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SIAMESE TOWERS, SAN JOAQUÍN CAMPUS
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santiago, čile chile
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tekst written by **PATRICIO MARDONES HICHE**
fotografija photo by **CRISTOBAL PALMA**

alejandro aravena alfonso monterero
charles murray ricardo torrejón

VESELA PODJELA

JOLLY DIVISION

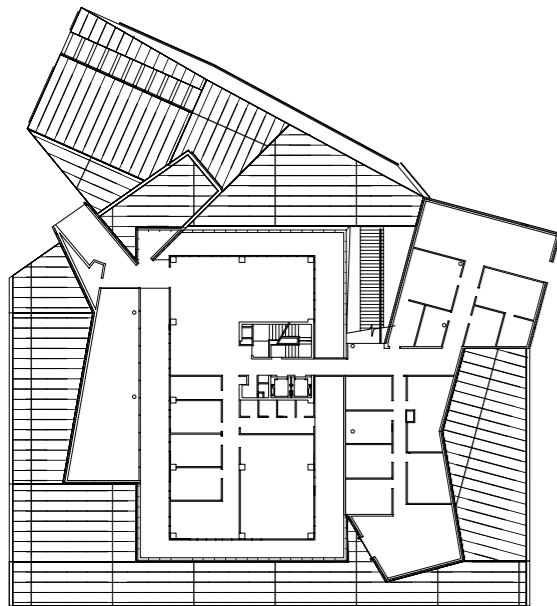
Izravno pod suncem suhe, mediteranske klime u čileanskom glavnom gradu Santiagu, usred velikog sveučilišnog kampusa, stoje novi objekti Odjela za kompjutorska istraživanja Čileanskog katoličkog sveučilišta. Zgrada se sastoji od studentskih domova, dvorana za predavanja, učionica, menze te niza ureda u kojima sjede ljudi zaduženi za sva kompjutorska pitanja na Sveučilištu. Investitor je od arhitekta Alejandra Aravena zatražio da zgrada predstavlja jasan tehnološki statement i znak da su moderna vremena stigla na Sveučilište; po mogućnosti u obliku uskog, ostakljenog tornja.

Aravena, koji je direktor "Do-tank Elemental" te koji je predavao na Harvardu od 2000. do 2005. godine, radio je na istraživanju i projektiranju velikog niza projekata posljednjih devet godina, uključujući socijalno

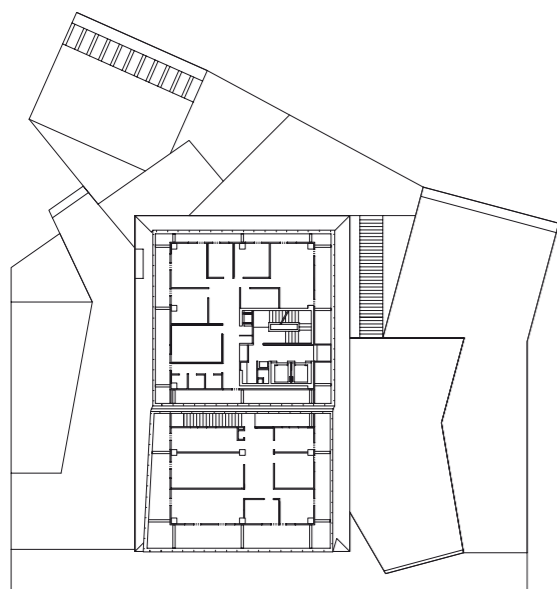
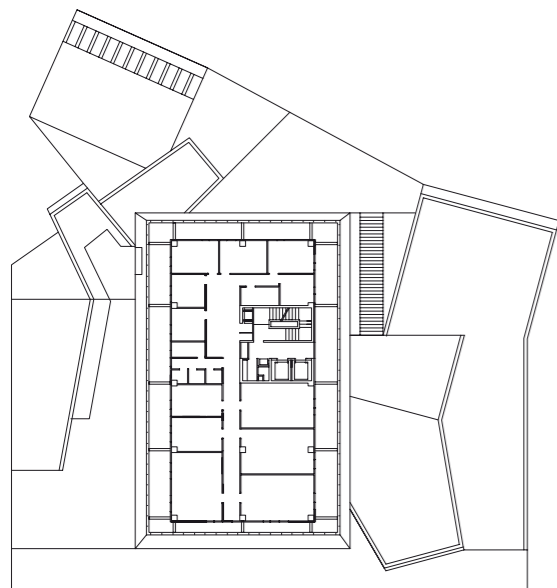
Right under the sun of the dry, Mediterranean weather of the Chilean capital Santiago, in the middle of a large campus park, stand the new facilities of the digital research department of the Catholic University of Chile. The building comprises student halls, auditoria, classrooms, a cafeteria and a series of offices for the people in charge of the whole of the university's digital affairs; according to the client's request to the architect, Alejandro Aravena, it should be a clear technological statement and a sign of the modern times that have arrived on campus: hopefully a slim, glazed tower.

Aravena, who is the director of "Do-tank Elemental" and taught at Harvard between 2000 and 2005, has been researching and designing a large range of projects during the last 9 years, including social housing throughout Chile, a university dormitory in Austin,





◀ **tlocrt prizemlja** / ground floor plan
presjek / section
tlocrt 1. kata / 1st floor plan
tlocrt 7. kata / 7th floor plan



stanovanje diljem Čilea, studentski dom za Sveučilište u Austinu u Teksasu, a nedavno i paviljon za sveučilišni kompleks Vitra u mjestu Weil am Rhein. Za Čileansko katoličko sveučilište projektirao je još dvije zgrade: Matematički fakultet, te novo sjedište Medicinskog fakulteta, obje u Santiagu.

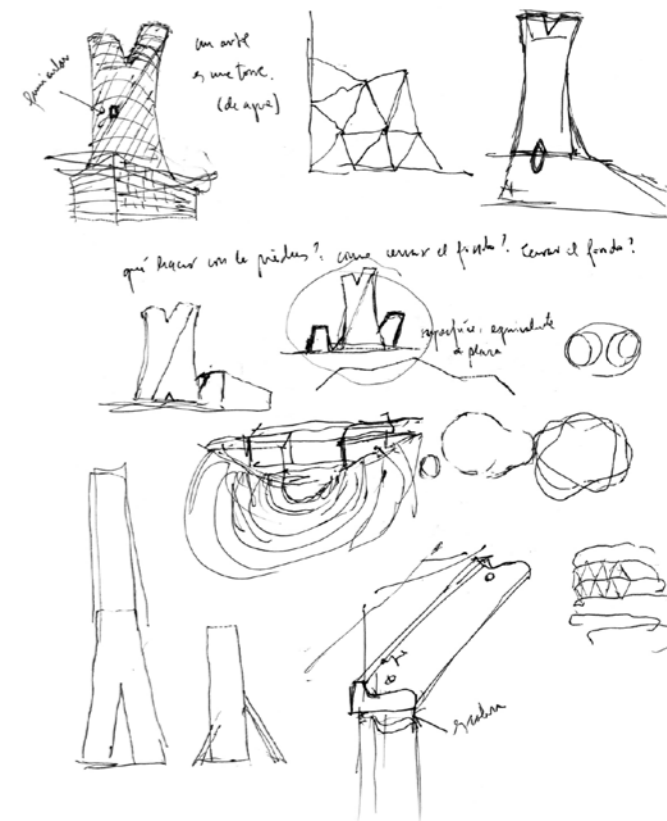
Međutim, složeni i gotovo kontradiktorni zahtjevi investitora uveli su novu perspektivu u rad ovog arhitekta. Ograničen proračun i razmjerno mala građevna površina bili su oprečni ideji izgradnje visokog tornja u sredini parka kampusa; u isto vrijeme image staklene zgrade sugerirao je instalaciju uređaja za klimatiziranje koji zahtijevaju skupo održavanje ili uporabu skupih izolacijskih ploča pri gradnji. Arhitekt je sam iznio svoje zabrinutosti u vezi projekta razmišljajući o postojećem odnosu tehnologije, prostora i života: treba li se ta zgrada baviti sadašnjim promjenama koje će imati utjecaja na komunikaciju, učenje i virtualni prostor studenata? Drugim riječima, jesu li računala promijenila način interakcije između ljudi? Odgovor koji je ponudio Aravena složen je kao i samo pitanje. Baveći se pitanjima održivosti, ekonomičnosti sredstava, svakodnevnog života i tehnologije, projekt predlaže neobičnu strategiju uporabe materijala i jasan odgovor na javne zelene površine oko zgrade.

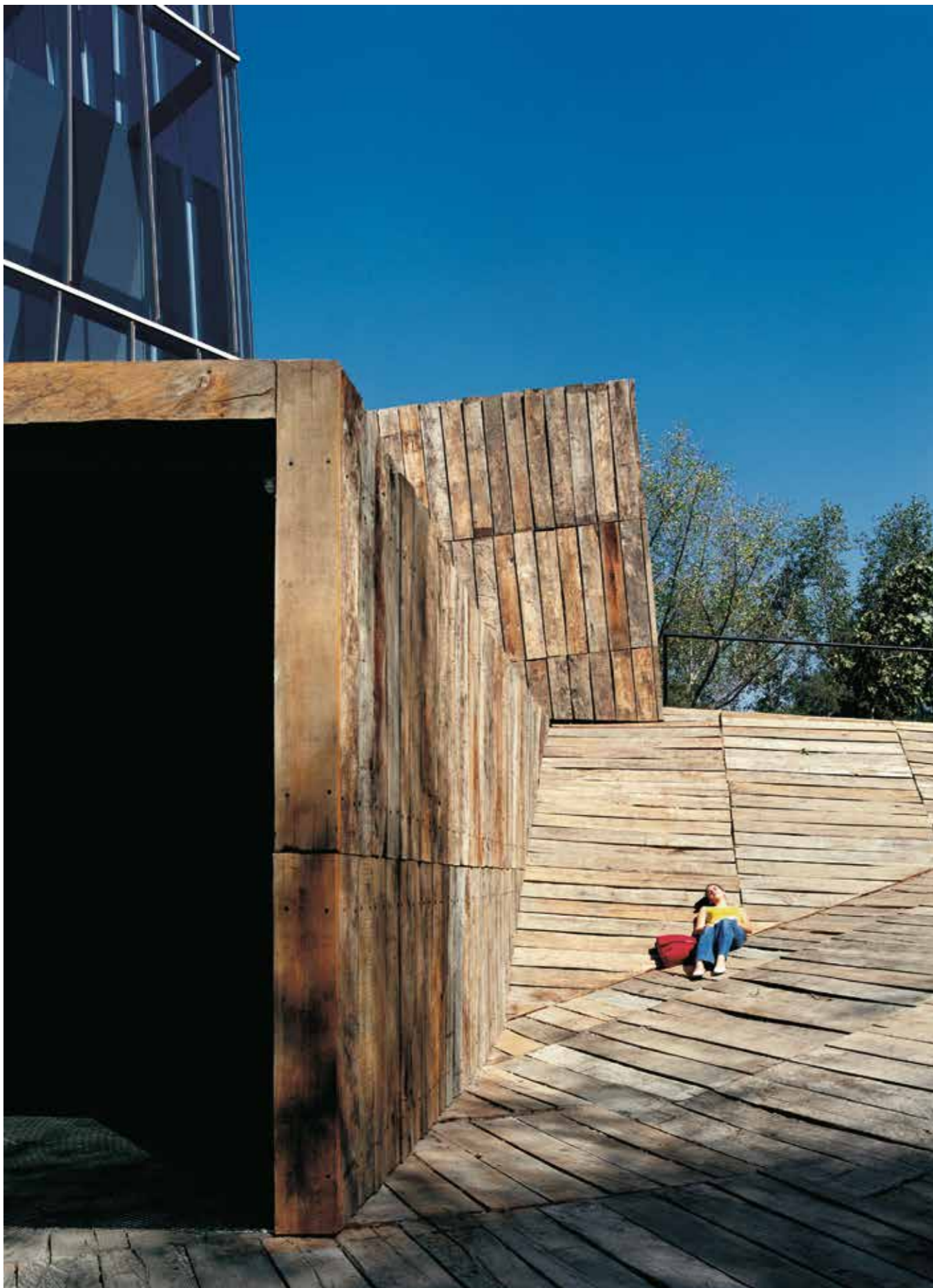
Jednom kad je arhitekt shvatio da tanke staklene ploče koje bi si mogao priuštiti nemaju odgovarajuća izolacijska svojstva, odlučio je podijeliti vanjski plašt u dva sloja, od kojih su oba jeftina i ovisna jedan o drugom. Prvi stakleni sloj štiti unutrašnjost od kiše i prašine, dajući sjajan imidž koji su klijenti tražili za novu zgradu. Drugi sloj je izrađen od perforiranih

Texas and recently a pavilion for the Vitra campus in Weil am Rhein. He also has designed two other buildings for the Catholic University of Chile: the mathematics school and the new medicine school headquarters, both in Santiago.

However, the complex, almost contradictory needs raised by the client introduced a new perspective on the architect's work. A tight budget and the rather small area to be built were opposed to the idea of a high tower standing in the middle of the campus gardens; at the same time, the image of a glass building suggested high maintenance air-conditioning installations or the use of expensive insulating panels for the construction. The architect himself brought his own concerns to the project, thinking about the current relationship between technology, space and life: should this building address the present changes that affect students regarding communication, teaching and virtual space? In other words, have computers changed the way people interact? The answer given by Aravena is as complex as the question. Tackling the issues of sustainability, economy of means, everyday life and technology, the design proposes an unusual material strategy and a clear response to the public green areas that surround the building.

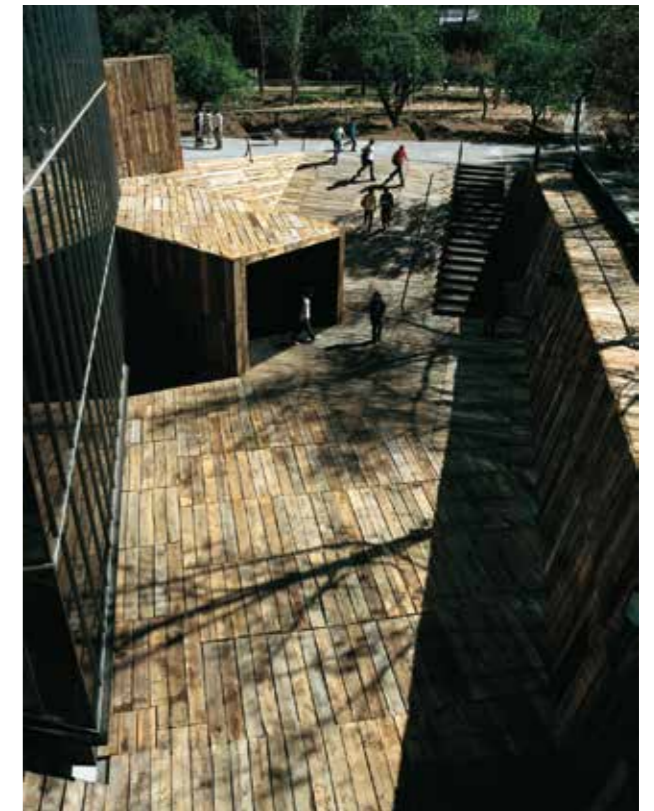
Once the architect realized that the affordable, thin glass plates did not have proper insulating conditions, he decided to separate the envelope into two layers, both inexpensive and each depending on the other. The first glazed layer would protect the interior from rain and dust, also providing the glossy image the clients requested for their new building; the second is made out of perforated fibre cement panels and would be at least one metre





ploča od vlaknastog betona, odmaknutih najmanje jedan metar od staklene obloge, čime stvaraju unutaraju zračnu komoru. Ploče omogućuju odgovarajuću izolaciju, a u isto vrijeme osiguravaju privatnost potrebnu većini unutarnjih prostora. Prostor između slojeva, zahvaljujući otvorima na vrhu i dnu viseće fasade koji se mogu regulirati, omogućuje prirodno zračno hlađenje. Stalno okomito kretanje zraka potpomognuto je malim promjenama u presjeku koje tvore Venturi efekt stvarajući na taj način jeftin i gotovo primitivan, no učinkovit sustav hlađenja. Projekt predlaže poseban način odnosa prema javnom prostoru kampusa. Za razliku od uglacane površine koja u potpunosti obavija zgradu, grubi, reciklirani komadi drveta pokrivaju bazu zgrade i oblikuju naborani drveni trg, gdje drvene rampe i nagibi služe kao klupe tvoreći neformalno sastajalište za sunčanje i druženje studenata različitih godina. Kako tvrdi Aravena, usprkos novim globalnim mrežama “dobar razgovor još uvijek je najbolji način povezivanja studenata i profesora”. U isto vrijeme te površine služe kao krovovi velikog podruma u kojem su smještene djelomično podzemne učionice, dvorane i studentski

behind the glass, creating an interior air chamber. The panels ensure proper insulation and at the same time create the privacy that most interior spaces need; the space in between both layers acts as a natural, cooling ventilation device due to controlled openings on the top and bottom of the glass curtain wall. The continuous vertically-moving airflow is enhanced thanks to slight changes of the section that create a Venturi effect, establishing a cheap and almost primitive but effective cooling system. The design proposed a particular way to relate to public space on campus. As opposed to the polished surface that entirely wraps the building, rough recycled timber pieces cover the base on which it rests, shaping a folding wooden plaza: its timber ramps and slopes serve as benches, creating an informal meeting place for sunbathing and socializing between classes. According to Aravena, in spite of new global networks, “a good conversation is still the best way for students and teachers to get connected”. At the same time, these surfaces serve as the roofs of a large basement that houses a series of partially underground classrooms,



sadržaji, zaštićeni od topline i prejakog sunčevog svjetla.

Otkud potječe ideja za Sijamske tornjeve? U želji da masivnu zgradu pretvori u elegantan, visoki toranj koji su klijenti željeli, arhitekt ga je podijelio u dvije polovice omotane dvjema različitim bojama: jednu u okvirnoj, visećoj fasadi od prirodnog aluminija, dok je druga crna. Gornja tri kata podijeljena su u dva manja završetka, također u crnoj i bijeloj boji: zgrada koja nije mogla biti jedan toranj, na koncu je postala dva.

ELEMENTAL je Do Tank povezan s Universidad Católica de Chile i COPEC-om, čileanskom naftnom kompanijom. Bavi se dizajnom i provedbom urbanih projekata od društvenog interesa i javnog utjecaja. www.elementalchile.cl.

auditoriums and student facilities, protected from heat and excessive sunlight.

And where does the idea of Siamese towers originate? Trying to make the bulky building look like a slender, tall tower as the clients wanted, the architect divided it into two halves wrapped with two different colours: one is covered with a natural aluminium-framed curtain wall and the other received a black one. The three top floors have been split off into two smaller heads, white and black as well: the building could not be one tower, but finally became two.

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Santiago, Čile / Chile

autori / authors Alejandro Aravena, Charles Murray, Alfonso Montero, Ricardo Torrejón

arhitektonski ured / architectural office Aravena Murray Montero Torrejón Architects

investitor / client Čileansko katoličko sveučilište / Catholic University of Chile

projekt / project 2003.-2004.

realizacija / completed 2005.

izgrađena površina / built up area 5000 m²/sqm

cijena / costs 400 US\$/m²/sqm

