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Siza in China – China in Siza. Observations and Reflections on “The Building on the Water”

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ABSTRACT

The following article contributes to the inscription of Álvaro Siza and Carlos Castanheira’s Shihlien office building in China (2010–2014) within Siza’s body of work. The Shihlien, also known as the “The Building on the Water,” was an unusual commission for the Portuguese architects, located on a distant site and designed under essentially unknown conditions. The public and critical reception of the building has been shaped by its remote location and private use, as well as by its spectacular form and representation in the media. How, if at all, has China influenced the project and how, reciprocally, has the project influenced China? In analysing Siza and Castanheira’s work, the present article re-employs Kenneth Frampton’s well-known essays from 1983 on Critical Regionalism and enacts two responses to them: 1) on-site observations of the building, together with a response to the experience of the site in terms of the human senses; 2) critical reflections, supported by photographs and notes, directed back at the Critical Regionalist analysis. In conclusion, I argue that the Shihlien both responds to the local context at the geographical, historical, environmental, cultural levels, and offers a statement of continuity in relation to the rest of Siza’s modernist body of works.

Introduction

The office building for the Shihlien Chemical Industrial Company in Huai’an, in the Jiangsu province (2010–2014), also known as “The Building on the Water,” is the first of a series of ongoing projects by Álvaro Siza (1933-) and Carlos Castanheira (1957-) being constructed in China. Though Siza and Castanheira have previously worked several times beyond their native Portugal, this commission from a distant land was somewhat unusual¹: the administrative offices for a chemical plant located in China’s changing industrial hinterlands, on a site connected to major

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highways and waterways as well as projected future railway lines. Siza joined efforts with Castanheira in order to be able to work on complex projects at distance. It is understood, nevertheless, that Siza's career establishes the context for the project.² In the case of China, the choice of this specific architect is unusual, too: despite his wide recognition, Siza has run a relatively quiet practice in Porto since 1958, with a reputation often associated with Critical Regionalism. As Siza has stated on more than one occasion, "often the client is more important than the architect."³ Evidently, Por-Shih Lin, the Chairman of the Shihlien Company, has a strong interest in architecture: the invitation to Siza and Castanheira indicates the expectation of increased quality but also bolstering the image and reputation of the project.⁴ Today global distances have collapsed: products and services, as well as people and information, rapidly cross borders. In many ways, the Shihlien is Porto. Together with the determination of the client, this may explain Siza and Castanheira's interest in accepting the commission.

The Shihlien building, a sinuous structure suspended over artificial waters, has attracted a significant amount of global media attention.⁵ Yet its relative isolation and private use have limited the opportunities to experience the building in person. Hence, the building is mostly known through a selection of photos taken by Siza and Castanheira's regular photographer, Fernando Guerra, together with the architects' drawings and own project descriptions.⁶ How, if at all, has China influenced the project and how, reciprocally, has the project influenced China? In one of the few close reviews of the building, the *Architectural Review's* China correspondent Austin Williams stated that Siza's first work in China is a piece of "ahistorical, non-contextual sculpturism."⁷ The suggestion of such an inconsistency in the architect's body of work, previously lauded for its responsiveness to place and history, prompted me to take a closer look at the project, and so in July 2019 I visited the Shihlien building, ultimately arriving at a different conclusion than that of Williams.

In his PhD dissertation *Álvaro Siza: Lugar y Crisis* [Álvaro Siza: Place and Crisis], Ángel Illescas Marín suggests that the concept of place itself is suffering an identity crisis: "... history, tradition and landscape have run out of any semantic capacity for design in a global, generic and monotonous context."⁸ For Illescas Marín, Siza's response to this crisis marks a new stage in his career, which in turn calls for new analyses of Siza's work. He discusses Siza's work chronologically and in dialogue with various theories of place. His own analysis of the Shihlien building is based on the architects' design documents and stated concepts. Referring to Gaston Bachelard, he first evokes the symbology of still waters and death,⁹ but then suggests a different reading: "Siza subverts this unconscious reading ... by designing a fluid building that transmits force and vitality," adding that "Siza uses the organic form, based on the gestures of the body and hand drawing ... to

break the isotropy of the *generic space*” [italics in the original], and “Converted into a *fold*” [italics in the original],¹⁰ the building alters the “perception of its anodyne and monotonous environment, thus opening the possibility of poetic reinterpretation.”¹¹

Whereas Illescas Marín delves into what he interprets as the deeper meanings of the Building on the Water, the present article, which is part of a broader ongoing study on Siza’s activities in Asia, aims to inscribe it within Siza’s body of work through a complementary method, focusing on it as a case study, interweaving on-site observations and critical reflections. In support of each of these actions, moreover, the article re-employs Kenneth Frampton’s two well-known essays from 1983, “Towards a Critical Regionalism” and “Prospects for a Critical Regionalism,” the latter of which contains an analysis of Siza’s work up to that time.¹²

Materials and Methods

The primary source of this article are my own on-site observations of the Shihlien, while the theoretical input comes from the above-mentioned two articles by Frampton. The former article is a theoretical entry into Critical Regionalism, Frampton arguing for a “practice of resistance” in regard to both the Enlightenment’s “myth of progress” and a “reactionary impulse” to return to the past, and which as such is “as much a bearer of *world culture* as it is a vehicle of *universal civilization*” [italics in original].¹³ The latter article explores these ideas through examples drawn from contemporary practice, giving particular prominence to Siza. Since their strong initial impact, Frampton’s essays have been discussed and critiqued by others at length.¹⁴ Within the scope of the present article, their qualities and shortcomings are addressed only indirectly. The primary reason for referring to them is in recognising at least the latter’s contribution in establishing Siza’s reputation as a practice directed, in Frampton’s terms, towards “cross-fertilization” and a “hypersensitivity toward the fluid and yet specific nature of reality.”¹⁵ Now, as Siza extends his practice to Asia, and with the meaning of these activities still up for debate, Frampton’s analysis seems as pertinent as ever. The unusual characteristics of the Shihlien project indeed provide us with an additional reason to put this relationship at test.

In fact, the relationship between Siza and Critical Regionalism has been in question for some time. It is not easy, for instance, to reconcile the idea that Critical Regionalism operates from the peripheries and “within the cultural fissures” with the actual development of Siza’s career. For Jean-Louis Cohen, Critical Regionalism has become too narrow a concept to explain Siza’s “geographic and thematic reach.”¹⁶ Still, and adding further to the hypothesis put forward in the introduction – if Siza’s practice has not changed fundamentally, then an attentive observation of the Shihlien building should

be able to show its context-responsive and relevant aspects. The study of Siza's recent project could even lead to a reassessment of the Critical Regionalist analysis in regard to his work.

Frampton's essays were chosen also because they provide support for the method of observations and reflections put forward here. Wary of the limits of images, Frampton makes a strong case for the direct experience of buildings, encompassing visual, tactile and kinetic perceptions.¹⁷ This idea has notably been extended by Juhani Pallasmaa in *The Eyes of the Skin*, in which he describes the complex interactions between architecture and the body, and between the senses and memory.¹⁸ These texts leave no doubt about the active status of the act of experiencing architecture. They proved useful both in guiding my on-site observations and in editing my recorded observations. The four sections in this article can thus be read as the sequences in a site visit, evoking the various senses, and encompassing the various scales of the object, from the landscape to the detail.

Finally, Frampton's Critical Regionalist essays provided, through the framework of "topography," "urban fabric," "local materials and craftwork," and "light"¹⁹ – which I have adapted to the more neutral categories of site, plan, structure, and openings – a structure for collecting and organising data: photographs, drawings and notes taken from observation of the building in use and from informal conversations with my host (one of the everyday users of the building, a director of the company).

Each of the four sections has a similar structure; first a Critical Regionalist remark, followed by my own observations recorded in the first person, and concluding with critical reflections, supported by secondary sources, redirected towards Frampton's analysis of Siza's work.

Site: Artificial Waters

Frampton establishes an opposition between the positive notion of "significant urban form" and the more negative processes of modernisation as conditioned by "distribution," "speculation," and "production."²⁰ In the Shihlien, it is the latter that have a dominant role.

I travelled the 270 kilometres from Shanghai to Nanjing, and then another 170 kilometres north towards Huai'an City. This flat region, at the lower reaches of the Yangtze, Huai, and Yellow rivers, is historically vulnerable to flooding and is less developed than the cities in the south of the Jiangsu province. The location of the Shihlien plant was determined by the presence of salt deposits (salt extraction is an ancient practice here), which is used in the production of soda ash for glass manufacturing (Shihlien is a subsidiary of the Taiwan Glass Group). Glass is in strong demand because of its applications in smartphones, for example. The choice of site is also representative of the continued process of urbanisation and modernisation

in China: developments in transportation and industrial automation are pushing industry to the periphery, purportedly increasing productivity, while reducing congestion and pollution in the cities.

I enter the Shihlien industrial complex via a moat and bridge, a pair of gates and a second bridge (Fig. 1). Curving away from the access axis, and perpendicular to it, the Building on the Water is finally in view (Fig. 2). Before entering, I am taken on a tour around the industrial complex: seated in a latest generation electric minibus, I think about Siza and Castanheira's interest in this remote site, which Williams described bleakly as a "complex of smokestack factories, storage units, power plants, pipes and warehouses."²¹ When I reach the north edge of the precinct, I notice an industrial dock connected to the Subei Canal that runs through Huai'an. Across the waterway, the rice paddies are divided by rectangular irrigation ditches, and on this side of the flat area, the grounds are raised one metre for flood protection. 700,000 cubic metre of soil were excavated for the purpose of creating this flat embankment, leaving a 250 × 400 metres water reservoir on it (Fig. 3).

Williams explains that the water reservoir is "used for cooling purposes and to supply the manufacturing plant with non-potable supplies."²² This technical clarification is useful, but still insufficient to explain the gesture of suspending the offices above the reservoir. As the visit starts to show, in this region there is more to the status of water (something I could later confirm when travelling to Nanjing and Suzhou, where water is simultaneously nature and man-made construction). For instance, my online maps show



Figure 1. View outside the gate of the Shihlien Chemical Industrial site. Photo by the author (2019).



Figure 2. The first view of the Shihlien building. Photo by the author (2019).

that the Shihlien is 10 kilometres equidistant from the Hongze, one of China's largest freshwater lakes, and the Subei-Grand Canal junction. As is well known, the history of China intertwines with the construction of the famous canals, which were begun already in the 5th century, and which have served the various purposes of navigation, defence, power generation, irrigation, and flood control. Searching a little further, Wikipedia states that in parallel with the construction of the canals, since the 12th century, repeated floods blocked the downstream sections of the Huai River, making Lake Hongze quadruple in size. Finally, the construction of the Subei Canal in the 1930s sought to revert this process by diverting the lake waters back to their *natural* course into the sea.²³

In his study on Siza and the “crisis of place,” Illescas Marín gives special importance to the “Building on the Water,” as indicated by the image on the front cover of the thesis (a photo by Guerra): a farmer or worker paddles a barge with the floating offices in the background. Illescas Marín begins his analysis by asking: “How convincing would it be of Siza to attempt to reveal and manifest the surrounding industrial context?,” but then interestingly emphasises the role of memory and imagination in Siza's works.²⁴ According to him, Siza uses organic forms “to break the isotropy of the *generic space*.” To corroborate this idea, Illescas Marín quotes a famous remark by Siza. Siza has said that the most difficult situation would be to build in the desert. Yet, in Siza's words, “there are no deserts on this Earth” and even in the Sahara “on laying the foundations, something would appear.”²⁵ It is as if Siza and Castanheira found in this territory, seemingly

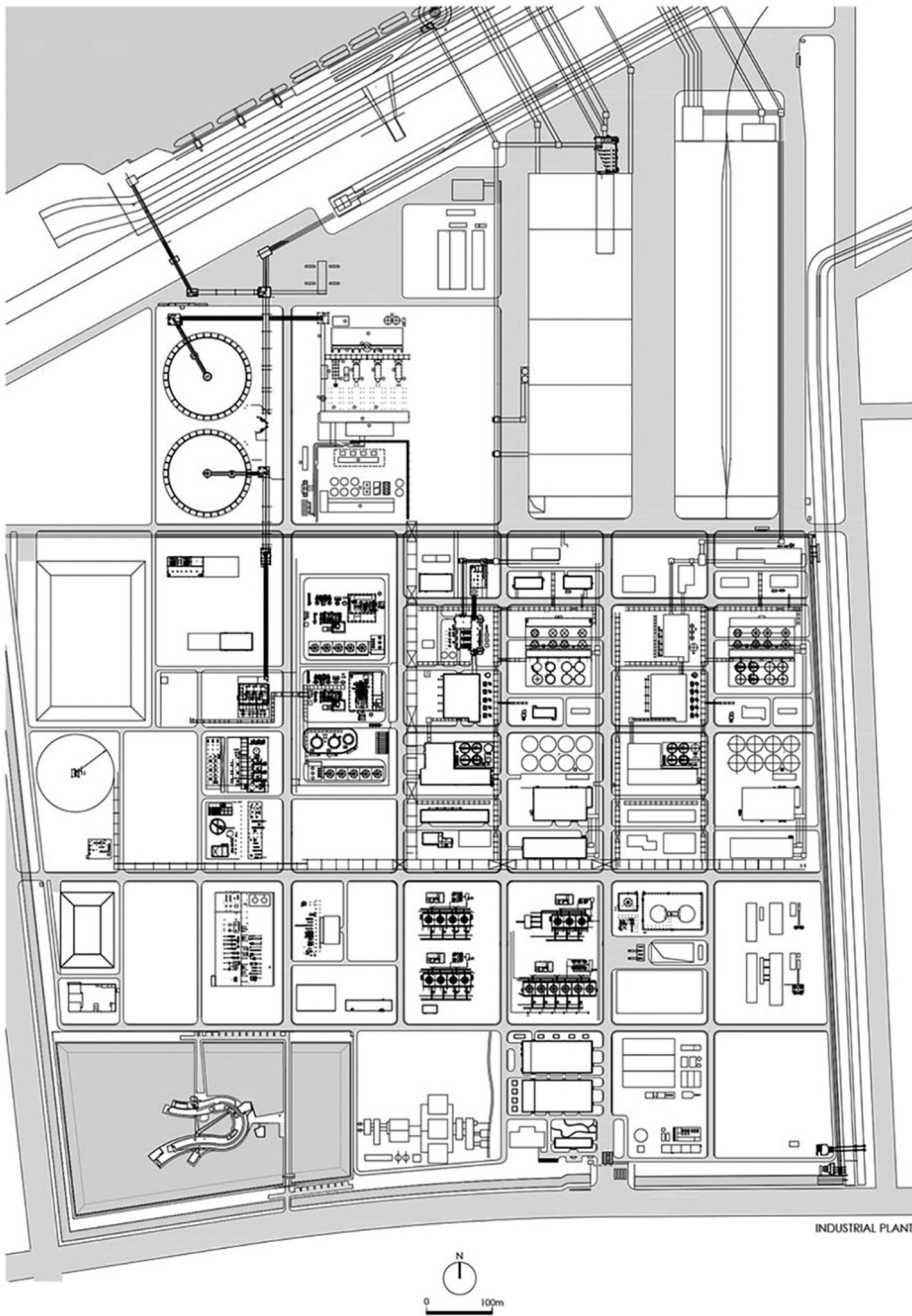


Figure 3. Site plan. The access to the site and the water reservoir are in the southwest corner (lower left). Permission Álvaro Siza and Carlos Castanheira.

devoid of specific features, a positive quality in the water and in the human efforts to control it. Finally, Illescas Marín quotes also the imaginative conclusion of Siza's thought on building in the desert: "I should feel the displeasure of being called a contextualist, even in the Sahara Desert or at

the bottom of the sea.”²⁶ Illescas Marín’s perhaps rather extreme conclusion is that Siza’s recent work “no longer reveals, manifests or discovers the essence of the place. Instead, it *produces place*” [italics in original].²⁷

We can now return to Frampton’s opposition between modern processes and “significant urban form”: he equates the “terracing” of a site with an “engagement in the act of ‘cultivating’ the site,” and the “bulldozing of an irregular topography into a flat site” with an aspiration for “absolute *placelessness*” [italics in the original].²⁸ In the Shihlien, Siza and Castanheira recognise the necessity of the modernisation and contribute to the creation of the industrial site. Considering the extent of the changes, it is difficult to evoke the notion of place. However, it can hardly be said, either, that the project exacerbates a condition of “placelessness.” Instead, it could be argued that the choice of the reservoir and the suspension of the building above the artificial waters reinforce the wider material and cultural role of the water in this region. Despite the severity of the modern processes, different sites continue to present specific features, and topography continues to be of primary importance for building the site. Perhaps, if Frampton’s formulation is taken more broadly, we could agree that in the Shihlien, the “culture of the region . . . becomes inscribed in the form and realization of the work.”²⁹

Plan: Flowing Courtyard

Frampton stresses the importance of the “bounded place-form” that articulates public and private: “perhaps the most generic example of such an urban form is the perimeter block, although other related, introspective types may be evoked such as the galleria, the atrium, the forecourt and the labyrinth.”³⁰ However, can these public forms be established in an office building in an industrial area, which for necessity is removed from the city and dedicated to specialised activities?

The bus reapproaches the Shihlien Building from the east, with its sinuous contours standing out in contrast to the rectangular reservoir. Compared to the photos by Guerra, the water level is low, revealing the stilt-pillar foundations. I wonder, will this fluid datum become the norm in a future of climate change? From the main bridge, a second miniature bridge diverts into a floating garden. At close view, the surface of the water changes from reflective to transparent. Under the entrance cantilever, I am greeted by a piece of sculpture by Siza himself. In the lobby, the pillars – in various forms and arranged in no particular order – filter the view of the inner courtyard. The effect of shadow changes the water’s appearance, giving it a deeper tone. Two curved wings extend out from each side of the lobby, creating an external space about 40 metres in diameter, which extends into the distance; the two wings are reconnected across the water by

a bridge and a diagonal ramp that links the second floor to the lobby, closing a continuous movement that Williams referred to as a “Möbius strip effect.”³¹

Siza and Castanheira’s reading of the site becomes clearer through the decision to arrange the offices on two storeys around a central space: far from the city – i.e. from the urban logic of density and anonymity – this presents an alternative to open plan offices (Fig. 4). As I stroll along the curve of the building, the rooms follow each other in a practical sequence, creating and breaking relations with the surrounding industrial area, and supporting the descriptions and explanations of my host. Courtyards are one of the typical urban elements used for articulating the division between public and private, in Frampton’s sense. However, I hesitate in calling this a courtyard, as the interior spaces do not necessarily overlook the central space, and there is no solid ground. Still, this “void space” distends the dimensions of the plan, introducing a vertical connection to nature, which is activated through the insertion of both a bridge and a ramp. Moving through the offices becomes a pleasurable experience that to some extent explains their isolation (Fig. 5).

In modern architecture, the idea of a courtyard with no ground, and crossed by a *promenade architectural*, has a precedent in Le Corbusier’s Convent of La Tourette (1956). Instead of the convent’s spiritual theme and

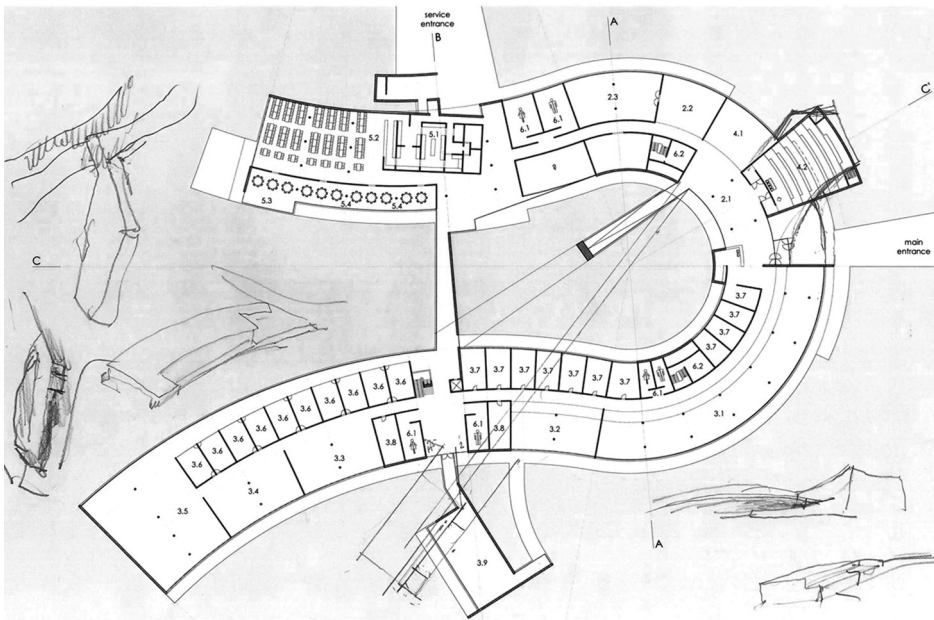


Figure 4. First floor, plan at design stage. The rooms for specific purposes are in the north wing (top). In the south wing there is mostly office space. Permission Álvaro Siza and Carlos Castanheira.



Figure 5. View of the flowing courtyard. Photo by the author (2019).

sloping site, Siza and Castanheira are dealing with office routines and liquid, and instead of *béton brute*, smooth white concrete and glass: the presence of a power station, the roof of a warehouse, various kinds of pipes, the sky reflected on the water – the industrial location makes the machine analogy evoked by the promenade all the more amusing!

The complexity of the public dimensions in the Shihlien project is suggested by the reception the building has received in the media (where, to Frampton's consternation, architecture also performs a role as an image or branding that responds to the representational needs of a global glass producer). Nevertheless – as is seen in the way the two-storey courtyard helps organise the realms of the company and its staff as well as visitors and the overall circulation – the traditional dimensions of articulation between the public and private realms remain crucial.

The Shihlien also should be examined within the context of Siza's typological approach,³² and continuous experimentation with courtyard plans. Peter Testa noted that, on the one hand, this involves a practical interest in – that is, a distancing from – specific forms. Different cultures in different times have produced courtyards, and Siza is aware of a range of examples, and yet, as Testa explains, he is less interested in the “reappropriation of forms” than in the “ideas which lie behind the forms, and which if valid to the task, provide support for new proposals.”³³ On the other hand, it involves an understanding of how the specific forms relate on a general level, constituting an “enduring and transposable” conceptual structure. Again, as Testa explains, Siza is less interested in the way this could lead

to theory than in using it in design practice to avoid “the purely subjective or individualized gesture.”³⁴

Siza’s experimentations have placed a focus on the open courtyard. It offers many compositional possibilities and relates well to the expectations of modern life. Wilfried Wang speaks in this respect of the influence of Alvar Aalto: the open “U-shaped plan” offers both protection and extroversion: “it opens towards the outside, towards a view beyond.”³⁵ The flexibility of the open courtyard makes it possible to connect with and inflect architectures across cultures.³⁶

In Portugal, a monastery might suddenly appear in a rural landscape, standing proud, containing a geometric cloister around which the rhythms of religious life are organised.³⁷ In the Chinese tradition, houses, palaces, and temples form multi-courtyard complexes delimited by various kinds of low, closed, partly closed, and open buildings.³⁸ Classical Chinese gardens present a separate line of evolution, less connected to the outside world than to the imagination and poetry.³⁹ As is well known, their artificial-natural forms – organic lines, contrasts, movement, reflection, borrowed scenery – have exerted a strong influence in the modern Western world.

Structure: Stilt-pillars and Cantilevered Slabs

Frampton writes that “the primary principle of architectural autonomy resides in the tectonic.” As he elaborates, this autonomy is “embodied in the revealed ligaments of the construction,” and in the way that the “form of the structure explicitly resists the action of gravity.”⁴⁰ With this in mind, I directed my attention to two main structural features: the stilt-pillars and the cantilevered floor and roof slabs. If, as Vincenzo Riso noted, Siza’s preferred building method – reinforced-concrete wall construction – is “based on the spatial and formal qualities inherent in masonry structures” of Southern Europe,⁴¹ where did Siza and Castanheira base this solution?

The clues emerge not from the guided observations but as I actually walk through the building: the summers in Huai’an are hot and humid, and yet on this particular day, though many workers are on holiday, the windows are wide open and the lighting and air-conditioned are turned off.⁴² The sensuous floor plan – shallow, suspended above water and exposed to breezes – creates an alternance of sun-exposed and shaded areas. The floor-to-ceiling windows have operable elements to allow for cross-ventilation: I step out onto the south-facing veranda, protected from the rays of the sun by deep overhangs.

Despite the exuberance of the plan, the building has seemingly been conceived on the basis of the comparatively simple transverse cross section. Siza famously records the design process in notebooks of sketches. One of

the few published pages of sketches of the Shihlien shows the diagram of a 16-metre-wide transverse section divided into three aisles, the central one of which is a double storey space (the built version is four to five aisles) (Fig. 6).⁴³ It is possible to conceive of the building on the basis of this diagram, by adapting it like a module to specific uses and orientations along the length of sensuous curving plan (Fig. 7). In a separate group of sketches, Siza plays with the three-dimensional appearance of the walls, floor slabs, under- and overhangs, and roof details, through which the design acquires its sculptural quality.

In the main office section of the building, the motif of the transverse section evolves into a narrow double-height shaft lit by a clerestory. The open-plan office on the lower floor is connected to the directors' offices on the above floor by means of light and sound. In addition to possible thermal advantages of a stack effect, this variation in ceiling-height increases the legibility of the interior. Traditional Chinese timber-framed construction is similarly based on the use of the building's transverse section as the design module. The ridge is parallel to the main façade and the sloping underside of the eaves is often in view. The dimensions, number, rank and joining style of the timber elements in a section define the bay. Buildings increase in size by through the addition of the number of bays, linearly. The method translates into permeable interiors, raised up off the ground onto platforms, and covered by distinct multi-eaved roofs. Whether by direct observation or through the study of books, Siza and Castanheira seem aware of this tradition.⁴⁴ In the passage from structure to form, Siza and Castanheira make a distinction between negative and positive aspects of tradition. For

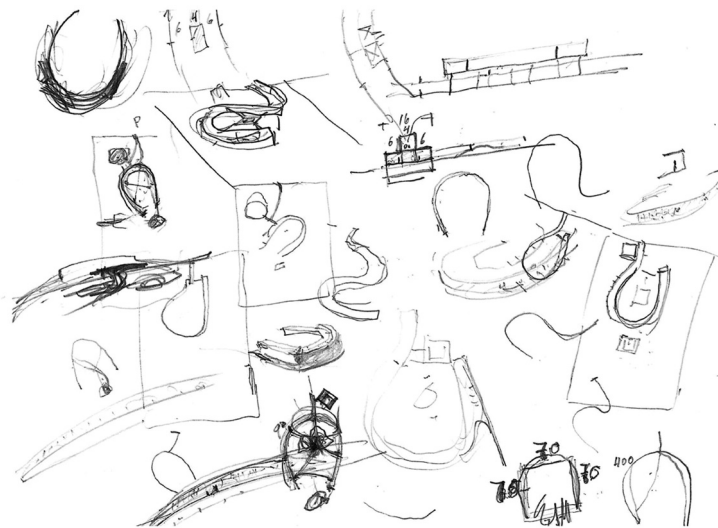


Figure 6. Design sketches. The first diagram of the transverse section or module is in the centre of the page. Permission Álvaro Siza and Carlos Castanheira.

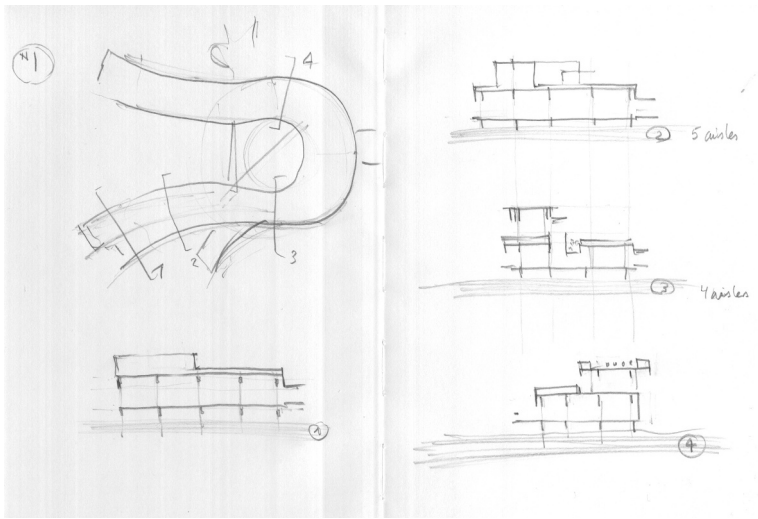


Figure 7. Transverse section (module), showing how the four to five aisles structure adapts to various configurations. Drawings by the author.

instance, they discard the use of wood and local crafts, and use cast-in-place reinforced concrete, which they find possibly best suited to the conditions of contemporary production.⁴⁵ On the other hand, they maintain and recreate aspects of the frame tradition. An example of the latter is the use of the service systems to swell the thickness of the slabs: on the exterior, this additional space for machine rooms contributes to the layered roof motifs (together with the green roof, this thickness also shields the interior from the sun); on the interior, the service spaces for ducts contribute to the ceiling height variations. Together with the projecting slabs, this results in a permeable, subtly lit space, like that typical of East Asian frame structures, but based on a modern, hybrid environmental management system.

In *The Architecture of the Well-tempered Environment*, Rayner Banham famously distinguished between “structural” and “power-operated” methods of environmental control.⁴⁶ Focusing on the Cité de Refuge in Paris (1929–1933, 1952),⁴⁷ Banham described Le Corbusier’s *brise-soleil* as a case in point. With this structural, “external egg-crate of vertical and horizontal shades,” as Banham described it, Le Corbusier corrected the shortcomings of his initial, power-operated design.⁴⁸ The wall was recreated as a *selective*, rather than a *conservative* element, keeping with Banham’s terminology.⁴⁹ The *brise-soleil* suggests a paradigm shift: it not only improved comfort by modulating energy transmission, but also, equally importantly – and in my view, something particularly insightful in Siza and Castanheira’s approach – promoted the rediscovery of the formal value of the wall, thus supporting a stronger idea of universality towards cultural adequation and sensual pleasure.⁵⁰

Openings: Light and Images

According to Frampton, a Critical Regionalist practice is sensitive to the “modulation and incorporation” of climate and local light; in opposition to the optimum use of universal technique evident in the generic window, he argues that fenestration has “an innate capacity to inscribe architecture with the character of a region and hence to express the place in which the work is situated.”⁵¹

In the north wing of the Shihlien, I walk through a sequence of halls intended for different purposes: each is characterised by its openings. The irregular-shaped auditorium, the curving walls and stepped floor of which are a visual evocation of acoustics, is lit by a single window. In the ceremonial hall, which is screened from the corridor by a three-sided partition, a fully glazed external wall towards the industrial yard grants this space both vision and visibility. The restroom and service area next to it are introverted and top-lit. The wing terminates in a large refectory: on the courtyard side (facing south), the hall is lined with cabinets, connected through sliding doors, and equipped with round tables for Chinese-style banquets. On the opposite side, facing north, the hall is enclosed by a wall with a horizontal slit opened at sitting level and displaying a panorama view of the plant. As I think of Le Corbusier’s ribbon windows, my host suggests a more interesting association with the Asian scroll painting tradition.

From the refectory area I cross the bridge, which is fully glazed towards the west: the steel tube columns, attached to the inner face of the window frames, form a row of slender round verticals, countering the effect of extension by resembling familiar rhythms (Fig. 8). In a play with the panopticon plan, deemed the model of efficiency for industrial offices, Siza and Castanheira marked the centre(s) of the courtyard with an oculus on the solid east wall of the bridge. Above this bridge there is a second bridge-ramp. Later, when I ascend this ramp from the lobby towards the directors’ offices on the second floor, I notice an additional pair of eye-shaped windows. Two precise sunrays penetrate the otherwise dark route. According to my host, this sequence – constructed in accelerated perspective – relates to the sense of venture and responsibility required by the administration.

Dean Hawkes included Siza among an architectural tradition based on what he terms the “environmental imagination,” that is, one concerned with both objective or quantitative and subjective or qualitative aspects – *technics* and *poetics* – of, for instance, heat, humidity, light and sound.⁵² Examining Siza’s windows,⁵³ Hawkes noted how they concentrate many roles: they regulate the climate,⁵⁴ let in appropriate light, contribute to the character of each space, frame views bi-directionally, and establish “complex relationships” with the surrounding landscape and wider architectural and cultural traditions. All these aspects are evident in the openings in the Shihlien as well.

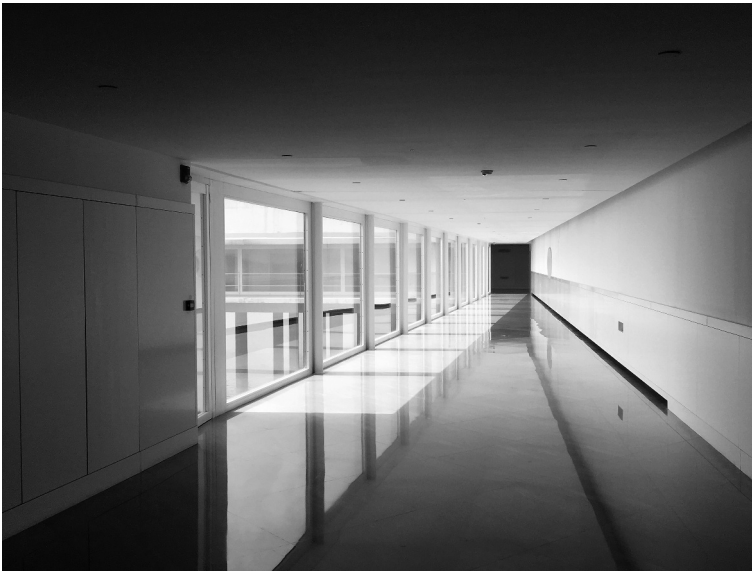


Figure 8. View of the bridge (northwards and towards the refectory). Photo by the author (2019).

At the point where the bridge intersects the southern wing, a pavilion juts out from the sinuous plan. This separate meeting room, protected by vertical shades and a projecting veranda, has a large table in the centre. I am told this was made by cabinetmakers in Portugal and shipped here. The atmosphere is unique and at once Siza, with the various stone, wood and plaster elements unified through a white finish (Fig. 9). Siza's language is laconic and demanding, but also generous and evocative. The simple details give the impression of being inside a large-scale model. Siza has indeed referred to the importance of such large-scale models⁵⁵ when working at a distance from the site – the various design, construction, and reception aspects touched upon here have possibly mutually influenced each other. This adds a layer to Frampton's remark, quoted above, that fenestration has “an innate capacity” to inscribe architecture with the character of a region or specific place.

Siza in China – China in Siza

In his review of the Shihlien, Williams concludes that Siza's first work in China lacks the consistency of his previous work and that it “disdains context through surreal abstraction.”⁵⁶ I have suggested the opposite: the Shihlien is a complete architectural artefact, the experience of which makes it possible to get a glimpse of the unique place where it is built.⁵⁷

The experience of architectural sites is in many ways irreplaceable. For Illescas Marín, who examined the Shihlien based on theories of place and design documents, its “sculptural” dimension is a response to the unknown



Figure 9. View of the meeting room-pavilion. Photo by the author.

site and conditions: Siza “produces place.” I have shown that the spectacular forms of the building are often more simply supported by the purpose and the practical conditions of the project.

In his argument for Critical Regionalism, Frampton advocates that it “involves a more dialectical relation with nature,” as opposed to the *tabula rasa* tendency of modernisation” [italics in original]. He equates the gesture of “bulldozing of an irregular topography into a flat site” with the aspiration to a “condition of absolute *placelessness*.”⁵⁸ On first impressions, this would also seem to be the case in the construction of an office building on an optimised embankment for industrial production in a rural territory. And Siza and Castanheira have contributed to such a transformation. Yet, it cannot be said that their design exacerbates a condition of “placelessness,” nor that it is a metaphor of the generic. As Siza put it: “there are no deserts on this Earth.” As my observations confirmed, the site remains of primary importance for Siza’s practice. The siting of the offices, suspended over a water reservoir, does not hide the difficulties of the site. But perhaps more importantly, it constitutes a response to the status of water in this region, to the decentralised organisation of industrial production today, and to specific functional and environmental aspects. The sinuous form of the office building, forming a courtyard over water, coherently connects these various logics – thus suggesting that if at many levels the process of modernisation tends to homogenise differences, specific features will continue to emerge.

According to Frampton, an architecture of resistance is one that cultivates “bounded domains.”⁵⁹ This private and remote office building raises the

question of the possibility of creating public domains in such extreme conditions. Siza and Castanheira organised the office building using a typical urban form. I have argued that the Shihlien represents an extension of Siza's continuous experimentation with open courtyards. On a more general level, the two-storey courtyard distinguishes between visitors and the company, and between staff and the directorship. The specific features of the plan point to the challenging and contradictory aspects of the commission: the interior spaces do not necessarily give anything to the central space, which furthermore has no solid ground. Instead, this void space is activated by a ramp and a bridge, closing a promenade that itself articulates the public and private domains. Siza and Castanheira's serious yet playful consideration of the role of the *promenade architecturale* is attested in the detail of the oculus that marks the multiple centres of the plan, indicating a deconstruction of the industrial panopticon.

The touchstone of Frampton's Critical Regionalism is tectonics, i.e. the "play between material, craftwork and gravity" that elevates a structure from technics to poetics.⁶⁰ Frampton refers to Jørn Utzon's Bagsvaerd Church as an example of the role of "cross-fertilization" in the creation of built form. Working in China presented Siza and Castanheira with the opportunity to study local traditions. The attempt to combine their usual reinforced concrete wall construction with Chinese timber frame methods indicates a similar process of cross-fertilisation. However, I have also noted that the relationship with tradition involves both positive and negative actions. The use of concrete suggests the possible limitations or a wish to refrain from using wood crafts. Conversely, the modular conception of the structure – with a shallow plan, stilt-pillars, projected eaves, ceiling height variations – was retained from the wood tradition and provided the basis for the original and environmentally sound design of the Shihlien.

As mentioned earlier, Critical Regionalism ascribes a crucial role to fenestration.⁶¹ The openings of the Shihlien are, as is usual in Siza's architecture, abstract and carefully conceived. Even if partly liberated from their thermal and ventilation functions, they nevertheless preserve the multiple roles of controlling light, characterising space, framing views, and participating in the composition. Furthermore, they present in a concentrated form the double aspect of this relationship: Siza in China – China in Siza. Perhaps this is most palpable in the meeting room-pavilion: the space is flooded by water-reflected light, extending outwards through projected slabs: it is at the same time from here, yet unmistakably Siza.

Notes

1. Castanheira had been Siza's office collaborator in 1985–1993, and an external collaborator on numerous projects since then. Siza and Castanheira's first project in Asia was the Anyang Art Pavilion in South Korea (2005–2006). Their projects in Mainland

- China include the China Academy of Arts China Design Museum, Hangzhou (2012–2018), the MAOE – Humao Museum of Art Education, Dongqian, Ningbo (2014–2020), the Lake Club Houses 1–5, also in Dongqian (2014–), the Haishang Museum, Jiading, Shanghai (2016–), and the Green Dragon Belt Park, Jiangbei New Area, Nanjing (2019, not built). In addition, Siza designed the pavilion for the Camerich company at the 2019 China International Furniture Fair in Shanghai.
2. Shuenn-Ren Liou described Siza’s architectural and management strategies in Asia as a “passive extension” of his practice in Europe, highly dependent on Siza’s “personal experience and comprehensive judgment”, and therefore as one extreme of the “two typical models of the known western architects coming to Asia” for practice (the other being the Asia-targeted, theory-based practice). Shuenn-Ren Liou, “Rem Koolhaas and Álvaro Siza in Asia: An Architectural Comparison”, *Athens Journal of Architecture*, vol. 1, no. 3 (2015): 230–236.
 3. Álvaro Siza, “The Client is More Important Than the Architect”, in *Ultimately I Search For Clarity. Thirteen Conversations with Architects*, ed. Sandra Hofmeister (München: Edition Detail, 2018), 13.
 4. Lin commissioned from Siza and Castanheira other projects in Taiwan, including a Golf Club in Taifong (2009–2020) and a family mausoleum in New Taipei City (2015–2017). To get to know more about the client’s particular interest in Siza, however, one would need to interview the architects or client.
 5. The building has been fairly widely published in magazines and online. For example, it received the ArchDaily website’s 2015 Building of the Year prize. Romullo Baratto, “Álvaro Siza Says ArchDaily’s Building of the Year Award Provides ‘Strong Incentive’ for Profession”, *ArchDaily*, 26 February 2015, <https://www.archdaily.com/603212/alvaro-siza-says-archdaily-s-building-of-the-year-award-provides-strong-incentive-for-profession>.
 6. “The Building on the Water”, Carlos Castanheira Architects, accessed 12 November 2021, <https://www.carloscastanheira.pt/project/the-building-on-the-water/>.
 7. Williams is openly humorous and polemical in his review of the building; for instance, he takes issue with the client’s idea of inviting a famous architect to design the project, then in turn scorns the motives of the architects, local officials, and users. Austin Williams, “Chemical Plant Offices in Huaian City, China by Álvaro Siza”, *Architectural-Review* 1416 (February 2015), <https://www.architectural-review.com/today/chemical-plant-offices-in-huaian-city-china-by-alvaro-siza>.
 8. Ángel Illescas Marín, “Álvaro Siza: Lugar y Crisis”, PhD dissertation, Universitat Politècnica de Catalunya, 2017, 333. Translation by author.
 9. Illescas Marín is referring to the essay, Gaston Bachelard, *L’eau et les rêves* (Paris: José Corti, 1942).
 10. A concept appropriated from Gilles Deleuze via Ignasi Solà-Morales. According to Solà-Morales, Deleuze restores through the concept of the fold the “decorative condition” of architecture, which is not the “trivialization of the vulgar”, but the recognition that for the work of art and architecture, “a certain weakness . . . may possibly be the condition of its greatest elegance and, ultimately, its greatest significance and import.” Ignasi Solà-Morales, “Weak Architecture”, in *Differences: Topographies of Contemporary Architecture*, ed. Sarah Whiting (Cambridge: MIT Press, 1996), 70.
 11. Illescas Marín, “Lugar y Crisis,” 279–281. Translation by author.
 12. Kenneth Frampton, “Towards a Critical Regionalism: Six Points for an Architecture of Resistance”, in *The Anti-Aesthetic: Essays on Postmodern Culture*, ed. Hal Foster (New York: The New Press, 1983), 17–34; and Kenneth Frampton, “Prospects for a Critical Regionalism”, *Perspecta*, Vol. 20 (1983): 147–162.

13. Frampton, “Towards a Critical Regionalism”, 20–21.
14. See, for example, the recent number of the journal *OASE: Critical Regionalism Revisited* 103 (2019), <https://www.oasejournal.nl/en/Issues/103>.
15. Frampton, “Prospects for a Critical Regionalism”, 148, 150.
16. Jean-Louis Cohen, “Architecture Without Capital Letters”, *Álvaro Siza 1995–2016, AV Monografias*, no. 186–187 (2016): 4–11.
17. Frampton, “Towards a Critical Regionalism”, 28.
18. Juhani Pallasmaa, *The Eyes of the Skin: Architecture and the Senses* (London: Wiley), 39–72.
19. Frampton, “Prospects for a Critical Regionalism”, 151.
20. Frampton, “Towards a Critical Regionalism”, 17.
21. Williams, “Chemical Plant Offices”.
22. Williams, “Chemical Plant Offices”.
23. See, for example, Yuan Wang, “Management of the Grand Canal and its bid as a world cultural heritage site”, *Frontiers of Architectural Research* 1, no. 1 (March 2012): 34–39, <https://doi.org/10.1016/j.foar.2012.02.004>.
24. Illescas Marín, “Lugar y Crisis”, 327. Translation by author.
25. Álvaro Siza, “I should like to build in the Sahara Desert”, *Quaderns* 169–170 (April–September 1986): 91.
26. Siza, “I should like to build in the Sahara Desert”, 91.
27. Illescas Marín, “Lugar y Crisis,” 330–331. My translation.
28. Frampton, “Towards a Critical Regionalism”, 26.
29. Frampton, “Towards a Critical Regionalism”, 26.
30. Frampton, “Towards a Critical Regionalism”, 24–25.
31. Williams, “Chemical Plant Offices”.
32. A typological approach, not in the narrow sense proposed by urban conservation but corresponding to the *scientific* moment of architecture. For more on this open understanding of typology see, Carlos Martí Aris, *Las variaciones de la identidad. Ensayo sobre el tipo en arquitectura* (Barcelona: Ediciones del Serbal, 1993).
33. Peter Testa, “The Architecture of Alvaro Siza”, Grad. thesis, MIT, 1984, 157.
34. Testa, “The Architecture of Alvaro Siza”, 159.
35. Wilfried Wang, “Discipline and Transform”, in *Álvaro Siza: (In)Discipline*, eds. Nuno Grande and Carlos Muro (Porto: Serralves Museum of Contemporary Art, 2019), 75–76.
36. The open courtyard plan possibly not only supported Siza’s practice in Asia, but also supported the local reception of his work. See, for example, Wei Xu and Ihsu Chiu, “Study of Alvaro Siza’s ‘U Type’ Architectural Thought and Its Operational Mechanism”, *IOP Conference Series: Materials Science and Engineering*, Vol. 392, Issue 6 (2009): 1–8.
37. There are many examples of reconstructed monasteries in contemporary Portuguese architecture, among which are Álvaro Siza and Eduardo Souto de Moura’s International Contemporary Sculpture Museum and Municipal Museum Abade Pedrosa, Santo Tirso (2012).
38. See, for example, Nancy Shatzman Steinhardt, *Chinese Architecture: A History* (Princeton, NJ: Princeton University Press, 2019), 5–6. In a correspondence that should be noted but not overstated, Steinhardt lists eight “features of Chinese spatial arrangement”, all of which I would argue are manifested in Siza and Castanheira’s design: 1. “horizontal axis”, 2. “human-sized” heights, 3. three- and four-sided “courtyard”, 4. “interrelated buildings, courtyards, and enclosing arcades”, 5. “gates”, 6. “modularity”, 7. “rank” (ordering of the parts), 8. “privacy . . . the private

- space, sometimes a garden, is where one may find a pavilion or other structure that breaks out the standardized, modular system.”
39. Shatzman Steinhardt, *Chinese Architecture*, 298–313.
 40. Frampton, “Towards a Critical Regionalism”, 27.
 41. As Riso put it, in Siza “the use of wide openings, clear cuts and cantilevers is achieved without disembodiment of the . . . building box.” Vincenzo Riso, “Building Methods in the Architecture of Álvaro Siza”, *Architectural Research Quarterly*, vol. 4, no. 3 (September 2000): 265–267.
 42. The building does have the standard lighting and air-conditioning systems, but does not depend exclusively on them.
 43. As of October 2021, I could not confirm whether in the future the drawings of the Shihlien will be deposited in the archives of the Serralves Museum or in the Canadian Centre for Architecture, two of the joint custodians of the Álvaro Siza Archive.
 44. According to the classical treatise *Yingzao Fashi* [Chinese Building Standards], this modular conception based on the transverse frame is especially important in *tingtang* or a lower rank building. See Shatzman Steinhardt, *Chinese Architecture*, 150–161. There are many other possible sources for this process of “cross-fertilization”, for example, one of the main examples of Frampton’s Critical Regionalism is Jørn Utzon’s Bagsvaerd Church in Copenhagen, Denmark (1976), a work whose relationship to place is achieved, as Frampton explains, through a dialogue between Western and Chinese traditions (Utzon’s study of Chinese architecture is well documented). Frampton, “Towards a Critical Regionalism”, 22–23.
 45. Siza even explains that he preferred the white concrete of German technology “to achieve a perfect surface finish”. Siza, “The Client is More Important”, 17. The Shihlien Building is built with Aalborg White cement manufactured by the Danish company Aalborg Portland.
 46. Reyner Banham, *The Architecture of the Well-tempered Environment* (Chicago: The University of Chicago Press, 1984), 19.
 47. Busy with commissions reaching from different parts of the world, Le Corbusier sought in his original 1929 design to separate the interior from the exterior by means of a proto air-conditioning and a thermally active double-glazed wall. His ambition to create a 18°C year-round interior space proved too rigid and Cité was inhospitable. In 1954, Le Corbusier had the opportunity to correct the design by adding a brise-soleil to the glazed façade. The brise-soleil was introduced just as curtain walls and mechanically controlled interiors started becoming wide-spread. Banham, *Well-tempered Environment*, 153–163.
 48. Despite the technical shortcomings, the aspiration for total environmental control has remained constant. Rem Koolhaas parodies how this has produced air-conditioned interiors that “mimic” the hazards of nature, creating “sudden storms, mini-tornadoes, freezing spells in the cafeteria, heat waves, even mist.” Rem Koolhaas, “The Generic City”, in *S, M, L, XL*, eds. Rem Koolhaas and Bruce Mau (New York: The Monacelli Press, 1995), 1261. Note that in contrast to Siza, Koolhaas is of the opinion that architects cannot but embrace this development.
 49. Banham distinguishes between *conservative*, *selective* and *regenerative* systems: the control of free energy by means of thermal mass, airflow/shading, and power-operated systems, respectively. Banham, *Well-tempered Environment*, 23–24. Paradoxically, for the remainder of the book, Banham argues for a shallower conception of architecture as the provider of comfortable, power-operated environments.
 50. Here I think also of Le Corbusier and Pierre Jeanneret’s projects in India.
 51. Frampton, “Towards a Critical Regionalism”, 26.

52. Dean Hawkes, *The Environmental Imagination: Technics and Poetics of the Architectural Environment* (London: Routledge, 2008), xv-xix.
53. Hawkes' case studies were the Serralves Museum in Porto (1991–99) and the Church in Marco de Canavezes (1996). Hawkes, *The Environmental Imagination*, 164–167, 190–195.
54. In the Shihlien, the hybrid environmental control design partly liberates the windows from this function. Still, as it was seen, Siza and Castanheira suggest that the environmental function remains visually represented.
55. After the visit, I was able to see these large models in the exhibition “Orient Express. Viagem de Retorno”, Serralves Museum, Porto, January 31st to December 20th, 2020.
56. Williams, “Chemical Plant Offices”.
57. Frustratingly, these offices are destined to be closed to the public. Visits and open house programs, however, could be a way to widen the reception of the building.
58. Frampton, “Towards a Critical Regionalism”, 26.
59. Frampton, “Towards a Critical Regionalism”, 24–25.
60. Frampton, “Towards a Critical Regionalism”, 27–28.
61. Frampton, “Towards a Critical Regionalism”, 26.


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