2010 On Site Review Report

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by Michele Lamprakos

American University Campus

Beirut, Lebanon

Architect
Sasaki Associates, Machado & Silvetti Associates

Client
American University of Beirut

Design
2001 - 2002

Completed
2007 - ongoing

American University Campus
Beirut, Lebanon

I. Introduction

The American University of Beirut (AUB) was founded in 1866 by American missionary Dr. Daniel Bliss.[1] It is comprised of two main campuses on 73 acres of land containing academic and administrative facilities, faculty and top administration residences, student dormitories, service facilities, a power plant, and a medical campus.[2] It is an 'urban campus' located on a hill overlooking the Mediterranean Sea with a difference of approximately 30 metres between the upper and lower ends in Ras Beirut area. Due to the topographic conditions of the site, the campus is composed of 3 linear campuses with the middle campus containing a distinctive collection of trees and plants of local and foreign origins planted over the past 150 years by university administration, faculty members, visitors, and alumni. This collection of trees is a very distinctive feature of the AUB campus not found in any other place in Beirut. The campus contains a very rich ensemble of buildings that represent different eras and stages of architectural development covering three centuries: end of 19th, 20th and early 21st centuries.

A. The AUB Campus Master Plan Project

In May 2002, a master plan was completed to guide the physical development of AUB during the next 20 years. The master plan addressed matching the campus conditions with the future needs of the campus community in an inspiring plan to guide this world-class institution into the future and help advance its academic mission. It provided architectural, landscape, and urban design guidelines for development in several areas: a new school of business, a sports centre, and an expanded medical campus. It also included improvements to the campus infrastructure and landscape, as well as proposing new facilities such as classroom buildings and parking structures. The plan seeks to enhance the lush environment and the dramatic views towards the water from the steep hillside site. The AUB Master Plan, in which the buildings and landscape reinforce one another, produced a campus of exceptional quality. It builds upon the character and beauty of the Middle Campus, considered the 'heart' of AUB, which is the green and wooded area dividing the Upper and Lower Campuses. A central feature of the plan is to develop and enhance existing and new campus districts and quadrangles such as those that exist around the Green Oval, the science cluster on the western lower campus, the engineering and architecture complex. The plan envisages an exciting integration of the main campus with the Medical Campus.

B. Place, People, Plan, Product, and Process

The master plan's successes are illustrated in the subtle use of unique topographic conditions and urban situations of the campus. Situated in high density urban context, the campus is a focal point for its adjacent community and the city. The landscape setting of the AUB campus is one of the most memorable and renowned aspects of the campus. The planner was sensitive enough not to disrupt this natural beauty and work to enhance and sustain it. Successful urban design

intervention into a very rich campus layout were also introduced through lamination of vehicular and automobile presence on campus and transforming it into pedestrian only campus. Preserving historical buildings and careful planning interventions were other means achieving the master plan's objectives. The most successful element in this project was the 'process' of generating the master plan for this vast and complex facility that contains tens of buildings and involves hundreds of end users and beneficiaries. This process of 'civic engagement' is an exemplary process for other large and complex facilities to follow. While it is always considered easier for large institutions to rely on a handful of people to perform centralised decision making processes, the result is always unsuccessful and disliked by almost all end users. The process of involving all end users in the decision making is usually recognised in small scale projects. The AUB Master Plan project exemplifies a successful engagement of a large number of different end users, communities and representatives that should be followed by other large scale projects.

II. Contextual Information

A. Historical Background

The American University of Beirut (AUB) was founded in 1866 as the Syrian Protestant College by American missionary Dr. Daniel Bliss. The name was changed to the American University of Beirut on November 18, 1920. It is currently a private, independent, non-sectarian institution of higher learning, functioning under a charter from the State of New York. AUB has grown from 16 students in a rented house to a major university with over 7,572 students located on a 73 acre (approximately 24 hectares or 240,000m²) campus overlooking the Mediterranean Sea. Although AUB's student body is primarily Lebanese, almost one-fifth of its students attended secondary school or university outside of Lebanon before coming to AUB.

The University is governed by an autonomous board of trustees comprised of international leaders in business, education, diplomacy, engineering, philanthropy, science, and medicine. On March 21, 2008, the board of trustees selected Peter Dorman to be AUB's 15th president. He succeeded Dr. John Waterbury who was president of AUB from 1998 to 2008. The vision of AUB was expressed by its first presidents, Dr. Daniel Bliss, at the cornerstone-laying of the first College Hall buildings on November 28, 1871:

'This college is for all conditions and classes of men without regard to color, nationality, race or religion. A man white, black, or yellow; Christian, Jew, Mohammadan or heathen, may enter and enjoy all the advantages of this institution for three, four or eight years, and go out believing in one God, in many gods, or in no God. But it will be impossible for anyone to continue with us long without knowing what we believe to be the truth and our reasons for that belief.'

The AUB is a world renowned university that provides a rigorous curriculum in the American liberal arts tradition and the language of instruction is English. It has 606 full-time instructional faculty and 7,572 (2008-09) students of whom 6,221 are undergraduates and 1,351 postgraduates. The University stresses high academic standards and is committed to the ideals of critical

thinking, open debate, and diversity. AUB is a coeducational institution that is open to all qualified students without regards to race, religion, economic status, or political affiliation. The university places a high premium on developing a student's appreciation of, and responsibility to, his or her society and culture. In 2007, AUB re-introduced PhD programs in Arab and Middle Eastern History, Arabic Language and Literature, Cell and Molecular Biology, Civil Engineering, Electrical and Computer Engineering, Environmental and Water Resources Engineering, Mechanical Engineering and Theoretical Physics.

B. Local Architectural Character

The AUB campus contains a very rich ensemble of more than 80 buildings that represent different eras and stages of architectural development covering three centuries from the end of the 19th century to the beginning of the 21st. Several historical buildings that date back to the early years of the institution (initiated in 1866) were supervised by the visionary founder Dr. Bliss. This collection of buildings was described by Professor Hwyada Al Harthi, chair of the Department of Architecture, as representative of the 'layers of history' in AUB's development. Historical buildings located on the upper campus dating back to the end of the 19th century are made of stone, wood and other local materials. They have been renovated and reused for modern purposes such as museums, administrative and assembly halls. Only one building, College Hall, was destroyed by a bomb attack in 1991 and was reconstructed according to its original 'exterior' appearance after the war. The three campuses contain buildings representing modern architecture of the 20th century but many of them are being demolished and replaced by newer buildings.

C. Climatic Conditions

Lebanon, or the land of the sun, enjoys more than 300 sunny days per year and is almost rain-free from June till late October. Mediterranean climate prevails over Lebanon, resulting in mild temperatures, short rainy winter days and warm summers. Beirut has a subtropical climate that is cool and temperate in winter and hot and humid in summer. In January, the coolest month, the average afternoon maximum temperature is 62°F (17°C), and the nighttime low is 51°F (11°C). Comparable maximum and minimum temperatures in July are 87 and 73°F (31 and 23°C). The rainy season extends from mid-autumn to early spring, and the average annual rainfall is 36 inches (914 mm).

D. Site and Surroundings

The AUB Campus is an 'urban campus' located in Ras Beirut, one of the most popular neighbourhoods in Beirut that contains the famous commercial and residential area of Al Hamraa. It is close to Beirut's landmark rocky formation of Al Rocha. The campus is located on a hill overlooking the Mediterranean Sea; it has the Corniche street on one side and borders Bliss Street (named after the first AUB president Dr. Daniel Bliss) on the other. It is lined by residential buildings overlooking the campus with restaurants and shops in the ground level that benefit from their proximity to the AUB campus.

E. Topography of the Project Site

The campus is located on a hill overlooking the Mediterranean Sea. The difference between the upper and lower campus is approximately 30 metres. Due to the topographic conditions of the site, the campus is composed of 3 linear areas. The middle campus contains a distinctive collection of trees and plants of local and foreign origins planted over the past 150 years by university administration, faculty members, visitors, and alumni. This collection of trees is a very distinctive feature of the AUB campus, not found in any other place in Beirut.

III. Programme

A. History of the Inception of the Project

In his brief summary sent to AUB's Board of Trustees in 2002, President John Waterbury stated that:

'Like all of Lebanon, AUB suffered physically and morally from the fifteen years of civil war that wracked the country from 1976 to 1990. At a time when the University's physical infrastructure urgently needed renewal and new additions, the administration, staff and faculty fought valiantly merely to survive, year by year and sometimes day by day. By the time I became president in January 1998 it was clear that the time had come to look forward, not merely to repair the damage but to plan strategically for the future'.

The Campus Master Plan for the American University of Beirut defines a vision for the physical development of its site in Ras Beirut. The implementation of this vision was planned to include three phases potentially spanning twenty years. The master plan was created over a period of seventeen months using a process consisting of the following phases:

1. Inventory, assessment and program
2. Alternative master plan concepts
3. The preliminary master plan
4. The final master plan

The master plan addresses matching the existing condition of the campus with the needs of the AUB community in an inspiring plan that will guide this world-class institution into the future. It is designed to forward AUB's academic mission. The plan enhances the heritage, traditional values, and unique landscape setting of the AUB campus and mission, while incorporating innovative options for development over the next twenty years.

The following are the key recommendations contained in the master plan:

- Provide appropriately sized, state-of-the-art facilities by renovating 120,000 square metres of existing buildings.

- Preserve the function of the Upper Campus as the historic centre of the campus by developing a new University Overlook and creating a pedestrian promenade.
- Embrace the Medical Centre as part of Upper Campus through site improvements and building renovation. Continue to renovate and develop the Medical Centre to ensure that it remains a leader in the delivery of medical care.
- Ensure the quality of the Middle Campus through active landscape management, amplifying its importance on the campus with an active improvement program.
- Transform the Lower Campus with the construction of the Hostler Centre and the Business School, totalling 30,100 square metres, and include site improvements of plazas and pedestrian promenades, creating multiple well-connected, distinct centres.
- Create pedestrian links among the academic, administrative, student quality of life and support facilities by locating parking on the perimeter and building well designed pedestrian links.

B. Choice of Planners, Architects and Specialists

Architects and planners were selected through an invited RFP international competition. In 2000 in a highly competitive bidding process that saw Sasaki Associates win the project. The selection of Sasaki Associates was an excellent choice because of their view that every project be put in its cultural, historical, geographical, environmental, social, and economic context – an approach that is even more important today than it was when Sasaki first developed it.

C. General Programme Objectives

The Master Plan highlighted AUB objectives that include:

- *Excellence in Education:* To provide an excellent liberal arts and professional education for students from the Middle East and the world.
- *High Quality Research:* To promote a high-quality faculty and student research environment, with centres of excellence in areas of comparative advantage and regional and international need.
- *Leadership and Integrity:* To foster within the university community the values of strong leadership, intellectual curiosity, ethical behaviour, mutual cooperation, civic responsibility, and social tolerance.
- *Commitment to Service:* To offer high-quality medical training, healthcare, and education to Lebanon, the Middle East, and the world.
- *Continual Quality Improvement:* To develop within the institution efficient, effective, service-oriented and continually improving administrative processes.

D. Functional Requirements

Sasaki visited the campus and as a result of several meetings with the Steering Committee for the Campus Master Plan they proposed the following Scope of Work. Each phase had a defined work

product completed so that each phase can be reviewed and refined before advancing to the next phase.

Phase One:	Definition of scope, inventory, assessment and program
Phase Two:	Alternative master plan concepts
Phase Three:	The preliminary master plan
Phase Four:	Final master plan
Additional services	

IV. Description

A. Project Data

The Master Plan called for maintaining the historic heritage of the upper campus, joined with a rehabilitated Medical Centre campus; the transformation of the currently eclectic lower campus; and the enhancement and nurture of the middle campus, the unique vegetation-covered lime-stone escarpment separating the upper and lower campuses. Pedestrians were to replace automobiles almost everywhere, and roadways gave way to pedestrian promenades, plazas, and new green spaces designed to link the three campuses and maintain the unique position of AUB, lodged between the city of Beirut and the Mediterranean Sea. Special attention was given to view corridors sweeping down from upper campus to the sea and the mountains beyond. Renovation and rehabilitation were largely invisible, as old buildings were transformed into 21st century structures and work moved forward on the rehabilitation and modernisation of all existing facilities, from buildings to infrastructure, including water, sewage disposal, power, communications, and IT. Following in the footsteps of the modernisation of West Hall, the plan envisaged the renovation of almost all the major buildings on campus (Fisk, Nicely, Jesup, Ada Dodge, the old Pharmacy and Old Out Patient Department) in three stages spread over the 20-year period. Major new construction included the Charles Hostler Centre for sports and activities and the new Business School building on Lower Campus, new dormitories, academic buildings, libraries (with major emphasis on additional study space), storage space, and peripheral and underground parking.

Dennis Pieprz, Principal Sasaki Associates commented:

‘The landscape and three dimensional quality of the site is probably one of the most memorable aspects of AUB. The master plan strategy focused on reinforcing these important aspects and offered ideas and guidelines to improve and enhance the landscape setting of the campus. Strong east-west movement systems were defined in terms of an 'Upper Promenade' and a 'Lower Promenade'. north-south connections in the form of beautiful staircases winding their way up and down the verdant landscape were enhanced and extended to improve connectivity. New buildings were identified through the comprehensive space programming effort and an approach of strategic in-fill was developed. The idea was to enhance the overall campus and evolve the future campus in a sensitive and phased manner. While the historic 'Upper Campus' was carefully preserved, the

'Lower Campus' underwent the most significant transformation. For the lower campus, new academic facilities and residential buildings were proposed. The civic structure of the campus was improved and articulated. At the heart of the lower campus is the multipurpose sports-field and the new sports and recreation centre. This complex, at the western edge of the field, is a critical new social focus for the University. Together with the new business school on the eastern edge, a new face to the university is presented to the city, the corniche and the Mediterranean Sea.'

Current AUB president, Prof. Peter Dorman noted the achievements and success of AUB Master Plan in his statement:

'The AUB Master Plan has been developed with a keen sense of the unique topographical situation of our university within the urban environment of Beirut and its historic role in serving as a beacon for responsible citizenship. There are two guiding essentials that have been embraced as we plan and build for the future. First, as the campus remains the only sizable green space within the city, the Plan formally governs new construction according to inviolable massing regulations, so as not to deviate from the historic low-level profile of the campus and of historic Beirut; pursues LEEDS guidelines and certification in new buildings; and prohibits intrusion into the forest-like middle campus, preserving it as a sanctuary for indigenous plants and both native and migratory birds. Second, a complementary effort is the advocacy of social responsibility, which forms an essential part of education at AUB: active civic engagement, through seeking to form partnerships with our immediate neighbourhood to revitalize what was once a vibrant and diverse intellectual urban space; yielding back small portions of our land for public use and enjoyment; and developing a campaign to create Lebanon's first permanent non-smoking ban, within our campus walls. If a university education produces tomorrow's leaders, we believe that the best way to achieve this goals is through example - to show what is possible, through the academic, environmental, and social realms.'

Charles Hostler Student Centre

The 'green complex' named the Charles Hostler Student Centre is listed on the American Institute of Architects Top Ten Green Projects list for the year 2009. FPDU launched the Charles Hostler Student Centre and Corniche Frontage International Design Competition. Design competition brief summarising project requirements was produced. Twenty international and local firms responded to the request for qualifications posted on the university web site.[3] Four international and two local short listed firms presented their projects on October 3 and 4, 2002 in College Hall.[4] Projects were evaluated by an international jury composed of planners, architects, architecture critics, landscape architects and experts in sustainable design. Projects were evaluated by an international jury headed by John Waterbury, AUB President.[5]

The competition was won by Vincent James Architecture Associates (VJAA) Company of Minneapolis Minn., USA. The winning concept is of six adjacent buildings separated by exterior gathering spaces, weaving through the lower campus, accessible planted roofs continuing the middle campus and sustainable building designed according to prevailing wind conditions, sun orientation, and energy/water conservation measures. The theme of the design is 'Clusters and

Paths', described here by VJAA: 'The program is organised as a cluster of interior and exterior spaces instead of as a single building. The building form redistributes air, activity, and shade'.

The complex contains a number of cultural and recreational facilities including a green track field, amphitheatre and auditorium, gymnasium and fitness room, indoor swimming pool, tennis and squash courts, and student union area for students to meet between or after classes. The student meeting area includes a spacious cafeteria. What is unique about the 20,400m² facility is that the electricity needed to power the complex is being furnished mainly by solar panels for generating electricity. The centre also has a special air chilling system that was installed to assure that the campus facility will be able to be adequately cooled. These systems are particularly important due to problems with the country's national electricity grid (another victim of the 2006 war), causing frequent blackouts in the capital. In order to insure sustainability, the facility also has its own supply of fresh water, which includes special collectors for collecting rain water during the winter months. The design of the facility, which indigenous landscaping that requires less water, was honoured for being able to combine contemporary modern technologies with a Mediterranean styling that is in harmony with the surrounding environment.

Main Sustainable Initiatives include: roof integrated solar collectors for hot water and swimming pool heating; building slab integrated heating/cooling system; volume distribution creating local microclimate; grey water collection and treatment; low potable water consumption; standby rain water collection system; reuse of swimming pool backwash water; high-efficiency chilled water generation plant using sea water wells for system cooling; conservation of energy through digital building management system; water-efficient landscaping; no use of high ozone depleting and global warming potential refrigerants as per Montreal Protocol (CFC refrigerants); low-emission glazing system for improved solar and lighting efficiency; insulated exterior walls and roofs for cooling/heating conservation; radiative and evaporative cooling by water walls; natural and wind forced ventilation; reduced heat-island effect by utilising underground parking, green roofs; vegetated landscape and appropriate pavement materials; interior daylight; and energy-efficient lighting fixtures.

The specially designed student centre is a welcome addition to the university campus. A student athlete commented, 'It has everything! The last three years were amazing after the building of the centre. It changing the students' life; life quality is increasing dramatically. It brought people together because students spend most of their time on campus'. Passages between buildings are used as spaces for interaction, and receptions and other festivities are organised there. Tournaments and events are being organised successfully in the centre.

Olayan School of Business

The School of Business was established in the year 2000 and started teaching in an old building in the year 2001. The new building location was part by the Master Plan. The project was designed by Machado and Silvetti Associates of Boston, USA, selected through an international invited competition that included 25 participants that were narrowed down to seven by the jury. As Professor Najjar, dean of the business school put it, 'we were very intimately involved in the

process from the very beginning. Community inclusion and warm relationship with the FPDU and the consultant were very significant aspects of the process'.

The Olayan School of Business was completed in 2009; its area is 135,000 square feet (12,542m²) in total; 65,000 square feet (6,039m²) above ground; and 70,000 square feet (6,503m²) of parking. The design was selected as the result of an international invited competition won by Machado and Silvetti Associates, Boston, Massachusetts, who were also involved in the master plan. As Machado said, 'I believe that having the deep knowledge of an institution and its culture, the understanding of a site and its peculiarities, and the immersion in a program and its intricacies that the master planning process gives you, puts one in a privileged position to design a better building'.

The design results from focused attention on its program, the production and the transmission of knowledge, the quality of its interior life, and the specific particularities of the school, its personality, and its people. The building includes, first, a large green oval carefully located on the axis of existing steps that will become a major access to the sea, connecting students from the Faculty of Engineering and Architecture, and beyond to the Corniche's elevated edge. Second, the design creates an L-shaped four-storey building with a traversable ground plane consisting of four enclosed pieces. These are grouped around the School's central space, a triangular open courtyard. Porous and transparent, this floor promotes collegiality, containing the school's lobby, auditorium, cafe and terrace, as well as student facilities, mailboxes, and related social programs. To clarify way-finding and the building's legibility, the undergraduate education facilities are located on the second floor, graduate education, the MBA program, on the third, and the Executive Education program on the fourth floor, which also contains the Dean's Office in its corner. The triangular courtyard joins these three levels, and each overlooks the space, enriching it with their different lives.

The image of the building is one of vernacular precedent and contemporary vision. The 'hanging' facade, made of pre-cast blocks replicates the warmth of the local Forni limestone present in the campus, while the openings of the screen-like skin recall the wooden mashrabiyya that are characteristic of the region. The facade is arranged in deliberate patterns that relate to the varying needs for light and view within the interior programs. The openings in the screen are tighter on the lower floors to provide shading for classrooms, and become larger towards the top of the building to capture views of the Mediterranean from faculty offices.

B. Evolution of Design Concepts

In his emailed statement on the AUB Master Plan project, Mr. Dennis Pieprz, Principal Sasaki Associates commented:

'The work was completed over about 15 months and the process was very rigorous indeed. Multi-day workshops on campus were key to the successful evolution of the plan. We met with the University administrative leaders, academic leaders, facilities and operational staff and most importantly, the students. Numerous Student Forums were held on campus and ideas were

discussed in a manner that clearly benefitted the planning process. The workshop process involved discussion of space programming analysis, site and physical analysis, relationship to context and civic structure of the campus. Multiple alternatives were explored before a powerful direction emerged for what is one of the most remarkable campuses in the world.'

The green middle campus is a very distinctive part of the AUB camps. As Dean Najjar put it, 'the green is who we are and what we are. We are very proud of our middle campus… the jungle. It is the only place in Beirut where you find this green. It is part of the culture of AUB'. The landscape architect Jihad indicated that the Master Plan Guidelines aim at preserving existing trees. Every plant above one metre in height is surveyed and its condition and maintenance is monitored using an information system. The master plan identified a list of plants appropriate for Lebanon and the Mediterranean area. He added, 'We are preserving what we have. For example, we transplanted 100 trees for the construction of Charles Hostler Centre. We are also applying sustainable measure for irrigation and selection of plants that require low maintenance. The green is the 'junction' that is uniting the upper and the lower campuses'.

V. Construction Schedule and Costs

A. History of Project Design and Implementation

In his brief summary sent to AUB's Board of Trustees in 2002, President John Waterbury stated:

'We all became convinced of the fundamental proposition put to us by Sasaki, to wit that a master plan does not tell you what buildings should be built or rehabbed or what they should look like in any detail. Rather the master plan should present a set of guidelines for the environmental requirements, the safety and code challenges, the aesthetics of the site with respect to landscape and view corridors, appropriate building materials and furnishings, appropriate lay outs for utility infrastructure, and so forth. The Plan is not a strait jacket but rather a set of enabling frameworks to help us move our physical plant forward. I will conclude with two important steps we took to "institutionalize" the plan. First, we created a new unit, reporting in 2002 to the VP for Administration, and now to the VP for Facilities. This unit we called the Facilities Planning and Design Unit, and its mandate was to make sure that master plan guidelines are followed in the design of all new projects. The second step was to charge the Buildings and Grounds Committee of the Board of Trustees with the ultimate responsibility to assure that the guidelines are not changed or violated without careful review and justification. I am appending my message to the Board of Trustees upon the formal adoption of the Master Plan, laying out these duties'.

The master planning process was a continuation of the academic review and planning process begun in 1998 by AUB President John Waterbury. The master plan started in 2001 and the final version of the plan took 18 months in the making. It started in November 1999 and ended in April 2002. Phase 1 from November 1999 to April 2001; Phase 2 from April 2001 to June 2001; and Phase 3 from July 2001 to February 2002; and finally Phase 4 ended April 2002. On May 11, 2002, AUB Vice President announced the formation of the Facilities Planning and Design Unit

(FPDU). The unit consisted of Samer Maamari, associate director of the physical plant as interim director; Souheir Mabsout, master plan project coordinator, as assistant director; and Mr. Marwan Ghandour, Professors Jala Makhzoumi and Howeida El-Harithy as the academic advisory committee. Souheir Mabsout said, 'FPDU was the mind of the Master Plan. The Master Plan planted the seed and the role of the unit was to nurture the seed. It is an exemplary case of successful coordination between consultant, end users and professionals'.

As John Waterbury put it:

'I think we must all be clear about the implications of adopting the Master Plan. I hope that you will approve this plan in the same spirit that you approve by laws for the University. The Master Plan is more than a compilation of many good ideas, more or less integrated. Rather, it should be a binding (although not strangling) framework that guides and constrains current and future generations of administrators and Trustees of the University. We have in the Plan to be an excellent decision-making tool that will guide and protect us in the future. It will orient our fund-raising efforts. It supports our academic mission, and it states, loud and clear, that AUB and its Trustees believe that the campus is one of our greatest assets in providing the kind of education that has always made AUB unique in the region. The Plan aims to protect and enhance this, our most precious legacy.'

B. Total Costs and Main Sources of Financing

The master plan is an ongoing project that spans 20 years, starting in 2002. Information regarding projects' cost and finances are not available. In general sources of finances are donations, endowments and university budget. It is difficult to give an overall cost estimate since this is an ongoing project that spans two decades and dozens of individual components.

VI. Technical Assessment

A. Functional Assessment

The AUB is a complex institution that contains educational, research, entertainment, sports, residential, medical and services facilities. The campus provides all these functions within a unique natural and built environment.

B. Ageing and Maintenance Problems

While early 20th century buildings are receiving much attention and renovation efforts, many of the middle 20th century buildings that represent an important layer of the history of the development of the campus are not receiving the same attention.

VII. Users

A. User Types

Users of the project include the AUB community of students, faculty members, staff, the families of AUB members, the adjacent community and the general public of Beirut.

B. Response to Project by Clients, Users and Community

The AUB campus is a unique place that embodies a *genius loci*. As Souheir Mabsout, the master plan coordinator notes, 'AUB is about modesty and being linked to nature'. Professionals admire the success of AUB in reaching the delicate balance between restoring historical buildings, preserving the unique green landscape, and new state-of-the-art buildings. While many argue that the 'place' itself embodies all the elements of success and that all the master planners have had to do is 'preserve' this natural gem, one could say that losing this gem of a campus would have been a real possibility had the master planners and client not been sensitive enough to preserve and nurture it.

In his emailed statement on the AUB Master Plan project, Mr. Dennis Pieprz, Principal Sasaki Associates commented that 'the master plan for the AUB is one of the most successful we have ever worked on. Many of the critical ideas are being implemented. With the new buildings and spaces evolving on the lower campus area, the campus is becoming well positioned to offer students, faculty and visitors a state of the art university environment that is both forward looking and rooted in the long history of the American University in Beirut'.

The most innovative aspect about the project is the 'process' of involving end users in the planning and design process. The process was a learning experience for the AUB community that allowed them to appreciate what they have, and to work to maintain and preserve it. As described by Prof. John Waterbury, former AUB president:

'The master plan process itself was very beneficial to the entire AUB community and our friends in the immediate neighbourhood. The Sasaki team lead a series of meetings with all major constituents to get their feedback and ideas on specific features of the master plan. This process was an educational experience for us all. From it some very important conclusions were drawn. Virtually all of the community emphasized the importance of protecting and enhancing the unique and rather wild "middle campus", that belt of green running the length of the campus along the steep slopes separating the upper from the lower campus. The community also endorsed the notion of a vehicle-free, pedestrian campus. Over a year the Sasaki consultants, led by Tony Mallows, interacted intensely with the senior leadership of the University to hammer out the final major elements in a plan that aspires to guide for some twenty years'.

VIII. Persons Involved

Client: AUB Community; AUB President between 1998 and 2008, Professor John Waterbury; Master Plan Steering Committee of AUB; Master Plan Project Manager, Architect Souheir Mabsout; Eng Samer Maamari

Planner/Architect: The master plan was developed by American consultancy firms Sasaki Associates and Machado and Silvetti Associates of Massachusetts.

Consultants: MGT of America of Olympia, Washington and Beirut's Dar Al-Handasah Consultants.

IX. Bibliography

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Yasser Mahgoub
April 2010

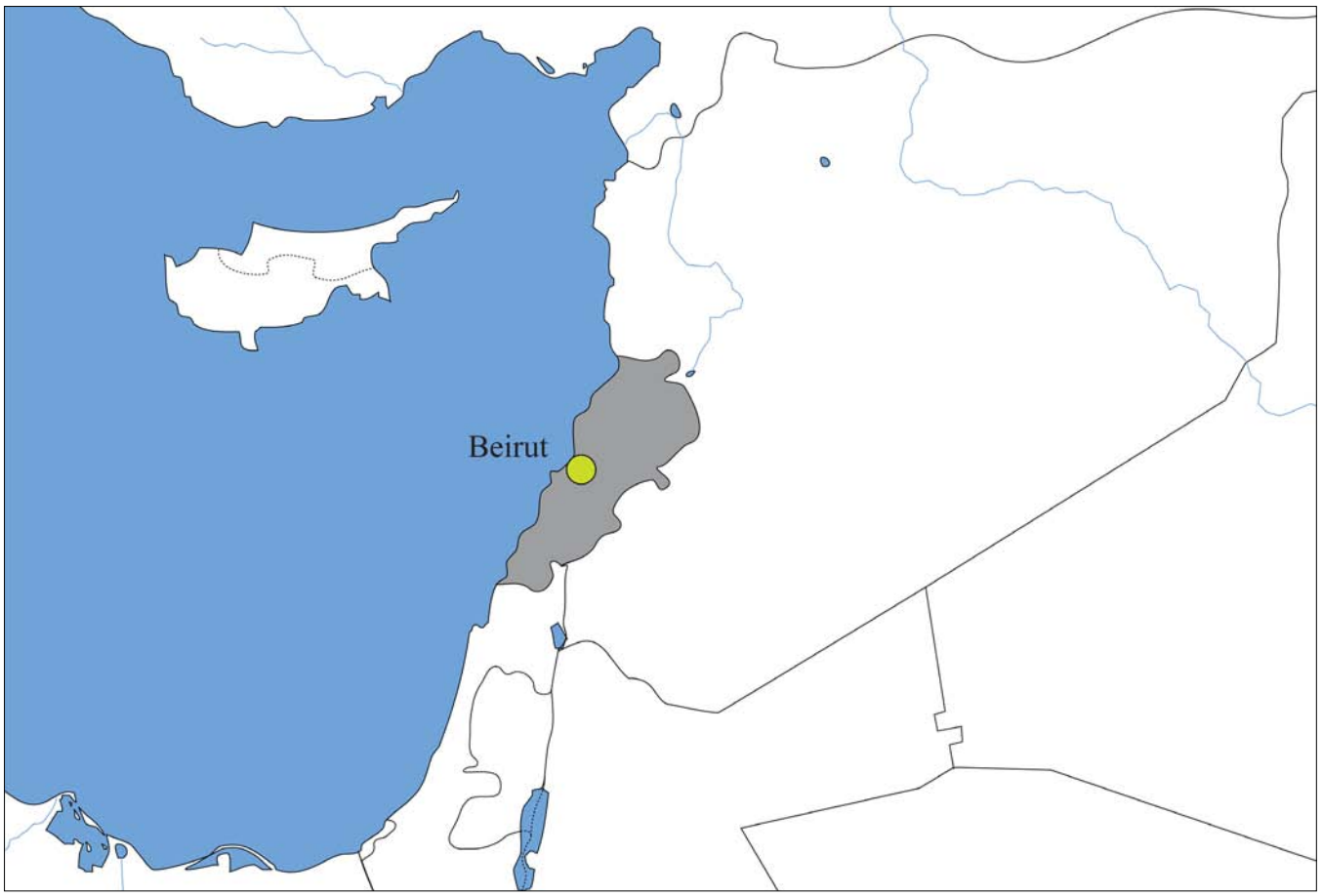
[1] Another campus containing AREC (Agricultural Research and Education Centre), a 247-acre (approximately 82 hectare or 825,000 square metre) research farm and educational facility in the Beqa'a Valley.

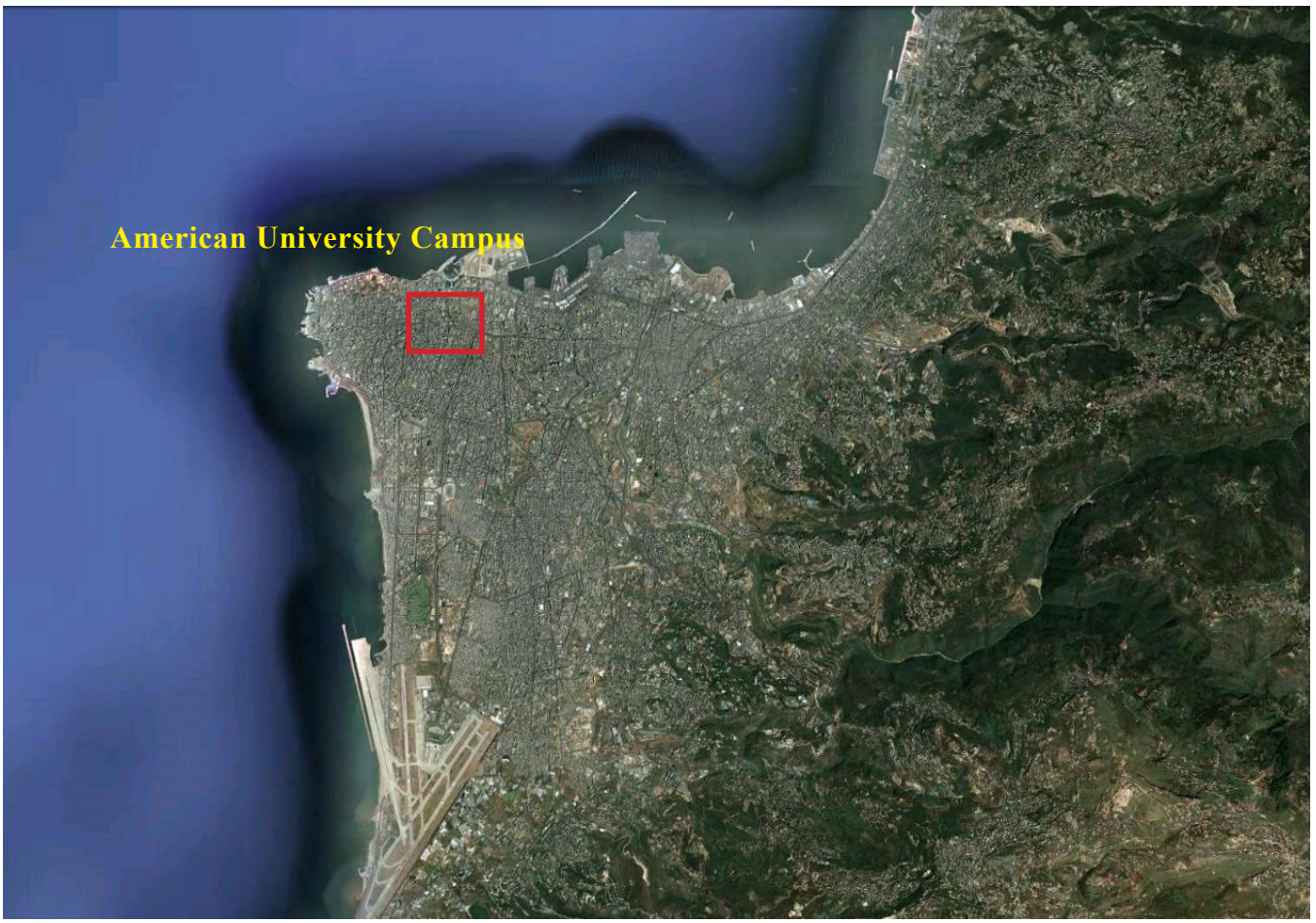
[2] In 1862 American missionaries in Lebanon and Syria, under the American Board of Commissioners for Foreign Missions, asked Dr. Daniel Bliss to establish a college of higher learning that would include medical training. On April 24, 1863, while Dr. Daniel Bliss was raising money for the new college in the United States and England, the State of New York granted a charter for the Syrian Protestant College. The college, which was renamed the American University of Beirut in 1920, opened with a class of 16 students on December 3, 1866. Dr. Bliss served as its first president, from 1866 until 1902.

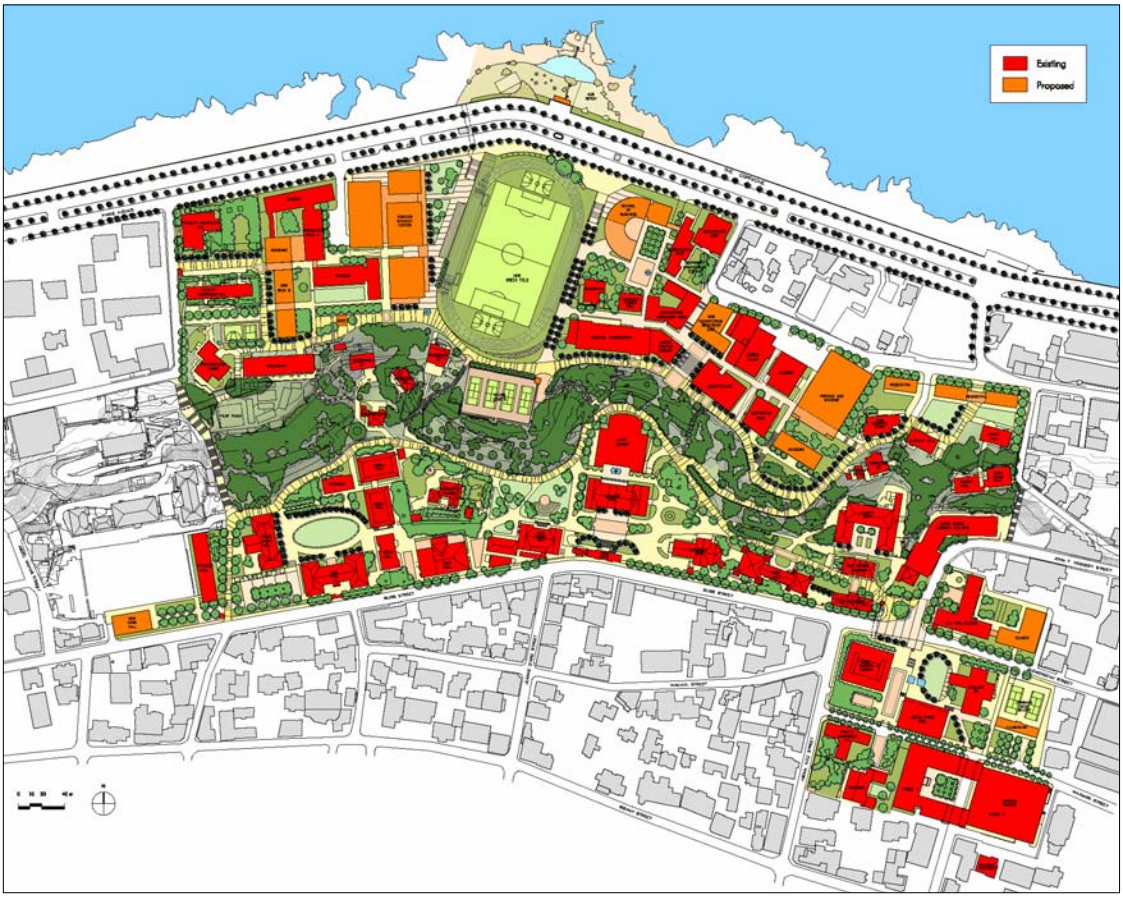
[3] They were: Ateliers Lion, Builders Design Consultant, Bureau d'Architecture - Habib Salamé, Dar Al-Handasah (Shair & Partners), DMT Architects, Erga Group, HOK Sport, Kevin Dash Architects, Legorreta + Legorreta, M. Saleh - B. Khoury – Laceco, Martinez Lapena Torres Arq. SL, Nabil Gholam, Perkins & Will, Pierre El-Khoury, Samir Khairallah & Partners, Sasaki Associates Inc., Shen Milson & Associates, Steven Holl Architects, URBI Tabet & Debs and VJAA.

[4] They were: Ateliers Lion Architectes Urbanistes SA - Barbanel, Paris, France; Martinez Lapena-Torres Arquitectos SL - Barcelona, Spain, Marwan Saleh, Bernard Khoury & Laceco - Beirut, Lebanon; Steven Holl Architects - New York, NY, USA; Tabet & Debs Architects & Planners - Beirut, Lebanon; and Vincent James Associates Architects (VJAA) - Minneapolis, MN, USA.

[5] The jury was composed of: John Waterbury, AUB President, president of the jury; Shigeru Ban, Director of Shigeru Ban Architects, Tokyo; Hillary Brown, AIA Principal of New York Civil Works; Richard Burdett, FRIBA Cities Program, London School of Economics; Marwan Ghandour, Senior Lecturer in AUB Faculty of Engineering and Architecture; Barbara Hoidn, Engineer, Hoidn Wang Partner, Berlin; and Assem Salam, Architect, former president of the Lebanese Order of Engineers.

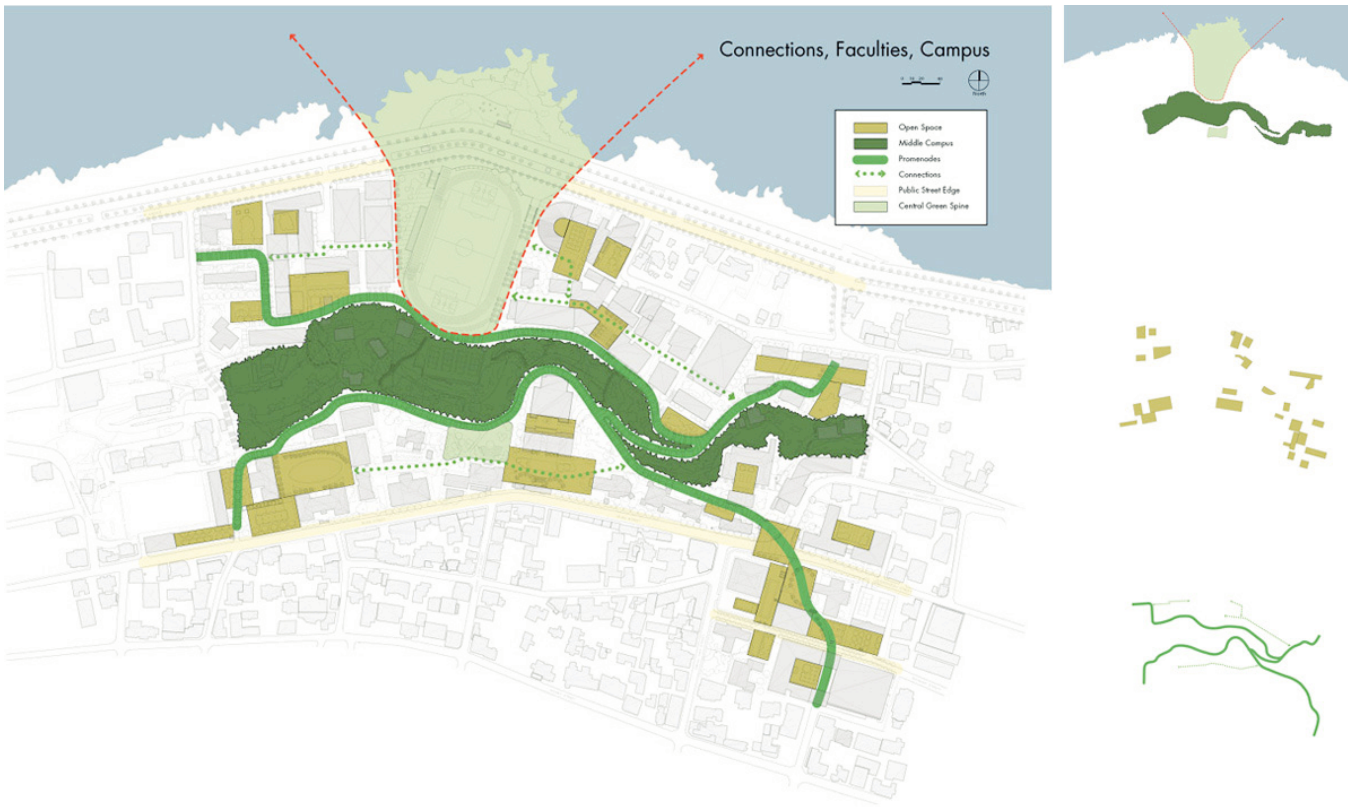

Beirut


American University Campus



Existing and proposed buildings.

Entrance of the American University of Beirut, 1866.

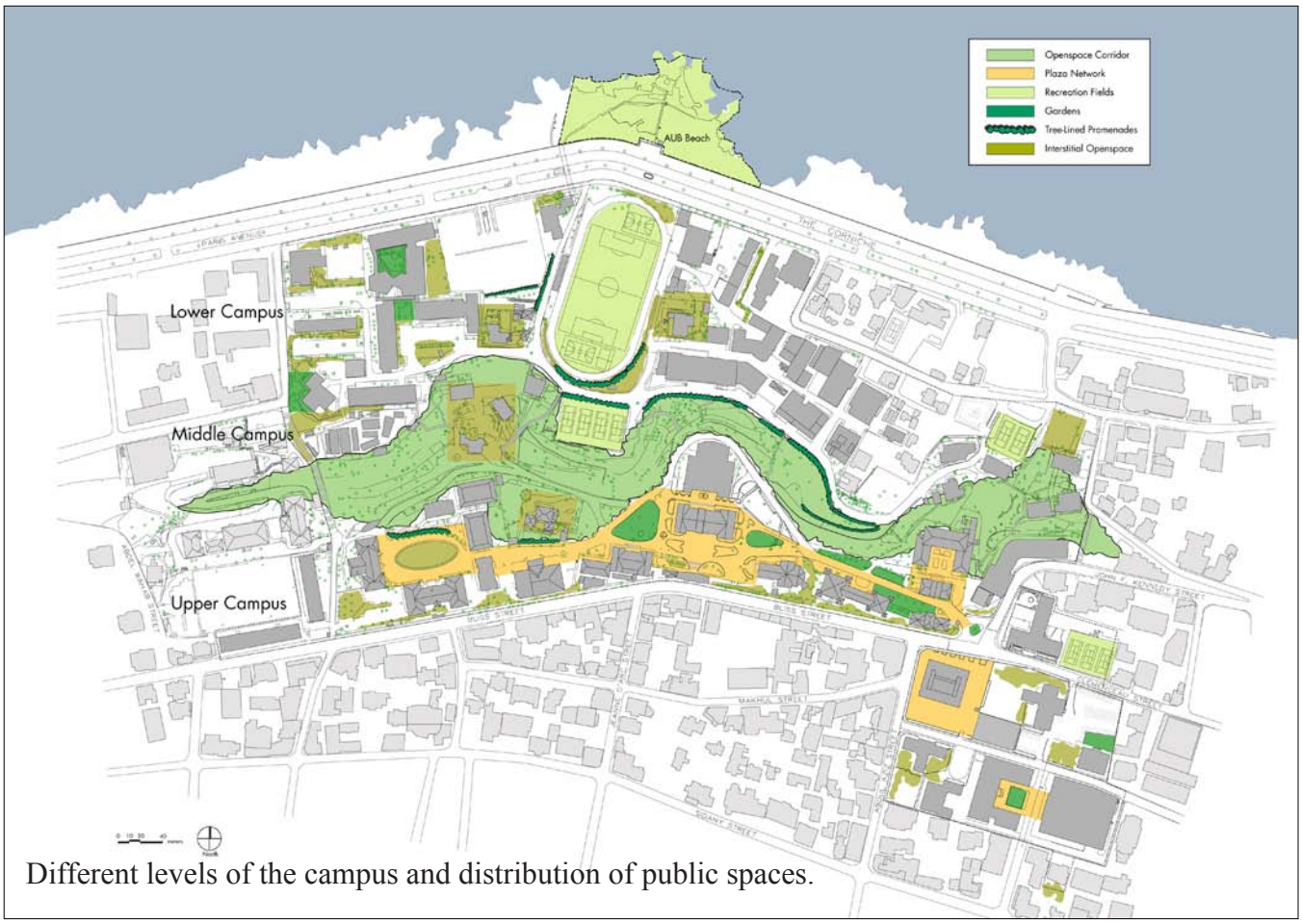


Connections and facilities.

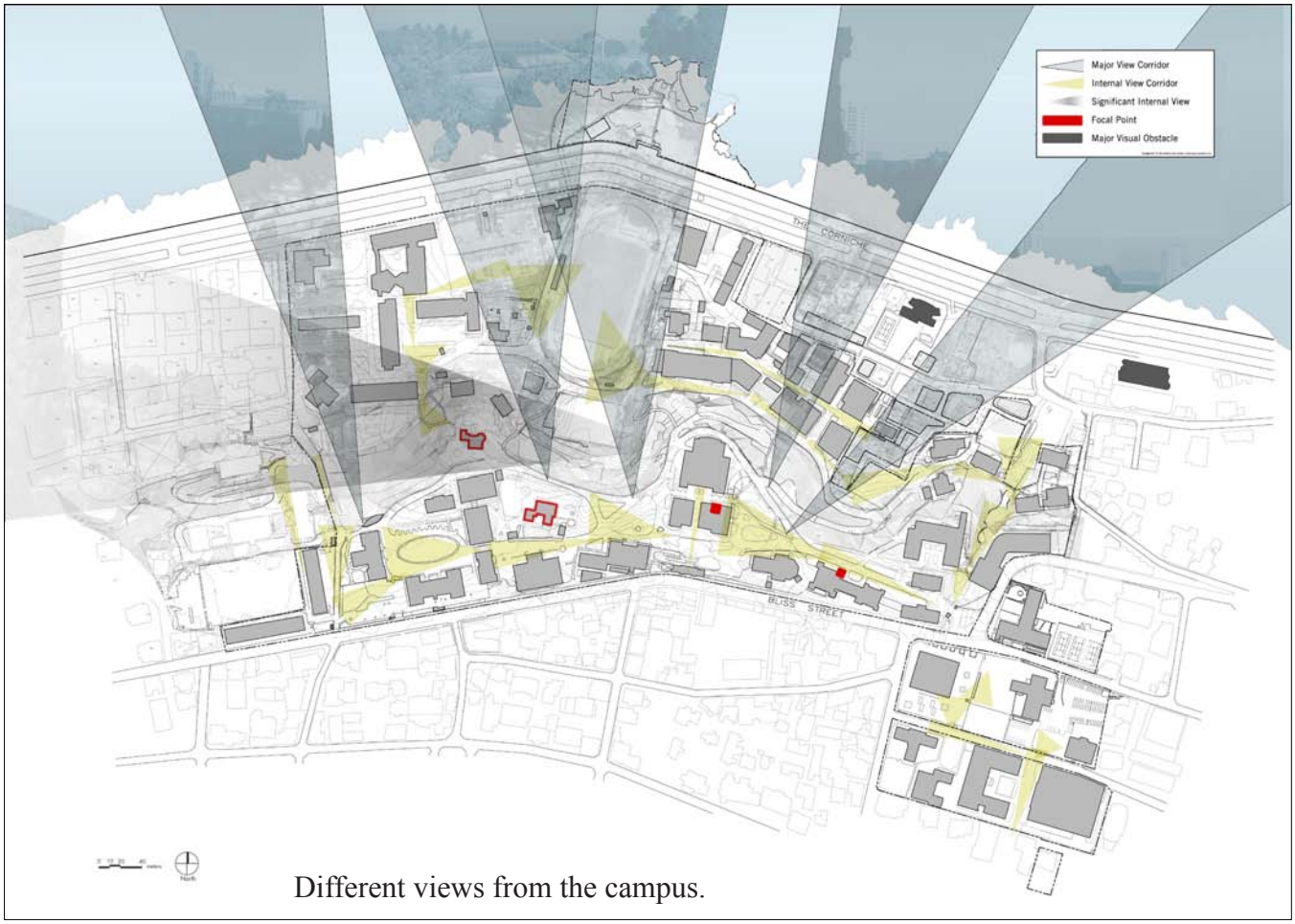
Public spaces.

Pedestrian streets.

Stairs linking the different levels of the campus.



Different levels of the campus and distribution of public spaces.



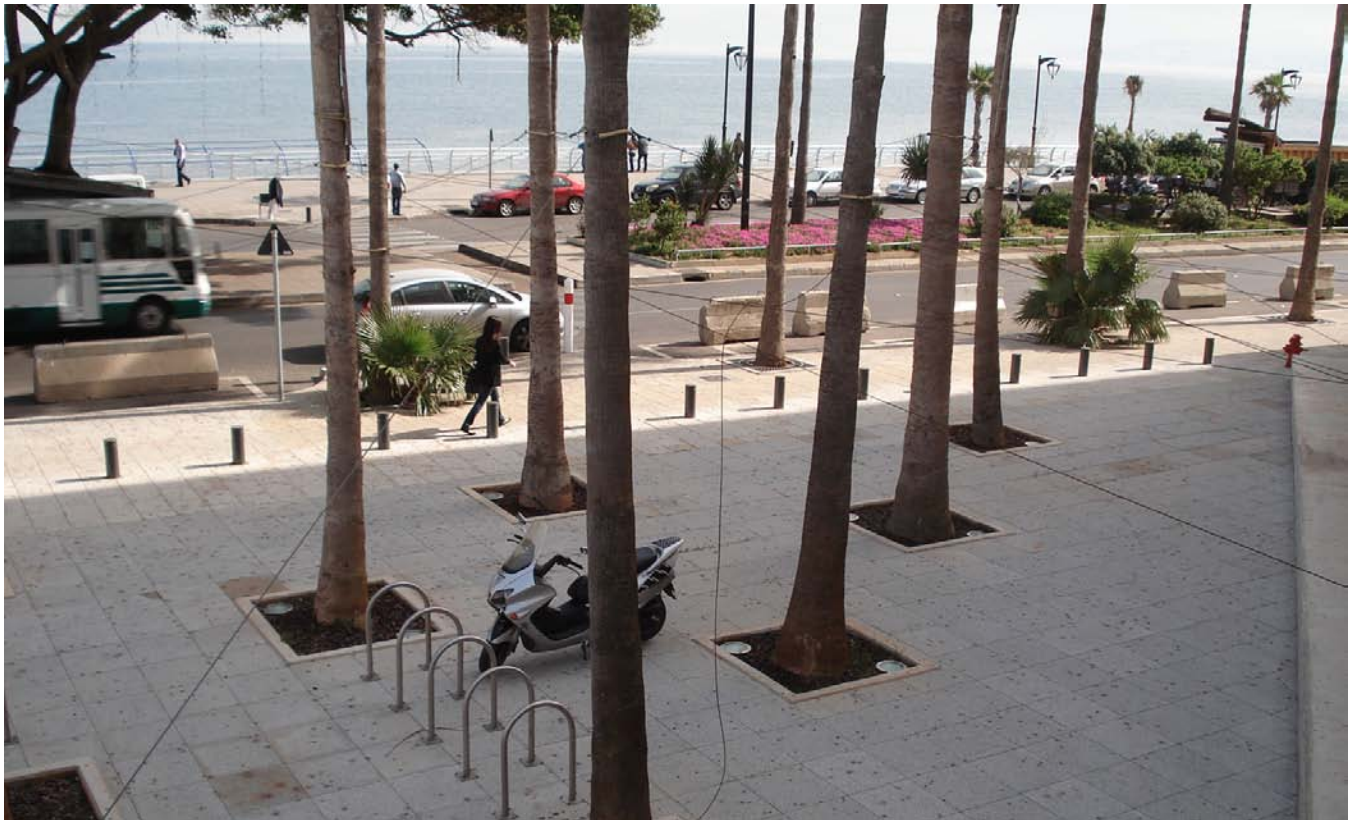
Different views from the campus.

View on the sea fromt the higher level of the campus.

View on the Charles Hostler Student Centre, football playground and the sea from the medium level of the campus.

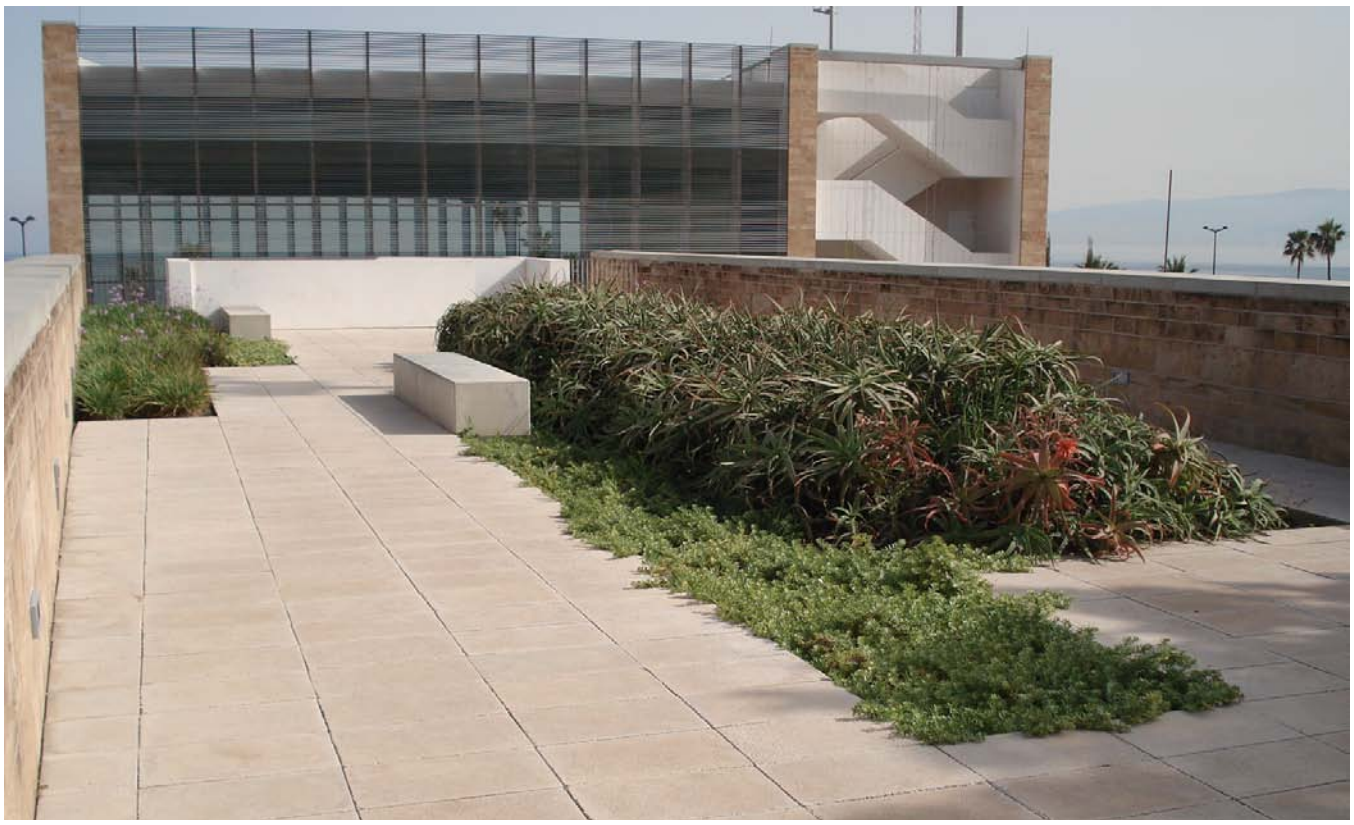
Street between the campus and its beach.

Walkway nearby the street, in front of the sea.



Post hall, 1902.

Pathway between the different levels of the campus.



East façade of the Charles Hostler Student Centre.

View on the sea from the swimming pool.