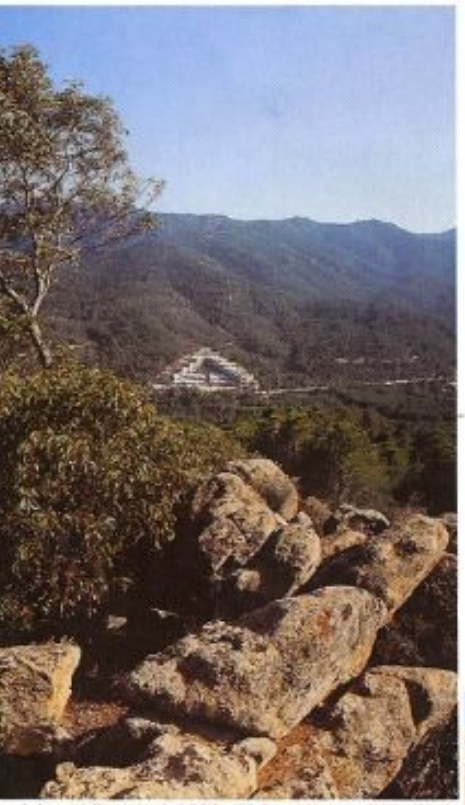
Polaris: Parco scientifico e tecnologico della Sardegna

Promossa da un ente pubblico regionale per favorire l'innovazione delle imprese locali, la realizzazione di Polaris ha trovato la propria forza nell'approfondimento e nella coerenza d'intenti della fase progettuale. Il versante meridionale del Parco, ormai completato, può essere considerato un esempio esplicito di come sia possibile leggere la geografia di un luogo attraverso l'architettura ■ *Sponsored by a regional government agency to encourage local enterprise innovation, Polaris benefited greatly from extensive survey work and unusual unity of intent during its design stage. The southern area of the park, now complete, is an object lesson in how architecture can be used to interpret geography*



Studi e ricerche e Piano particolareggiato/*Studies, research and Detailed plan*
Gregotti Associati: Augusto Cagnardi, Pierluigi Cerri, Vittorio Gregotti

Progetto/*Architects*
Gregotti Associati: Augusto Cagnardi, Vittorio Gregotti, Michele Reginaldi

con/*with* Spartaco Azzola, Tomaso Macchi Cassia (associati/*associates*)
G. Agata Giannoccari, P. Armellini, A.S. Behncke, B. Bossel, C. Garretti, B. Macedo, F. Pace, C. Vedovello

Strutture/*Structures* Giuseppe Rizzo
Impianti idraulici e antincendio/*Plumbing and fire prevention* Fabio Lilliu, Gianni Massa, Sandro Portoghese
Impianti di condizionamento/*Air-conditioning* Antonio Cabras, Carlo Caredda, Paolo Pittaluga, Aldo Vanini, Peter Nowe
Impianti elettrici/*Electrical systems* Marco Murru

Risanamento idrogeologico Rio Palaceris/*Rio Palaceris hydrogeological remediation* Floriano Villa, Franco Coffano
Consulenza per il parco centrale/*Consultant for central park* Ippolito Pizzetti

Segnaletica/*Signage* Studio Cerri e Associati

Direzione lavori/*Site manager* Augusto Cagnardi
con/*with* Tomaso Macchi Cassia, Carlo Argiolas, Piero Porcedda

Coordinamento/*Coordination* Francesco Nissardi, Sergio Russo, Salvatore Lilliu

Committente/*Client* Consorzio Ventuno

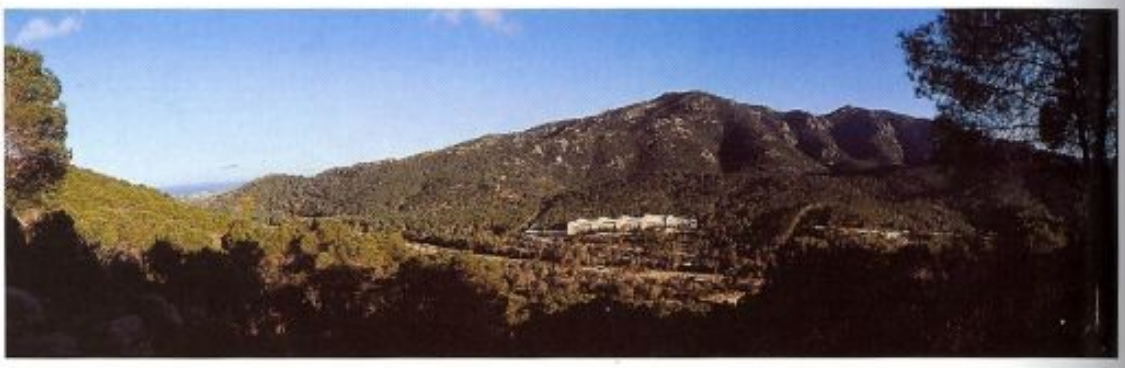
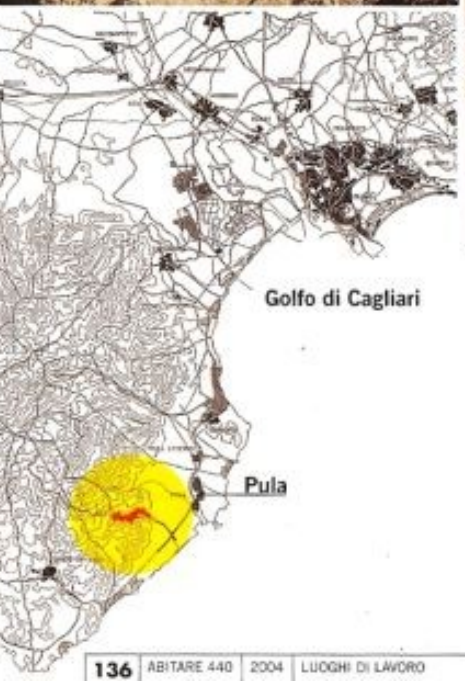
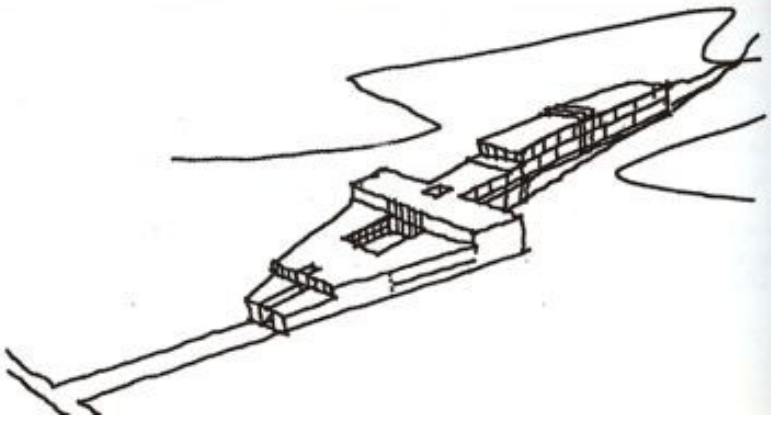
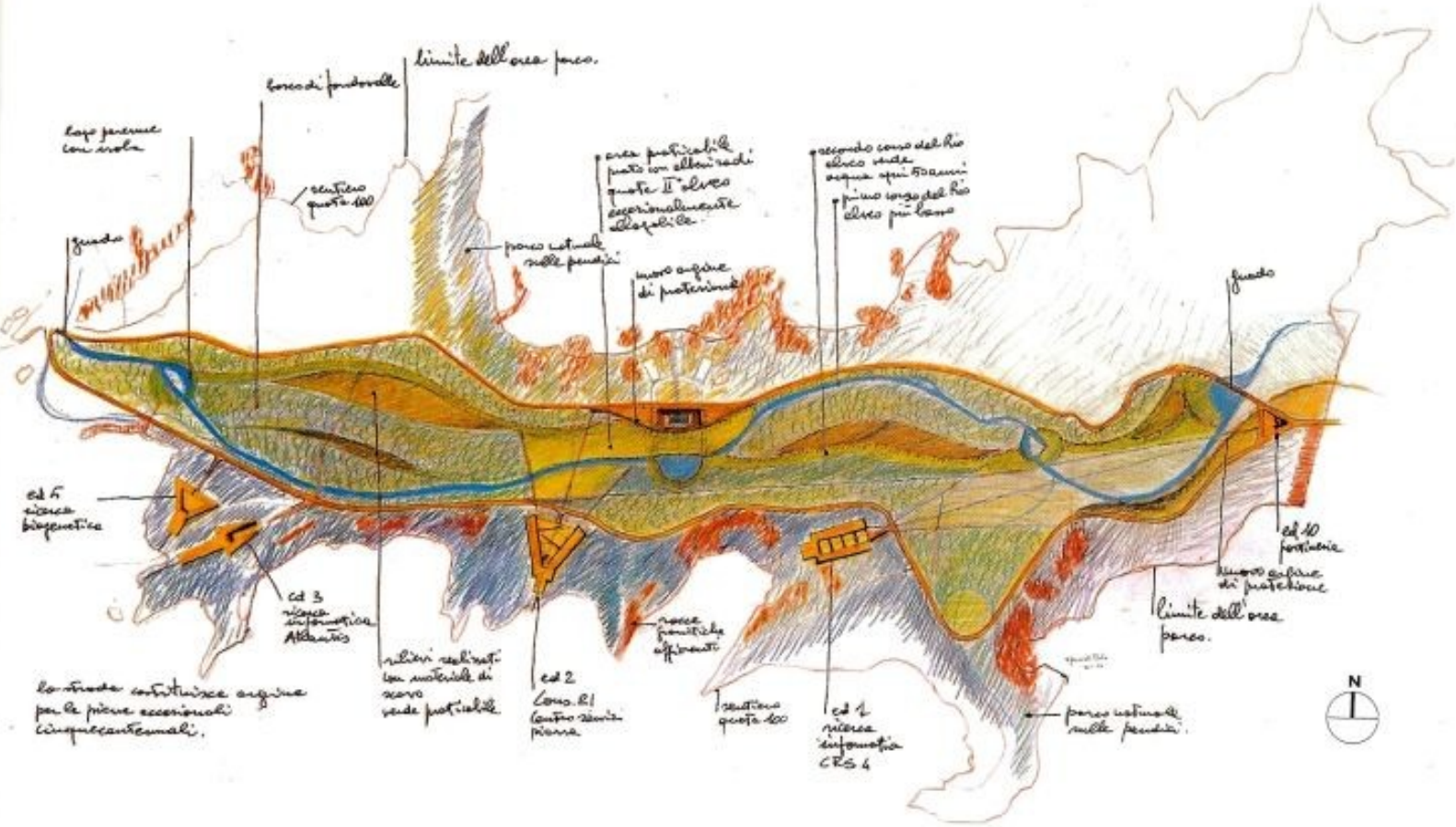


Foto Ferdinando Rollando

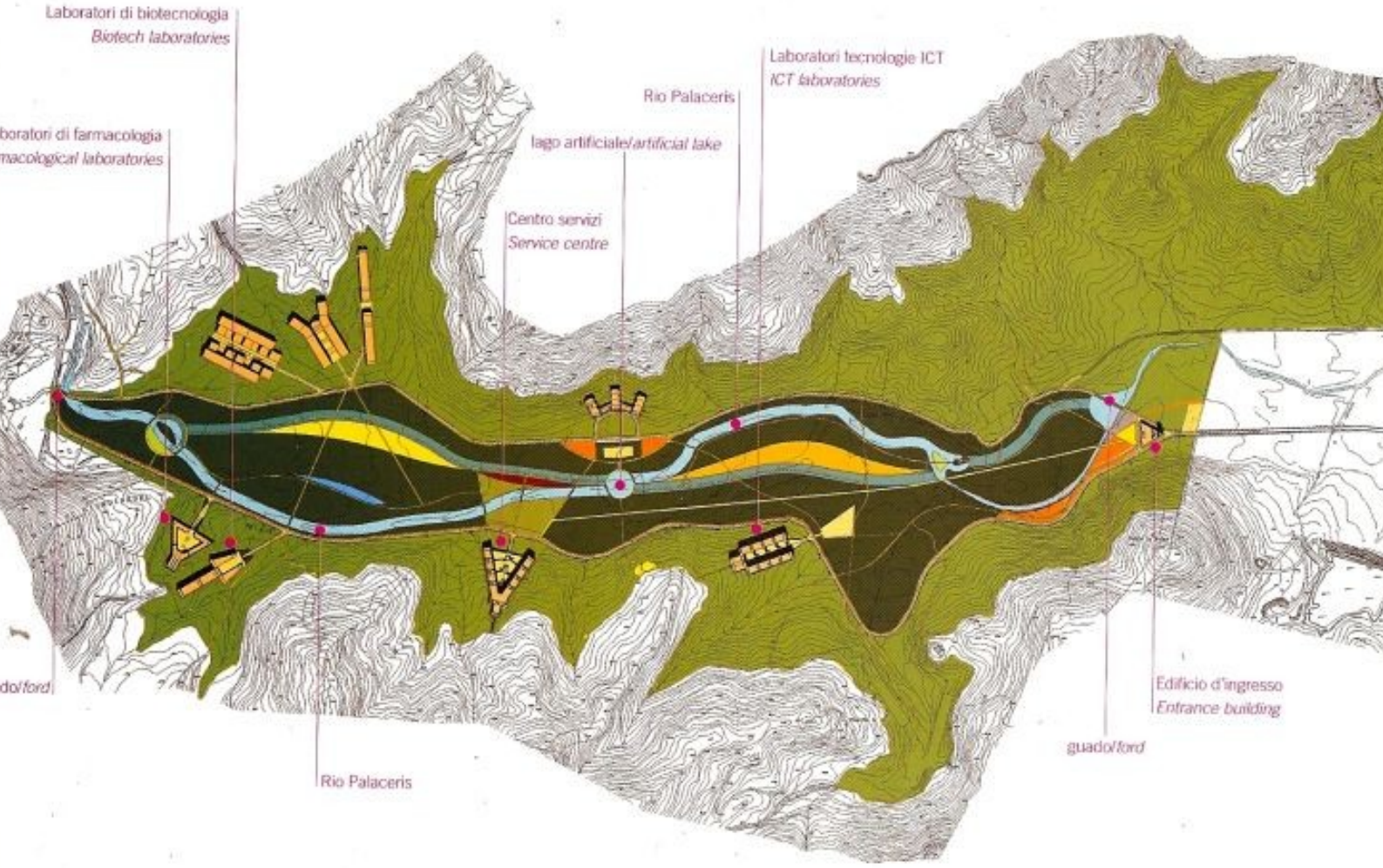


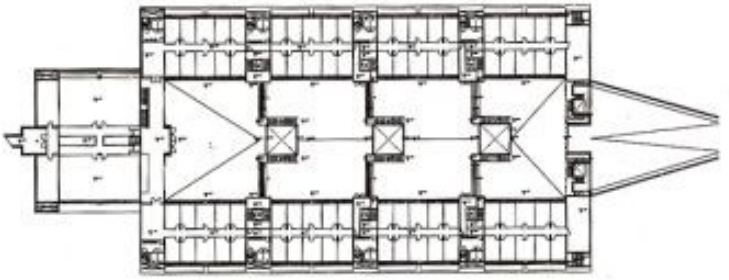




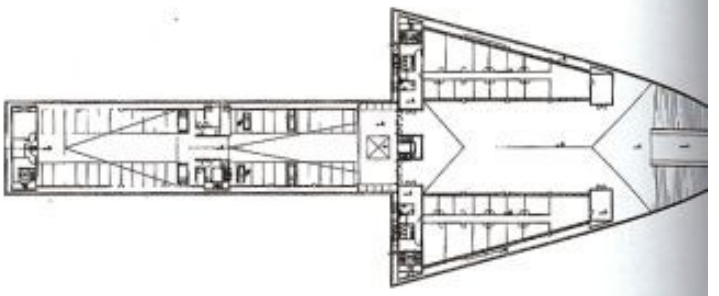
• **Sopra:** schizzo d'insieme. L'edificazione riguarda solo il 3% della superficie complessiva del Parco (160 ettari), compreso nell'area protetta del Sulcis. **Sotto:** planimetria generale, con gli edifici realizzati, sul versante meridionale, e quelli ancora allo stato di progetto, su quello settentrionale. A fondo valle, parallelamente ai due alvei del Rio Palaceris, scorre l'anello viario (km 4,782 con doppia carreggiata di m 5,50) che connette tutti gli edifici, raggiungibili anche dal percorso pedonale a quota +100, perimetro fisico dell'intero insediamento.

• ***Above:*** *sketch of site. Only 3% of the park's total area (160 hectares), including the protected area of Sulcis, is occupied by build.* ***Below:*** *site plan. The completed buildings are to the south; those awaiting construction are to the north. The road connecting the buildings (4.782 m, dual carriageway of 5.50 m) runs in the valley bottom parallel to the two beds of the Rio Palaceris. The building can also be accessed from the footpath that follows the 100 m contour line, the physical perimeter of the entire settlement.*



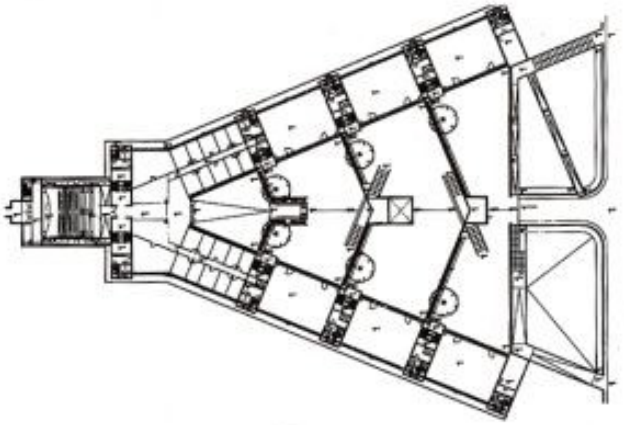


piano terreno dei Laboratori tecnologie ICT/*ground floor of ICT laboratories*

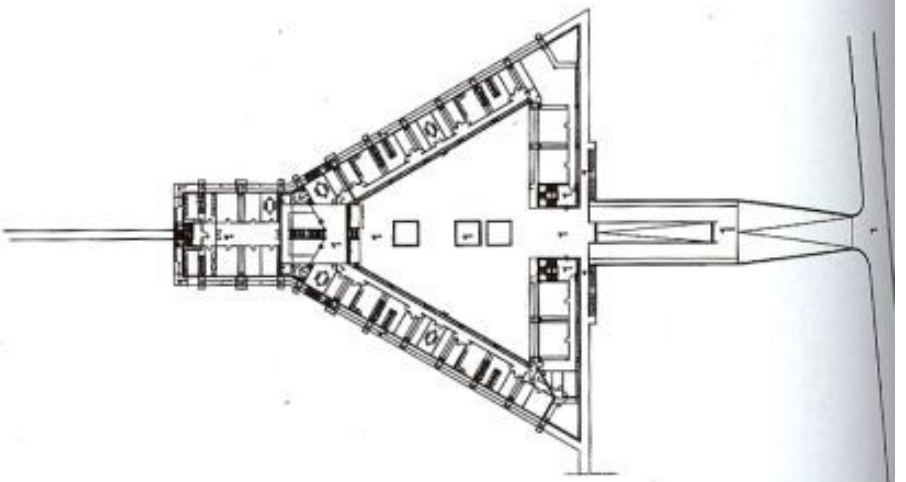


piano terreno dei Laboratori di biotecnologia/*ground floor of biotech laboratories*

Polaris: Parco scientifico e tecnologico della Sardegna



piano terreno del Centro servizi/*ground floor of Service centre*



piano terreno dei Laboratori di farmacologia/*ground floor of pharmacological laboratories*

Polaris: Science and Technology Park of Sardinia. *Polaris is a science and technology park, and the word "park" is used neither allusively nor metaphorically. It truly is located in a park – the Parco del Sulcis – which extends across most of the mountainous region of southern Sardinia. Polaris occupies a valley west of Pula, and its border – the curving 100 m contour line – gives no true idea of its real size. The valley loses itself among remote mountain peaks at one end, and opens eastwards to the distant sea at the other.*

This extraordinary geographical setting is overlaid with many histories. The history of its geographical formation, measured in millions of years, which reveals a valley bottom filled with ancient alluvial debris; the centuries-old history of its vegetation, originally spontaneous but later replanted after fires; the ancient and more recent history of the animals that have passed through it leaving recognisable traces and tracks; the history of men and women, of crops, livestock and hunting; and most recently of all, a history of natural conservation and the struggle to prevent fires. Any project sited within nature becomes part of nature's history, and this history must be known and understood if a site that best relates to it is to be found. This particular project developed through a unique and fortunate combination of circumstances that can never be repeated in modern-day Italy. Consorzio Ventuno, the public agency sponsoring the project, commissioned Gregotti Associati to set up the programme and see it through in its entirety, from preliminary environmental surveys and the preparation of the detailed planning document to the design of buildings, landscaping and work management. So far the task has taken ten years.

Going into an unspoilt valley and coming out with a science and technology park, while also guaranteeing the conservation of a park in which researchers have taken the place of hunters, was a complex challenge involving a wide range of separate skills operating under the guidance of a single architectural and planning intelligence. The basic layout of Polaris was established with input from a group of environmental experts: bringing research facilities to the valley also meant urbanising the setting – everything from water mains to optical fibres – while also safeguarding the environment.

The science and technology park will eventually consist of ten research buildings – only half have been built so far – with a central area comprising a bar, a restaurant, activities for the scientific community and the general public, and a visitors' hall of residence. There are no shops or housing since Pula and its surrounding area are well supplied with both.

A main ring road runs between the level valley bottom and foot of the surrounding peaks, and a second ring route – a footpath – runs along the mountain side at a contour height of 100 metres. The buildings, with vehicle access from below and pedestrian access from above, are sited between the two ring routes where the slope is steepest. At the centre of the ring is the park. The buildings take their shape from the geographical morphology of the site – valley, peak and plain – by consistently following the line of the slope. The granite mountain suggested the idea of using the valley's own materials for everything that had to be constructed there – buildings, roads, footpaths, fords, whatever. The granite excavated to build the underground car parks was crushed and

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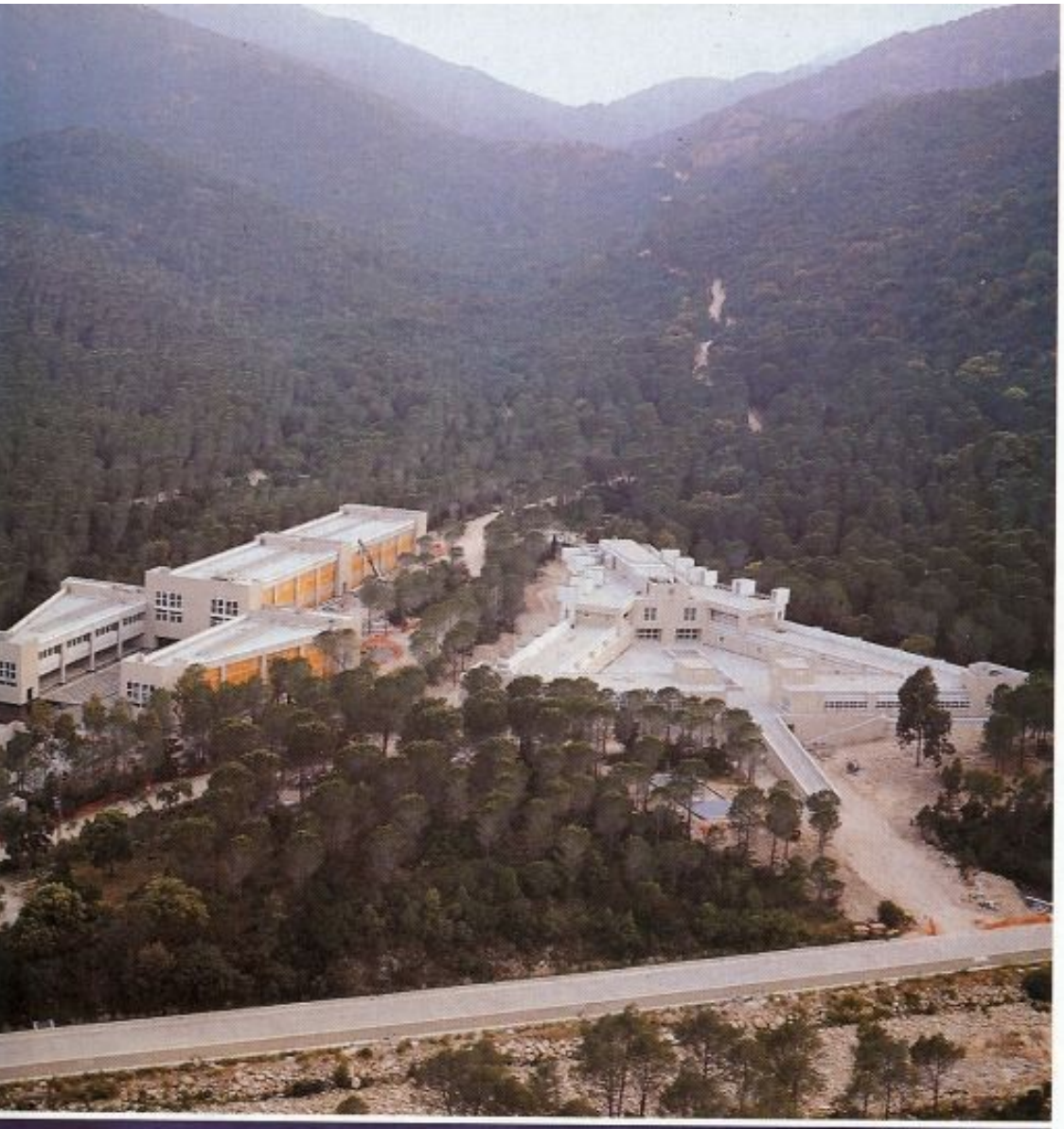
• **Nella pagina a lato:** viste notturne. Il sistema di illuminazione prevede fasci di luce "a lama", dal basso verso l'alto, che esaltano le caratteristiche plastiche dei fronti in legno, e proiettori alla sommità dei corpi scala per illuminare le facciate interne e le piazze.

• ***Opposite page:*** *night views. On the outside, the buildings are up-lighted to enhance the texturing of the wooden façades; on the inside, spotlights on the tops of the stair blocks illuminate the internal façades and the plazas.*



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turned into load-bearing construction panels. The outside walls are made of wood whose natural colour will return as the material weathers. The road is also made of crushed granite, as well as the boundary wall carrying all the service ducts for the buildings. The pedestrian route is cut straight into the rock. This is the primordial idea that underlies the construction of human homes everywhere, the principle that you should adapt local materials to your needs. Thus, the enduring presence of the forest suggested the use of materials (granite and wood) which, once in place, should never undergo alteration except through the natural process of weathering. The researchers really will enter a park. After the tower signposting the entrance, the new buildings come into view from a variety of surprising and sophisticated angles.

Leaving the valley, the set of buildings forms a single "piece". The "theme" reappears and repeats itself everywhere. The two circulation routes – one for vehicles, the other for people – are set high and low. The buildings are modulated, with the same heights, frames, façades and materials. And the interiors look out to plaza or forest through shadowy wooden screens on the external façades. Within these recurring themes, the configuration of the buildings, the spaces they create in the natural setting defined by plazas opening on to the forest, are "variations" on emotional reactions – immediate and recollected – to the ground they occupy, and on how the site is seen and interpreted.

The buildings relate to each other without ever seeking to camouflage themselves in the natural setting. The valley's new features create relations between parts rather than drawing attention to the excellence of individual buildings and structures. The crisp-looking buildings establish the identity of a research establishment. Polaris adds a new page to the history of the park. A.C.