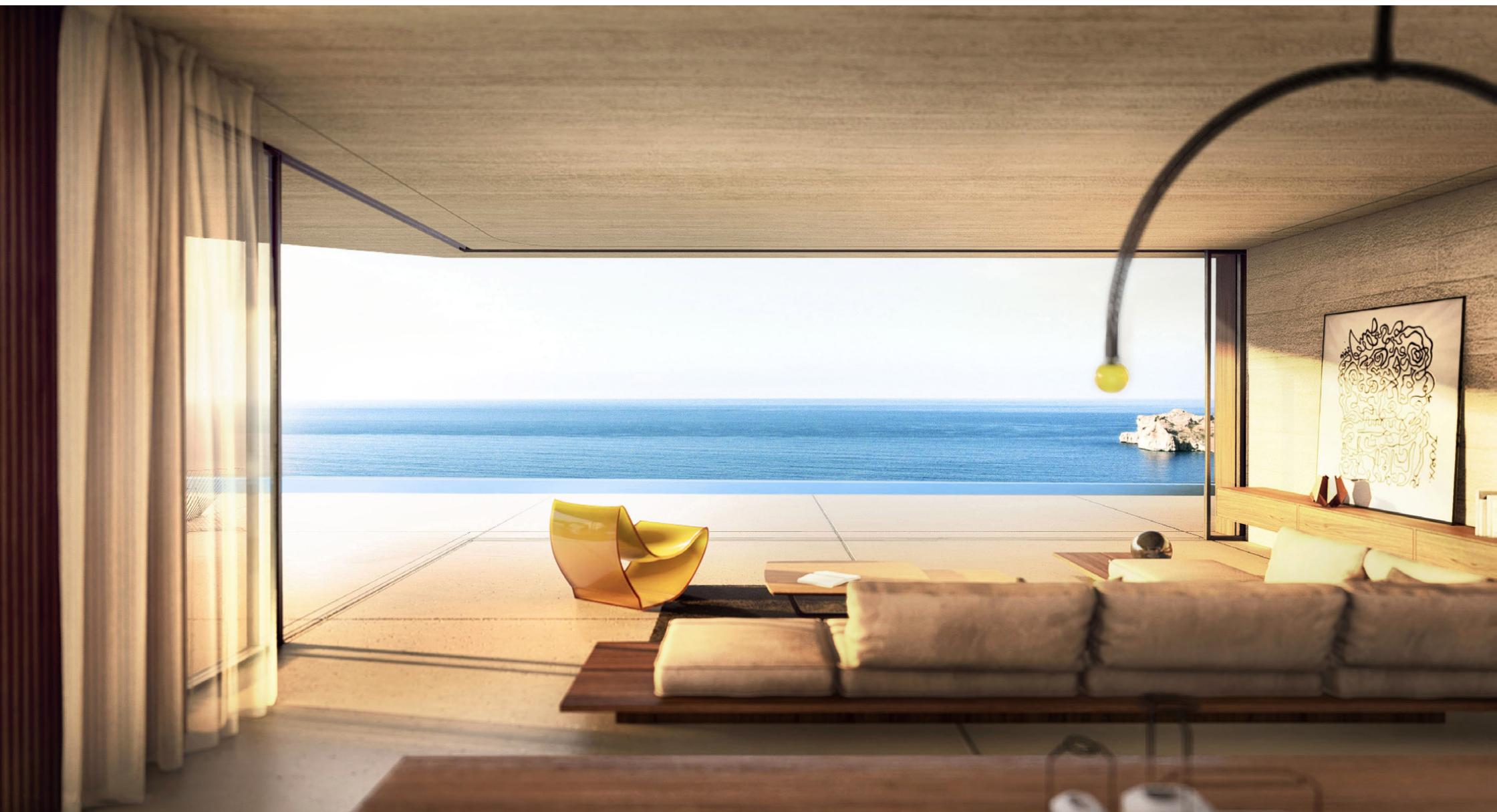
General entrance from Southeast



View of the semioutdoor dining area
Towards Northwest



View Towards Southeast



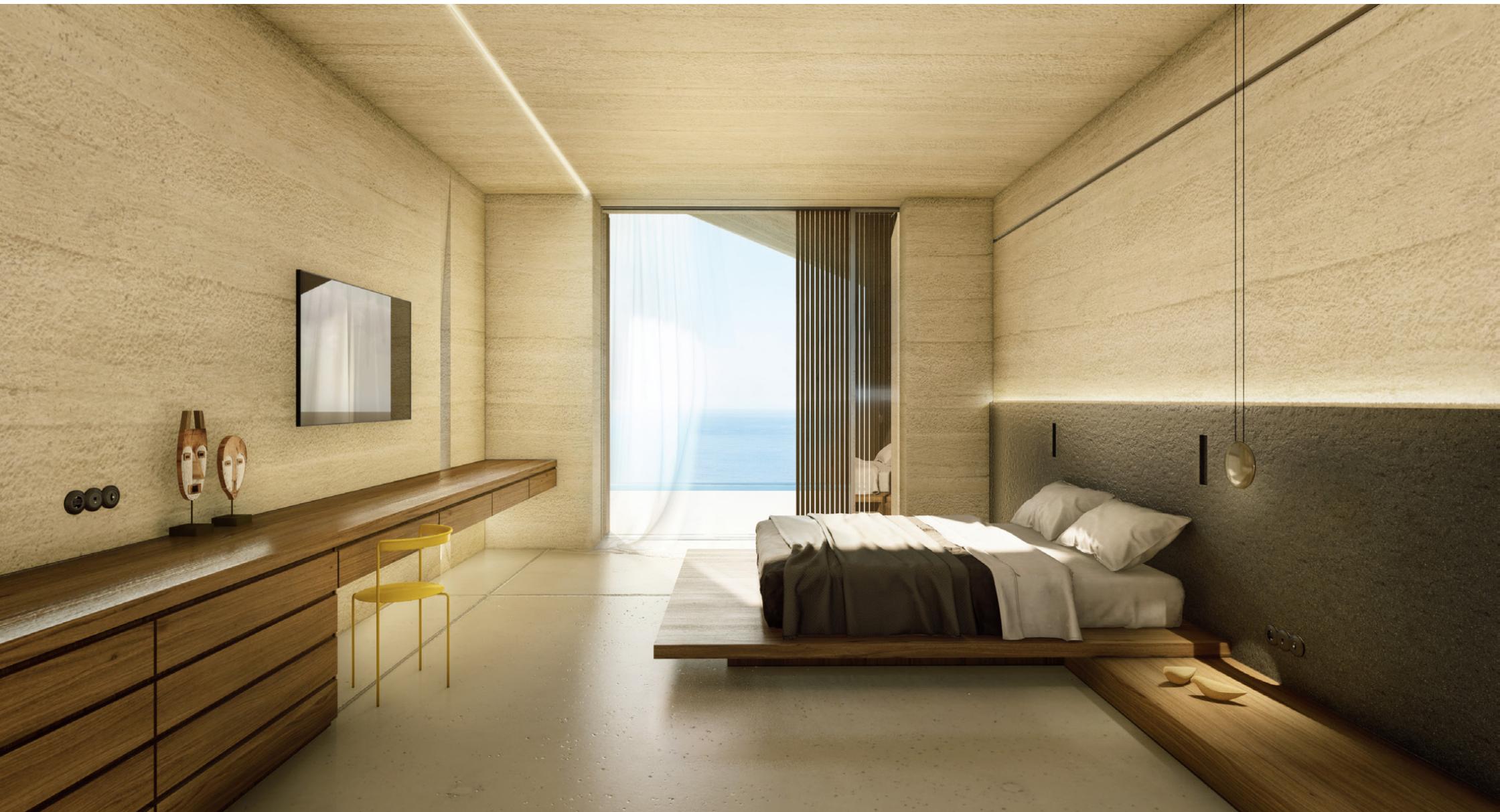
View Towards Southwest



View from the middle Room 3



View from the room 4



View from the Master room 1



View from the outdoors towards Southeast



Night View from the South, Southwest



Night View towards Northwest