

تصميم معماري III



م.علي سعد عبد الوهاب

جامعة المثنى

كلية الهندسة

قسم هندسة العارة

المحاضرة رقم 11 - الأسبوع الحادي عشر
أفكار تصميمية لمشاريع مكاتب مركزية جامعية
مشروع تصميم المكتبة المركزية - جامعة المثنى





University Library of the University of Amsterdam / Ira Koers + Roelof Mulder



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LIBRARY • AMSTERDAM, THE NETHERLANDS

 Architects: Ira Koers, Roelof Mulder: Studio Roelof Mulder & bureau Ira Koers

 Area : 2300 m²

 Year : 2009

Text description provided by the architects. A library whose decor no longer consists of books has been turned into a 'home' in which to study. The UvA's enormous collection of books is kept in closed repositories, book depots and at various open locations. A growing number of students, anywhere

from 1500 to 5000, visit the University Library every day in order to study and pick up their digitally ordered books. Despite plans for a new building in the future, the university wished to have a new, temporary interior design for the 2,500 sqm space that would comprise study rooms plus 235 extra workspaces, the canteen, the information centre with its desk, the hallways, and an automated lending area.



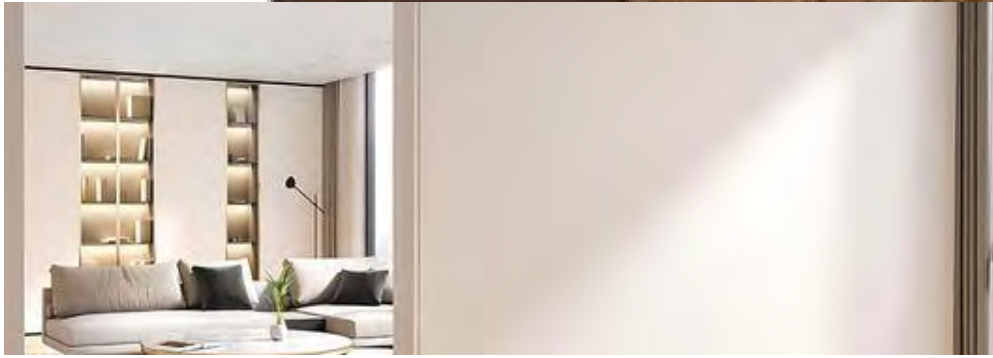
To offer students a good second home, we wanted to achieve two important things: a space like the white page of a book where the students themselves would play the main role in determining how it is filled in, and in certain areas a domestic atmosphere where the students could also study informally. For instance, in one of the study rooms you will find a number of kitchen tables where you can work in groups under the lamp, a chesterfield couch for reading a newspaper, various sitting areas for a short break and special telephone areas in the hallways between the quiet study rooms. The columns in the canteen are transformed into illuminated trees with low energy light bulbs.



Until recently, borrowed books could only be picked up at the library desk during office hours. Now the students can pick up their ordered books themselves in a newly designed red room that is open until midnight, including weekends. In red cases with 1105 red crates, piles of books lie ready for the borrowers. Because these books come from different locations, this is the heart of the University Library, with a back office hidden from view in which the books are readied for self-service with the RFID system.



Recommended Products



Studco
Wall Stop Ends - EzyCap



Technowood
Pergola Systems



Flexbrick



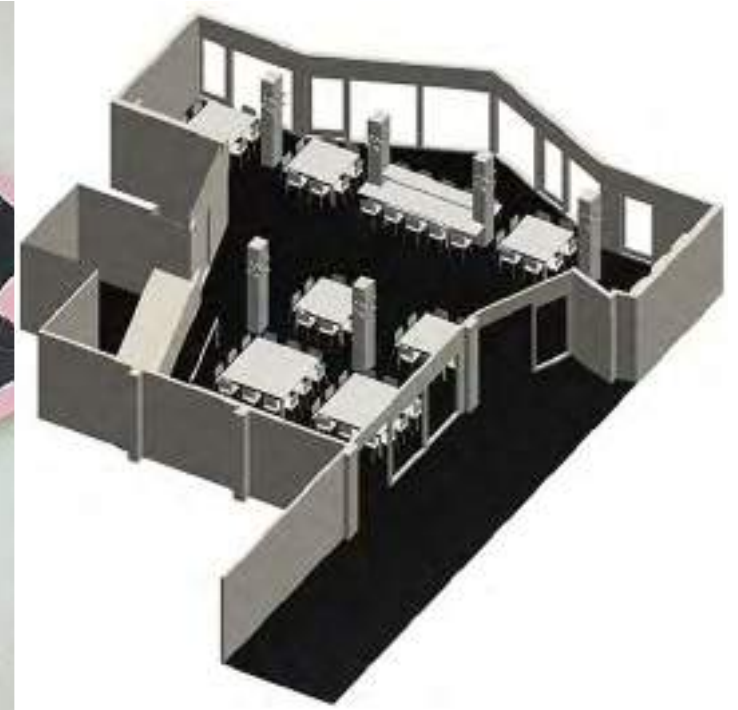
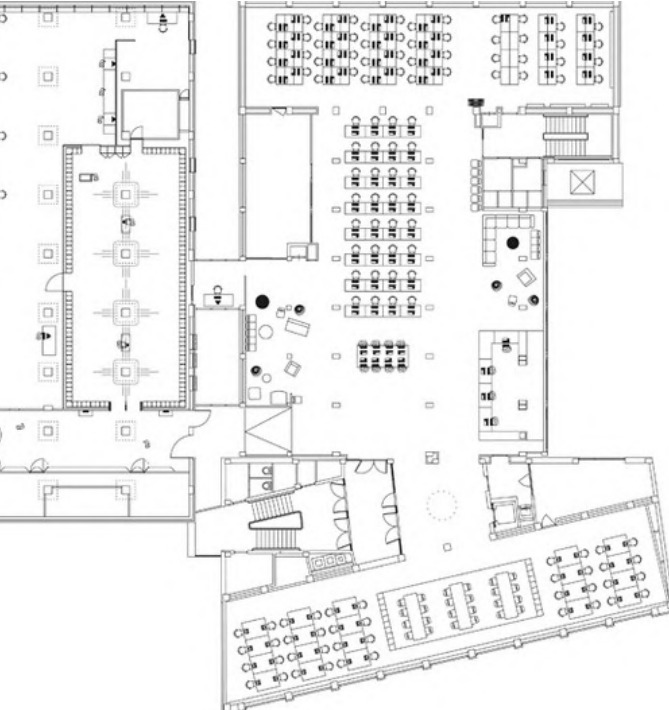
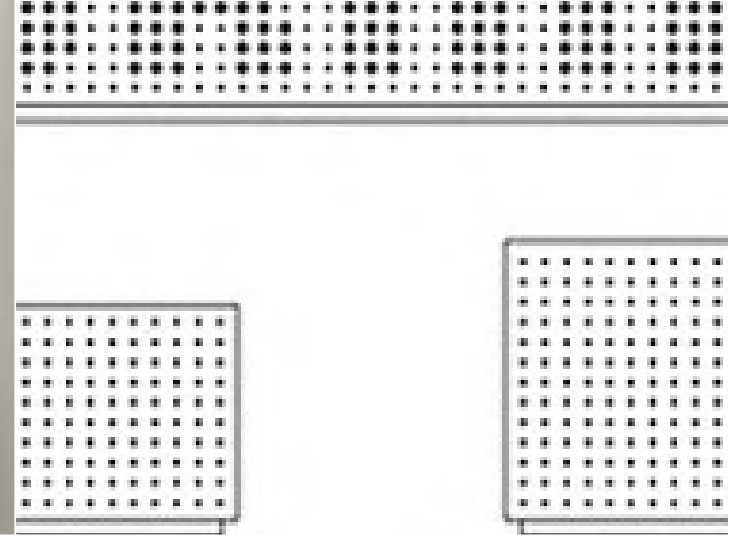
Grespania

Project gallery





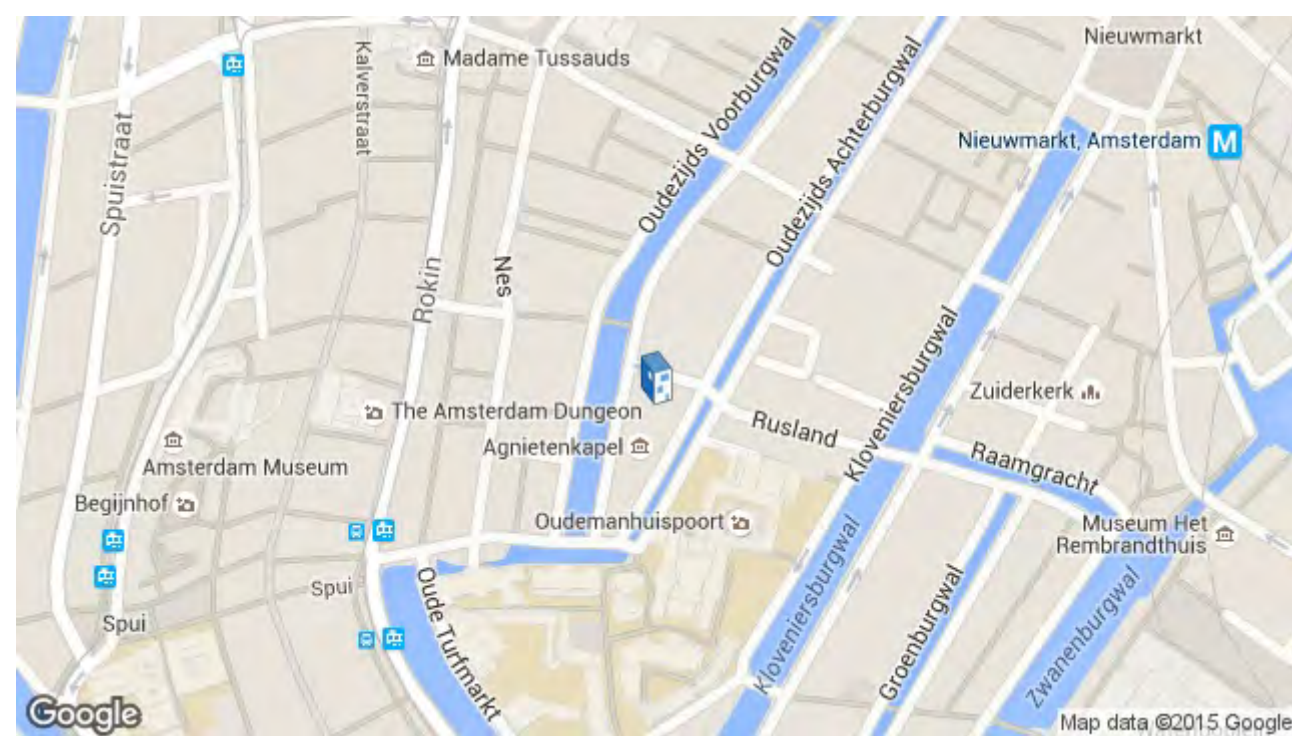






Project location

Address: Amsterdam, The Netherlands



Location to be used only as a reference. It could indicate city/country but not exact address.

Chungwoon University Library / Hyunjoon Yoo Architects & DANU




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LIBRARY • SOUTH KOREA

 Architects: Hyunjoon Yoo Architects & DANU: Hyunjoon Yoo Architects

 Year : 2010

 Photographs : Seunghoon Yum

Text description provided by the architects. The new Chungwoon University Library needed to incorporate multiple functions including a conventional library program along with an exhibition hall, lecture hall, president room, chairman of the board room, and typical office space. The architects therefore

approached the library design with the outlook that this would be the heart of the university. With a south facing mountain view, various levels of natural light, fresh air, and landscape views help create an environment conducive to reading and researching. The large sloped sight was nicely integrated into the new built environment with multiple stepped terraces. After the break are photographs and drawings of this project.



When evaluating the site the architects noted that, "it is located at the hill between traffic intersection on the south side and pine tree forest on the north side. The slope of the site is facing the south with a nice mountain view at a distance. On the west side across the road, there are classroom buildings, and on the north side across the pine forest, there are couple of buildings including dormitory and classroom buildings. It is the challenge of the site how to make the pleasant environment condition for the library by using the slope of the site."



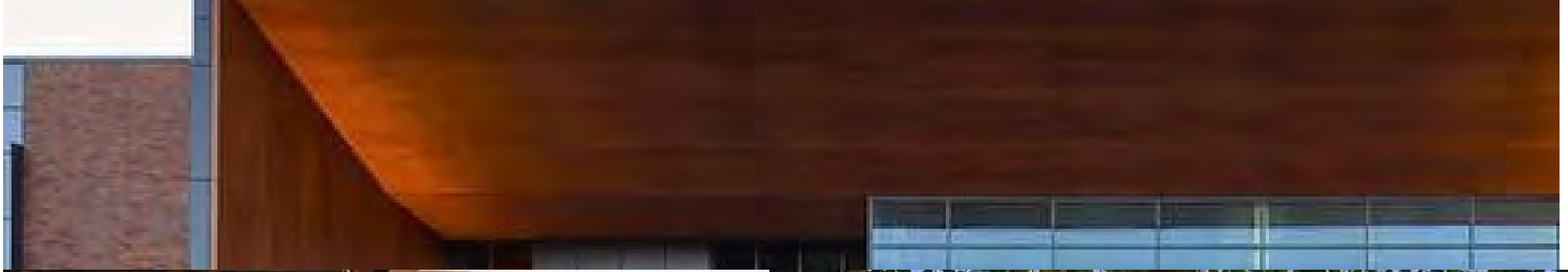
"University is a place for the study and self research." Architects Hyun Joon Yoo coordinated with DANU and approached the design for the library in the following manner. "We started the building design from the library which is most important program of the given programs. The site is facing the south and has a mountain view at a distance. We defined that the ideal life style at the library is reading a book by the window with a natural view, getting fresh air and sunshine at the terrace right in front of the reading room from time to time. Therefore, we created a stepped terrace mass and located the reading zone along the window with a mountain view, and located the book stock which requires the shadow zone for protecting the books at the rear side far away from the window."



Having to design both an office mass and a library mass creating a harmonious building was a challenge. "We started the design with the library because we definitely wanted to have a library with a terrace garden. That was our first step of design. Second step was to locate the huge mass of the office building with a lecture hall. And we still have a big chunk of book stocks left. Because of the tight size of the given site, all of these programs have to be located above the library. The office and book stock above literary blocked the natural light and wind reaching the library. In order to solve this problem, we split the mass and create a void space to let the light and wind penetrating the mass."



Recommended Products



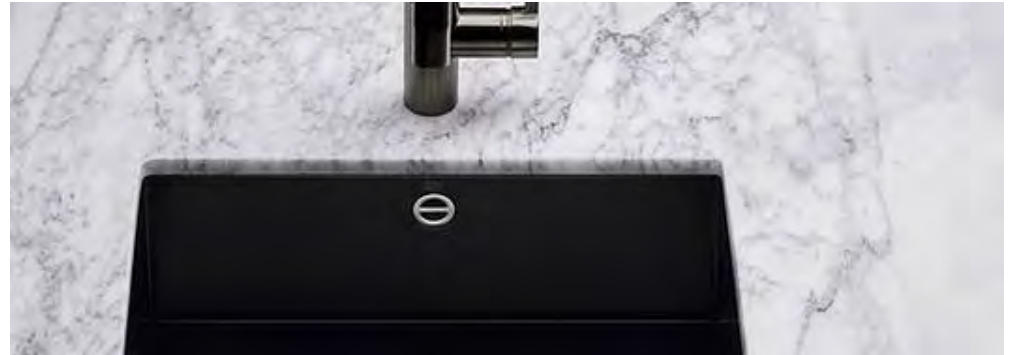
PARKEX PRODEMA
External Wood Cladding - NATURCLAD - W
Eterna Systems



Lunawood
Thermowood Facades



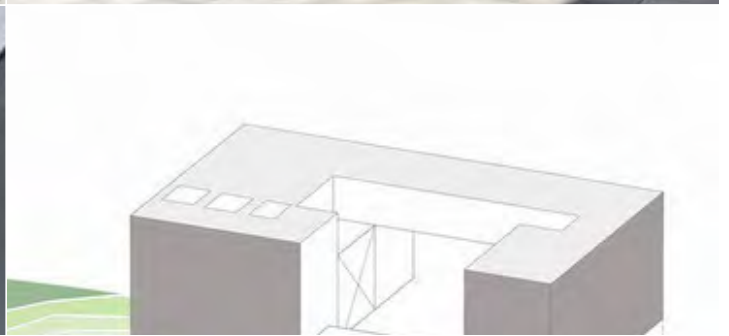
Kebony
Cladding - Shiplap Boards - Kebony Clear RAP

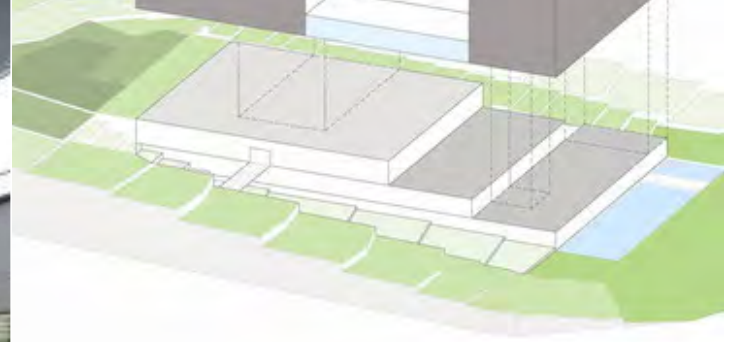


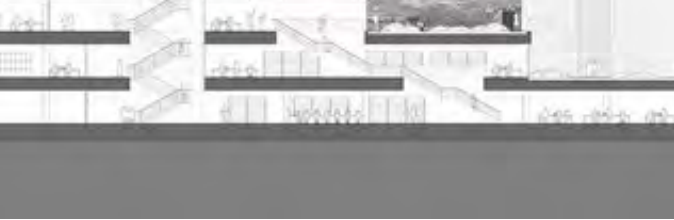
Dornbracht
Kitchen Sinks - Glazed Steel

Project gallery



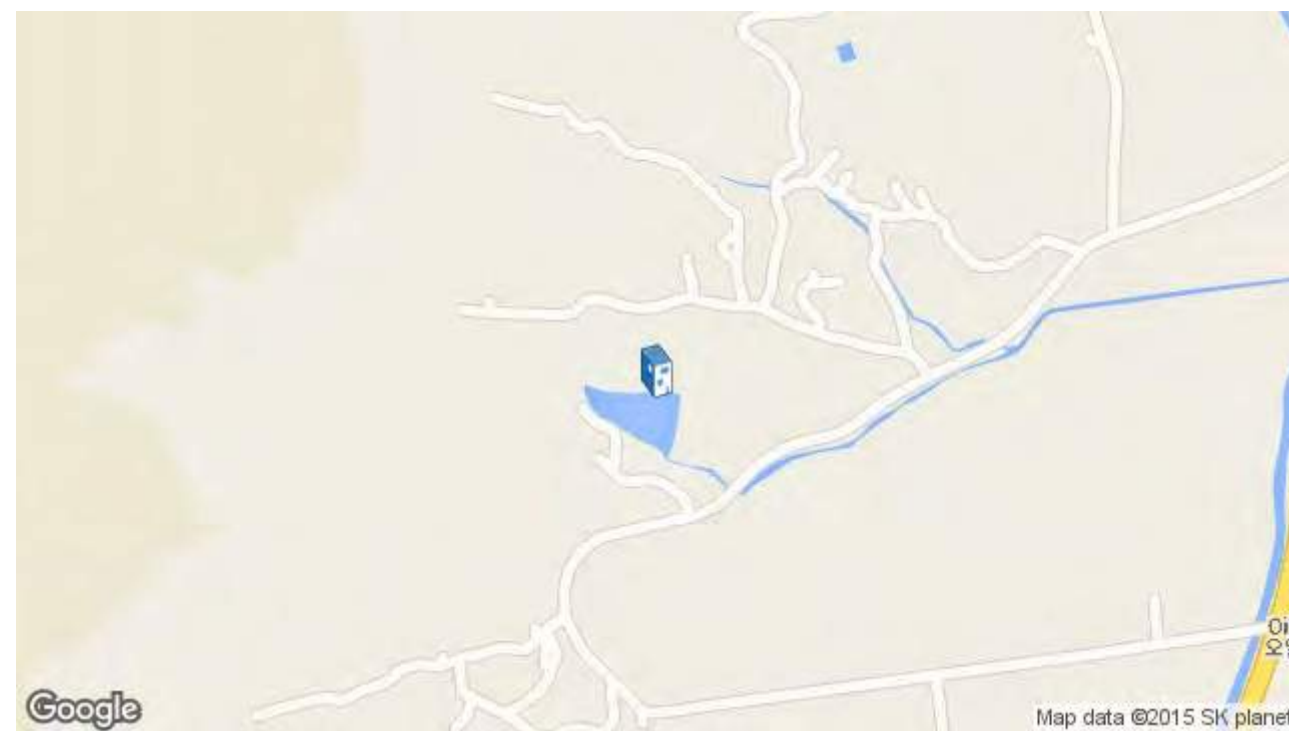






Project location

Address: Chungnam, Republic of Korea



Location to be used only as a reference. It could indicate city/country but not exact address.

University library Utrecht / Grosfeld van der Velde Architecten



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LIBRARY, RENOVATION • UTRECHT, THE NETHERLANDS

Architects: Grosfeld van der Velde Architecten

Year : 2009

Photographs : Rene de Wit

Manufacturers : Hunter Douglas Architectural (Europe), Hunter Douglas

Products used in this Project



Hunter Douglas Architectural (Europe)
Metal Ceilings - Linear - 30BD/30BXD + CCA



Text description provided by the architects. The former palace of Louis Bonaparte built in 1807, situated on the Drift in the historic city centre of Utrecht, has undergone a total redesign over recent years. The first and most prominent part of the Universiteitsbibliotheek Binnenstad (University Library City Centre) and the main entrance to the 'Drift cluster' on the Drift are now complete. The library accommodates an 8.5 kilometre collection and 350 study desks and carrels. Over the coming years, work on the adjoining section will go ahead with the same intensity and ambition until the UB Binnenstad takes final shape. The whole complex contains six buildings with listed status that served primarily as book stores and archives. The buildings were architecturally very dated and neglected. As a result of numerous alterations made over the years, the original structure and character of the buildings had been lost. As the architects, Grosfeld van der Velde is responsible for the design, which has been produced in close consultation with DHV (detailed drawings and project management).



The design was based on the concept of creating a natural meeting place for education and research, for employees and students, and for the university and the city in the heart of the Drift Cluster. A place where students and books take centre stage. The core values for the identity and perception of the complex include accessible, transparent, inviting, representative and restful. In addition to providing a functional and pragmatic

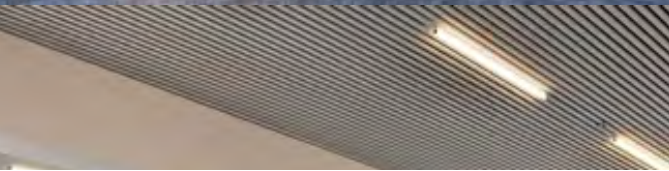
solution for the programme of requirements, the design accentuates the intrinsic qualities and spatial layout of the different buildings, each of which has its own strengths and complements the others. The materials, details and colour scheme have been specifically chosen to draw the buildings together to create a unified whole. Particular attention has also been paid to integrating the complex installation techniques and the design of the interior components, such as study desks and carrels, search terminals, the library counter and fittings specifically developed for this project. Most of the study areas are situated at the front of the library and the collection is at right angles to the front of the building in an open arrangement. This makes the building light and transparent and encourages interaction. It creates a studious, attractive work environment where students can walk in and around the collection at their leisure and where there is space to meet for informal contact.



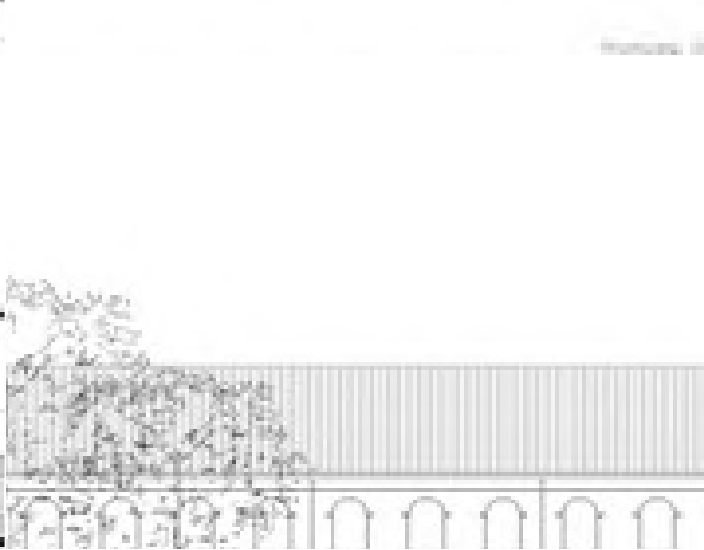
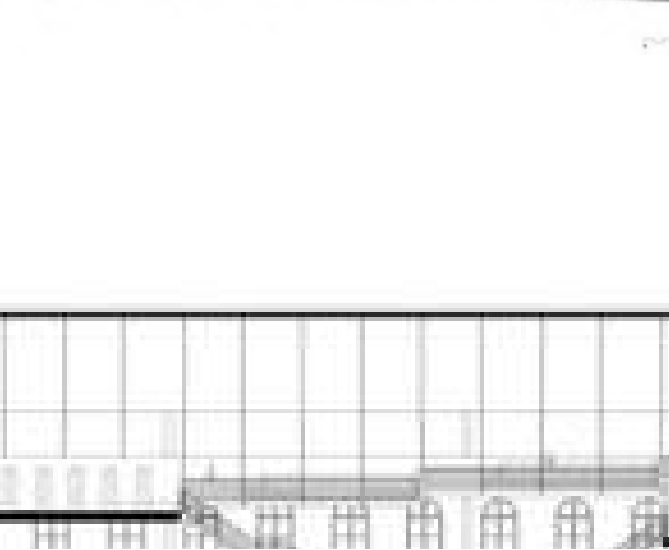
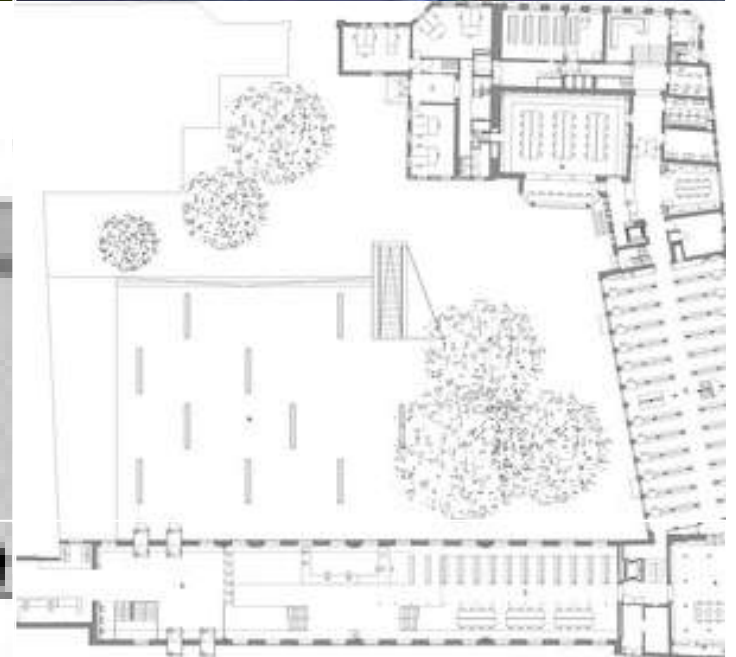
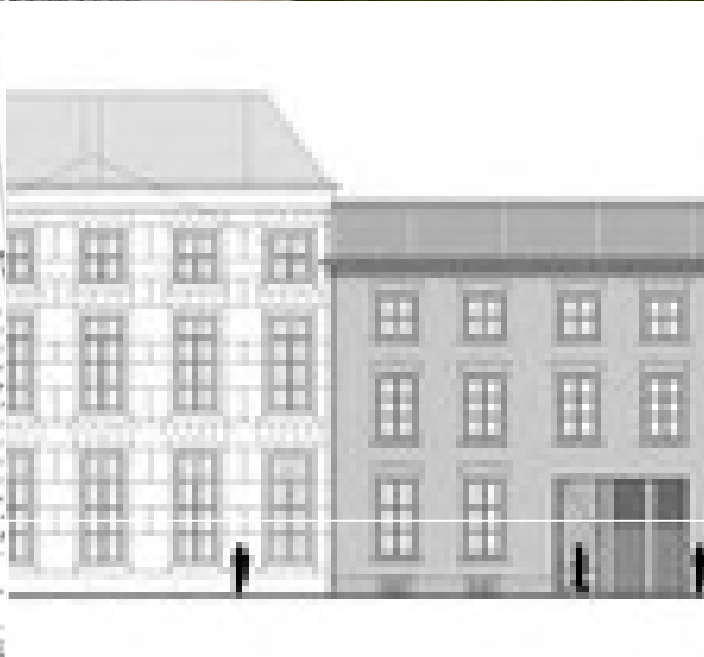
The heart of the complex is the entrance to the library that has a new layout and design that naturally complements the existing building, enhancing the traditional features while creating a new, modern presence for the Universiteitsbibliotheek Binnenstad.

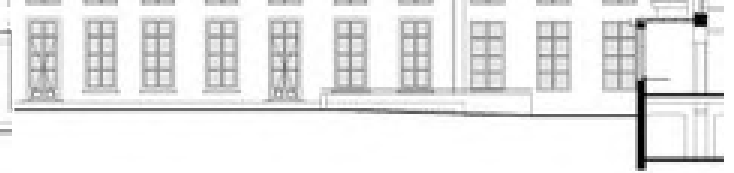


Project gallery

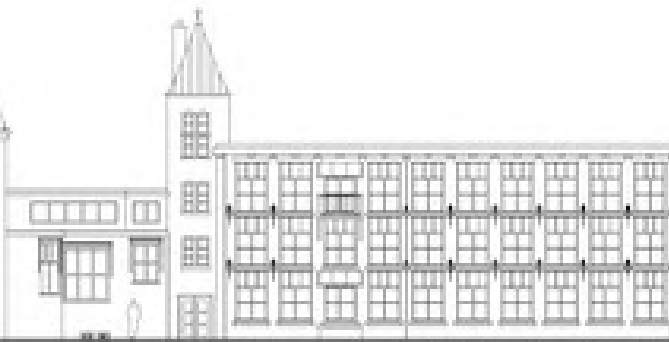








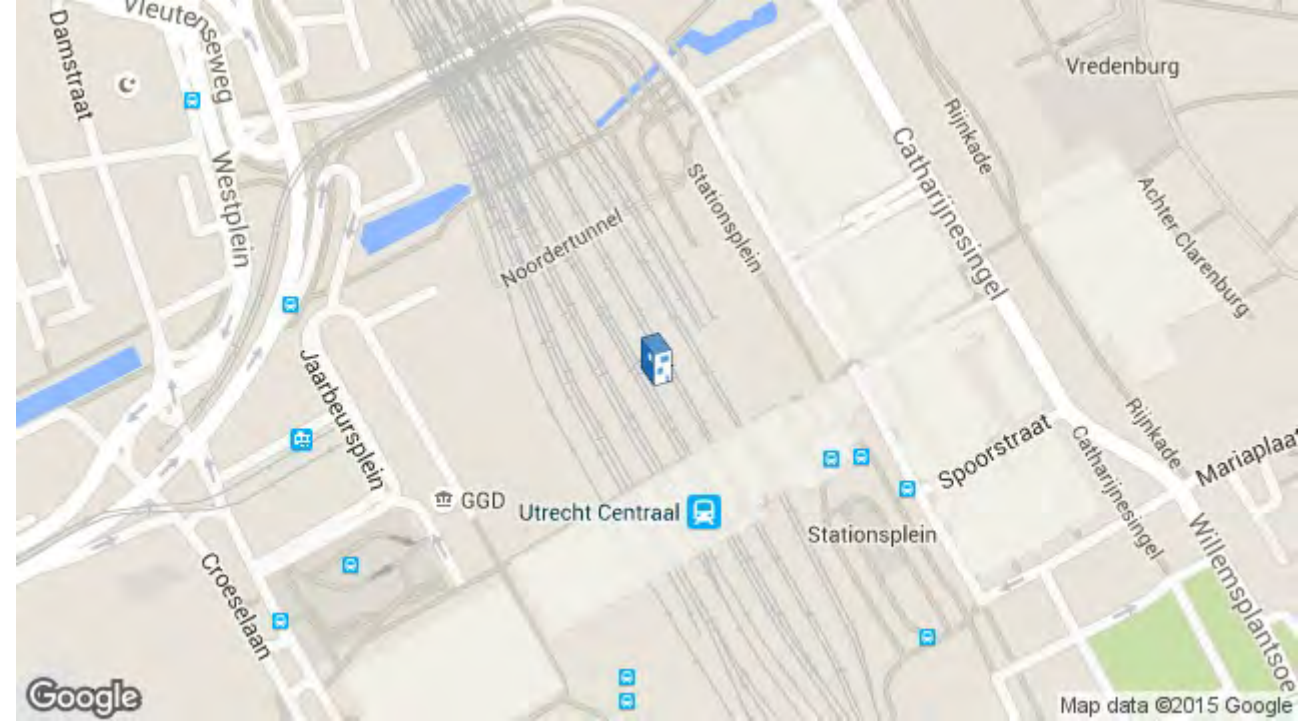
SECTION 1 - SOUTH-TO NORTH (PARTIAL)



SECTION 4



SECTION 3



Location to be used only as a reference. It could indicate city/country but not exact address.

Edgar Morin University Library / ROPA & Associés Architectes



Curated by **María Francisca González**

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LIBRARY • VILLETANEUSE, FRANCE

 Architects: ROPA & Associés Architectes

 Area : 6477 m²

 Year : 2018

 Photographs : Luc Boegly

 Manufacturers : Interface, Knauf, Schüco, Zumtobel, Arcelor Mittal, BENCORE, Griesser, HEXABEN, OPTIGREEN, SOLOSCREEN

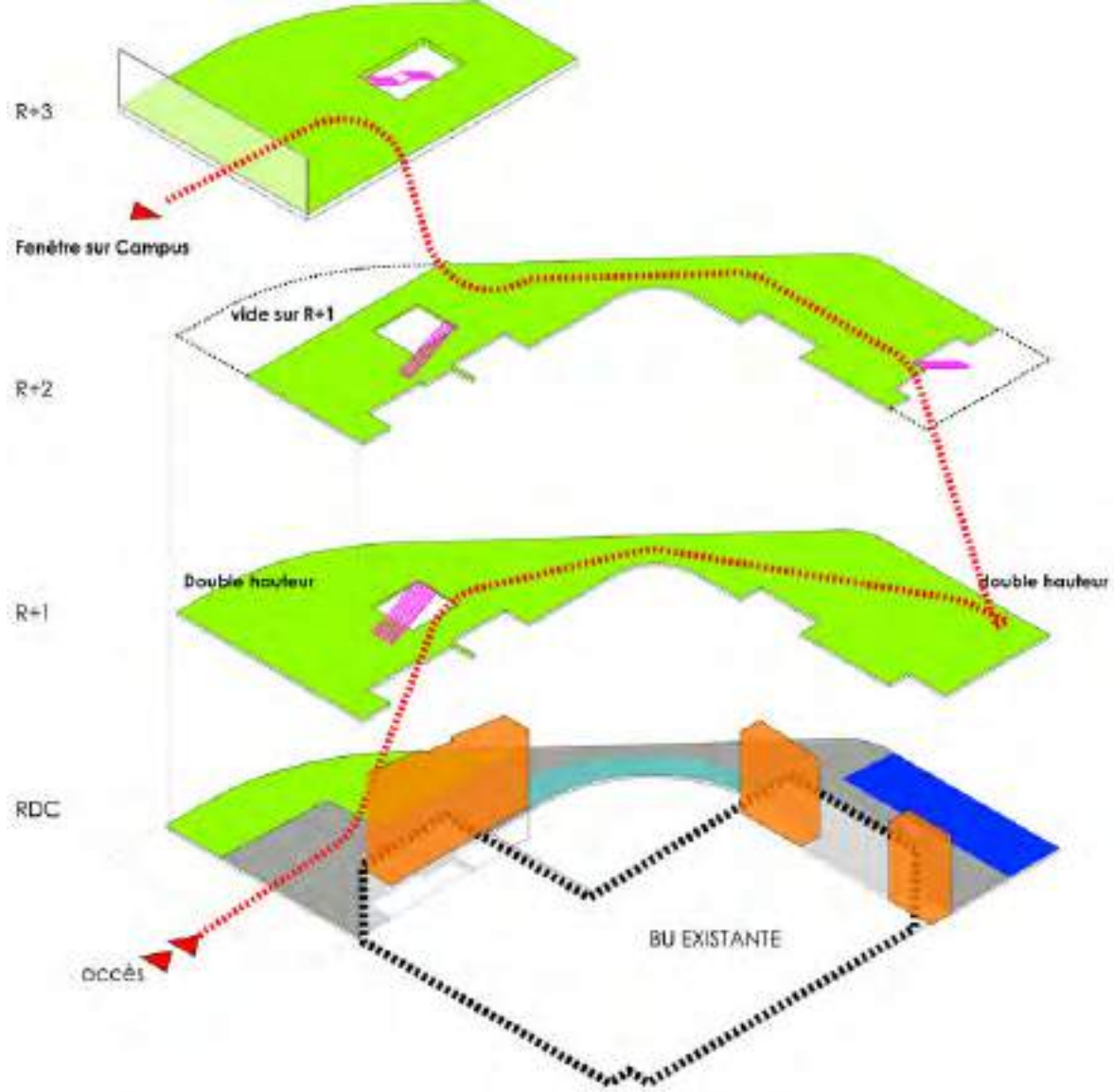


Text description provided by the architects. The site is marked by the presence of the campus facing the town through the intermediary of the new library. Located at the edge of the campus, the new building curls around the old library to create a dynamic that heralds the development and renewal of the library and a harbinger of the future evolution of the campus. Constraints of the existing urban plan led to a highly singular S-shaped construction footprint. The extension enclosed the initial volume of the library and defines the limits of the new public square.



The morphology of the new building is adapted and deformed while ensuring the continuity of the urban façade. Derived from the characteristics of the campus, aligned with the existing library (G+2) and rising in a movement that reveals the life of the reader unfolding inside the library and fitting into the urban landscape and the line traced by the tramway. The size and the homogeneity of its façade, the new University Library stands out as a large scale public facility, fulfilling its role as interface and transition between the surrounding city and the university.







A thickness of concrete sculptured as the effigy of the BU PARIS XIII extends along the base of the new Place François Mitterrand, accompanying the sinuous design of the tramway line and mall, and affirming the presence of this facility designed for collective use, which has become the campus showcase in the public space.





Coupe AA



Elevation Nord





A glazed façade on the floors above is protected by vertical perforated stainless steel sunshades, introducing a thickness and a distance between exterior and interior and creating the interplay of light and shadow according to the time of day. In winter, in late afternoon and evening, all the activity inside the library is visible all the way up to the top of this volume standing like a lantern on its base. Stainless steel, a noble material, was used throughout with the intention of enhancing appearance and imbuing respect, and offering a new kind of relationship between the town and university users.



Recommended Products



TECU®
Copper Surface - Classic Coated



LAMILUX
Flat Roof Access Hatch Comfort Duo



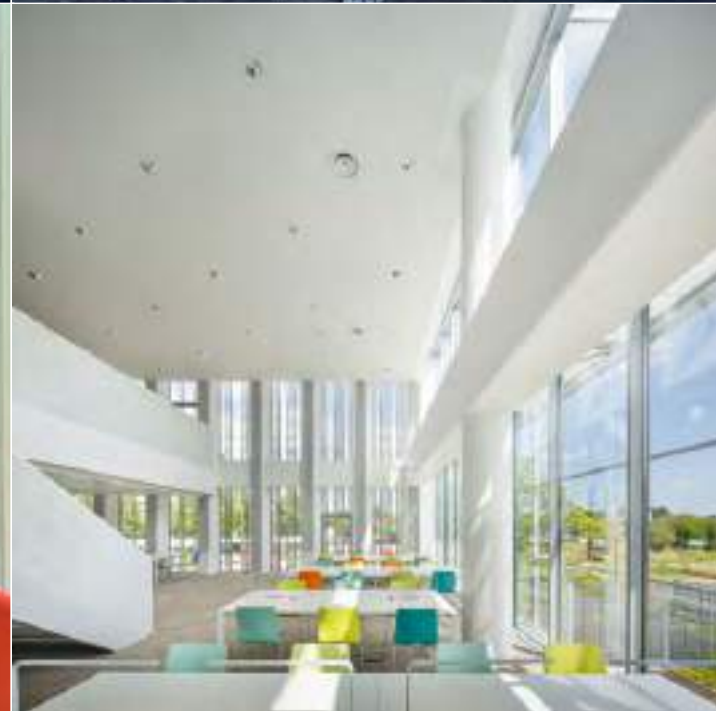
Krskadecor
Metal Fabric - Outdoor Cladding

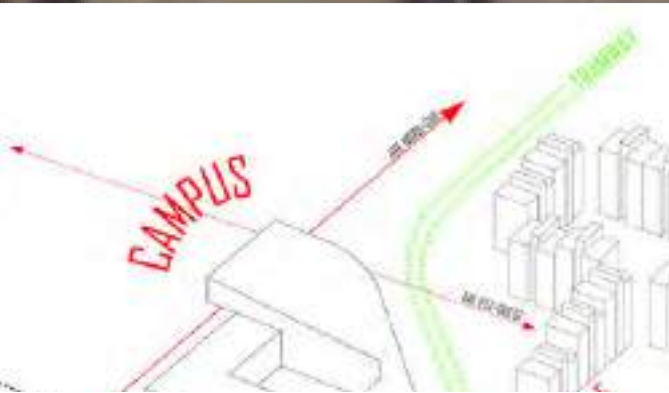
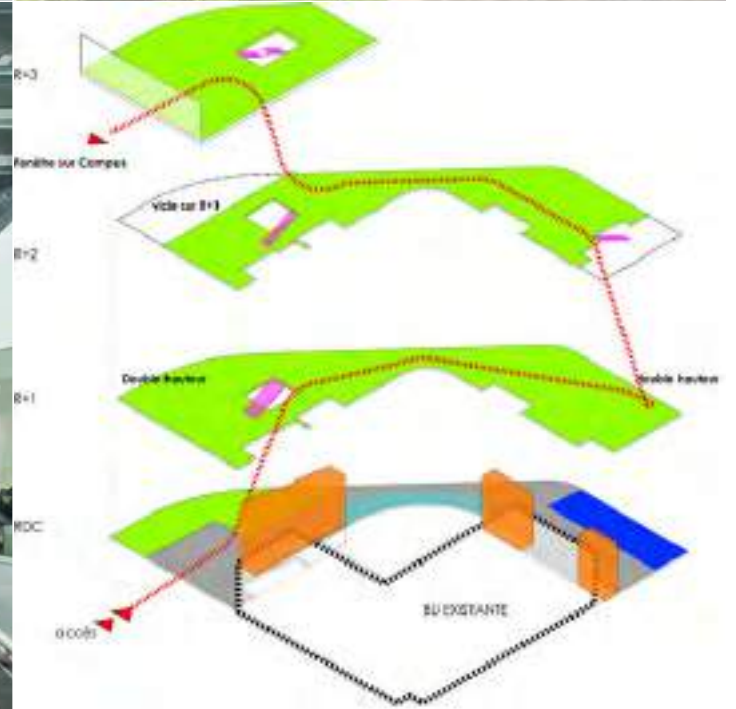


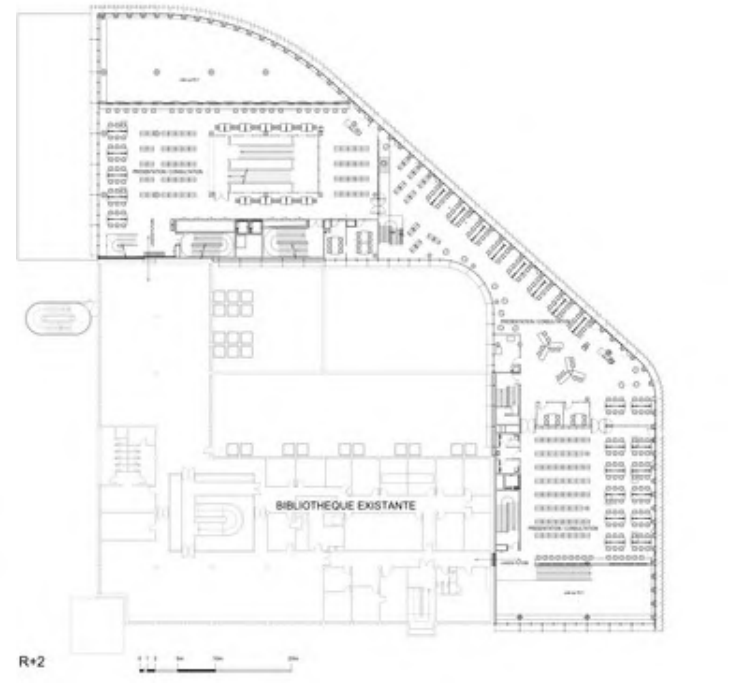
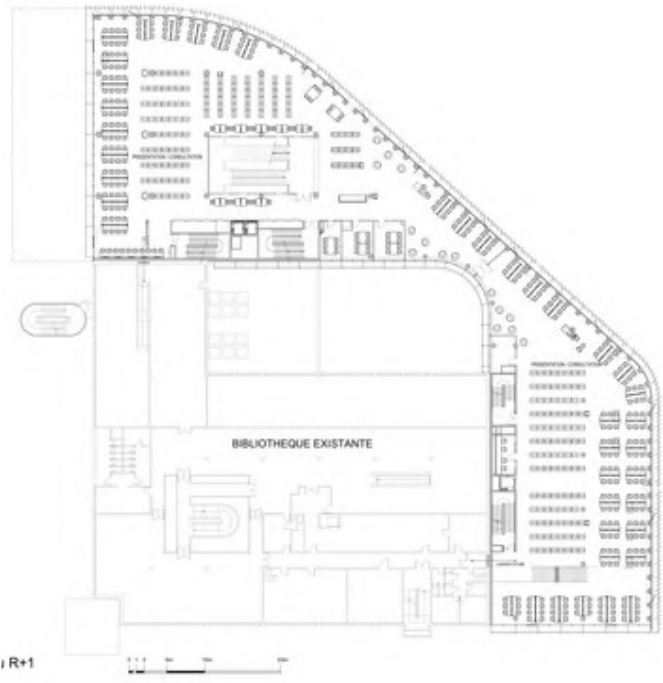
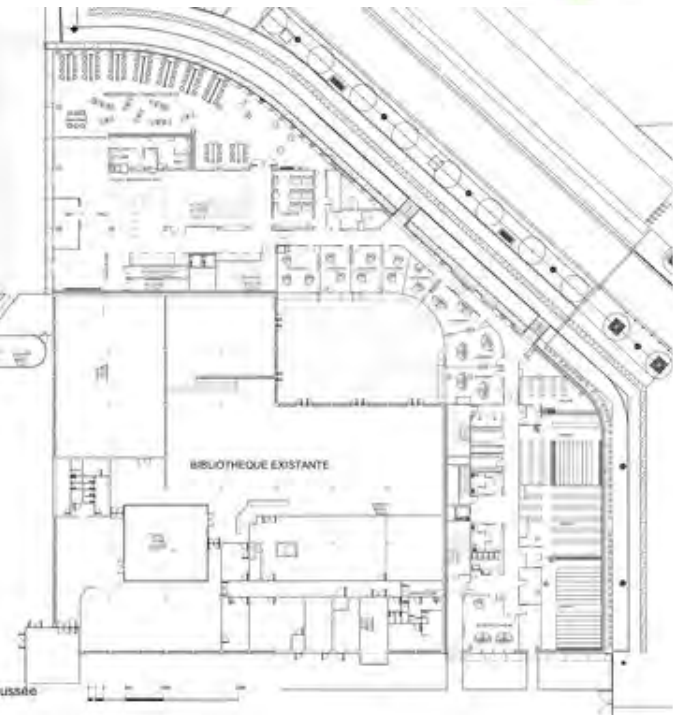
Aparici
Porcelain Tiles - Jacquard

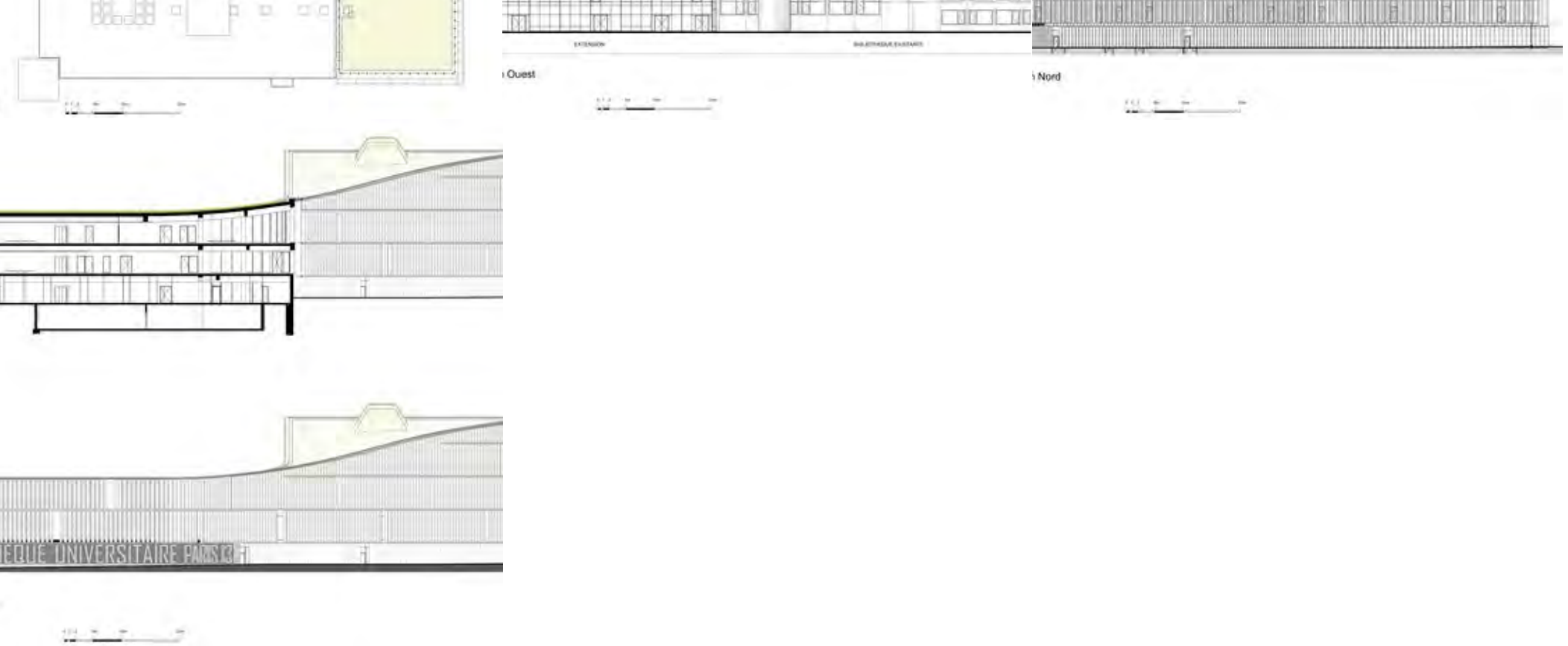
Project gallery











Project location

Address: 99, avenue Jean-Baptiste Clément 93430 Villetaneuse, France



Location to be used only as a reference. It could indicate city/country but not exact address.

University Library / OFFICE Kersten Geers David Van Severen



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LIBRARY, REFURBISHMENT • GHENT, BELGIUM

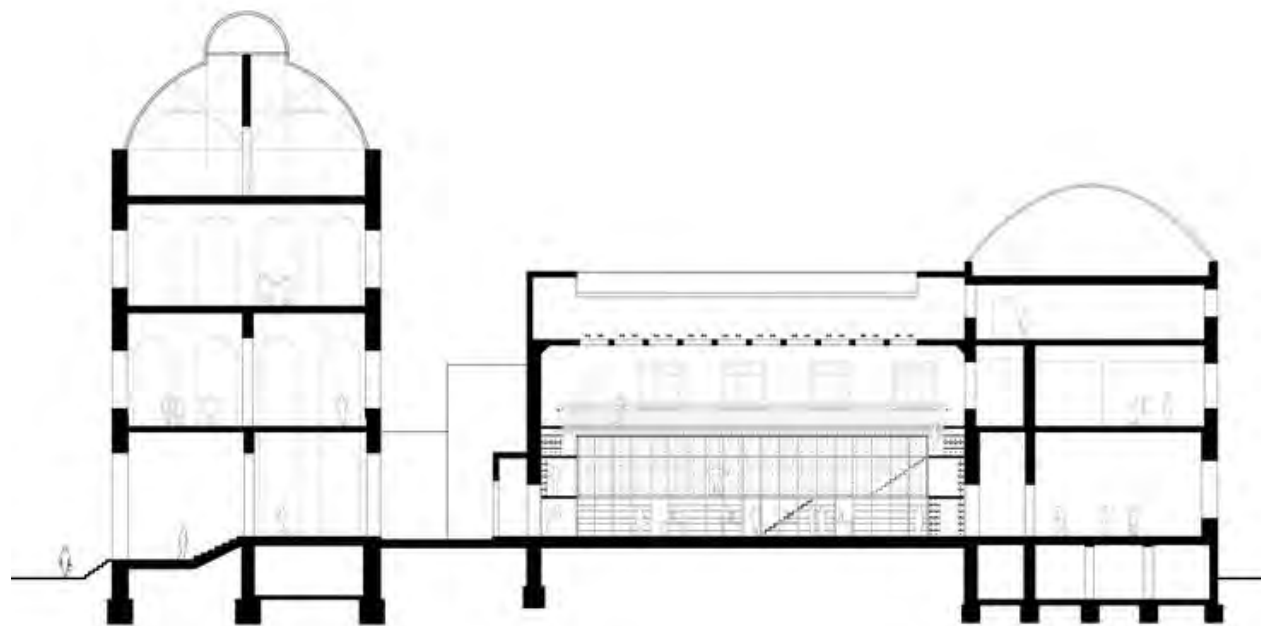
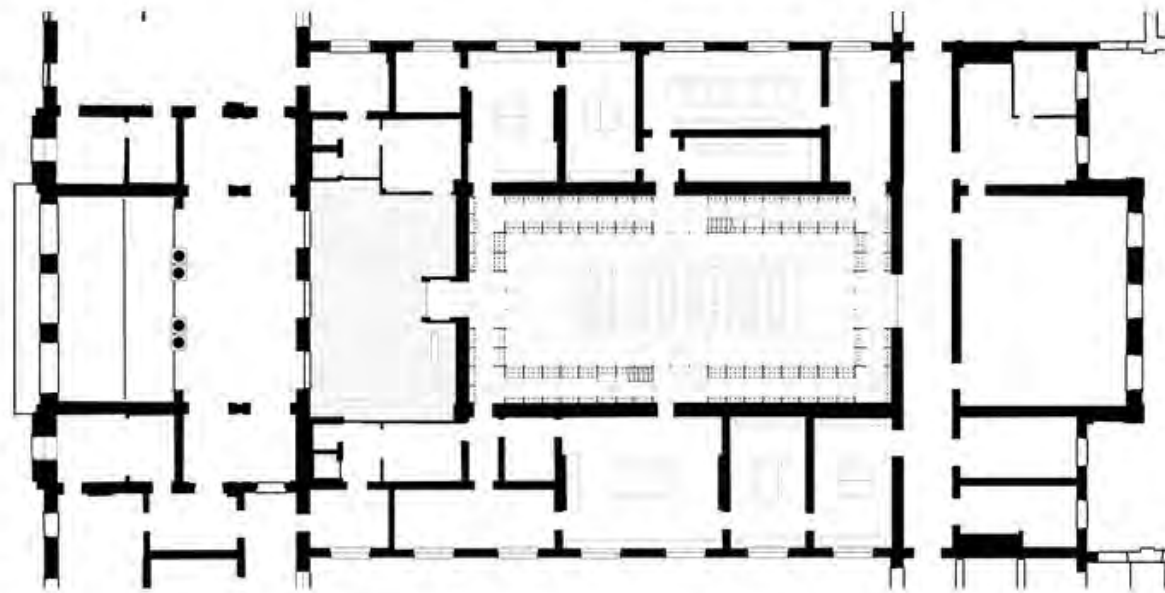
Architects: OFFICE Kersten Geers David Van Severen

Area : 285 m²

Year : 2014



Text description provided by the architects. The new library for the faculty of Architecture and Urbanism of the University of Ghent can be considered a large, pavillion-like piece of furniture, inserted under the balcony of the existing Physics hall. The accessible, three-storied cupboard forms a complete perimeter around the central, atrium-like space, enforcing its monumental scale. Both the lendable collection as well as the more precious books which can only be consulted, are presented visibly around it.



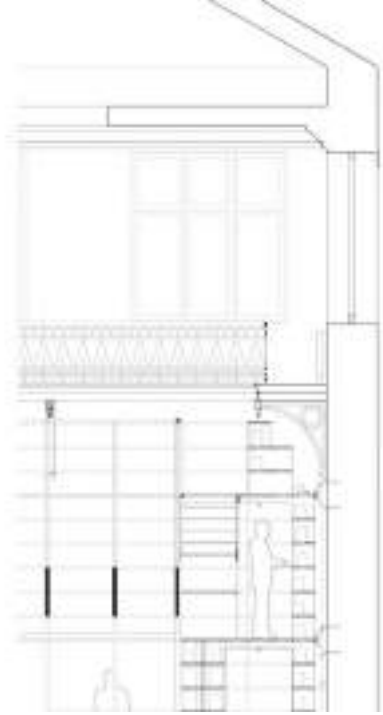
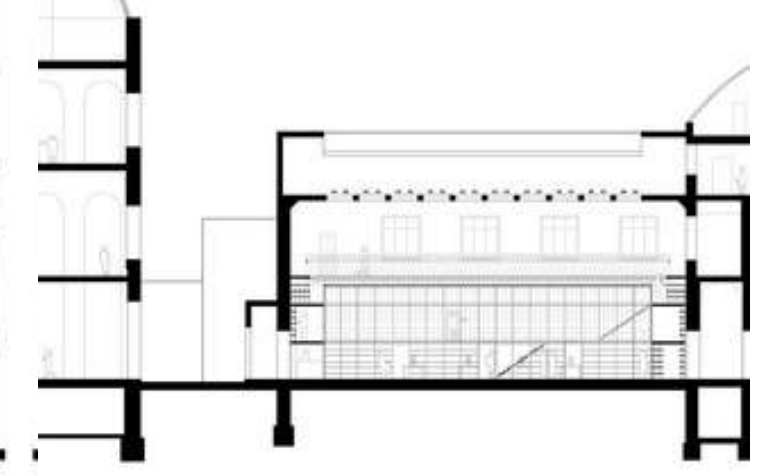
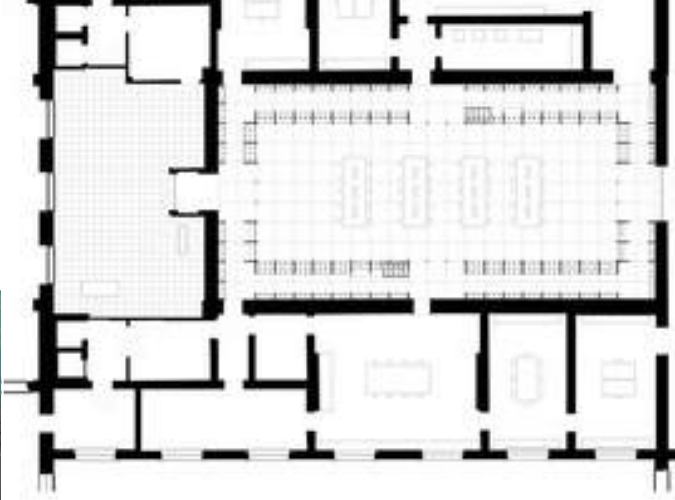
The perimeter of cupboards, realised completely as a bolted construction of prefabricated steel elements, contains passages, stairs, desks and corridors, and organises both the library itself as the access to the multiple backof ces and auxiliary functions. A system of vertically sliding, perforated panels allows for the cupboards to be closed off, protecting the collection during lectures and other events, while keeping it visually present.





Project gallery







Mediated Shading Device - CityFrame
Flexbrick

Ceramic Textiles for Facades



Vitrocsa

Glass Technology in Hotel Beaulac



Solarlux

Bi-Folding Doors - Ecoline

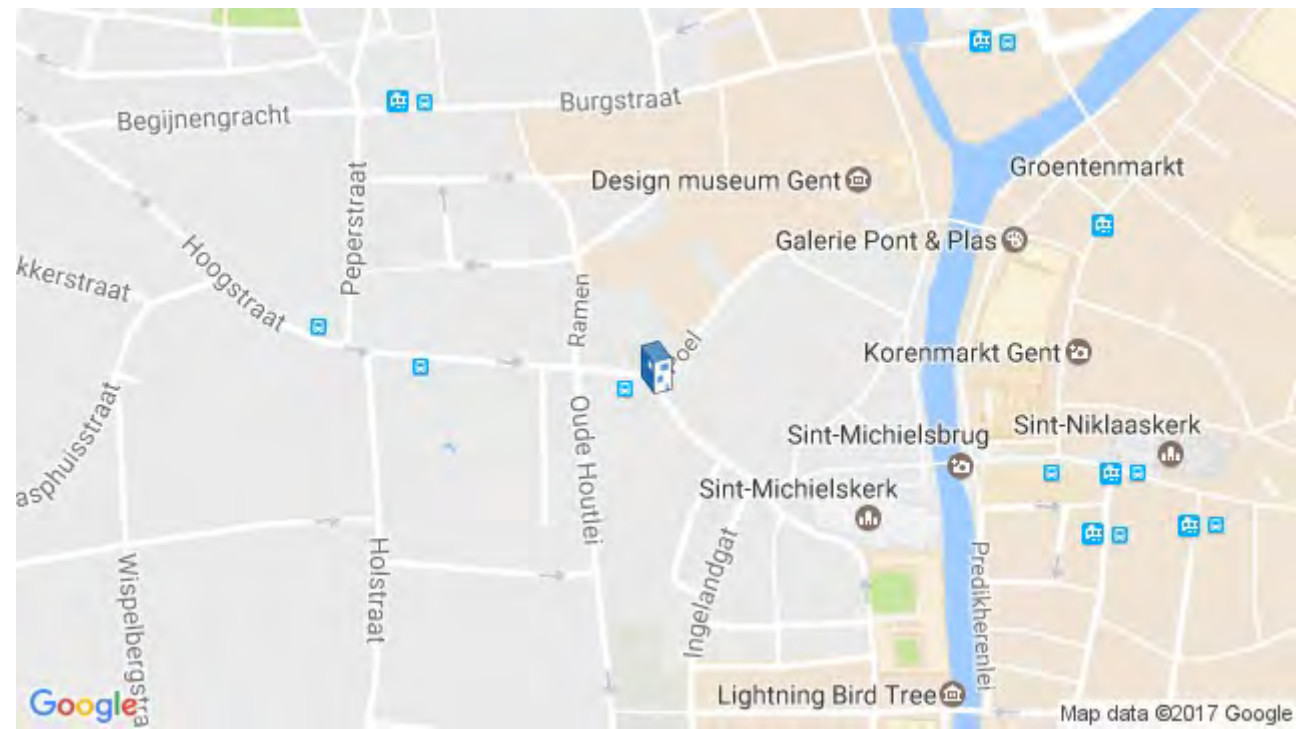


Axolight

Floor Lights - Float

Project location

Address: Ghent, Belgium



Location to be used only as a reference. It could indicate city/country but not exact address.

Bio Bio University Library / Rubén Muñoz + Rodrigo Villalobos



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LIBRARY • CONCEPCIÓN, CHILE

 Architects: Rodrigo Villalobos, Rubén Muñoz

 Area : 1818 m²

 Year : 2007

Collaborators : Claudio Araya, Edmundo González, Cristian Larenas, Luis Montaña, Fredy Palma, Arly Yañez , Darwin Domínguez, Gonzalo Iturra

Client : Universidad del Bío Bío

Structures : JMS ingenieros

Lighting : Luis Ahumada

Site Supervision : Miguel Llanos

Construction : De La Fuente y Cía. SA

Materiality : Steel, reinforced concrete and wood

Project Year : 2010

City : Concepción

Country : Chile

Did you collaborate on this project?

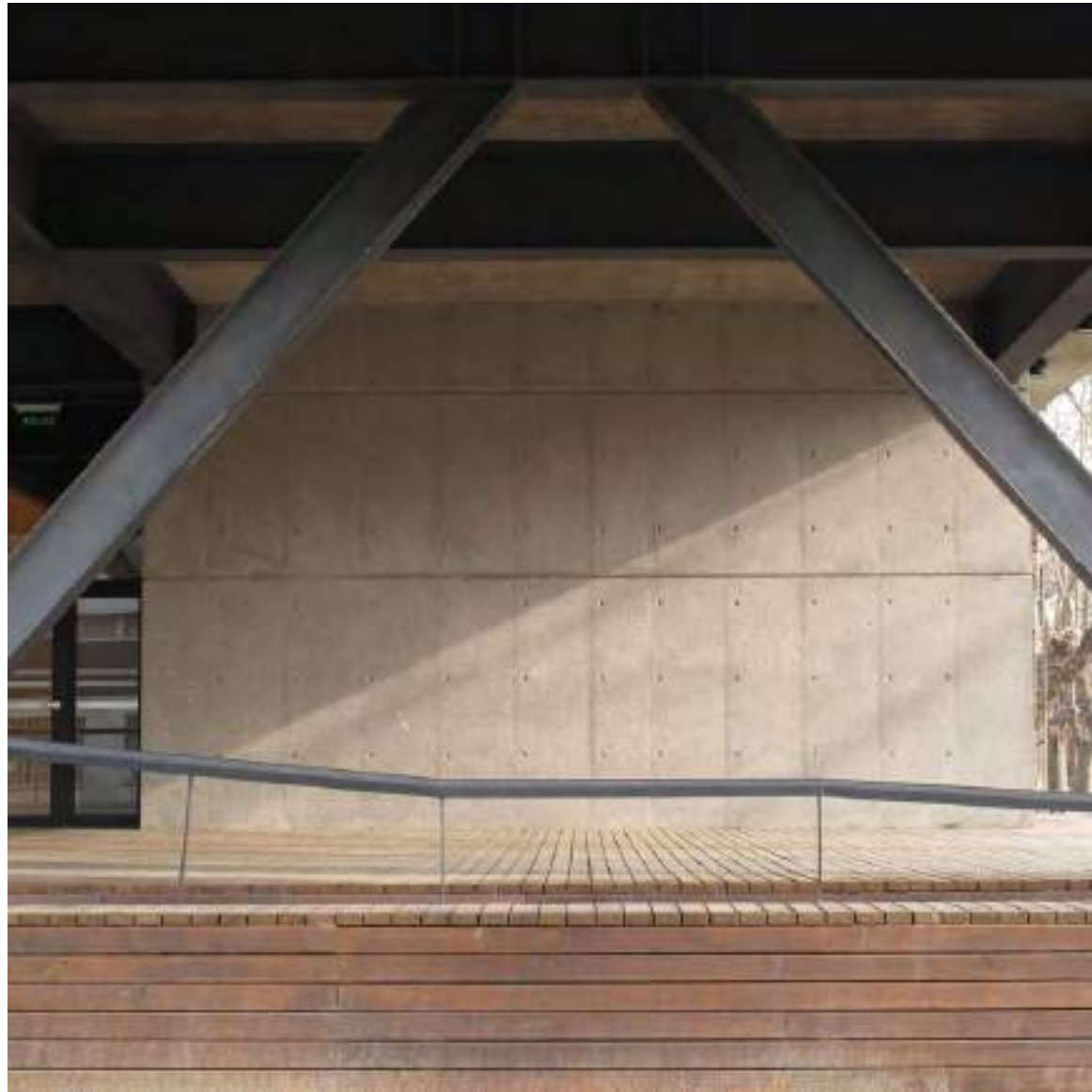
LESS SPECS

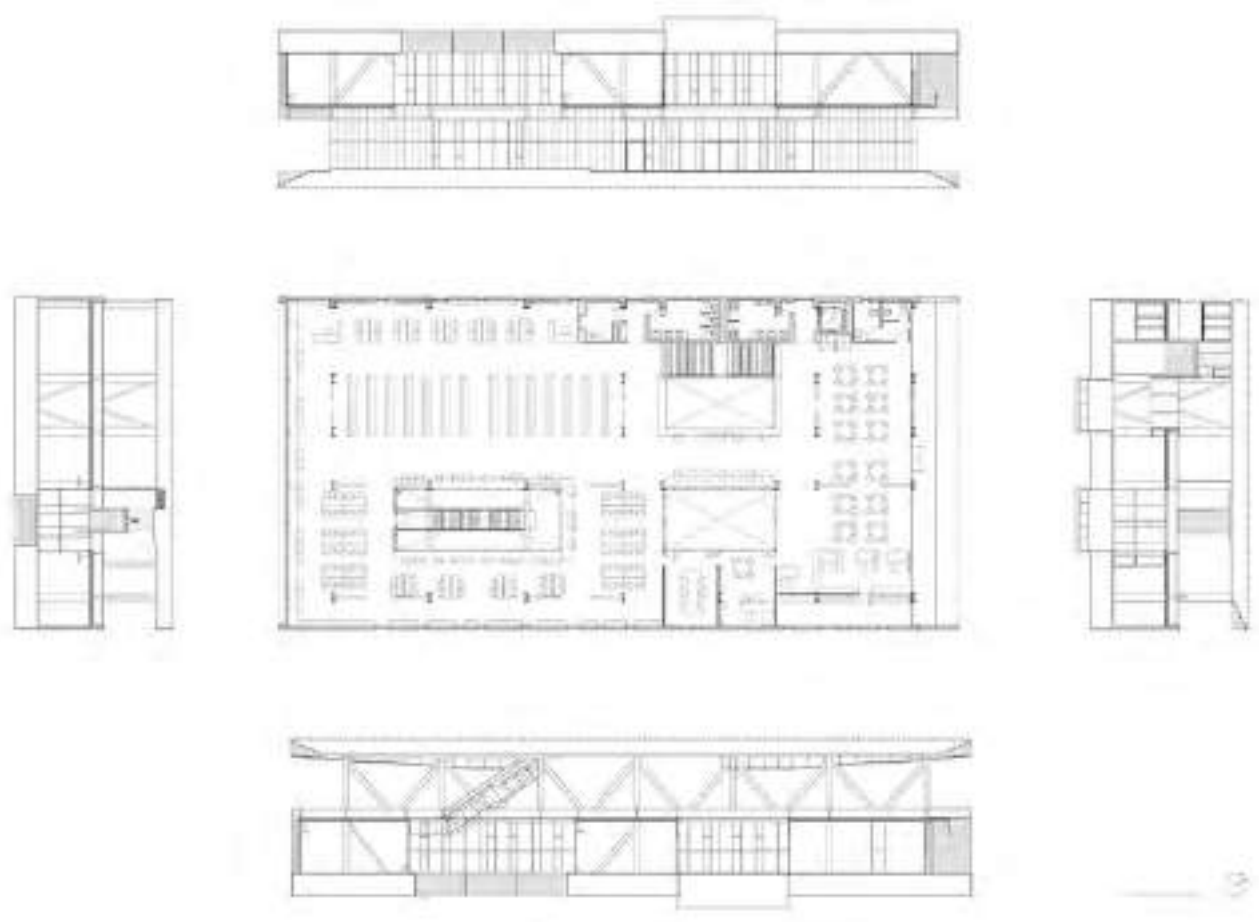


Text description provided by the architects. Last year we showed this project during its construction, now we present it completed.



The library, the result of a competition after the flood of 2006, is the first phase of the new UBB (Bio Bio University) information center, to be completed with the construction of the Computer and Information Services building, providing a new entrance to the campus.









Each project, with its own demands and constraints, is the result of a diffuse process, where multiple experiences and works are synthesized.



Enhancing the public and open character of the university, as Emilio Duhart did in UDEC, we freed part of the first level forming a covered pedestrian walkway on a wooden platform, elevated over the flood level, protected from the north winds that accompany local heavy rains.



The main operation was to empty a suspended, timber volume. We opened both of its ends to the foliage and designed vertical incisions on its lateral sides. The light entering through the incisions gives a rhythm to the interior space. Modeling natural light, we subtract three vertical voids, reinterpreting the courtyards of the former library, flooding the interior and exterior corridor with light. All of these actions allow us to

build an interior landscape, where possible uses for the space are suggested, allowing various spaces for reading, between the walls lined with books and the voids of light, between the steel columns and the foliage.

In response to the poor quality of the clay soil, we designed a predominantly steel structure along with some polished, exposed concrete walls. We display the steel's resistance to earthquakes through its diagonals, seeking a rough expressiveness, where architecture is little more than its structure, as developed by Max Bill in his sculptures that consist of columns and beams.

An underfloor heating system was designed, as well as passive ventilation, directing the natural pressure of the soft summer breezes. An exterior skin of local radiata pine was considered.

Recommended Products



Rieder Group
Facade Panels - concrete skin



Rodeca
Round Facade at Omnisport Arena Apeldoorn



TECU®
Copper Surface - Classic Coated

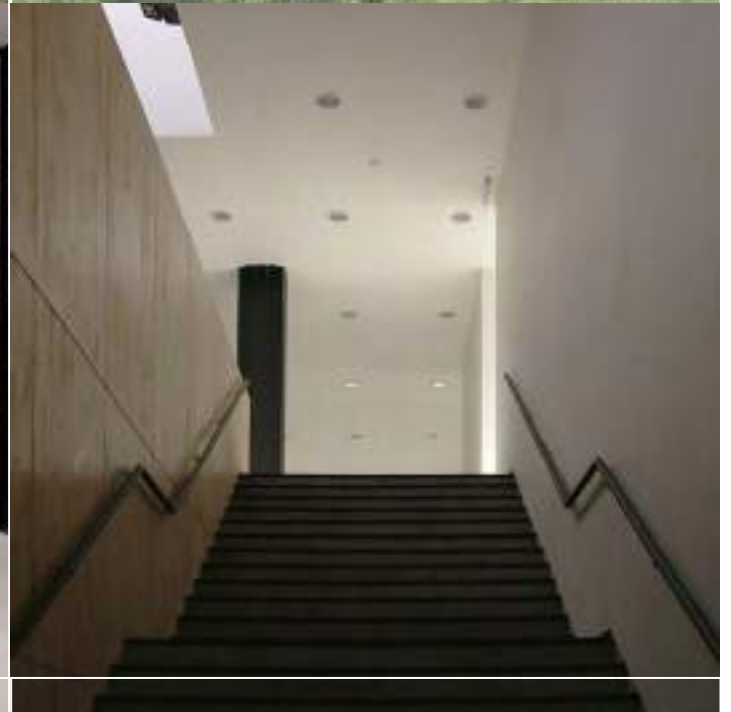


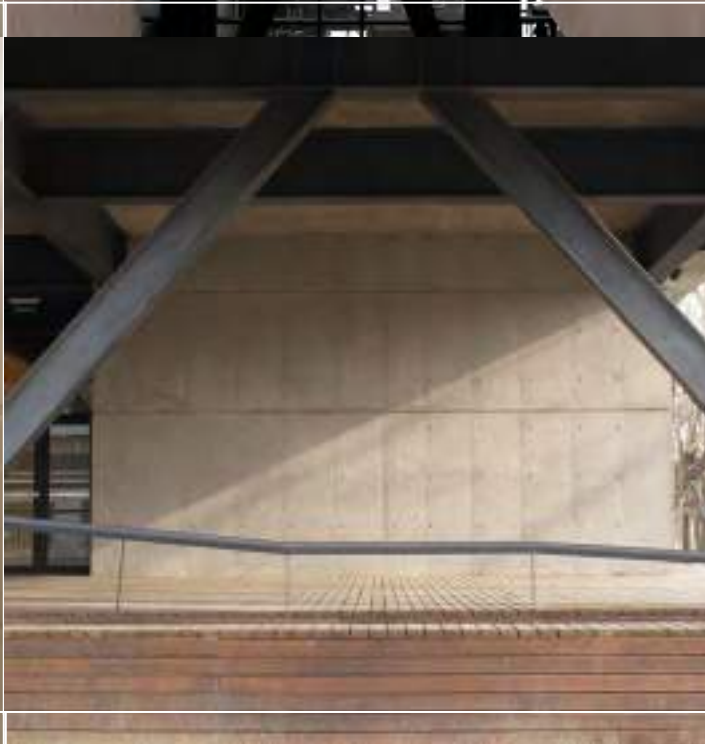
EQUITONE
Fiber Cement Facade Panel Natura

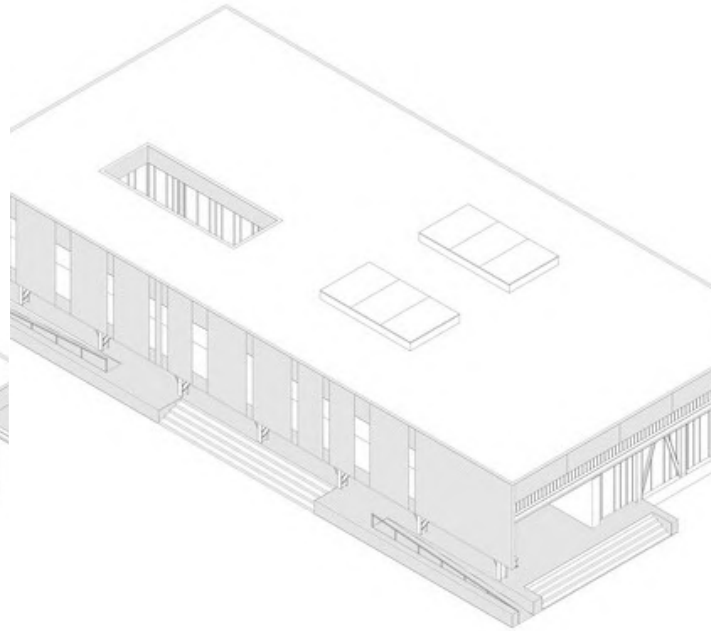
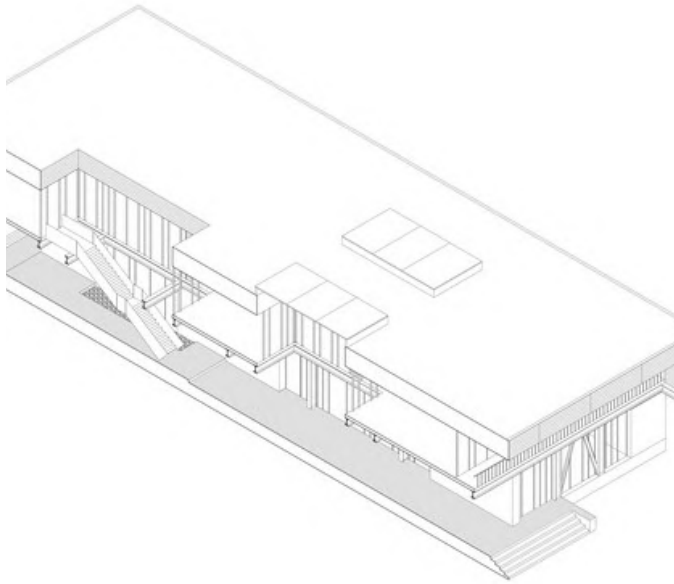
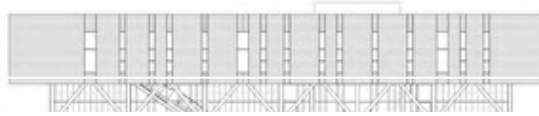
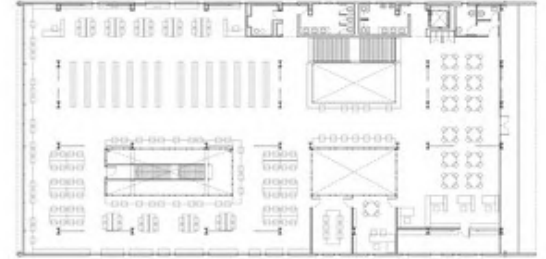
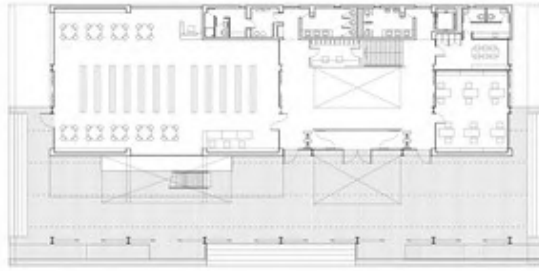
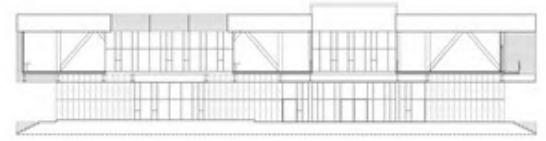
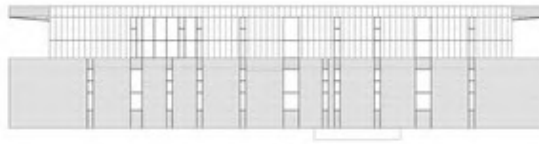
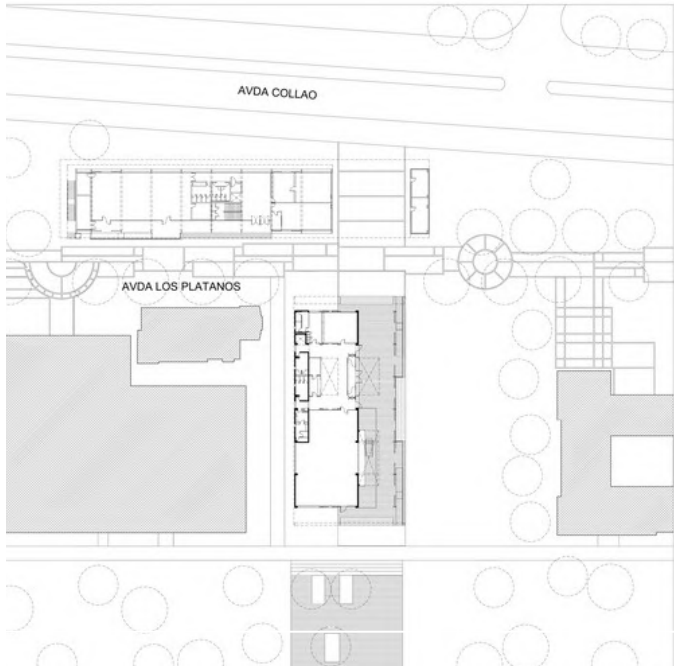


Aparici
Porcelain Tiles - Brickwork

Project gallery







Chengdu University Library / China Southwest Architectural Design and Research Institute





Curated by 韩爽 - HAN Shuang


LIBRARY • CHENGDU, CHINA


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
Architects: China Southwest Architectural Design and Research Institute

Area : 48026 m²

Year : 2018

Photographs : Arch-Exist

Manufacturers : 台玻, 坚朗, 标榜, 蒙娜丽莎, 阳光铝业

Construction : Sichuan Huating Construction Co.Ltd

Client : Chengdu Xingcheng Renju Real Estate Investment Group Co.Ltd

Architect In Charge : Xingguo Wang

Design Team : Pei Wu, Tingting Zheng, Kejia Bai, Lei Li, Lihao Leng, Jingxiong Xu, Xiaosen Tao, Yin Zhou, Ming Li, Yaoyin Fu, Bing Zhang, Jun Xiong, Li Zhou, Qian Kang, Guoqiang Zhang, Wei Jiang

City : Chengdu

Country : China

Did you collaborate on this project?

LESS SPECS

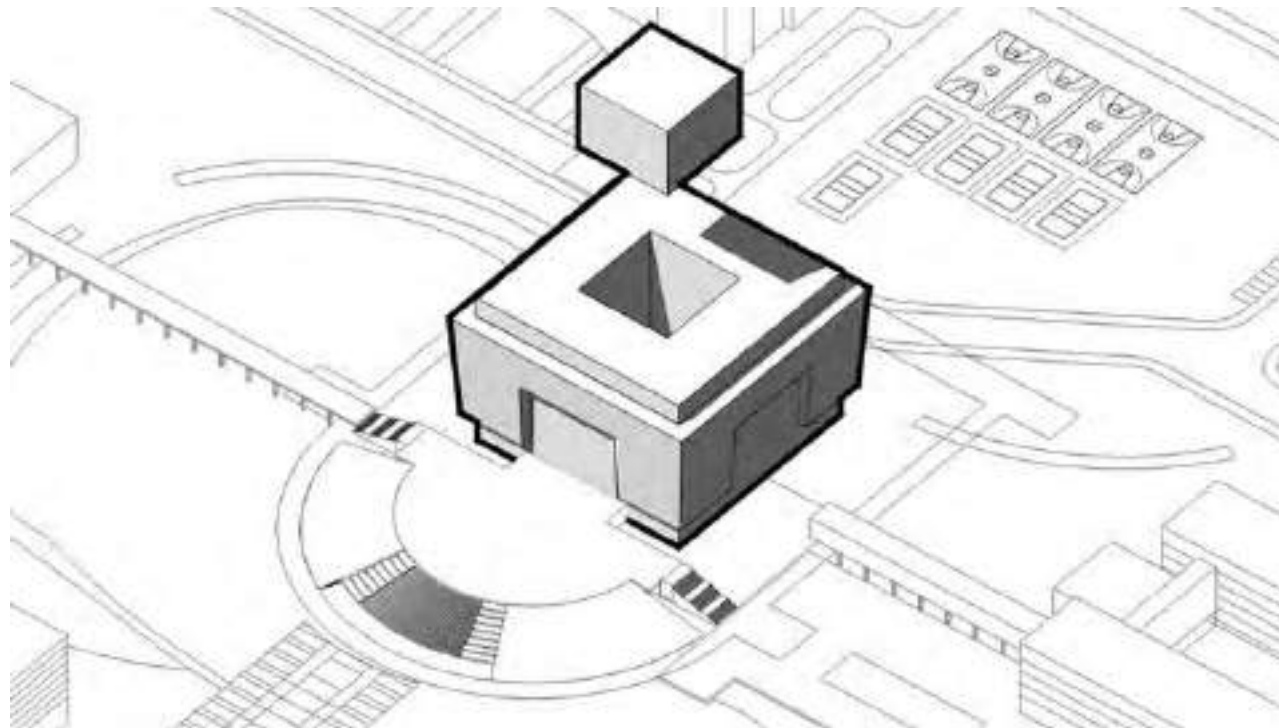
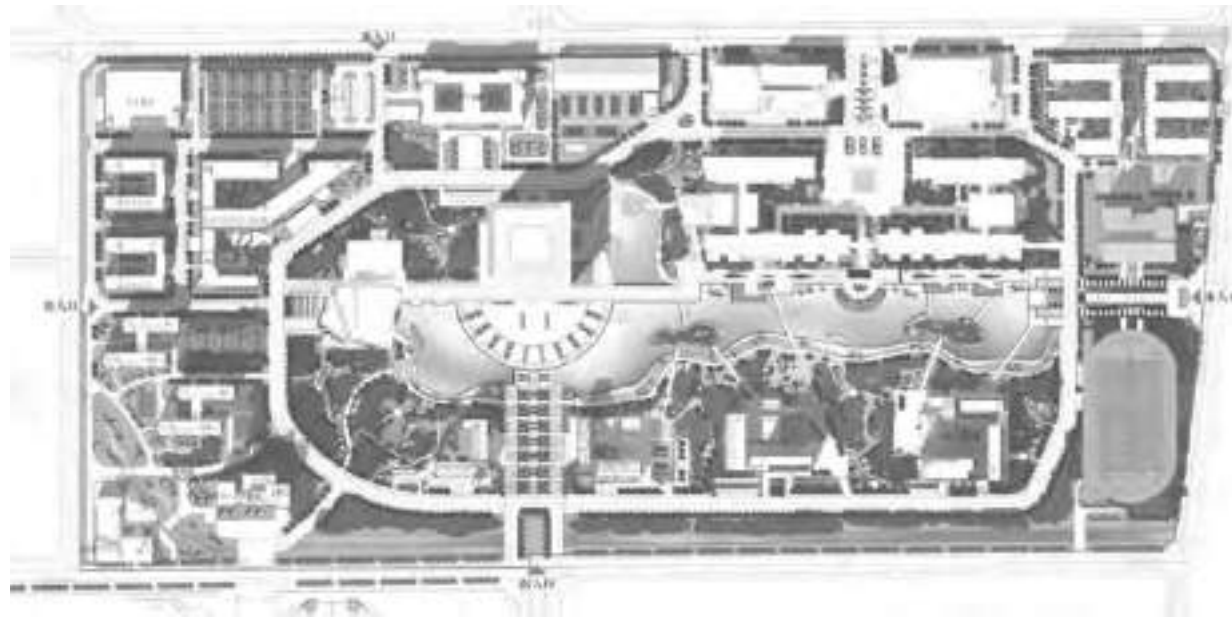


Text description provided by the architects. The new library of Chengdu University was completed in the spring of 2019. The building has become the Internet celebrity of the campus since the light was on, which was unexpected. In fact, this is not the original intention of the architect's design, its attention may be due to its unusual colors.





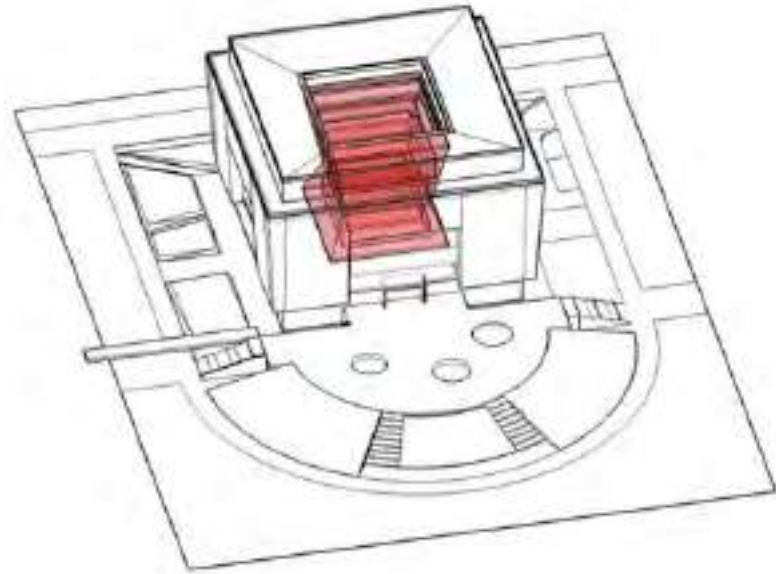
Because the new library is large in size and like most domestic university libraries, it is in the prominent position of the North Campus Planning of Chengdu University. Therefore, at the beginning of the design, more consideration is not its image, because in any case, in this particular space environment, it will inevitably stand out straightforwardly.



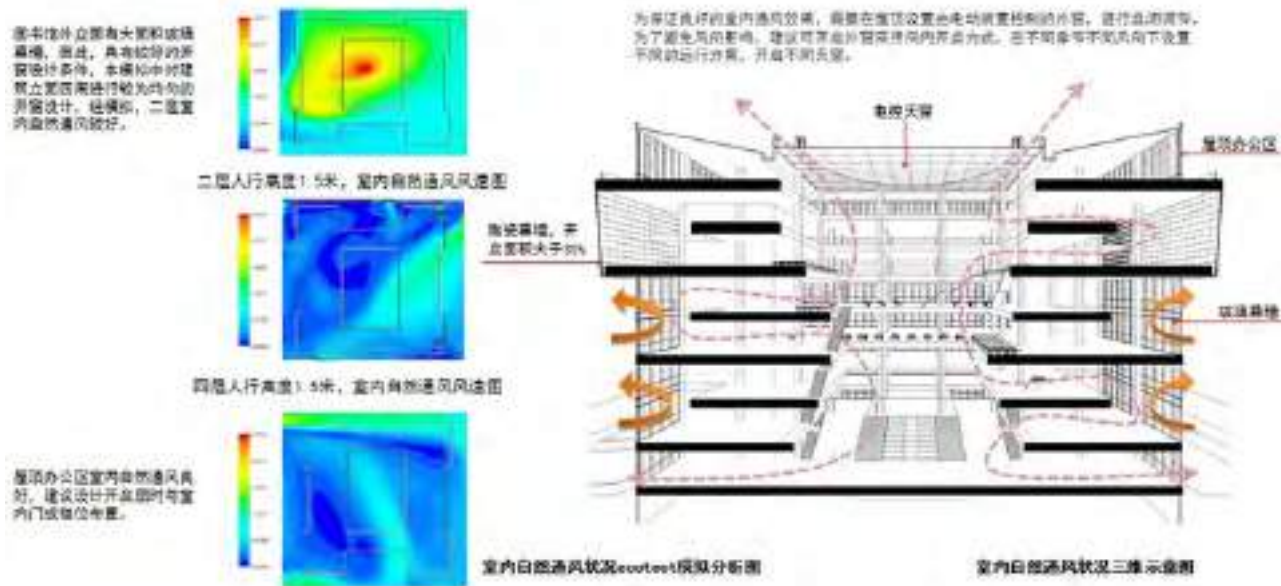
In line with the North high, South low, East and West gentle terrain, the library ground building is lightly located on the south side of the earth-covered dome, the lower part of the transition with the site elevation forms a concise and accessible spatial relationship.



The plane is concise and efficient, and the "Dou" shaped atrium is accessible from top to bottom in all directions. Vertical and horizontal traffic is set inside to form a centripetal space converging inward around the atrium. The "sandwich" shaped atrium is suspended in the air in large quantities, making the best use of natural light.



Lighter weight, more concise and accessible, more open and transparent is the original intention of the design. We do not want to build a strong, solid and huge school spiritual fortress.



Through CFD airflow simulation and natural lighting analysis, the section design fully considers the characteristics of the dominant wind direction and the long transitional season in Chengdu area. According to the analysis results, the round atrium space obtains natural lighting and good ventilation by using skylight and side atrium opening, which can reduce energy consumption. Interior space highlights communication and publicity, and integrates many communication experience spaces.





Lightweight external maintenance system is the remarkable feature of the library. Parametric plate and glaze design is conducive to shading and restraining glare, to achieve the soft effect of indoor light diffuse, reading environment is clear and pleasant.





The exterior maintenance structure of the building is designed with a step-by-step curtain wall system from top to bottom. The supporting frame is steel rectangular tube keel + aluminium alloy transfer accessories. The exterior facade material is made of three groups of ceramic sheets + three groups of glazed hollow glass, which embodies the design idea of green, low carbon and lightweight.



After the completion of the library, the bright orange color and patch texture appear in the current spacious campus and community background, especially in the flat night sky, such as Chinese lanterns, transparent, eye-catching. As a place of expression, the design strategy of opening and sharing of new libraries stimulates the desire of communication, sharing and dissemination.



The design of the facade is concise and the intention is obvious. The orange-red porcelain plate and the glazed glass have modernity. Its distinct jumping pixel patches endow the library with the characteristics of the information age. Highly finished building skin expresses the basic aesthetic needs of this era.





Some critics say that the front of the inverted trapezoid of the museum seems to have resonance with the golden mask image of Jinsha ancient Shu at some dusk time. Architecture conveys some feelings as a medium. Anyway, as Hayek said, "the world is made up of knowledge and information held by human beings. The greatest wisdom of human beings is to find and discover an order in which local knowledge and information can be freely collaborated and expanded for all." The architect's initial wish is that libraries, as storage containers and interactive places of knowledge and information, will be loved by more users and benefit more learners.



Recommended Products



OTTOSTUMM | MOGS
Window Systems - BronzoFinestra B40



TECU®
Copper Surface - Classic Coated



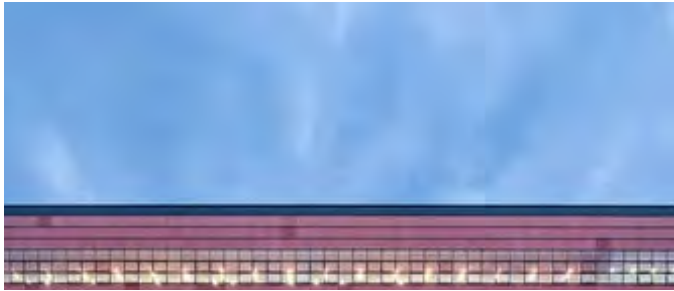
Danpal



Grespania

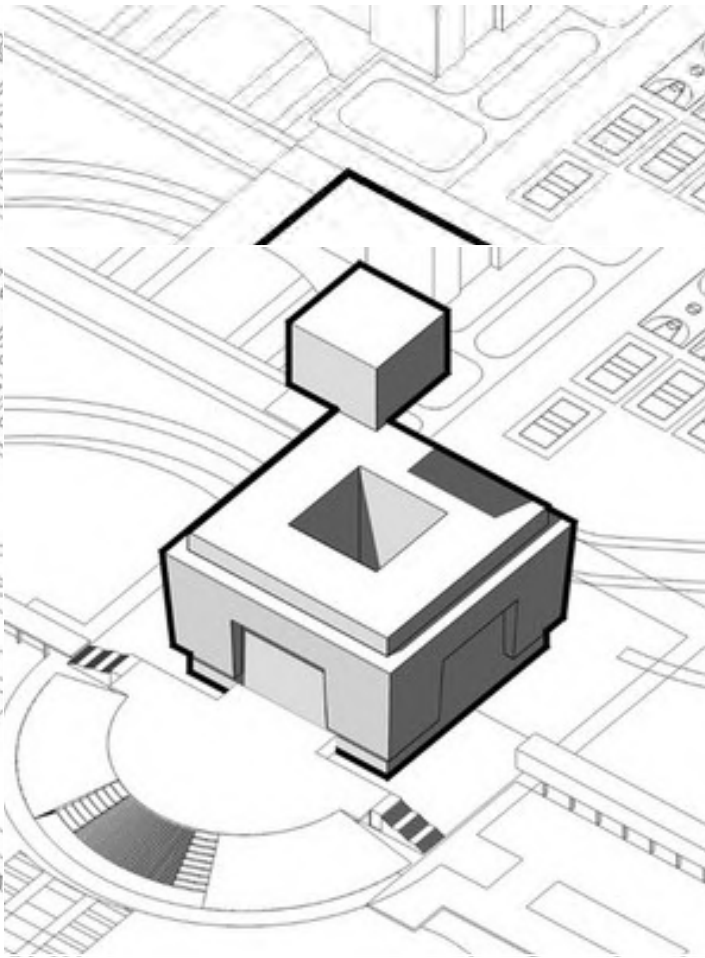
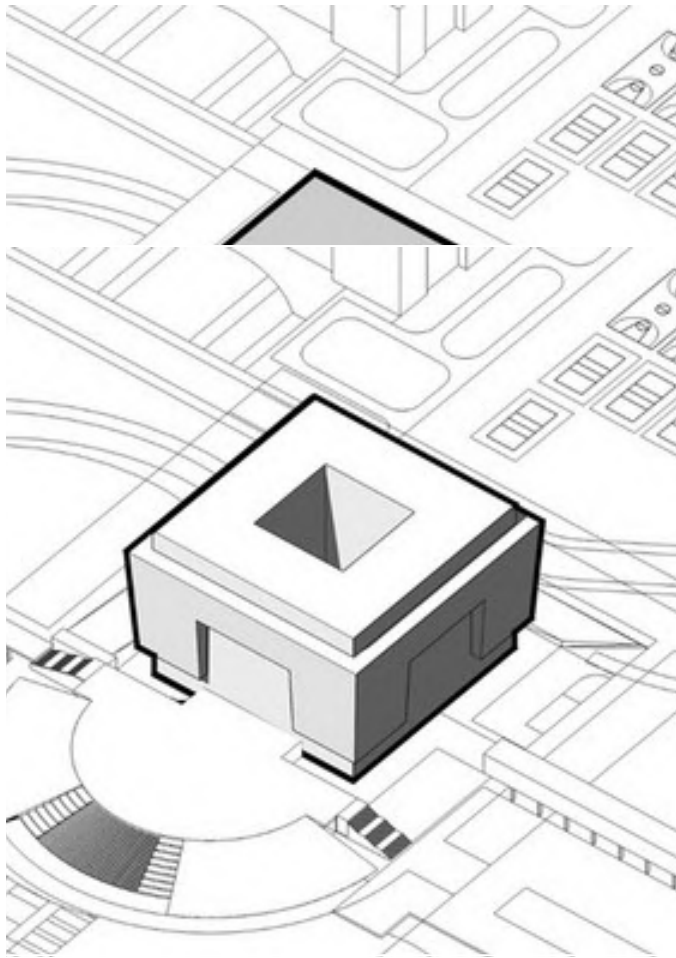
Project gallery

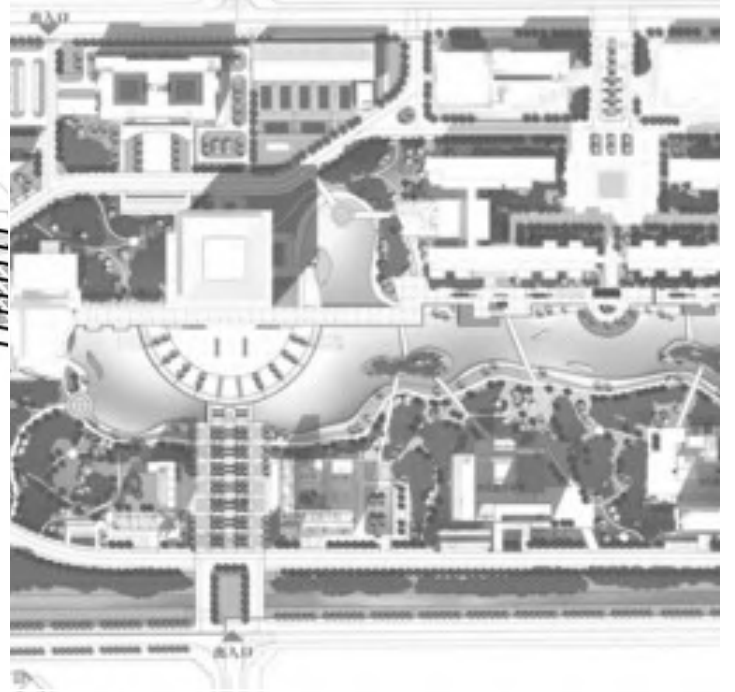
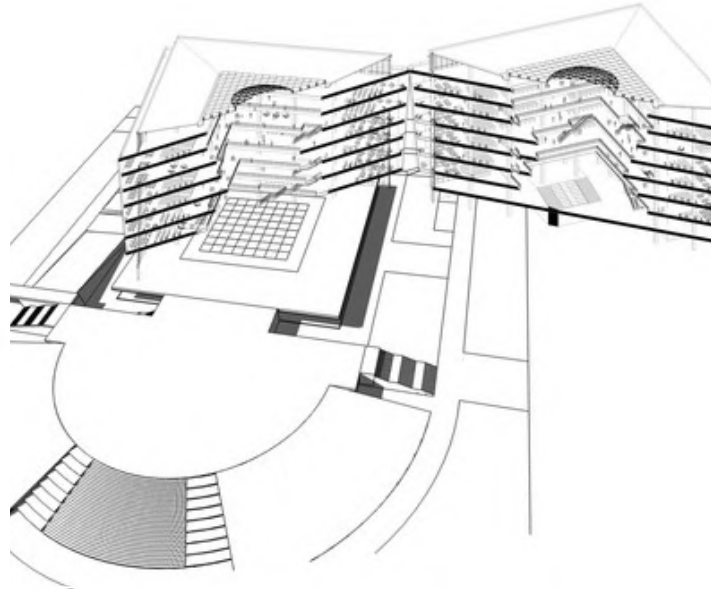
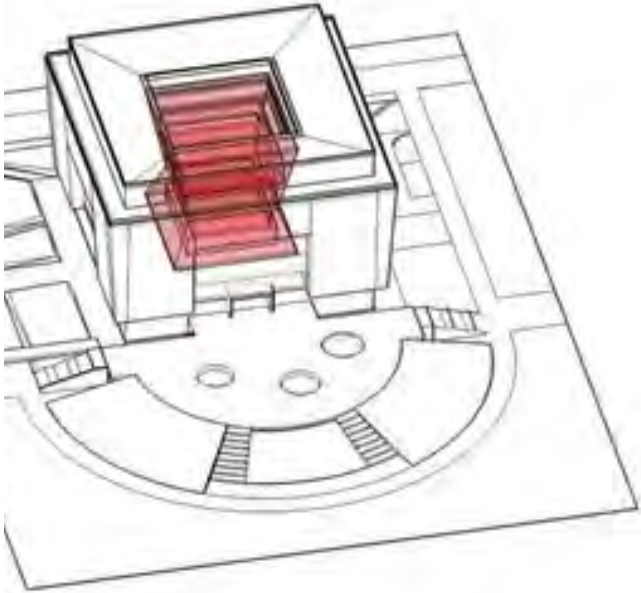
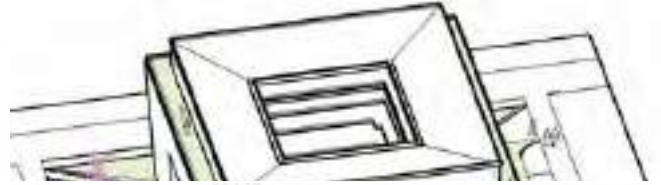


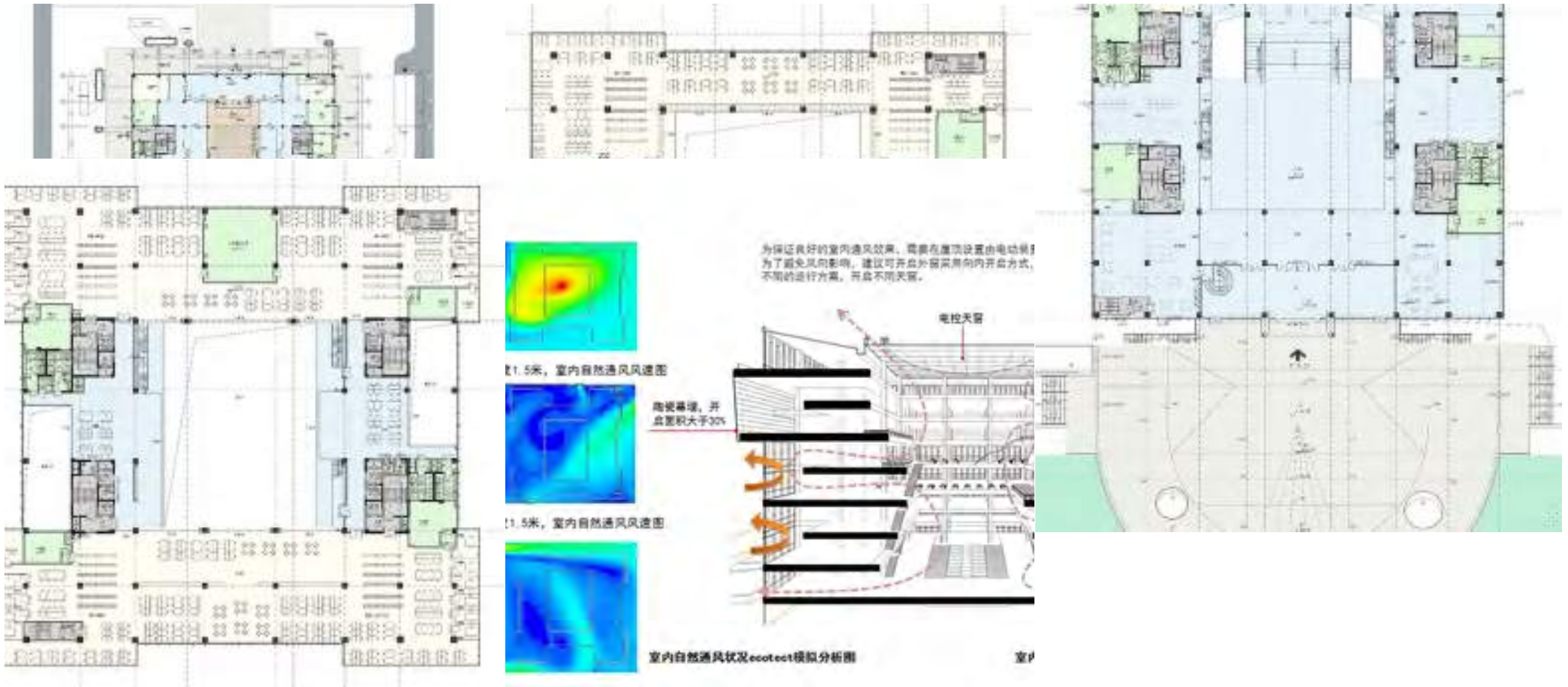












Project location

Address: Chengdu, Sichuan Province, China



Location to be used only as a reference. It could indicate city/country but not exact address.


The Library of Shandong Normal University / UAD




[Share](#)

LIBRARY, EDUCATIONAL ARCHITECTURE • JINAN, CHINA

 Architects: Architectural Design and Research Institute of Zhejiang University

 Area : 51098 m²

 Year : 2015

 Photographs : Yong Zhang

Mep Engineers : Zengrong Gong, Zhengjie Huang, Shaobing Dong, Haifeng Liu, Haojun Li, Lilun Yu

Structural Engineers : Mingshan Zhang, Benyue Li

Design Team : Yidong Yang, MeifangTeng, JingweiLuo, Zaiguo Lin

City : Jinan

Country : China

Did you collaborate on this project?

LESS SPECS



Text description provided by the architects. Located in the center of the college, the Library of Shandong Normal University is the most important building. The new library connects the educational facilities in the west and student residences in the east. The 46.7-meter-tall, 9-story tower collects 1 million books, including a large number of special collections.

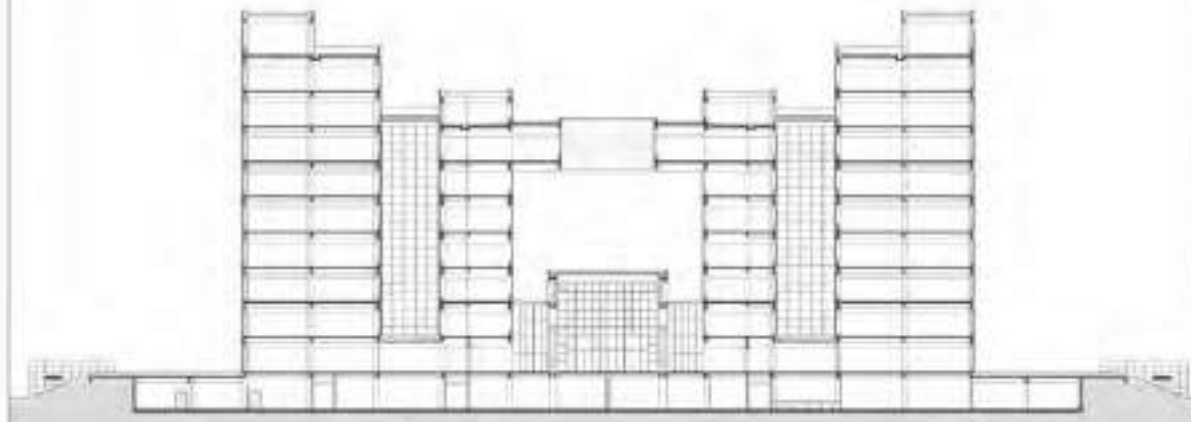


The form of library was required to be concise and solemn. We use cheap local granite which is called Shandong White Pearl to reveal the purity of the concise form. The basic panel is 1500 mm (length) x 600mm (width).

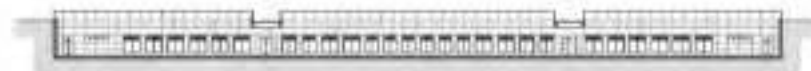


In order to dispel the negative influence on the view sight from the entrance of the university, we separate the architecture into two parts and connect them with entrance lobby and sky cafeteria which are wrapped with glasses, making the campus landscape axis continuity. No wonder that the students will enjoy a good view of the college when they were studying in this new library. In addition, the v-shape of the plan enables the building to gain more sunlight. It also helps to dispel the giant volume of this tower from the perspective view.





AARS 112



0000110



Recommended Products



Grespania
Kriskadecor
Wall Tiles - Wabi Sabi
Metal Fabric - Outdoor Cladding



Rieder Group
Facade Panels - concrete skin

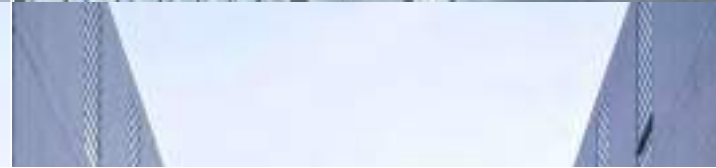
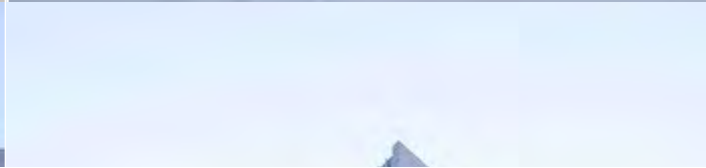
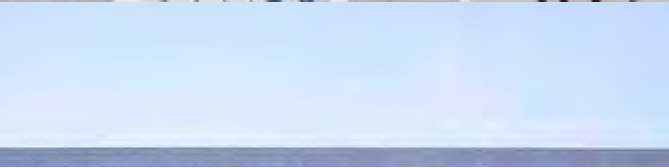


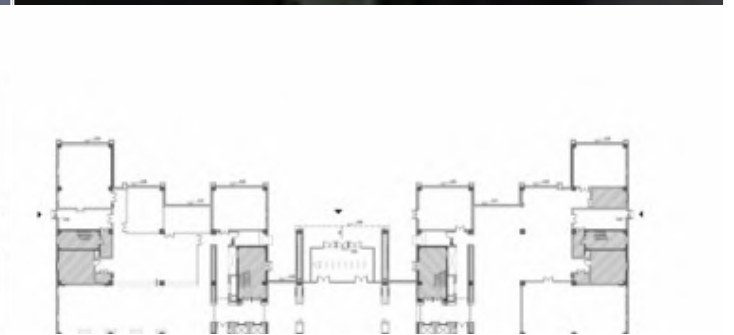
Flexbrick
Ceramic Textiles for Facades

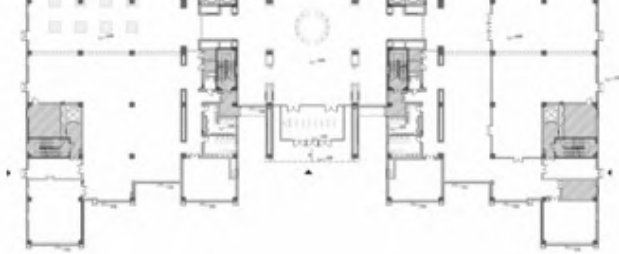


BoConcept
Coffee Table - Madrid

Project gallery



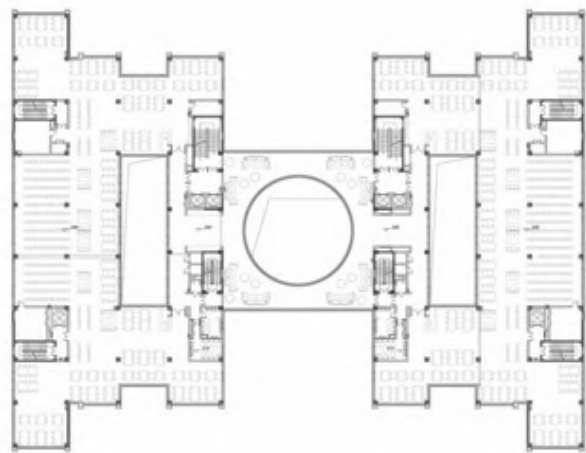




LOT 10



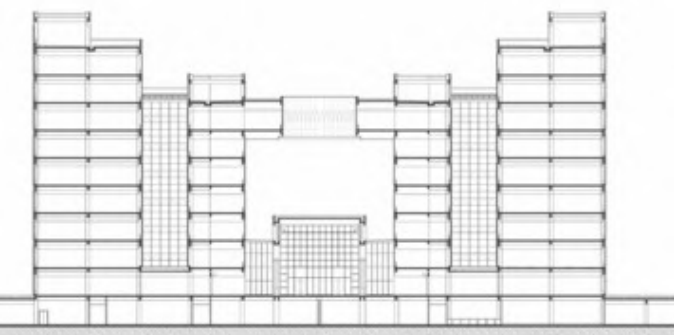
LOT 10



LOT 10

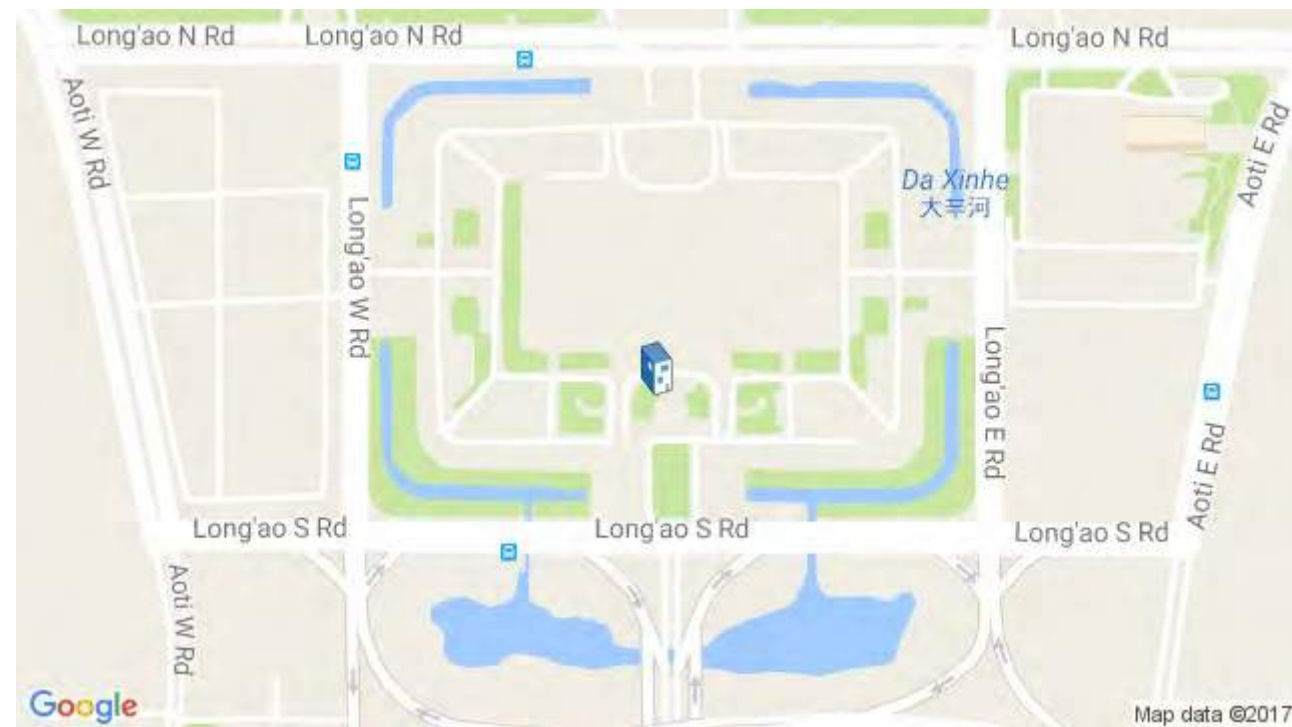


LOT 10





Address: Jinan, Shandong, China



Location to be used only as a reference. It could indicate city/country but not exact address.

Hebei University Library Winning Proposal / Damian Donze (Tongji Architectural Design and Research Institute)



Written by **Alison Furuto**

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With an area of 48,636m², the site of the Hebei University Library is located in the center of the new Beicheng Campus. This competition winning proposal by **Damian Donze**, of the Tongji Architectural Design and Research Institute, is clearly divided. The base of the building is designated for some offices, an archive, a network center, a convention center and an exhibitions center. This way, the West entrance is reserved for the offices and the the network center while the East entrance is reserved for the convention center and the exhibition center. More images and architect's description after the break.



Having taken care of the secondary functions inside the base, we were able to keep the library itself pure and clean inside the main, central part of the building. There are two entrances to the library: One from the North, on the ground floor, and one from the South on the second floor. The South entrance was put on the second floor to leave base undisturbed. Additionally, did we emphasize the staircase by extending it all the way to the East entrance. Together with the sloped roof of the base, this creates a smooth transition from the site to the building. The site's design extends the buildings functions into becoming a place where people can stay and take a break from the stress of their studies.



Site and Surrounding

The South of the campus is designated to teaching buildings while the North and West are designated for living and sport buildings. The standard height of the other campus buildings is 24 meters, and most buildings are kept in gray or white tones. However, the buildings in the North are clad in bricks and, somehow, try to imitated the old campus. In the center, separating the functions, is a green belt which includes a park and the location of the new library. The library is surrounded by water that starts from the park in the West and runs all the way to the East gate. This gives it some distance from the teaching buildings and gives us the opportunity to create a nice landscape.



The site is located right at the intersection of the 3 main axes which places the building in the middle of the view from each gate. This puts the library in a privileged situation and makes it easily accessible from the whole campus.



Building Borders

Both, the building outline in the North and the building outline in the South, are perpendicular to their axis. The building is off-setted 50m from the waterfront and 45m from the street in the North. Similarly, the East/West outline is derived from the site and runs, mostly, parallel to the site border. We tried to control the width of the building so that it would be fully visible from two important viewpoints. One point was the North gate and the second point was the square in the South, between the teaching buildings.



People Flow

1. The main student flow comes either from the teaching area in the South across the pond and up the monumental stair to enter on the second floor, or from the dorms in the North to enter on the ground floor. Either way they will be received with a reception from where they can continue into the main library.

2. The West entrance is designated for the staff of the library offices, the network center and the archives.



3. The East entrance is reserved for the convention and exhibition center and is located as close to the East gate as possible to improve the accessibility of external visitors.

4. The underground car entrance is located on the North side and provides access to a garage with 99 parking spaces.

5. By utilizing the, otherwise difficult to use, space under the sloped roof, we managed to create space for 800 bicycles.

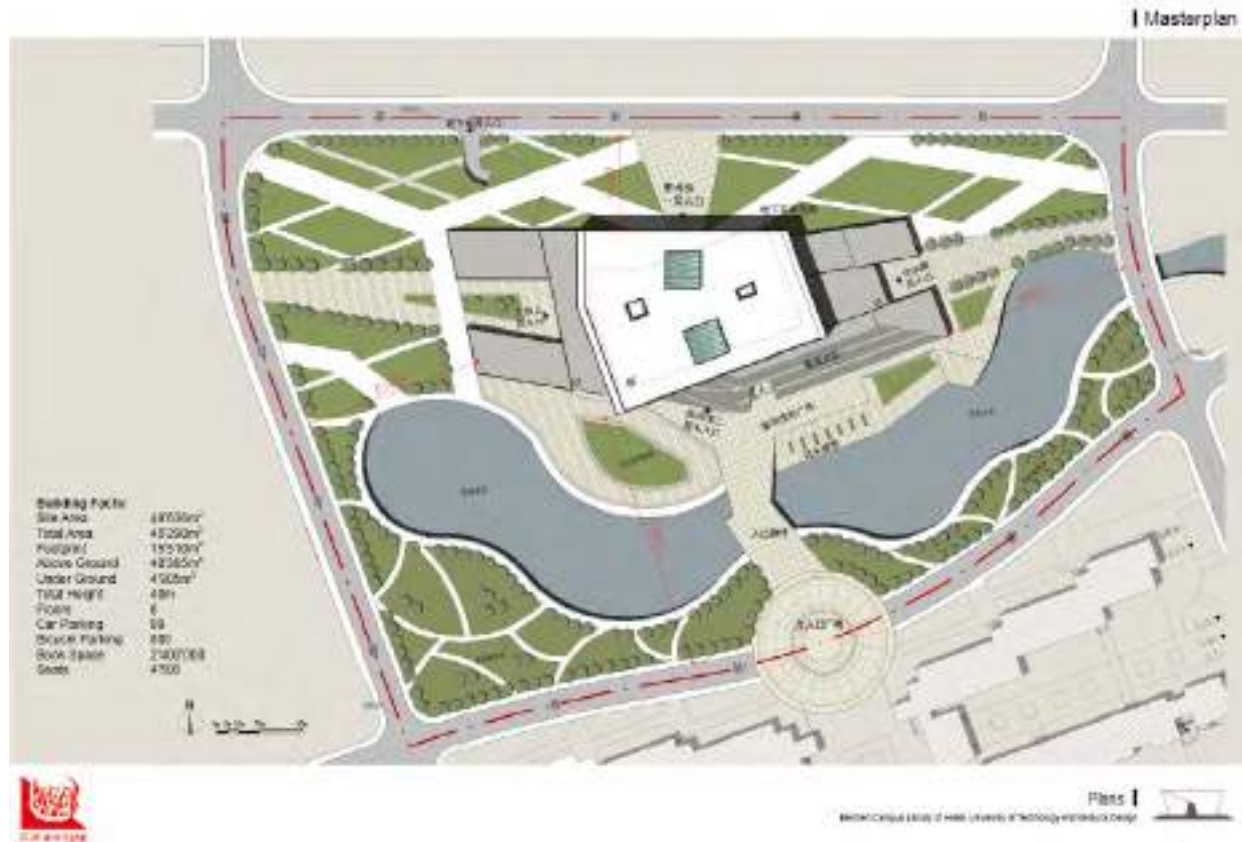


Function Layout

The functions of the library have been separated into 3 main parts to improve circulation and guarantee ease of access. This reduces the main flow hitting the main South and North entrances. The main building with 30'000m² is reserved for the library while the large first floor, with around 10'000m² holds the secondary functions and is divided up into East and West.

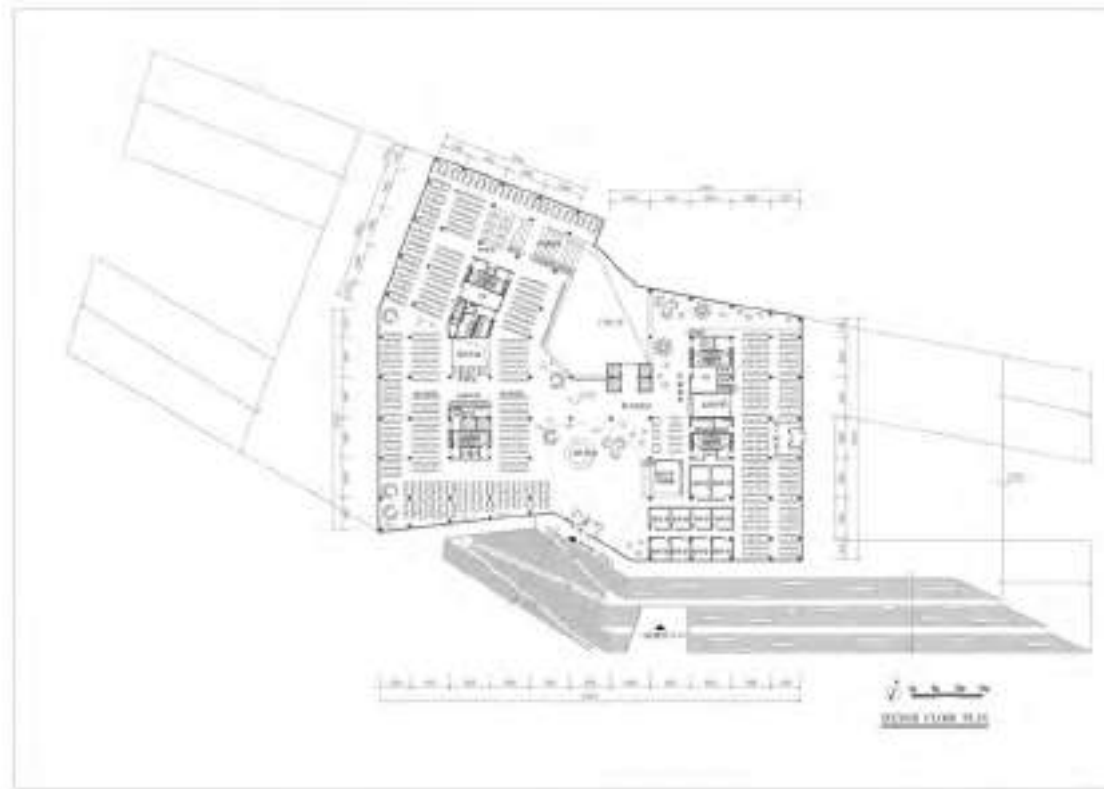


The library offices are located on the South-West side of the base and reaches all the way to the library reception and the book check in/out area. The short distance improves the book processing time. The convention center, containing an auditorium (500 people), lecture hall (200 people) and a conference hall (100 people) is located on the East side close to the East gate to ensure good accessibility.



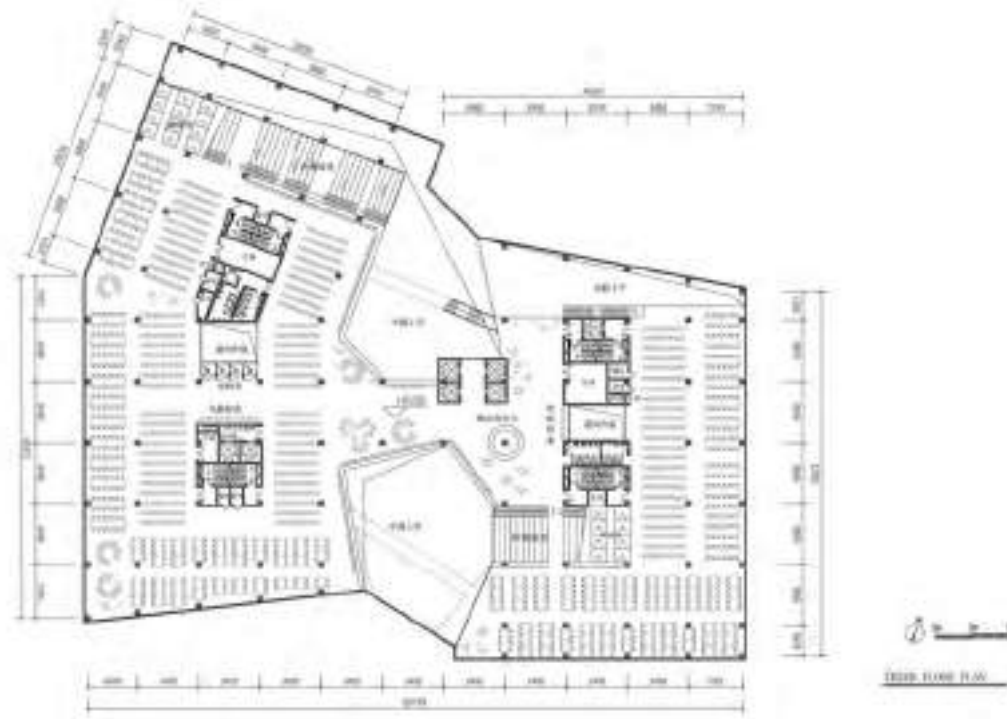
Library Functions

The library, besides providing functions like an E-reading area, a periodical reading area and a leisure reading area, also contains a variety of study areas. We focused on creating study spaces with a lot of natural lighting. We, therefore, arranged them inside and around the two large atria as well as along the facade. To further improve the quality of the reading spaces along the facade, we created many "Loft" spaces where the ceiling was set back from the facade to generate double/triple height space. This not only adds more natural light for the reading area, but also moves the stacks further away from the natural light which is desirable considering the damaging effect of direct sunlight on books.



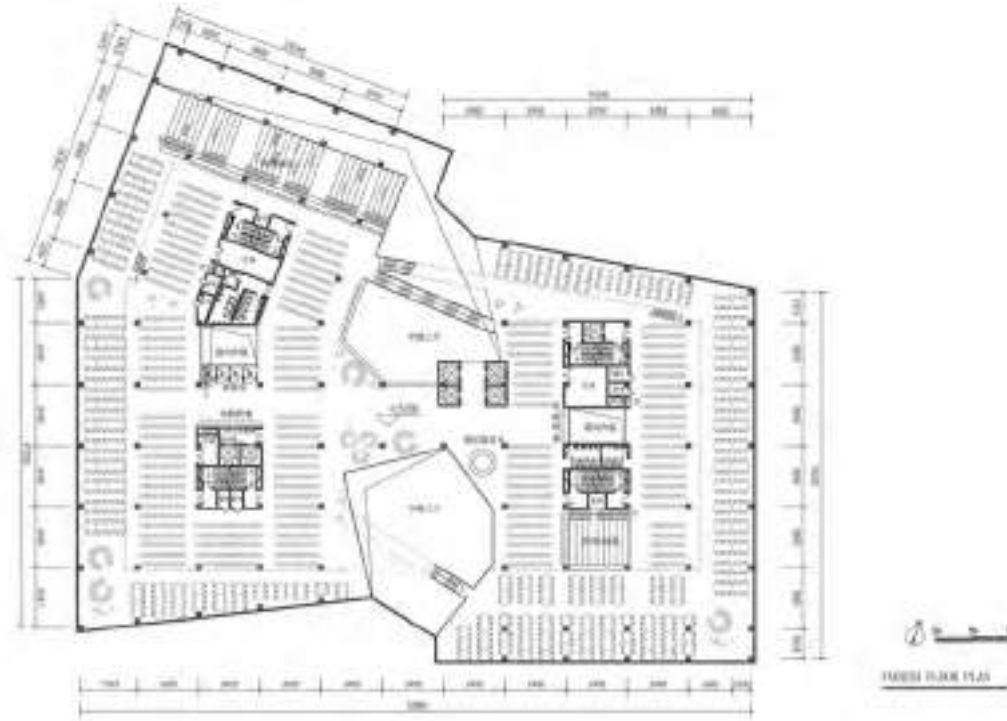
Structure

The basic structure is made of concrete column and beam structure connected with the shear walls of the cores. However, we made use of a steel truss to span the two overhangs in the North and the South.



Natural Lighting & Ventilation

The lower atria (floors 2-5) obtain their light through the structural glazing facade while the upper atria (floors 6-8) each have an additional skylight to provide a comfortable reading environment. Most of the facade, however, is using standard windows to ensure energy efficiency as well as to control the direct sunlight that enters into the building.

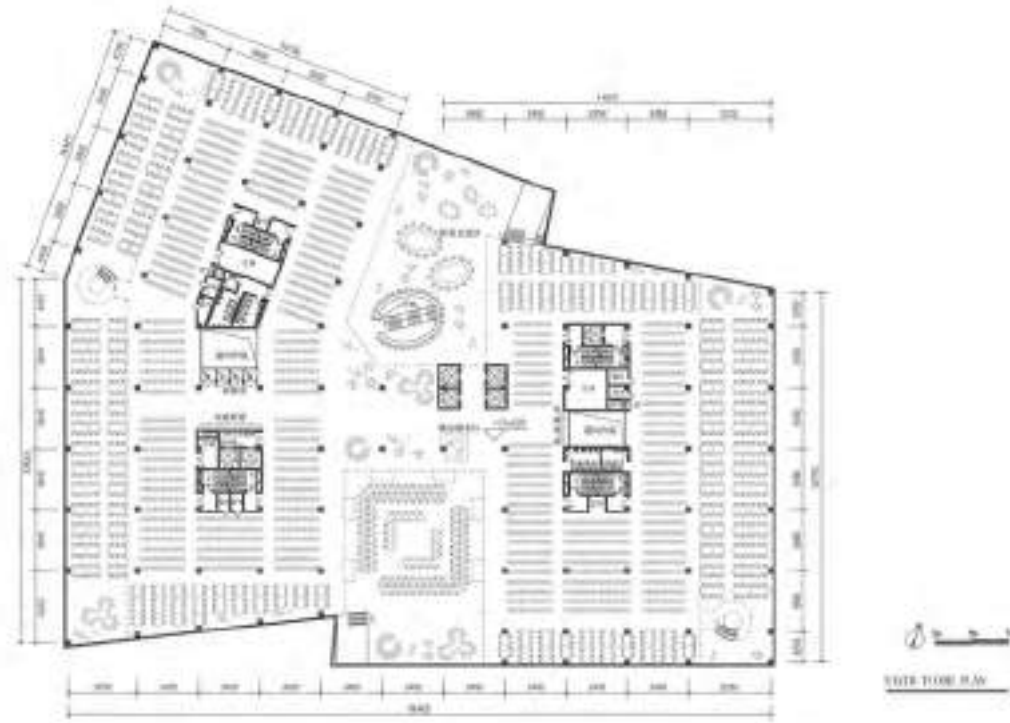


Besides the natural ventilation provided by the facade, we added two shafts on the East side and the West side to provide fresh air for the toilettes and the fresh air rooms. The building is horizontally divided between the 5th and the 6th floor. The client wants to use the lower part first while opening up the upper part later on. By thermally dividing the building, we answered to that request and made sure that the lower part can be heated/cooled independently from the upper part during the first phase.



Circulation

Having taken care of the necessary fire evacuation cores in an efficient way, we were able to play with the public circulation. Most important are the 4 elevators in the center that provide fast access to (being in the center) to every part of the building and create a strong "backspine" of our circulation system. However, elevators require waiting time and use energy, so we developed an intricate system of public stairs to reduce the traffic for the elevators.

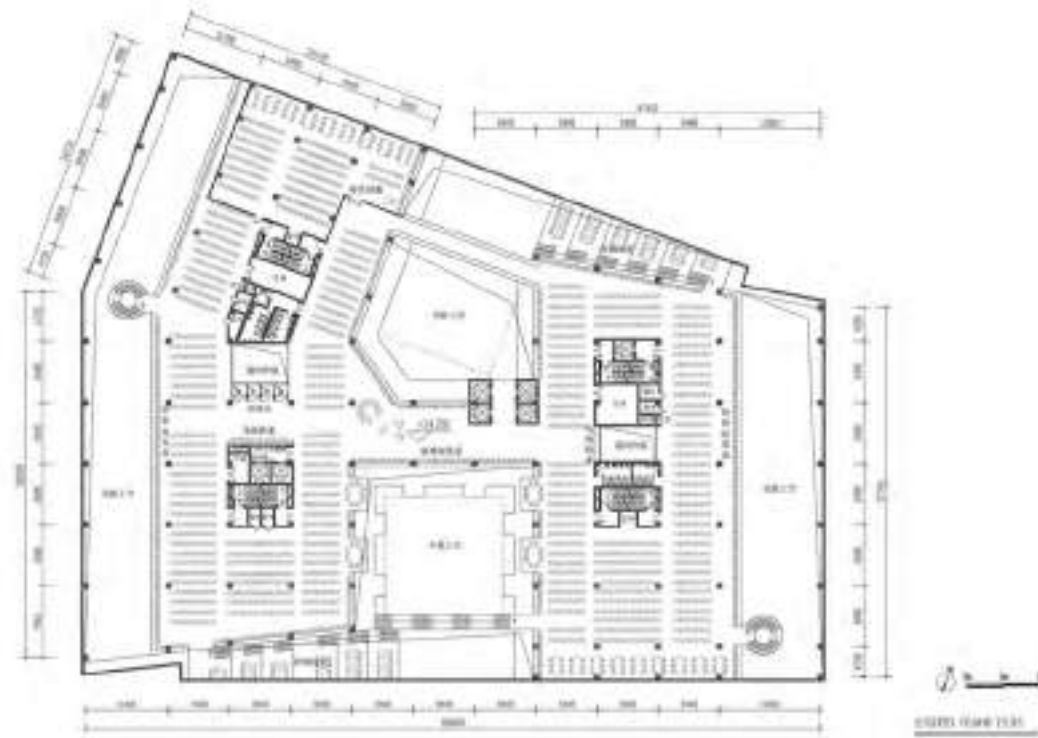


Facade

Looking at the facade of the building, one may easily be reminded of ying and yang. These principles were, in fact, part of our influence. The buildings in the North of the library are made up of a lot of brick and, somewhat, try to imitate the style of the old campus. Hence, we decided to use a similar earthy material, terracotta.



The buildings in the South of the library use simple and plain colors. We tried to develop a fitting language for the main South facade to create a smooth transition. Our choice fell on a pale natural stone that can create a similar image as the other buildings, yet is of higher quality.



With the twisting motion of the two types of the facade we were able to take up the two styles and connect the North with the South/old and new. We also took the interior into consideration, however, which is why the facade has a higher percentage of openings on the lower floors while it closes up towards the top. This action, once again, give more natural light where it is needed (study area) while it protects the books in the compact stacks on the upper floors.

Architect: **Damian Donze (Tongji Architectural Design and Research Institute)**

Location: **Tianjing, China**

Project: **Beichen Campus Library of Hebei University of Science and Technology**

Design Team: **Wensheng Wang, Damian Donze, Wang Shuyi, Zhang Xü**

Site Area: **48,636m²**

Total Area: **45,290m²**

Total Height: **40m**

Floors: **8**

Car Parking: **99**

Bicycle Parking: **800**

Book Space: **2,400,000**

Seats: **4500**

Recommended Products



TECU®

Copper Surface - Classic Coated



EGGER
Laminates



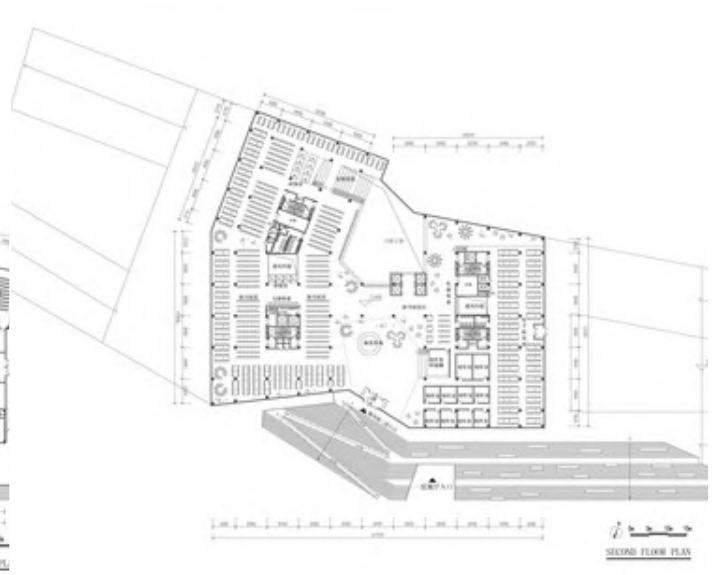
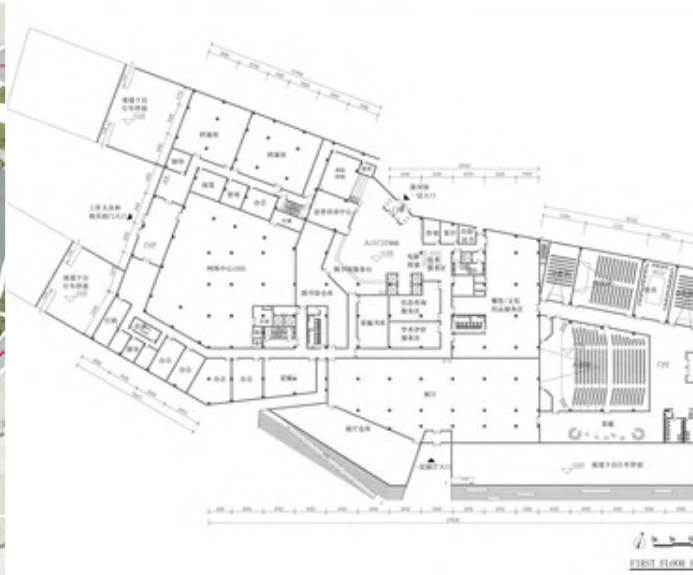
Kebony
Cladding - Shiplap Boards - Kebony Clear RAP

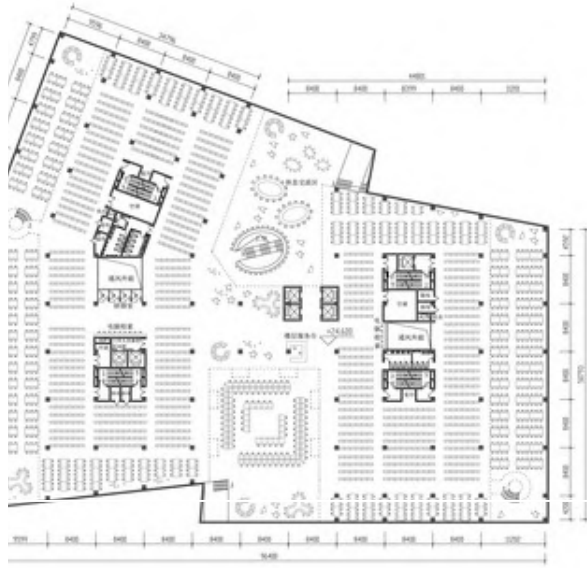


PARKLEX PRODEMA
Exterior Wood Cladding - NATURCLAD - W

Project gallery





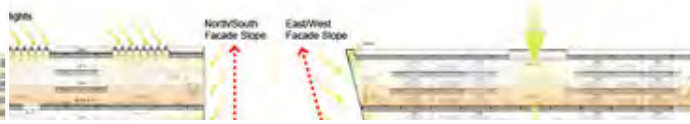




South Facade



Courtyard Chimney Effect



lights

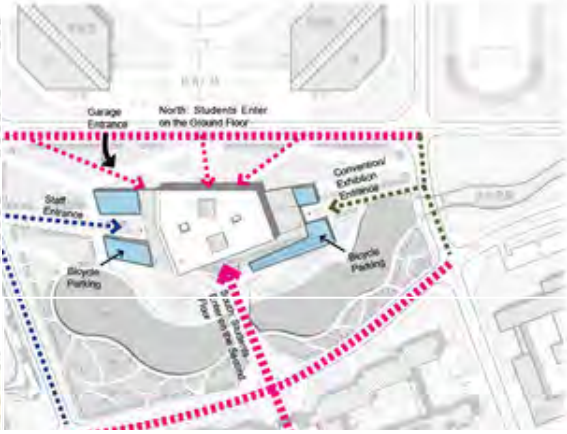
North/South Facade Slope

East/West Facade Slope

Natural Ventilation
Besides the natural vents we added two shafts on side to provide fresh air to rooms.

Natural Lighting
The lower area (rooms 2-5) structural glazing facade (6-8) each have an additional comfortable reading environment, however, it is using standard efficiency as well as to enter into the building.

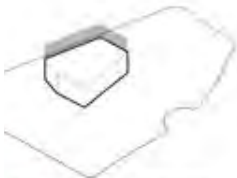
Building Partition
The building is horizontal and the 6th floor. The part first while opening by thermally dividing the that request and made be heated/cooled independently during the first phase.



Traffic Flow

1. The main student flow teaching area in the South monumental stair to enter the domes in the North to either way they will be where they can continue it.
2. The West entrance is for library offices, the network.
3. The East entrance is new exhibition center and is it gate as possible to improve visitors.
4. The underground car North side and provides parking spaces.
5. By utilizing the, other under the sloped roof, we 800 bicycles.

Students



Exclude the resulting shape from the analysis



STEP 2 Tilt the East/West facades in, to create self-shading and to add a monumental, landscape atmosphere.



Trace in the North and the South to create an entrance situation.



STEP 4 Add back to fold in all the secondary functions and to integrate the building into the landscape.



ing outline in the North and the building outline are perpendicular to their axis. The building is 11m from the waterfront and 45m from the street



Building Width

We tried to keep the width of the building so that it would be fully visible from two important viewpoints. One point was the North gate, and the second point was the square in the South.



Building Outline

Similarly to the North/South outline, is derived from the site and form, no containing an auditorium (500 seats), a lecture hall (200 seats) and a conference room on the East side, close to the East gate to ensure good accessibility from outside.



ary have been separated into 3 main paths to improve circulation and guarantee the main flow filling the main South and North entrances.
107000m² is reserved for the library while the large first floor, with around 127000m², contains and is divided up into East and West.
located on the South-West side of the base and reaches all the way to the library check-in/out area. The short distance improves the book processing time.

Library Functions

Secondary Functions

LAYOUT & I

Shanghai Campus Library of Hebei University of Technology, China

LAYOUT & I

Shanghai Campus Library of Hebei University of Technology, China

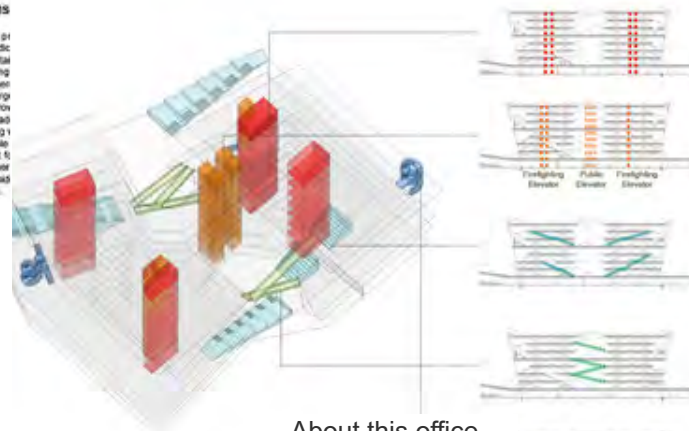
FUNCTION AND CIRCULATION

Shanghai Campus Library of Hebei University of Technology, China



Library Functions

The library, besides of E-reading area, a periodic reading area, also contain We focused on creating natural lighting. We, then and around the two large facade. To further improve spaces along the facade where the ceiling is to generate double/triple adds more natural light. It moves the stacks further which is desirable comes direct sunlight on books.



About this office



Damian Donze
Office

#TAGS

Projects Unbuilt Project Cultural Architecture Library Educational Architecture Hebei Tianjing Tongji Architectural Design And

Published on April 17, 2013

شكرا لحسن الاصفاء

