

Architecture and its Integration into Nature

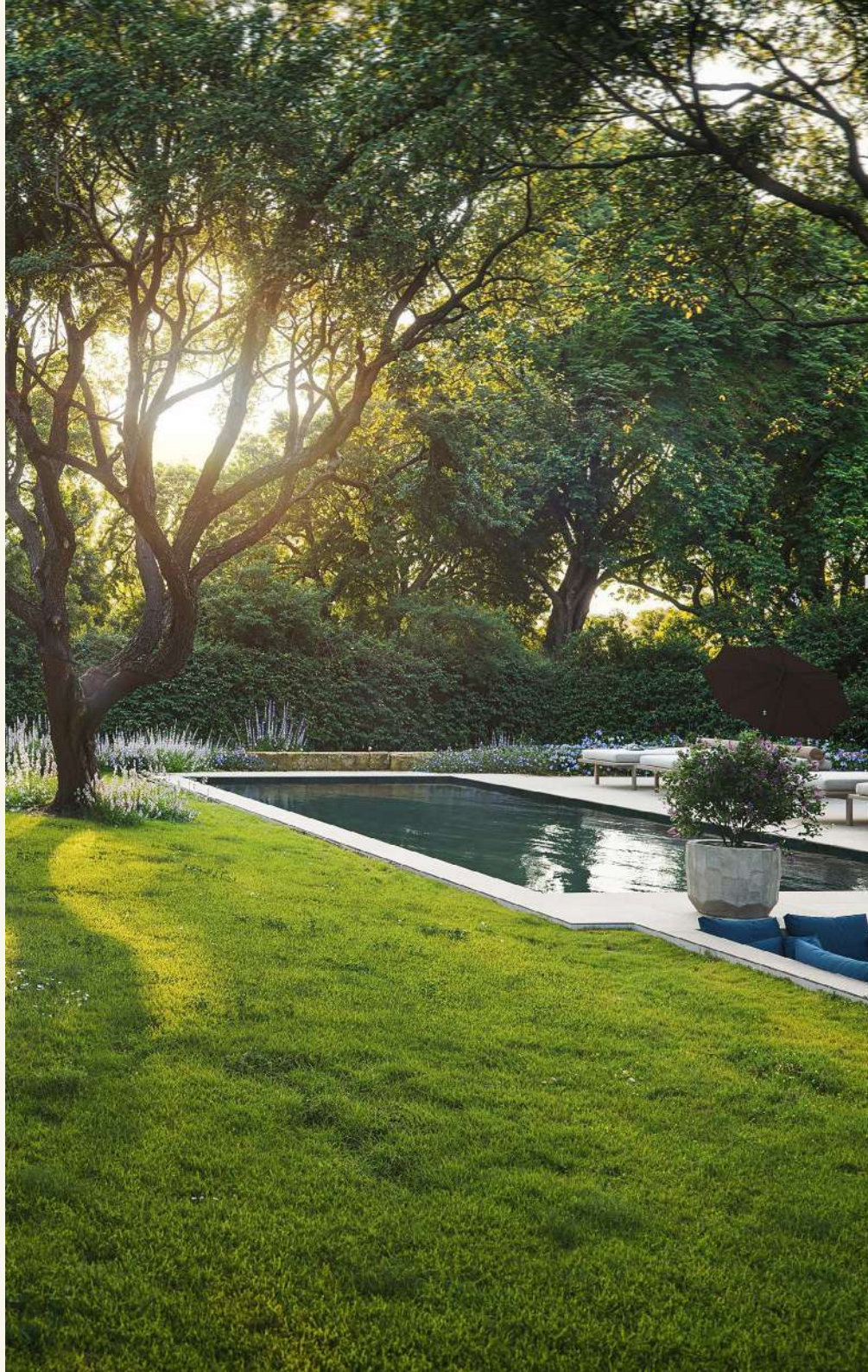


An essential key to good architectural design is to take into account all the characteristics of the physical space where the structure will be built.

In fact, adapting the design to the environment is an exciting challenge the more specific the characteristics of the site are. This adaptation also offers a wonderful opportunity to implement imaginative and effective solutions that not only solve the challenges of uneven topography, but also contribute to the home's comfort and habitability, without sacrificing originality and aesthetic beauty.







Our experience at OM28 Architects has taught us general applications such as the use of cantilevers to control the entry of sunlight, cross ventilation to improve air flow and the creation of shaded spaces for thermal comfort.

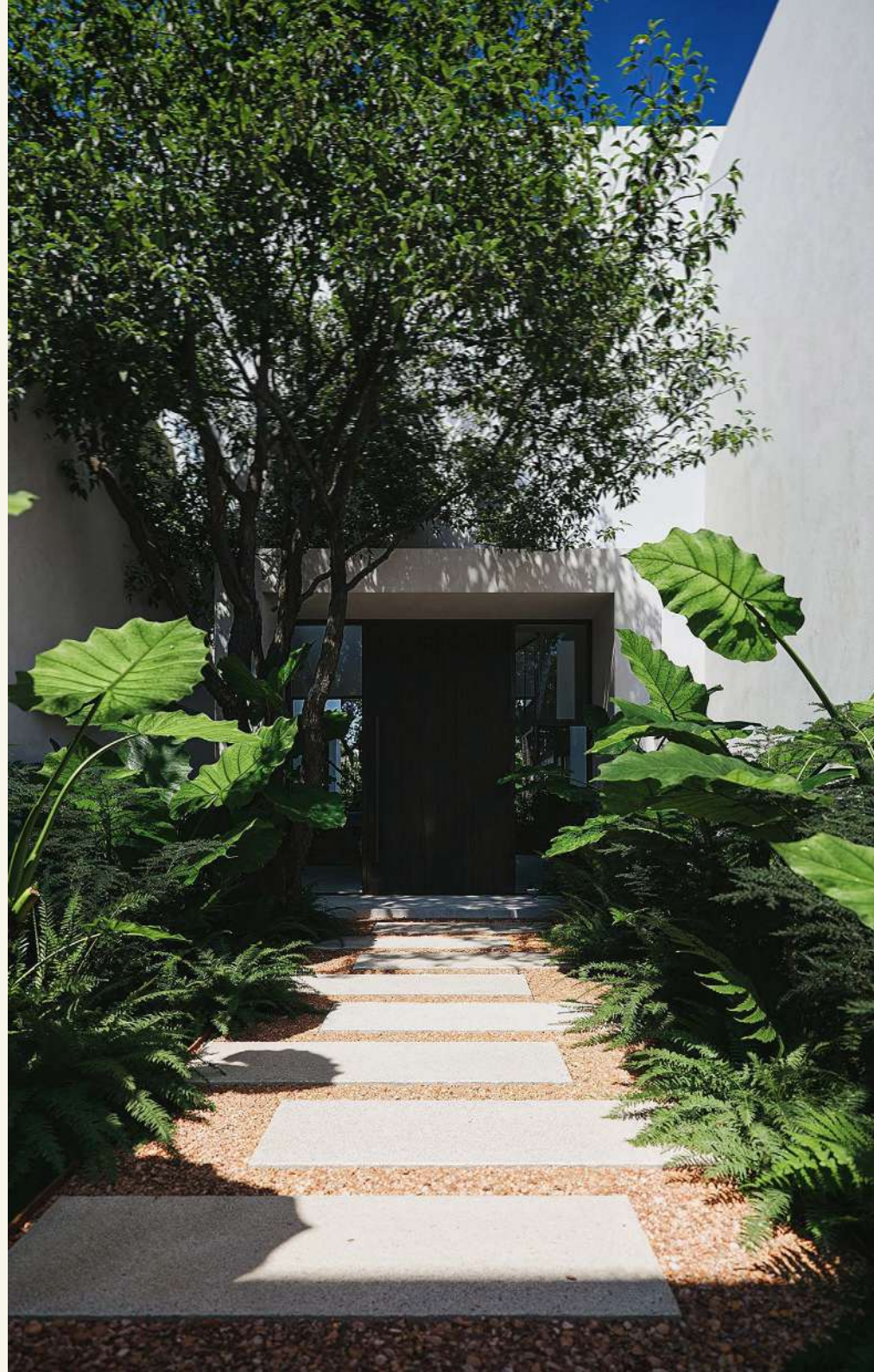
However, repeating the same architectural models without considering the specific conditions of each location is inefficient and unsustainable. Consequently, successful design should always be based on an in-depth analysis of the site that details the topography, climate, plant life and even the sounds in the area, to successfully integrate each architectural element with the natural environment around it.

Places like Sotogrande offer a host of privileged natural environments, but they can vary greatly depending on whether the home is near the coast, on a river bank or on the side of a hill surrounded by nature. So it is essential to take into consideration the particular microclimate of the area and elements such as the orientation with respect to the sun, the impact of the different types of wind typical to the area, the Levante (easterly wind) and Poniente (westerly wind), and the characteristics of the terrain.

Examples of this modern, sustainable vision for architectural design abound in our designs. When designing in Sotogrande, it is very common to take advantage of hillsides and slopes to integrate the home into the landscape with the orientation needed to maximise the sunlight in winter and minimise it in summer, thereby contributing to the building's light and temperature. All of this, together with the incorporation of advanced technology in terms of HVAC systems, ensures that the homes are energy efficient and sustainable, reducing their environmental impact.







Consequently, the integration of architecture with nature not only gives these villas aesthetic and functional value, it is also a responsible and sustainable practice that is fortunately being increasingly taken into account not only by architects and builders, but also by the end users of these homes, who want to live in unique and comfortable spaces, in harmony with their natural environment.





The extraction of cork from the cork oak is an ancient, sustainable practice carried out every nine years without damaging the tree as it allows the bark to grow back. This method benefits the ecosystem since cork oak forests are biodiverse habitats and contribute to the absorption of carbon dioxide. Cork is used in a variety of products, supporting an industry that promotes environmental conservation and sustainability.

FOUNDATIONS

- ✓ Shallow foundations based on isolated footings that are braced.
- ✓ Reinforced concrete paving slabs on outdoor flooring.

STRUCTURE

- ✓ One-way suspended floor separated from the ground.
- ✓ On-ground structure with waffle slabs and reinforced slabs on concrete and steel piers.
- ✓ Concrete stair slab.

WATERPROOFING AND INSULATION

- ✓ Thermal insulation with sprayed rigid polyurethane foam in building enclosure, according to regulations.
- ✓ Waterproofing of roof with market leading sheeting.
- ✓ Thermal insulation in extruded polystyrene (XPS) roofs, according to regulations.

MASONRY

BUILDING ENCLOSURE

- ✓ Cavity walls with exterior perforated bricks, interior mud plastering, thermal insulation, air chamber and interior wall cladding.

INTERIOR PARTITIONING

- ✓ Interior partition walls made of laminated plasterboard on galvanised steel, with different thicknesses and finishes according to design and standards.

CONTINUOUS CLADDING

- ✓ Master plastering with water-repellent cement mortar for facades.
- ✓ Interior false laminated plasterboard ceilings, according to design and regulations. Smooth latex anti-mould paint for interiors.
- ✓ Waterproofing paint for exteriors.

PAVING AND STONE VENEER

INTERIOR TILE FLOORING

- ✓ Porcelain stoneware ceramic tiles.

EXTERNAL PAVING

- ✓ Porcelain stoneware ceramic tiles.
- ✓ Deactivated concrete.

STONE VENEER

INTERIOR STONE VENEER

- ✓ Large-format porcelain stoneware tiling.

EXTERNAL STONE VENEER

- ✓ Outdoor walls made of local stone.

INSTALLATIONS

BATHROOM FIXTURES AND FITTINGS

- ✓ Countertop washbasins.
- ✓ Freestanding bathtub in main bathroom.
- ✓ Vanity units.
- ✓ Wall-mounted or countertop-mounted mixer taps for washbasins.
- ✓ Wall-hung toilets.
- ✓ Resin shower trays.
- ✓ Shower fixtures, built-in mixer taps, flexible hose and fixed shower.
- ✓ Head sets Free-standing bathtub taps.
- ✓ Electric towel rails.

WATER TREATMENT

- ✓ Descaler Self.
- ✓ Cleaning filter.
- ✓ Underfloor heating preventive treatment.

AIR EXTRACTION AND RENEWAL

- ✓ Full air extraction and renovation installation, according to regulations, including extraction outlets, ducts, ventilation boxes and extractors.

AIR CONDITIONING

- ✓ Indoor units for ducted, multi-split hot/cold system.

HEATING AND DHW

- ✓ Hot water production for DHW and underfloor heating with heat pump aerothermal.
- ✓ Storage tank and electric resistance for DHW.
- ✓ Ambient thermostats for underfloor heating.
- ✓ Electric underfloor heating in bathrooms.

ELECTRICITY

- ✓ Complete electrical installation, in accordance with current regulations and electrotechnical regulations.
- ✓ Top quality electrical mechanisms.

LIGHTING

- ✓ Recessed ceiling spotlights.
- ✓ Outdoor wall lamps Indoor.
- ✓ Indoor wall sconce.
- ✓ Outdoor garden spotlights.

TELECOMMUNICATIONS

- ✓ Wall-mounted rack cabinet.
- ✓ Full interior network with TV and data sockets.

SOLAR PANEL INSTALLATION

- ✓ Pre-installation of solar panels.

POOL INSTALLATIONS

- ✓ Filter according to calculation.
- ✓ Skimmer filtration system.
- ✓ Saltwater chlorinator.
- ✓ Installation of slatted pool cover.
- ✓ Pre-installation of pool heating.

EXTERIOR CARPENTRY

- ✓ Sliding and tilt-and-turn windows and balcony doors.
- ✓ Textured lacquered aluminium carpentry with thermal bridging.

LOCKS

- ✓ Pedestrian access gate to plot, single hinged.
- ✓ Vehicle access gate to plot, double swing.

INTERIOR CARPENTRY

- ✓ Wooden security single swing front door and two fixed side panels.
- ✓ Hinged and/or sliding interior doors in oak.
- ✓ Wardrobedoors with interior wood panelling.
- ✓ Wooden skirting board.
- ✓ Kitchen cabinets and appliances.

GREEN SPACES

- ✓ Automatic.
- ✓ Irrigation Tree.
- ✓ Pits Plantin.
- ✓ Lawn.

GROSS FLOOR AREA

Villa - 618,95 m2 ((including covered porches)

Pool - 44 m2 of water surface

Other - (open terraces and patios) 98,63 m2





GROUND FLOOR



FIRST FLOOR



ROOFING PLANT





Thank you!

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