

Searching for the Essence of Architecture at Porto School

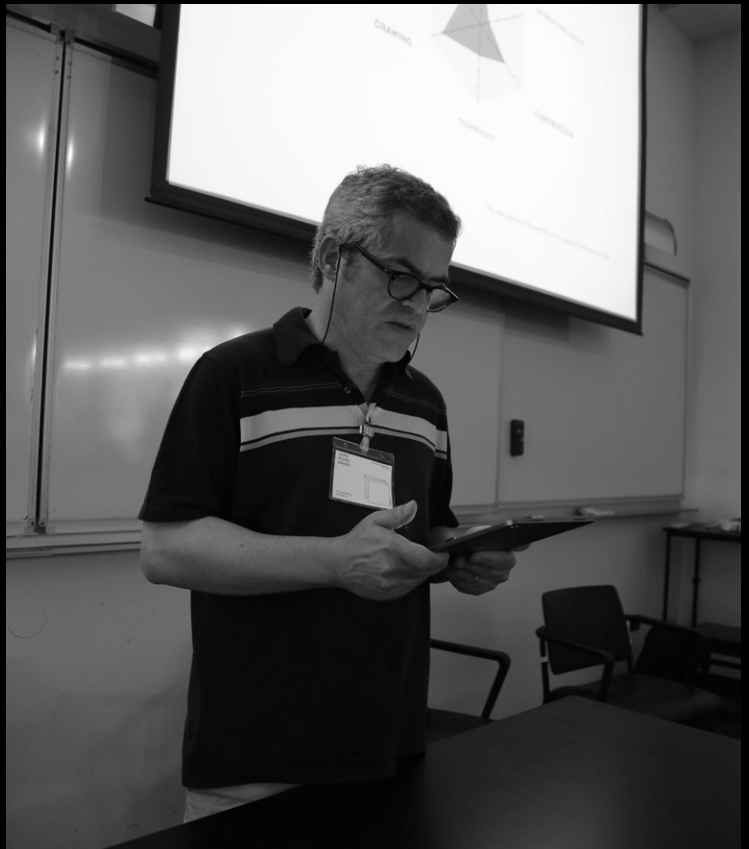
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KEYWORDS

School of Porto, master/disciple, radical pedagogy, learning spaces

The Faculty of Architecture at the University of Porto (FAUP), founded in 1979, and benefiting from the legacy of the School of Fine Arts (ESBAP), is internationally recognized and a worldwide reference in architectural teaching. Fernando Távora (1923–2005), Álvaro Siza (b. 1933) and Eduardo Souto de Moura (b. 1952) might be considered the three pillars of the school, although their contribution cannot be considered without their predecessors, the group of people they worked with and the Portuguese particular context. These masters' strong personalities — embodied in their pedagogical action — and the space where the didactics take place — actually a project by one of them — are omnipresent and might be considered the better “not so hidden” secret of the School. The three architects were linked in teaching practice, profession and life. They experienced a master/disciple relationship at a certain point, and later shared, as professors, a strong idea of the School.



THE BACKGROUND

The Porto School — currently titled Faculty of Architecture of the University of Porto (FAUP) — is an international reference in the architectural teaching, due to its rich history and characters and also to a pedagogical legacy that is still part of the daily life of its students. However, the path that led to the evolution of this widely known institution has not been linear nor even simple; instead, while looking backwards, it was the result of a continuous process of defiance against the repressive governmental forces, and acknowledgement of the urging needs of the local populations.

While it is possible to date the early origins of the Porto School to the second half of the 18th century, the real expression of an actual architectural course only began to show itself in 1836 with a Civil Architecture Class. Around five decades later, the *Escola de Belas-Artes do Porto* (School of Fine-Arts of Porto) — known as EBAP — was founded and, in 1911, a year after the Proclamation of the Republic, was at last created a definitive Architecture Programme.

Hence, since 1926 — the time Salazar started to arise to the power, firstly as finance minister and then as prime minister —, the School gradually became a stage of both debate and resistance against the dictatorial regime that firmly ruled the country until 1974. In fact, on the eve of the establishment of the New State, the 31 Reform — whose training focused on the doctrine of the *Beaux-Arts* — was set in motion, led by master José Marques da Silva (1869–1947). Despite his multiple efforts to adjust this curriculum to new times, in a couple of years later, its weaknesses became clear, instilling a growing sense of rejection within the academic community.

In the 40s — especially with the efforts of the architect Carlos Ramos (1897–1969), who became Dean in 1952 — the appreciation of the classic academism is progressively replaced by an acquired taste for the Modernism ideals. Moreover, during that time, the 1st National Congress of Architecture took place and, with it, came not only a stern critic to the regimen, but also new conjectures towards more modern practice and didactics of architecture. The year of 1950 marks a turning point for the Porto School and its name is changed to *Escola Superior de Belas-Artes do Porto* (College of Fine-Arts of Porto) — the ESBAP. From then on, it became clear that the study of modern international architecture did not have to imply a loss of a national character — a premise further explored with Survey of the Popular Portuguese Architecture in 1956.

A year later, the 57 Reform introduces a new study plan, which integrated a larger core of courses and reflected a more

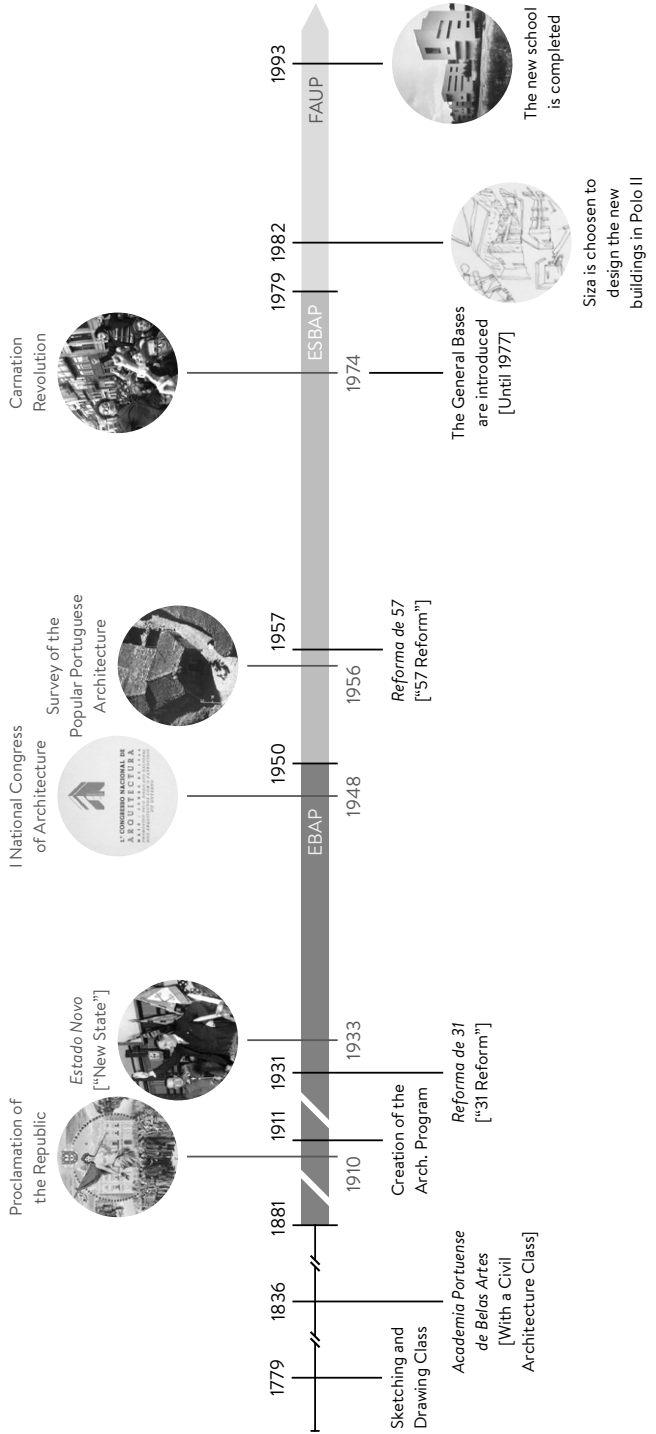


Fig. 1: Timeline — The Evolution of the Porto School

technical and scientific approach to architectural education. Nevertheless, during the 60s, it became clear that this kind of curricula was jeopardising the artistic profile — a quality that an architect should not give up. While taking profit from a slight opening of the fascist regime — right after Salazar's dismissal in 1968 —, as well as echoing the May's events in France, the School entered, in 1969, an experimental period where the societal and political issues became predominant, despite all the regime efforts to maintain it under control.

Eventually, in 1974, the winds of change began to blow in the Portuguese nation. There is finally the fall of the New State and the consequent instauration of a democratic regime. Around that same time, the General Bases for the Architectural Programme are established, consecrating autonomy to the various areas of the architectural discipline, while assuring their support to the teaching of Project.

Five years later, the School undergoes a new transformation: the Architecture Department is detached from the College of Fine Arts and becomes part of the University of Porto, reemerging as FAUP. Right after the unanimous decision of making Álvaro Siza as the architect responsible for the buildings that

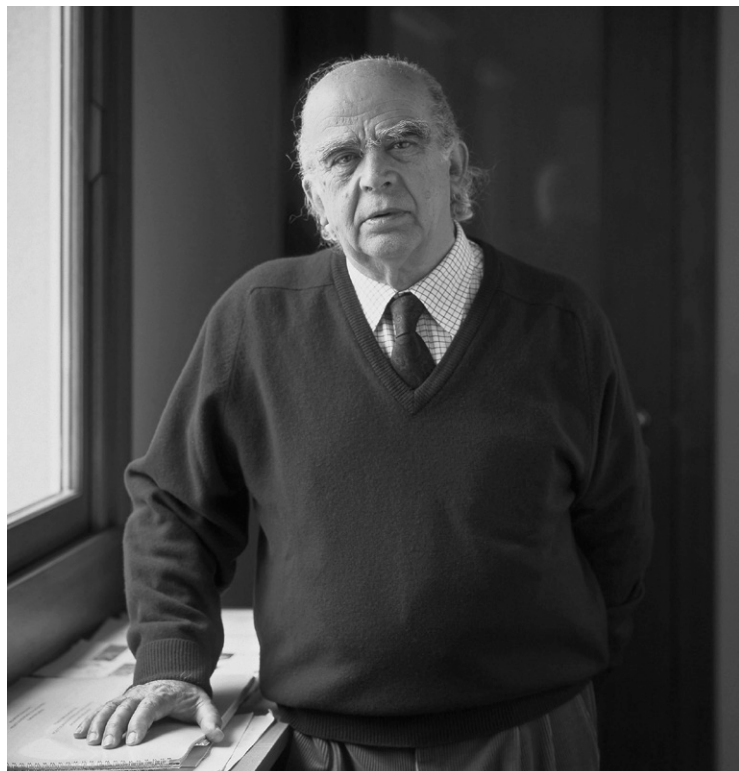


Fig. 2.1: Fernando Távora

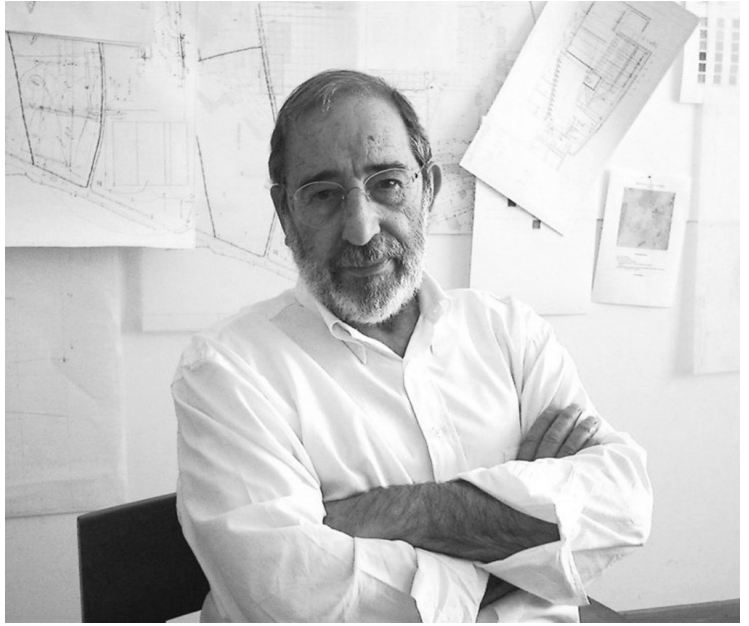


Fig. 2.2: Álvaro Siza

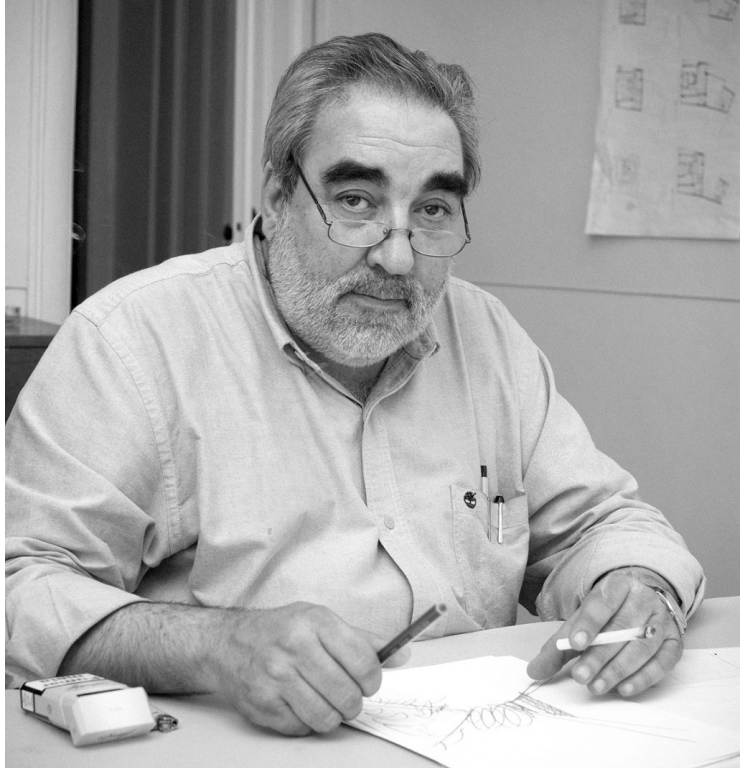


Fig. 2.3: Eduardo Souto de Moura

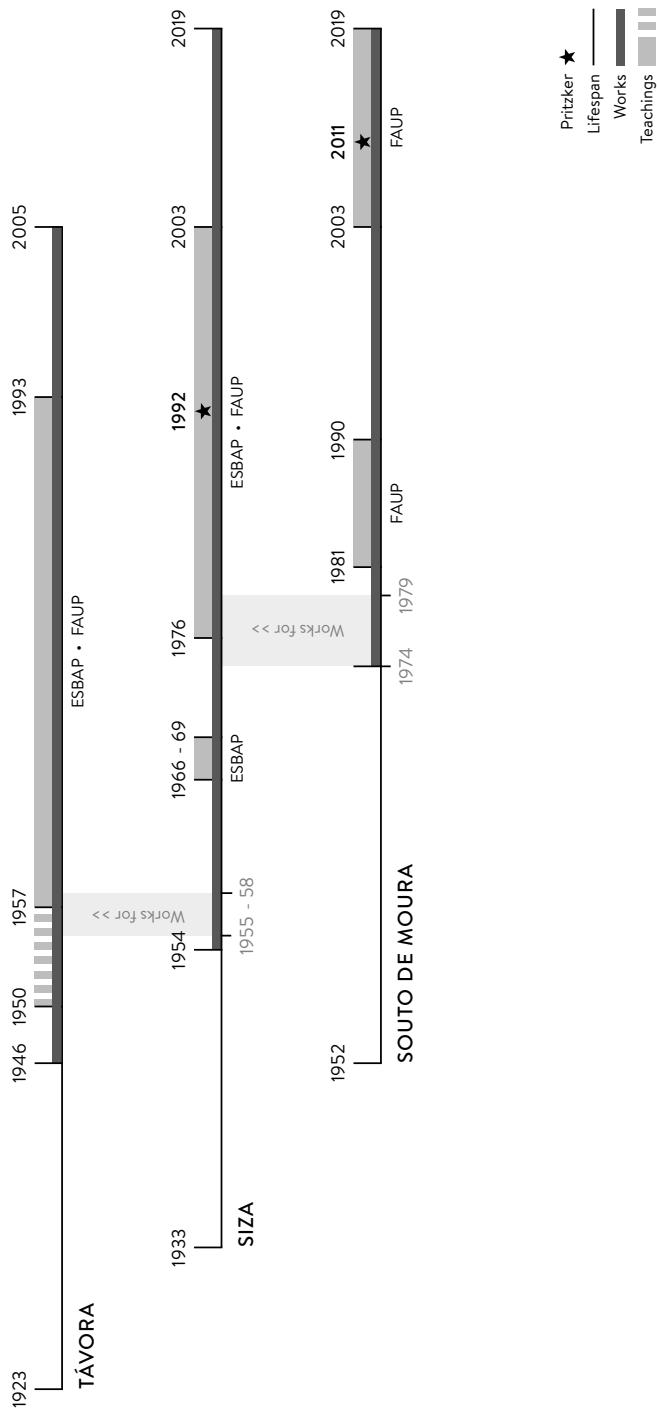


Fig. 3: Timeline — Távora, Siza, Souto de Moura

would accommodate this faculty in 1982, both the negotiation and the design processes commence immediately and, roughly ten years later, the new installations are finally complete.

Therefore, by understanding the evolution of the Porto School and its parallel with the Portuguese political and architectural context, it became that the critical spirit promoted within it allowed the artistic expression of Fernando Távora (1923–2005), Álvaro Siza (b. 1933) and Eduardo Souto de Moura (b. 1952). These three were undoubtedly dominant characters in the Portuguese architecture setting not merely by the way they diffused it internationally, but also how they overthrew the paradigm of the education of architects.

Even though the names Siza and Souto de Moura are not foreign to the general public — especially considering that they were the winners of the Pritzker Prize in 1992 and 2011, respectively —, the personality of Fernando Távora is not, unfortunately, so widely known. However, it is in him that those two figures found a mentor and future generations gained a timeless paternal reference. Even as a student, Távora showed an analytic and artistic sensibility that set him apart from his peers and allowed him to mould the School's identity. Among these architects was built a strong academic and professional bond throughout the years — which some authors call a “master-disciple relationship” —, and the projects they designed together demonstrate the advantages of this affinity. Curiously, while teaching Siza, Távora was able to recognise his talent, just as, years later, Siza perceived the abilities of the young Souto de Moura. Thus, with these three characters, and many others, the School developed a unique approach to the problems of the architectural exercise: a symbiosis of classical

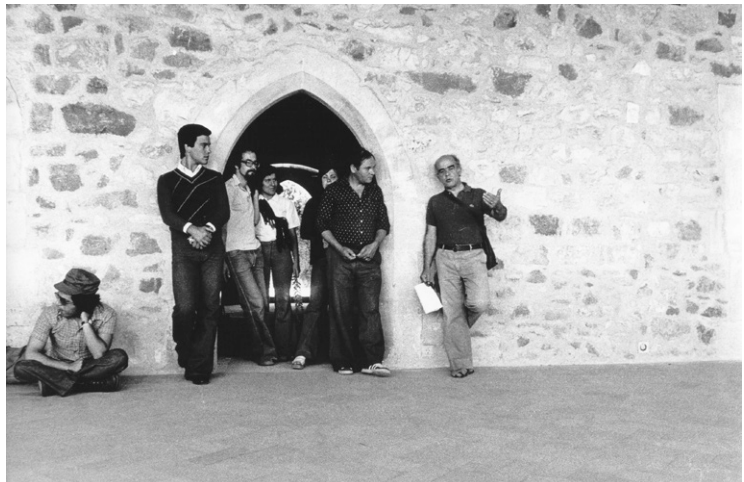


Fig. 3: Távora_s field trip with ESBAP students

methods with a critical integration of Modernism and tradition. Moreover, in the centre of that transformative process was Távora, the pedagogue.

In reality, his influence in the educational field is ongoing today, and his essay entitled *Teoria Geral da Organização do Espaço* (“General Theory of Space Organisation”) is an everlasting companion of the students at FAUP. Of course, that is due to his audacious attitude towards the quandaries that architects used to face and, somehow, still, do. Besides, no one could stay indifferent to his *joie de vivre* and the passionate way he addressed architecture: his classes were a stage of wonder as well as discovery and, there, his pupils could learn how to position themselves in the “historical” time.

Even though that may seem like a herculean task, it is, as a matter of fact, reasonably easy to achieve through the articulation between Drawing, History and Theory, and Construction — the significant domains that have been constant during the evolution of the Porto School. Consequently, with this procedure, each project turns into an understanding of its context in every aspect, whether they are geomorphological, socio-economical or even cultural.

Without a doubt, Távora, Siza and Souto de Moura comprehended this methodology, using it frequently in all of their works. In a lecture at FAUP, in February of 2017, Siza stressed the importance of that relationship — especially emphasising the use of drawing— as a synthesis tool of not only the visual qualities of a site but also of its phenomenological dimension. Furthermore, while photography is not discriminatory, capturing everything that appears in its field of view, the subjective quality of drawing allows it to be selective and integrate the fourth dimension of space: time. Admirably, these values transcended the pedagogical essence that has accompanied the history of the School, and they seem to have encountered

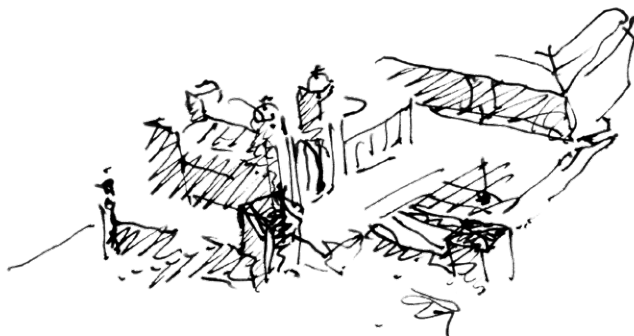


Fig. 5.1: House of Twenty-Four by Távora

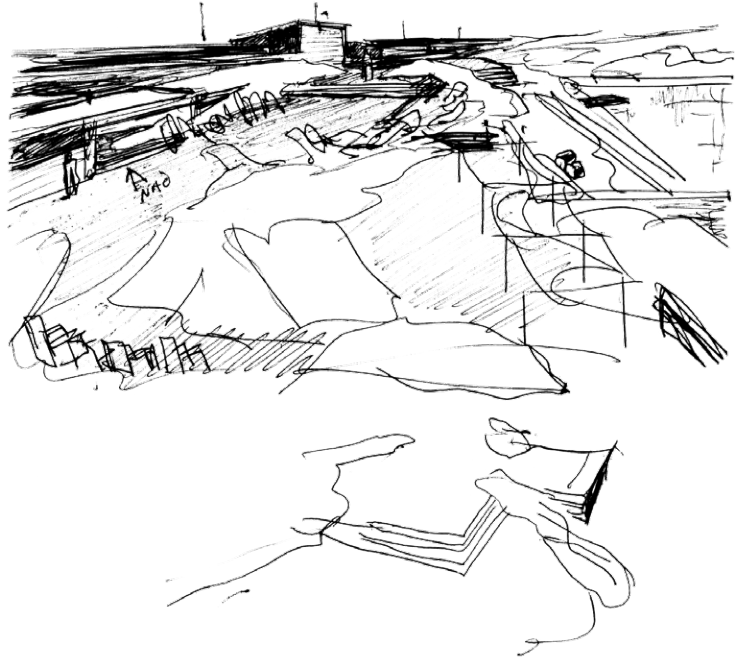


Fig. 5.1: Leça Swimming Pools by Siza

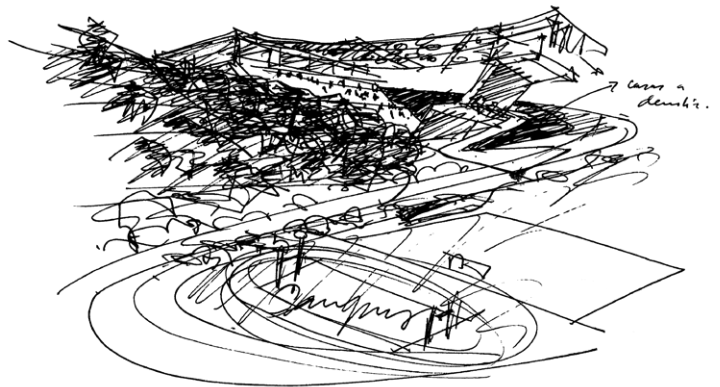


Fig. 5.1: Braga Municipal Stadium by Souto de Moura

their physical embodiment in the spaces of FAUP: its buildings prevail as a refined architectural ode to the vigorous resolve of its founders.

PLACE

Initially designed to accommodate 525 students — whose number duplicated in the last decades —, Siza thought this faculty as a mean of endorsing a close interaction among educators and learners. Thereby, in the first building of the new complex — the modest Carlos Ramos Pavilion—, it is possible to understand two qualities. The first and most immediate one is its familiar atmosphere and smaller scale, which tries to replicate the environment of a real architectural studio; and the second is how it keeps a respectful relationship with the preexisting garden and constructions.

Nonetheless, in this structure, inhabits a conflict that goes beyond its simple volumetry: a clash of a contemplative solitude with an energetic gathering of generations, resulting in the quiet conversation between past stories and future dreams. Although the small pavilion may have a collected character in intimate contact with nature, the set of towers is, in contrast, placed directly in the urban fabric. The new buildings stand

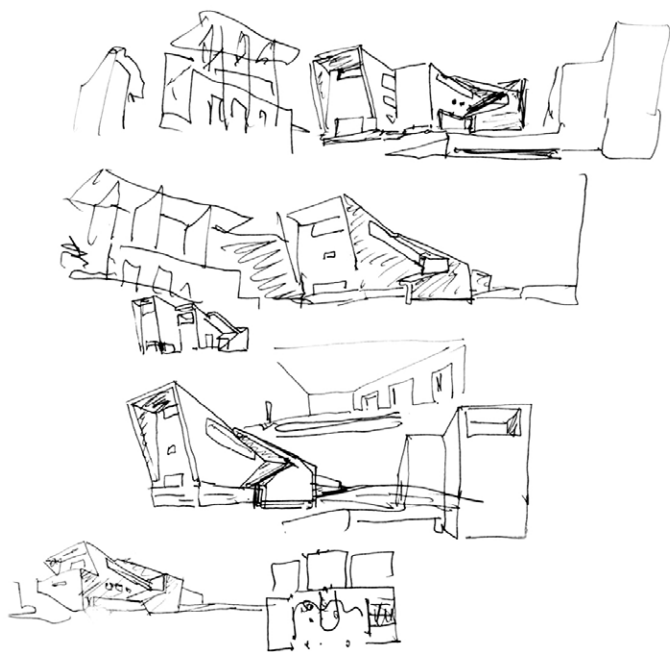


Fig. 6.1: FAUP Sketch

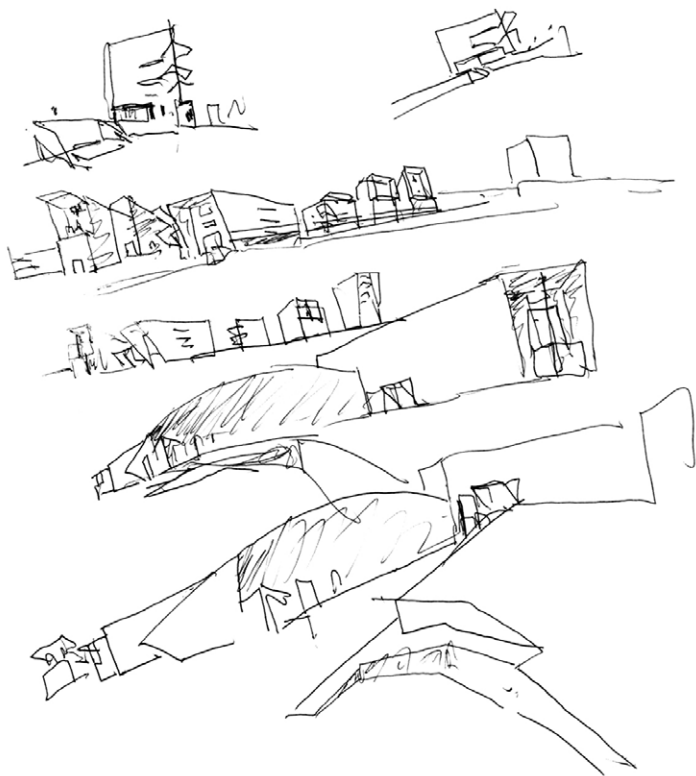


Fig. 6.2: FAUP Sketch



Fig. 7: Exterior view of the Carlos Ramos Pavilion



Fig. 8: Exterior view of the towers E, F and G

out as an open amphitheatre to the Douro River, the Arrábida Bridge and the city of Gaia and its absence of conventional limits — such as thick or tall walls, fences or even gates — is an invitation to the population to explore its exterior areas. In truth, Siza created a structure that offers its spaces to the city while keeping its integrity and iconic status.

However, it is certainly not desirable to examine a school without mentioning its prime learning spaces by excellence: the classrooms. Synchronously to what happens inside of the Carlos Ramos Pavilion, they should, individually, also mimic the ambience of an atelier, but, when articulated with each other in the different towers — corresponding to the many

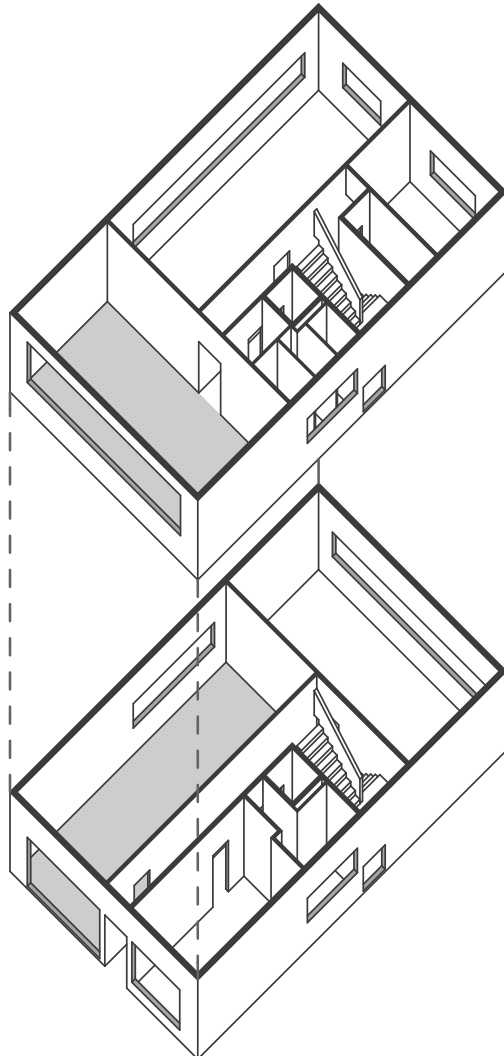


Fig. 9: Axonometry of the levels 2 and 3 of the tower F



Fig. 10.1: Interior view of the classroom F3.1

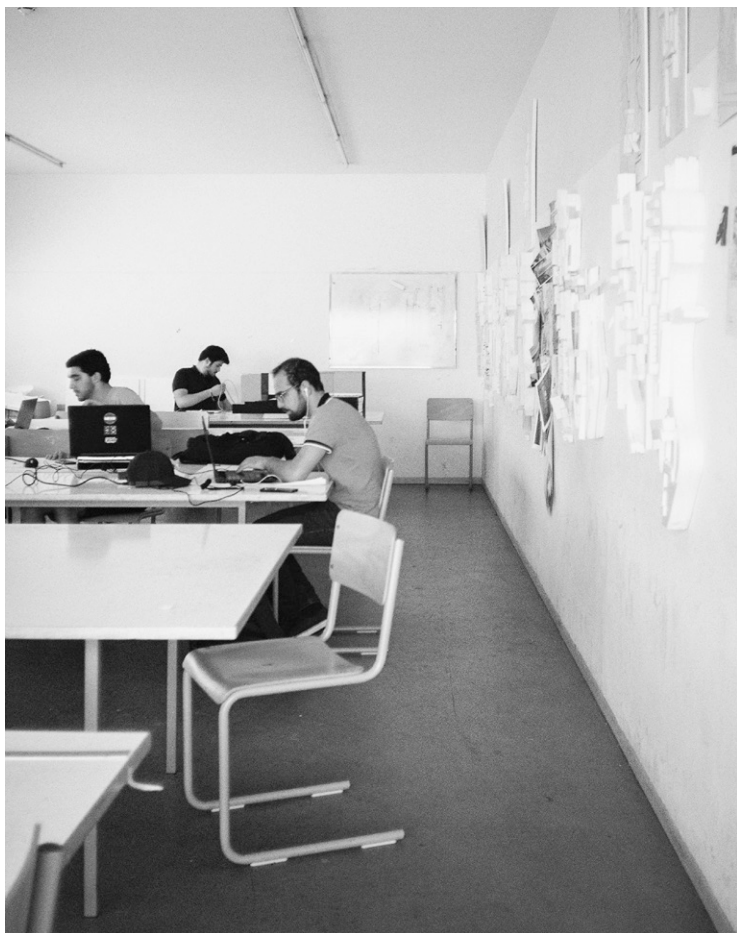


Fig. 10.2: Interior view of the classroom F2.1



Fig. 11.1: Interior view of drawing classroom

Design Studios —, they perform just as an ampler office. It is impressive one could tell to each curricular year a tower belongs just by the way its students take ownership of its spaces and constructive elements, like the walls, windows and doors. In this case, the classrooms' simple geometry conceals a lot more than what may initially meet the eye, distinctively in the way Siza was able to foresee some of the problems that would affect the modern architectural practice. Even though he designed them during a time where digital production was scarce in architecture — hence, being instead optimised for traditional drawing and cardboard models —, these rooms are incredibly versatile as they allow the necessary adjustments to accommodate contemporary computerised work. Aside from the canonical classrooms, there is one that stands out due to its unique spatialities. The drawing classroom— situated at the top of the tower H — captivates anyone that sets foot in it.



Fig. 11.2: Interior view of drawing classroom



Fig. 12.1: Interior view of the library from the entrance



Fig. 12.2: Interior view of the library to the entrance

The contrast between the constricting and wide spaces and the dynamic play of its ceiling and the openings that give rhythm to the whole composition profoundly enhance all the phenomenological experience intrinsic to the drawing class, whether the students are sketching objects, buildings or human figures. Whereas the towers E to H harbour the main didactic zones — at least to what concerns the Design Studios —, it is in the block B where the splendour of Siza's architecture reaches its full adaptability. There not only are located two unique classrooms (a quadrangular one, commonly known as “the big window room” and an elongated room one, generally used by

5th graders) and the three auditoriums of the complex — which two of them are adjacent and can either work as two smaller spaces or as a greater one —, but also the social areas par excellence, for example, the bar and the exhibition halls.

Also located in building B, the remarkable library is another emblematic background of the daily life of pupils and teachers alike. With a warm setting that deviates from the empty white walls that are patent throughout the faculty, this space mesmerises even the most distracted passerby — it is no coincidence that every day countless people stop by merely to visit it. Moreover, the primacy of the used materials and its intimate atmosphere create the perfect environment for both individual its users seem to attain a state of introspection and ataraxia.



Fig. 13.1: Main ramp of the building B [Level 1]



Fig. 13.2: Corridor of access of the towers [Level 1]

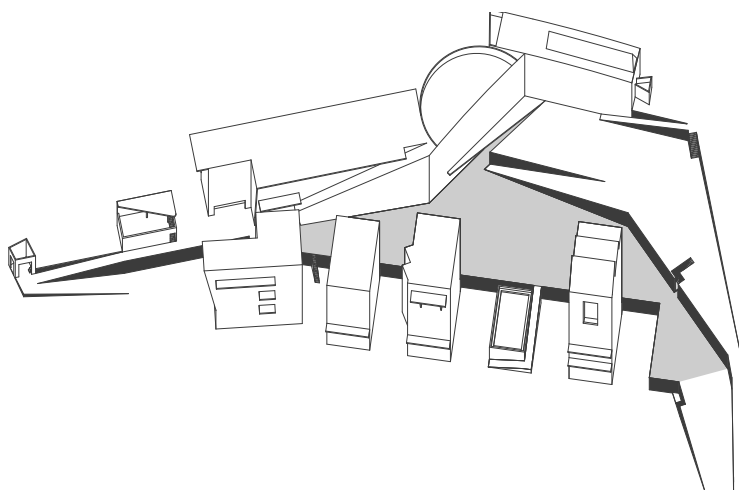


Fig. 14: Axonometry of the outer areas

Connecting all the main buildings at ground level, a sophisticated — yet unambiguous — system of transitional spaces permeates each area, at the same time it creates a spatial hierarchy that bestows the entire School upon an impression of kinetics and surprise. In reality, their use extrapolates the primary objectives of their function, and what could be contemplated as blunt paths, metamorphose into places of reunion: in them, loud conversations and joyful laughter fill the air, in a genuine sense of fellowship.

By all means, the teaching at FAUP is unquestionably not restricted to its more standard interior spaces as its outer areas have been continuously gaining importance in the many forms of creative expression of its pupils. Besides being an articulation between the many blocks, these zones work as an expansion of the classroom and its activities, conceding not just more area per student, but also an appropriate surrounding for big-scale models and tasks.

As expected, the permanent contact of the students with all those mixed spaces and settings enabled them to absorb the true spirit of the Porto School. Anyhow, this is not an easy chore. Siza's ability to synthesise in this project many influences — including references to his past works — makes the understanding of this building particularly challenging, which enables it to mature into an extraordinary pedagogical instrument. This premise is why pupils are invited to study the spaces of the faculty so intensively within several different



Fig. 15: Exterior view of FAUP

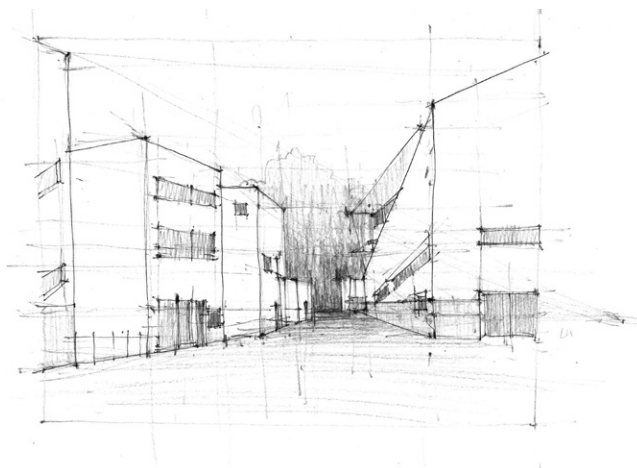


Fig. 16: Sketch of FAUP

courses within the Architectural Programme, including written Master's dissertations and even PhD thesis.

THE PEDAGOGY

The legacy of characters like Távora, Siza and Souto de Moura, whose maxim has always been learning by doing, still lives within the School today, especially in our methodological approach to the project. By making use of the statement of the Finnish architect Juhani Pallasmaa words: "University education needs to train wisdom: they have to, somehow, spread wisdom. But this happens in so few schools nowadays. We should go back to the practice of making."

The use of drawing — from hand-drawn sketches to 3D modelled renders — is considered a vital thinking instrument of addressing architectural challenges. This tool, allied with the comprehension of History and Theory, and Construction — resources that tend to defy architectural doctrines — is a trait that makes the teaching at FAUP so peculiar.

Thereby, the exercises proposed to the students in the different Design Studios are oriented so that they follow these masters' working methods while being supervised by teachers — usually considered acknowledged practitioners. In each project, the first conceptual ideas gradually unfold to increasingly more detailed designs, while approaching the accuracy and the obstacles of a hypothetical materialisation in the aimed site. Consequently, the use of drawing — from quick hand-drawn sketches to more elaborated 3D modelled renders — has remained an indispensable thinking instrument of addressing

architectural challenges. This distinct tool — allied with the comprehension of History and Theory, and Construction — is a trait that makes the teaching at FAUP so peculiar.

Although the previously mentioned disciplines are undoubtedly the core subtract of the Studios and the *ex libris* of the Porto School, there are a few weaknesses on the subject of Architecture, notably in the domains of technology, internationalisation, and social interaction. Even with these limitations, the School, as a whole, keeps working on finding new routes to evolve and establish “future traditions”¹.

Regarding the first problem, the technological domain has been gaining ground in recent years through a mandatory introduction of digital tools in both compulsory and optional subjects. New insights on the application of technology are emerging by exploring the relationship between its straightforward use and a broader universe of theoretical and material potentialities in architecture. Additionally, by using the automated technologies beyond their explicit geometric representations on screen, and by exploring their calculus capabilities — which gives an insight of a better approach to real contexts —, it will be possible to translate the advantages of digital fabrication into the School’s syllabi.

Nevertheless, there is insufficient practice and, consequently, little critical integration of automated technologies. Even if the training in this field implies a knowledge of the scientific domain of Drawing, the fast-growing diversity of computer-aided processes challenges its assimilation into Architectural Design, Construction and the History of Architecture itself.

Of course, the need for understanding the transformative character that digital technologies are introducing in the designing processes summons the realm of Architectural

1 “Future Traditions” was the name of the 1st eCAADe Regional International Workshop that took place at FAUP in 2013. According to the organisers: “To engender the theme, we construct the idea of “Future Traditions” based on two main motivations: — the recognition of the specific nature of the hosting school and city;— the vision about the current state of digital technologies in architecture, which is the underlying motif of the eCAADe events. On the one hand, internationally known as “the School of Porto”, the FAUP is a special place that considers traditions an important source of references and values for the education of future architects. (...) On the other hand, the debate around the impact of digital technologies in architecture is usually centred on the discovery of new possibilities for the discipline. However, the past and traditions can also play an important role in the future of architecture. After 50 years of technological assimilation, architects have today the necessary distance to embrace a critical reflection about how computers support the dynamics of continuity or rupture in the discipline”. [FUTURE TRADITIONS 2013:1st eCAADe Regional International Workshop (2013). Editors: José Pedro Sousa, João Pedro Xavier. Porto: FAUP Publicações, p.11.]

Theory. Moreover, its purpose also serves the necessity for a broader discussion on the architecture and architects' role in a contemporary world deeply portrayed by social, cultural and technological changes.

Thus, considering the manifest importance of digital representation in geometric exploration, conception, analysis and spatial communication, it seems indispensable to reinforce this component in the curriculum at two levels. On the one hand, it is mandatory to re-equate the teaching of CAAD (Computer-Aided Architectural Design) in relation to the rise of new processes such as photo or laser surveying, parametric and algorithmic design, performative analysis (solar, thermic, structural, *etc.*), digital and robotic manufacturing, GIS (Geographic Information Systems), and augmented reality. On the other, it is unquestionably urgent to reconsider the integration of BIM (Building Information Model) in order to ascertain, assess and reinforce architecture's position in favour of the growing preponderance — apparently irreversible — of this interdisciplinary methodology.

Besides, the construction of a new building on the faculty grounds — a Digital Fabrication Laboratory — is planned to increase the specialised academic production and the students' connection with the latest technologies. Although FAUP has a place with an equivalent purpose — in a partnership with the Institute for Systems and Computer Engineering, Technology and Science — to achieve the mentioned objectives, it is imperative to bring it closer to the School.

Concerning the aspect of internationalisation, the School's leading programmes (Master and PhD) attracts students from different countries, especially those from southern Europe and Latin America, given the culture and language proximity². However, the organisation of its curricula in annual and not on semestral courses makes the students' exchange much more difficult.

Despite the increasing volume of the incoming pupils associated with the Erasmus Programme — and other similar alternatives — along with the ones who enrol the Master Programme in the 4th year, the level of internationalisation is still deficient in comparison to other European colleges. Furthermore, the student mobility agreements are currently the main focus of the relationships established with the aca-

2 The use of Portuguese in classes is currently under debate. In fact, although most teachers speak or understand other languages easily — such as English, French, Italian and Spanish — enabling the integration of international students into practical classes, lectures are almost only given in Portuguese.

demic institutions all over the world and, as a consequence, the significant fraction of student exchanges is not equally reflected in the mobility of teachers nor even in the creation of international research networks.

Notwithstanding, there has been a collective effort within the many pedagogical departments to bring in foreign academics to participate in multiple teaching activities, like lecturers and reviews in the Architectural Studios. Conferences promoted by the School with relevant figures from the international background — addressed to not only its students but also a wider audience — are becoming more prevalent. Additionally, there has been recently an increment in the number of PhD candidates from other establishments, as well as postdocs seeking to integrate the local research teams.

While it may seem that FAUP is on the right track, there is still considerable room to improve. That is why the School strives to reinforce teachers' mobility, to grant greater curricular flexibility, and also to encourage more activities with other schools and networks of schools whenever the opportunity arises. Some of the latest initiatives have been workshops and summer schools, primarily intended for undergraduate and Master students from all over the world.

Synchronously, it is possible to say the same about social interaction and all the work that needs to be done. Although the School has actively participated in quite a few relevant social meaningful in the past — particularly in the early days of the post-dictatorship, namely within the SAAL process³ —, recently, there has been a detachment from most of the societal issues. That lack of communication is an obstacle in the development of urban territories, which is a crucial area to citizens and politicians alike.

Without the intention of promoting any political activism, it seems clear that the School needs to ensure that future architects are responsible and capable of acting in many different contexts. These qualities are especially valuable in those who have to deal with very challenging social realities where the architectural solutions may not be what would typically make magazine covers. For those reasons, it is compulsory to encourage more activities that would involve a more comprehensive commitment to social and environmental demands,

3 In Porto, during the operation SAAL (Serviço Ambulatório de Apoio Local), teams of students and teachers worked together in housing programs for people dwelling in "ilhas", densely populated areas with poor sanitation conditions in the backyards of traditional housing blocks. This operation was a well-known pedagogical experience, being later labelled as radical by the architecture historian Beatriz Colomina.

in cooperation with local public institutions and communities.

In this sense, there are already some experiences within the School in which the relationship between academia and regional government institutions is strongly encouraged. Whereas the latter constitutes a real scenario, it is through its symbiosis with the prior that is possible to test practical and theoretical conjectures that enable scholars to get closer to society's present needs and expectations. Therefore, by giving some tangibility to the exercises developed by the pupils and promoting a favourable debate to each institutions' interests, it is possible to narrow the distance between the academic and the real world, while promoting new artifices of applied research.

Consequently, a major curricular revision has been in progress at FAUP to address these questions. As a matter of fact, at the Centre for Studies in Architecture and Urbanism (CEAU), we have already been working on the metropolitan area of Porto in the fields of rehabilitation and heritage, social housing, public buildings and spaces, and urban planning. Additionally, there are also plans to expand its activities to other realms, preferably on partnerships with other schools and investigation centres.

To approach the School to society — and vice-versa —, it has to be guaranteed that its curriculum incorporates these themes more deeply, not just at its research centre, but also within its renewed Master and PhD Programmes.

CODA

“Architecture does not permit or accept improvisation, the immediate and directly transposed idea. Architecture is the revealing of a nebulously latent collective desire. This cannot be taught, but it is possible to learn to desire it.”⁴ Is this our hidden school?

4 SIZA, Álvaro (2008). “Sulla pedagogia”. In Casabella 770, Ottobre 2008, pp. 3-5. English translation, p. 107 (On pedagogy).

BIBLIOGRAPHY

- Costa, A. A. (2013). Illustrated Fragments on the Porto School. In *Joelho 04*. Coimbra: Edarq.
- Costa, A. A.; Costa, A. C., Fernandez, S. (2019). *Participatory City: Architecture and Democracy*. S. Victor. Col. Operações SAAL 2. Lisboa: Editora Tinta da China.
- Fernandes, E. J. (2010). *A Escolha do Porto: Contributos para a actualização de uma ideia de Escola*. PhD Thesis. Guimarães: Universidade do Minho, Escola de Arquitectura.
- Figueira, J. (2002). *Escola do Porto: um mapa crítico*. Coimbra: Edarq.
- Mesquita, F. (2019). *Saber fazer arquitectura: da didáctica à prática num paralelo entre Porto e Oslo*. Master Dissertation. Porto: Faculdade de Arquitectura da Universidade do Porto.
- Moniz, G. C. (2011). *O Ensino Moderno da Arquitectura. A Reforma de 57 e a Escolas de Belas Artes em Portugal (1931–69)*. PhD Thesis. Coimbra: Departamento de Arquitectura da Faculdade de Ciências e Tecnologia da Universidade de Coimbra.
- Paulino, R. G. (2013). *ESBAP/FAUP. O Ensino da Arquitectura na Escola do Porto. Construção de um Projeto Pedagógico entre 1969 e 1984*. PhD Thesis. Porto: Faculdade de Arquitectura da Universidade do Porto.
- Portas, N. (1967). Sobre la Joven Generación de Arquitectos Portugueses. In *Hogar y Arquitectura*, nº 68, pp. 77–84.
- Siza, Á. (2008). Sulla pedagogia. In *Casabella 770*, Ottobre 2008, pp. 3–5. English translation, p. 107 (On pedagogy).
- Siza, Á. (2009). *01 Textos*. Porto: Civilização Editora.
- Testa, Peter (1996). *Álvaro Siza*. Switzerland: Birkhäuser.
- Wang, W. (1988). *Figures and Configurations: Álvaro Siza. Works 1985–88*. Harvard: Emerging European Architects, Harvard University Graduate School of Design.

