



Hotel Medical Spa Isla Valdecañas, Spain

Miguelangel Gea & Asociados-Arquitectos, Sevilla

Architecture equals nature

“Isla Valdecañas” is a remarkable place – a steeply inclined Spanish island rising from the middle of a 7,200-hectare reservoir and with views of the imposing Sierra de Gredos mountain range. Amidst this area of natural beauty is a 133-hectare oasis of luxury for tourists. How can architecture and nature become a single entity?

Architecture in perfect harmony with the surrounding landscape, which meets the highest luxury standards and still takes conservation into account – that is how you could describe the “Isla Valdecañas” construction project. This oasis of tranquility is only about 160 kilometers from Madrid and comprises a wellness hotel, golf resort, yacht marina, holiday village, villas, sports complex and congress centre – all within surroundings that help protect the natural landscape. The project presents a daring combination and a huge challenge, which the architects from Miguelangel Gea & Asociados-Arquitectos are successfully mastering. This project is the first of its size and type on the Spanish mainland. “We approached the Isla Valdecañas project from the inside out, so to speak,” explains project manager and head of the company, Miguelangel Gea.

Urban planning and tourism amenities have long since been the specialty and form the core business of Miguelangel Gea & Asociados-Arquitectos. The architectural firm was established 33 years ago and now employs 15 members of staff.

“Visitors to the island should discover the landscape through the architecture, yet not notice the architecture in the landscape,” continues Mr. Gea. “The buildings must blend into the landscape as readily as the rocks.” To achieve this, the architects are using a low, terraced design. Almost all the buildings are single-storey and arranged in a natural, irregular configuration. Only one building, the golf hotel with associated 18-hole golf course, has three storeys. It looks like a long, flat block with terraces and balconies attached on both sides. Gea explains, “The top floor looks as if it is floating above a plinth. It also serves as a viewing platform overlooking the island.”

Architecture of the moment

Great importance was attached to the landscaping too: trees and bushes typical of the region were planted well before the buildings were completed in order to ensure they would soon dominate the buildings. The roofs of the buildings are green or coated with stones and pebbles, allowing optimal integration into the landscape. The construction method also took nature into account: “For our building materials, we are only using natural stone from the region and plastered surfaces will all be in tones of ochre,”

affirms Mr. Gea. In consultation with the responsible environmental protection authorities, the agency has created “architecture of the moment” which respects and preserves the surrounding area. “Architecture and landscape merge to form one entity. We don’t have a fixed style for this. It should simply be a pleasure to stay there,” explains Mr. Gea.

The first guests should be arriving at the start of 2011, when the community centre and the majority of the 300 villas, including some holiday homes, will be completed. Nearly all the villas have already been sold. Hotel guests will need to be a little more patient: the wellness and golf hotel are due for completion during the last quarter of 2011. Construction costs for the buildings amount to 100 million euros, with a total of 193 million euros being invested in the tourism complex as a whole.

The personal touch

The first sketches of the buildings were created four years ago using Allplan Sketch. This makes use of a pressure-sensitive pen that is used to sketch on a tablet PC as if on paper. The advantage is that the initial drafts can be digitally edited and used immediately in the CAD system. According to Mr. Gea, using Sketch for the draft architecture was an executive decision: “This tool saves us a lot of time without restricting our creativity. With Sketch, we can achieve a scale of 1:1000, which is just not possible with pen and paper, and still give our drafts the personal hallmark of a traditional sketch.” The building client, Marina Isla Valdecañas, was impressed at the preliminary meeting when Mr. Gea simply displayed the initial Sketch drafts on the wall using a projector. As soon as the draft was approved, it was sent to the planning department where it was used to create a 3D model. During this stage, the architects worked with the Allplan CAD platform, which allows a project to be processed in full using a single, central building model. They manipulated and modified the 3D model until they arrived at the final design. “Like a sculptor who creates a sculpture based on a sketch, we model without having to stick to rigid plans,” explains Mr. Gea.

With Allplan, architects are no longer tied to a traditional sequence of steps: all project-related information is captured centrally in the virtual building model and made available to all project partners



throughout the entire planning and construction phase. "Hence we are able to work in 3D from the outset and involve clients as well as design and construction partners at the same time. In meetings with the clients, we can then simply project the 3D model onto the wall," continues Mr. Gea. In addition, the draft can be visualized using the Allplan CINEMA 4D solution. "To do this, the model data is simply imported from Allplan, materials and textures are added and a photo-realistic representation of the building is generated at the click of a mouse," says Mr. Gea.

Integrated project work

In order to ensure clients and partners are always kept up-to-date, they regularly receive the CAD data exported from Allplan as a 3D PDF file. To save time and paper, all planning partners can download this file from the company's server. This is a particularly intelligent way of exchanging design data because it allows a 3D model to be viewed on any computer regardless of the software used. This means that even planning partners who do not use Allplan can still be involved. Furthermore, it means there are fewer questions from clients, planning partners and contractors on the building site. Thanks to this integrated project processing, designers always have the project reliably under control.

All project information - that is, the entire specialist data from all the companies involved - is merged using Allplan in a central building model. An automatic comparison of the company's own plans with the data imported from the design specialists prevents design errors and redundant data before they have a chance to arise. "In addition, working directly in 3D makes a great impression on the client, who is therefore better able to make decisions, and it simplifies our workflows," adds Mr. Gea. Allplan offers a significant competitive advantage and is a great tool for helping companies acquire new clients.

Everything at a glance

Allplan, including Workgroup Manager, is installed on 14 workstations at Miguelangel Gea & Asociados-Arquitectos. This means different members of the team can all work on one and the same building model simultaneously and precisely coordinate the various

design steps with one another. In this respect, Workgroup Manager handles the organization of CAD and layout workstations in the local area network (LAN). This central administration of design and construction projects guarantees that all projects on all computers can be accessed and edited directly from every workstation. A core team of ten employees is responsible for the implementation of the Isla Valdecañas project. Their tasks range from initial evaluation to execution planning through to construction management. For engineering services, building services engineering and landscaping, the architecture agency

collaborates with long-established planning partners. The agency is also well-equipped in terms of internal project management, from employee data through to the administration of specific project information, document access rights and the compilation of activity reports. Wherever people work together, they need to be organized and the administrative requirements in this respect must not be underestimated. This architecture agency relies on Nemetschek MyOffice. Mr. Gea: "With this standard platform, all business inputs and outputs can be analyzed. This means we always have a clear picture of the current situation in the office."

