

UNIVERSITY SPACES IN CONTEMPORARY ARCHITECTURE

Year LIII, number 156, September-December 2018

The Cities Within the City, the University and Rome

Bartolomeo Azzaro

Throughout the twentieth century, the phenomenon of major Italian university campus expansion, known in Italian as “university neighborhood,” “university fortress,” “university campus,” “city within the city,” attempts to affirm the new identity of that institution within the cities.

The job of urban planning, like the projects in the areas of expansion in the Capital, deals with topic of the University of Rome Direction as early as the beginning of the 1900s, resulting in the creation of the university polyclinic which will determine the creation in the area of expansion to the east. Gustavo Giovannoni and Milani’s projects (1903-1930) and the urban projects of Marcello Piacentini’s “Great Rome,” (1925) deal with the theme of creating a new City within a city, closely relating the strong Renaissance identity in his historical center and the dynamic innovation of the modern movement.

As foreseen, shortly after the inauguration of the “City of Knowledge,” the raising of many buildings and new constructions took place. With the group of professionals around Piacentini, the university planned an expansion project, partially done, in the areas available next to the university campus. The American University, already established by the end of the 19th century, served as a reference model for a variation of a university campus, with new and flexible types of buildings, proposed for the zoning plan of 1960 in the area next to the E.U.R. district.

DEBATE

The University Building as a Landscape of Opportunities

Herman Hertzberger, Laurens Jan ten Kate

We are in the middle of a digital evolution that has a major impact on the use of our buildings. If we look at university buildings, we see that the organization—the faculty—and the building—the faculty building—are increasingly diverging. The processes that take place within the organization need the building less and less to be able function well, they can take place everywhere. This gives the university building an increasingly general function: meeting and socializing in the broadest sense of the word. Digital development cannot replace this and ultimately the physical encounter, the exchange of knowledge and thoughts, is the core of the university process. In this text we give some examples from our own work and that have inspired us.

The Social Space of Universities

Hans Ibelings

Throughout the twentieth century the worldwide growth of tertiary education has led to a steady stream of design commissions for university buildings and campuses. In this century this trend has only been amplified. Often universities have offered, and are offering, fertile ground for architectural innovation. Remarkably, today’s architectural innovations are rarely related to innovative pedagogies, which are few and far between. Hence the main architectural innovations are not to be found in the actual places of research, such as labs and offices, or the actual places of transfer of knowledge, such as class rooms. Rather, the most interesting experiments in university architecture pertain to academia as a social space and can be found in the communal spaces and areas in between those places of research and education. The creation of programmatically relatively undefined “learning centres” highlights this trend towards prioritizing social spaces over learning environments.

Designing Learning Spaces

Orazio Carpenzano

Learning spaces require an approach to design and an evolved and articulated concept that is difficult to find in the design of universities in the past and present. The transfer of knowledge, education and sharing cannot be circumscribed within rooms, classrooms and buildings. On the contrary, learning and cultural production must consider the fullest range of stimuli and the educational potentials offered by the multifaceted complexity of reality.

With specific reference to the concept of autopoiesis expressed by Humberto R. Maturana and Francisco J. Varela, and the experiments investigating the mediatic nature of the body of the *Altroequipe-Multiagente* project by Orazio Carpenzano, Maria D’Ambrosio and Lucia Latour, this essay tracks different architectural and experiential itineraries focused on illustrating the need to expand opportunities and places for knowledge.

Learning spaces are, first of all, part of reality. They contribute to the genesis of cognitive experience not as specialized appendices, but as pervasive, open, receptive synapses, capable of transmitting what is known and suggesting the indeterminacy of what is yet to be discovered.

Universities and Models of Settlement

Mario Panizza

The reflections in this text wish to initiate a series of discussions on the possible development of universities, to organise them depending on the transformations of the architectural body and to frame them according to the extent of the works necessary to adapt buildings. The text will show that they cannot proceed in parallel with academic programming, as they must be subjected to a series of

lengthy practices, whose conclusion is always difficult to determine. The effort will therefore focus on identifying all possible channels of innovation, especially educational. They should be linked to necessary building works in order to anticipate them and ensure they are already solved when new programs are under way. This ambitious objective obliges a convergence toward a unitary plan that includes everyone who participates in the government of the university. It also means working, on the contrary, in specific fields, often neglecting the difficulties of the phase of construction. The resulting vision is one of an architect who, having held the office of rector, has absorbed what the government machine of a university can pour on those who are used to measuring everything through design. The resulting perspective thus highlights a professional goal that places building feasibility behind everything: where and how what is supposed can find its proper location. The invitation is therefore to deepen these themes, but also to propose others that, beginning from different positions either for scientific training or for management responsibility, indicate the priorities to be coordinated with the adaptation of the architectural system.

Urban Policies in “University Cities”

Michelangelo Savino

The term “university city” is widely used, however, its common meaning says little about the very complex set of questions and problems to which it supposedly refers. The university represents the node in an extensive and dense network of connections between activities, functions and spaces. Beyond its educational mission and acknowledged research activities, the university is an important company (albeit a very peculiar “para-public” one) providing thousands of jobs in a city; an economic actor that invests and attracts investments. Its multiple events, not only its traditional missions, attract many people to the city where they eat, sleep and enjoy all the city has to offer. Students, researchers, clerks and visitors qualify areas in the organisation of the city, steering flows of mobility, affecting the organisation of commercial activities, impacting real estate and housing supply. The effects of these processes remain largely un-investigated. To satisfy the need for a place for all its activities, the university become a real estate agent and urban developer, building new campuses or purchasing vacant lots or decommissioned properties. In the face of these dynamics (generally unfamiliar to local authorities and academic institutions themselves) urban planning policies remain ordinary and lacking in appropriate strategies.

RESEARCHES

Everything is Illuminated: the Roy and Diana Vagelos Education Center by Diller Scofidio + Renfro

Edward Dimendberg

The Roy and Diana Vagelos Education Center at the Columbia University College of Physicians and Surgeons

by Manhattan-based architects Diller Scofidio + Renfro opened in late 2016. It extends the insights gleaned by the studio through its previous projects in the visual arts and buildings on university campuses and responds to the challenges of teaching medicine in an age of robotic simulation. Rising to 14 stories, it is organized around a central vertical spine and a continuous stair that provides access to a study cascade of student spaces on the southside and administrative offices and classrooms on the northside. The clearly legible treatment of program, flexible classroom and study spaces, variegated curtain-wall, and generous natural illumination propose the Vagelos Center as an uncommonly successful instance of the high-rise in contemporary higher education. Its prodigious folds and daring approach to circulation can be understood as a powerful culmination of several decades of design research.

Education in Public Space. The Bloomberg Center in New York by Morphosis

Giovanni Longobardi

The new Cornell Tech Campus is the result of a call for bids issued by Michael Bloomberg when he was mayor of New York. The plan was to draw a centre of higher education to the city together with an incubator of companies in the field of advanced technologies. The Roosevelt Island area was donated free of charge by the city of New York and chosen by Cornell Tech from among four possible locations, with the aim of redeveloping a site that had been in disuse for some time. The lot near the southern tip of the island is home to the Franklin D. Roosevelt Four Freedoms Park, completed in 2012 according to the project developed by Louis Kahn in the early '70s. The Bloomberg Centre, designed by Morphosis and its principle Thom Mayne, is part of the first phase of the campus master plan designed by Skidmore, Owings & Merrill with the landscape architect James Corner. The building is sensitive to public space and to the flow between interior and exterior. The ground level is completely transparent and provides a large, freely accessible area with a restaurant-cafeteria and small lounges. Another theme at the heart of the project is environmental sustainability, which in Mayne's planning practice is never separate from the desire to translate advanced technical solutions into particularly expressive architectural forms.

Connecting and Interacting. Steven Holl's Vision of Educational Space

Maria Argenti

The secret of teaching and the mystery of transferring knowledge can be summarised in a single word: linking, or creating relationships. This way of thinking is in perfect harmony with the Steven Holl's projects for educational spaces, from his earliest to his most recent, including the Visual Arts Building at the University of Iowa. The project was completed a decade after the adjacent Arts Building West, and based on an entirely different and almost opposing logic: the idea that linking also means connecting past and present, the best architecture

of the past with the best projects for the future. Holl thus “traps” Brooklyn’s Higgins Hall in the space between two existing historic buildings; he confronts Mackintosh’s famous school in the Reid Building in Glasgow, or extends Noguchi’s garden in his Glassell School of Art in Houston.

Through these actions Holl offers a poetic, non-dogmatic and demystifying vision of life.

As a result, architecture, in particular for education, cannot but be founded atop the dynamic relationship it creates with the world that surrounds and inhabits it.

This is the case, more or less, with each university project designed by Steven Holl. It is precisely this overlap that defines the significance of their existence not only as a physical, but also conceptual space, imagined for designing the future with purpose and meaning.

The New Veterinary Medicine Campus of Milan University in Lodi by Kengo Kuma

Botond Bogнар

The essay discusses the renown Japanese architect Kengo Kuma’s design for the University of Veterinary Medicine in Lodi near Milan. It explains the unique setting of the large Campus in the countryside and highlights Kuma’s skillful response to the combined challenges posed by the fragile pastoral landscape as well as the complex and rigorous program that includes an extensive laboratory department. With a strong intent to blend architecture into the natural landscape, he uses various design strategies what he has developed throughout the years. In this regard, there are references to Kuma’s *ars poetica*, and how much it is derivative of deeply ingrained Japanese aesthetic and environmental sensibilities as they both respect and cultivate the *genius loci* of the given setting. There is a detailed examination of the way these sensibilities have guided his *modus operandi* in case of this project, which includes the siting and organization of the building, the kinds of materials he uses, and how he uses them and, the articulation of boundaries and thus spatial definitions and relationships, especially between inside and outside.

Landscapes of Thought and Knowledge. The Learning Center at the EPFL Campus by SANAA

Maura Percoco

An approach to architectural design as social action and a concept of building as a tool to engage people in an incessant and unforeseeable architectural process, frames Sejima and Nishizawa’s work within the field of research into the relational nature of space. “To build” opportunities for relationships and interaction between activities, to promote dialogue and sharing, “to make space” for the free movement of people and ideas, are both the aims of their design, but also the basic principles of contemporary methods for the construction and transmission of knowledge. Therefore, architecture for spaces of study and learning represents an extraordinary opportunity for SANAA’s research. Indeed, the office’s concept of space can be identified among the most vision-

ary ideas on this topic. In Sejima and Nishizawa’s words, the essay recognises the competition project for the IIT Campus Center in Chicago the formulation of the concept “to make architecture like a park” and the beginning of a process intent on “freeing” educational spaces from imposed conditions and indications on use. This process, specified in the School of Design at Zollverein Campus in Essen, achieves its paradigmatic definition in the Learning Center at the EPFL in Lausanne as an open, unitary, hybrid and informal spatial system, that—as Sejima has stated—is a “non-descriptive” landscape of thought and knowledge. The New Urban Campus at the Bocconi University, under construction in Milan, seems to confirm the versatility and relational potential of this design concept at the urban scale.

Lab City CentraleSupélec by OMA. A Laboratory-City in the Archipelago of Knowledge

Anna Bruna Menghini

The École Centrale-Supélec project, completed in September 2017, is part of the ambitious plan to develop the Saclay Plateau in the Parisian region, which is becoming the largest scientific-technological centre in Europe. Located in the heart of the Joliot-Curie district, for which OMA developed the master plan, the building, dedicated to engineering and systems sciences, is part of a 900-hectare campus linking universities, research institutes and large companies. The Lab City project is an opportunity for OMA to reflect, through the specifics of architecture, on new forms for the transmission of knowledge, on the role of research in relation to the world of production and, especially, on the relationship between the microcosm of the university and the macrocosm of the city and territory. The articulated spaces of this building define an innovative educational model. It is a “city within a city,” a compact super-block in which closed and open spaces are unified by a transparent roof. A network of galleries/interior streets and a hall/central square encourages exchanges and interdisciplinary interaction. An internal diagonal path connects the building with the city.

A Norwegian Iceberg on Yonge Street. The Ryerson University Student Learning Centre by Snøhetta

António Carvalho, Francesco Lenzini

The Norwegian studio Snøhetta has designed a Learning Centre for twenty-first century students of Ryerson University in Toronto, Canada. It is a “library without books” for the digital natives of the Net Generation, but also an urban icon at the corner of the busy commercial Yonge Street. Here the architects have created a stepped outdoor meeting place, protected under a glimmering blue ceiling that invites people into the interior entrance hall. Above this hybrid hall, which embraces the first three levels of the university spaces (ground floor and underground are destined to retail spaces connected to the street) and above the bridge connecting directly to the old RU Library (where students can still access physical books) the RU Learning Centre works autonomously floor by floor. Baptised by the authors with different names, they cor-

respond to varying layouts of enclosed study rooms and common study areas. Spaces are characterised by different colours and materials, with a special emphasis on “The Beach,” where the new spirit of this generation of urban digital tribes is clearly revealed by the comfortable look of groups that randomly come together.

The “Staging” of Open Knowledge. Campus Kolding – SDU by Henning Larsen Architects

Fabio Cutroni

Since its 1970 competition winning entry for the Norwegian University of Science and Technology in Trondheim, the university campus or, more generally, educational buildings, has consistently been one Henning Larsen’s research themes. It remains one of the fields of the greatest experience and interest for the Danish architectural studio. In this sense, the University of Southern Denmark Campus Kolding, completed in 2014, can be considered a manifesto of the progressive deconstruction of the spaces of learning produced by sweeping changes to how we understand education; changes marked by an ever deeper gap between the traditional concept, based on “teaching,” on the classroom lesson—the transfer of knowledge from teacher to student—and a new concept based on “learning” through an interdisciplinary and interactive approach—guided though ultimately less rigid and more autonomous—to education. For Henning Larsen Architects, the crucial point of university buildings seems to be the relationship and articulation between “formal” spaces, that is to say formally defined, complete and thus suitable for traditional teaching, and “informal” and undefined spaces open to free and active learning; places in which knowledge is no longer exclusive but shared; places in which students can truly play an active and responsible role in their education.

Uppsala University and the Segerstedthuset Building by 3XN Architects

Elena Manzo

The Segerstedthuset is an addition to Uppsala University, designed in 2014 and completed in 2017 by 3XN Architects, in collaboration with Indicum for the interiors. This multipurpose building contains spaces for university administration, a restaurant and study hall and related technical and service spaces. The building is surrounded by a sunny outdoor park with seating. It connects the city with the university, which is one of the oldest in the Nordic region. Uppsala University was founded in 1477 and its current location defined at the beginning of the seventeenth century. It developed in the area around the cathedral on the western side of the Fyris River. Segerstedthuset, in particular, is in the heart of Uppsala’s historic centre, very close to the castle’s bastion, the castle park and botanical gardens. Based on a parti of two U-shaped, overlapping office wings, the design was adapted to the surrounding historical city by interpreting the character of the site and the tradition of place, though its layout is indisputably and uniquely modern. The Segerstedthuset is modern especially be-

cause it fulfils new educational visions regarding subjects, organisation and teaching system. The key to achieving this is the strong correlation between the architectural form, the most recent theories on teaching and the university reform launched in the 1990s. The building was designed with a particular focus on public spaces and connections, creating maximum flexibility, openness and the dynamic qualities of the entire building, especially the ground floor. Here, a full-height triangular atrium spreads out in a sequence of three cohesive spaces that resemble public squares: the entrance area in front of the building, an inner space on the ground floor for exhibitions, information and events. There is also a restaurant, which is open outside of normal working hours and not exclusive to students that is also an attractive and interesting place for the city. The warm and inviting atrium features a sculptural spiral wood stair that emphasises the flexible and dynamic character of the interiors.

Four Cases or a Series? Rafael Moneo at Princeton Campus, NJ

Luis Rojo de Castro

The text proposes a critical analysis of the new Neuroscience and Psychology Building designed by Rafael Moneo at Princeton University and completed in 2014. Rather than looking at the building as a specific response to a specific problem and context, the text places it within a group of three other academic buildings built at the campuses of Harvard, Rhode Island and Columbia after 2000. Deviating from a conventional analysis of Moneo’s work, the text argues that the specificity of each project is less significant than a larger and more relevant conceptual framework within which Rafael Moneo inscribes them, and within which we might better understand this set of four strategically related projects. The specificity and contingency of each of the four commissions is overruled by a more ambitious and disciplinary question of whether architecture is a media capable of constructing and embodying a social paradigm or model. As the university campus in the United States is a historical architectural tool with a social purpose—the construction and visualization of a well-balanced model in a physical environment—the four projects are described and analysed in their common strategies and devices, enhancing the idea of a methodological lineage.

The Concrete Abstraction of Aires Mateus. The Expansion of the Architecture Faculty in Tournai

Valerio Palmieri

The project for the expansion of the Architecture Faculty in Tournai, Belgium, by the Aires Mateus brothers, can be inscribed within the studies of spatial quality that the two architects have been developing for about fifteen years. A very coherent and characterised research that shares only a few aspects with the general characteristics of contemporary Portuguese architecture. This project, concentrated in a single new interstitial block and in a careful recovery of pre-existing industrial buildings, is characterised by a sophisticated ability to interpret the

needs of the environmental context and functions. The result is a stratified and complex architecture that is only apparently elementary and abstract.

The New Mechanics Hall by Dominique Perrault at the EPFL

Michele Beccu

Between 2011 and 2016, Dominique Perrault Architecture and Steiner SA refurbished the ME Building, currently the New Mechanics Hall at the EPFL (École Polytechnique Fédérale) in Lausanne, where Perrault teaches. Originally built by Zweifel + Stricker Associates in the 1970s, the building was originally home to the mechanical engineering department during the first phase of development of the campus.

The French architect's long-standing research with GKD Metal Fabrics is successfully applied to the refurbishment of the interior spaces and reconversion of the entire building. To be clear and technically precise, the project is a model for the integration of collective areas and research spaces. The office's proven expertise in the use of mesh grid structures creates extremely light vol-

umes with compact yet ethereal shapes. It is a strict rather than spectacular architecture that, while sophisticated is not attention seeking, but a mode of multi-scale integration between existing and new and between building and context.

Froissart's Spectacles. Luigi Einaudi Campus by Foster + Partners

Caterina Barioglio, Daniele Campobenedetto

Over the past twenty years, the major university institutions in Turin have played a leading role in the re-use of former industrial sites throughout the city. This article proposes a reading of the Luigi Einaudi Campus in Turin as a tool for interpreting the on-going debate on the relationship between the university and the city. The article investigate the spatial paradigms of the urban campus and the design processes that shaped it. The continuity that results from this investigation suggests an expansion of the field of the architectural criticism to take into account perspectives offered by the social sciences. The conclusions suggest critical issues that can be addressed beyond this specific case-study.