

Tradition vs. Technology: Periodicals as a driving force for the architectural debate: the Spanish gaze over the Pacific¹

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Abstract

With a country ravaged by the Civil War (1936-1939) and internationally ostracised, Spain set about its reconstruction remembering 'glorious' moments in the history of the nation. In architecture, the government promoted the search for a national style, which reproduced past architectures in official buildings, while local folklore was used to 'decorate' regional works.

However, as the 1940s progressed, some Spanish architects began to propose other alternatives. Tradition and a return to origins became subjects of debate in the mass media. Initially focused on finding their own identity, in less than ten years they began to take an interest in foreign trends and participate in international discussions. The translation of the renowned article 'Stocktaking' by Reyner Banham (The Architectural Review, February 1960) in the Madrid magazine Arquitectura, instigated a discussion that would extend throughout the 1960s. It focused the Spanish gaze on technological proposals, that were completely at odds with the reality of the nation. Due to its technological backwardness, Spain had to focus its attention on much more advanced countries. Architects could have looked to England or Germany, but their interest was in much further away places: Australia and Japan.

Based on the articles published in the main Spanish periodicals of the moment, this paper aims to take a journey through the evolution that took place within Spanish architecture, from the most conservative tradition to the defence of technology over other aspects of architecture. The tradition-technology duality (present in Banham's article) will accompany the opinions expressed by the authors and will reflect the true debate that was promoted by the magazines: the exaltation of rural life as opposed to industrialization and the idea of an advanced city, which, curiously, the Spanish architects preferred to seek in the Pacific.

Modern architecture should present itself as the harmonious result of an appropriate original thought and an exact application of the available materials.²

At the beginning of the 1940s, Spain was suffering from the immediate consequences of the Civil War (1936-1939) and the coming to power of a new regime. Physically and emotionally shattered by the war, the country needed to be uplifted at the same time as trying to overcome the international isolation to which it had been subjected, both by the German and Italian collaboration in the creation of the regime and by the ambiguity demonstrated by Franco during World War II. And so, the reconstruction of the country was based on the only thing that remained: the memory of other more 'glorious' moments in the history of the nation.

The government supported the search for a so-called 'national style' in architecture, which was generally limited to official buildings, whereas a folkloric style was employed in regional and rural works. Although initially most architects assumed these guidelines and built perfectly framed examples in the proposed models, through the specialist architecture media they began to question the type of architecture that should be built.

Tradition vs. technology: a warm debate in Spanish periodicals

In 1943, *Revista Nacional de Arquitectura* (RNA; National Architecture Magazine), the dissemination body of the Dirección General de Arquitectura (General Agency for Architecture), published a conference in which the German architect Paul Bonatz defended "the true" and "the authentic" against an "enthusiasm for new technical possibilities", which had "disappeared like a ghost", to the extent that "technology is no longer the master, but a servant."³ Although not directly aimed at the Spanish situation, this article is appropriate to illustrate a new formal review that began through the pages of the magazines: the survival of the paradigm of the machine versus the recovery and enhancement of vernacular and anonymous architecture.

During the first moments of the debate, in Spanish journals the balance between both options prevailed.⁴ In 1947, the *Boletín de la Dirección General de Arquitectura* (BDGA; Information Bulletin of the General Agency for Architecture) invited them to "achieve the balance [...] between traditional culture and modern technology, overcoming the functionalist movement [...] and linking it to tradition through the Spanish formulas of integration."⁵

Months later, in the V National Assembly of Architecture in 1949, the Italian Alberto Sartoris affirmed that “the development of technology seems to reduce the importance of geographical, geological diversity, but in fact it does nothing but explain, specify, fix the limits within which a given Architecture can fulfil its purpose.” Sartoris did not deny technology but considered it at the service of individuals who had “to consider the machine as the ideal tool to manufacture those elements that will be used to build the city that is destined to make man free, allowing physical stability in terms of place and work”.⁶ In similar terms, the architect Juan Rivaud expressed himself in an article in the Mexican publication *La propiedad* (The property), reproduced in *RNA*. From his point of view, “we must not allow technology to enslave us, we should enslave technology, to make it fulfil our highest desires.”⁷

Mariano Rodríguez Avial opted for the opposite position and considered “materials and construction techniques” as factors that “can influence or determine modern architecture.” So much so that, although he judged that “construction techniques have not been innovated in any important way since ancient times,” he held “new materials” as pieces that “enable problems that could not be solved until now to be solved and, by providing new solutions, new architectural forms emerge as a logical consequence.”⁸ The American Denison Bingham Hull went a bit further by stating that “the shape of our architecture” is:

...fundamentally based on science and the machine [...] Therefore, today’s architecture cannot express more than today, and any suggestion of the past is forbidden [...] Tradition is necessary, but we must keep in mind that it is only a good servant, but a very bad master.⁹

As can be seen, the positions between technology and tradition were divided, and what predominated was the position that sought a balance between the two. However, the voices defending progress struggled to make themselves heard. After the conference ‘Functionalism and *Brickism*’ by Luis Felipe Vivanco,¹⁰ Francisco Javier Sáenz de Oiza asked: “What is going to be the importance of the application of totally new materials and techniques like those that are available for us nowadays? [...] new architecture is mainly new for this reason.”¹¹

In one direction or another, the debate continued in the pages of Spanish journals throughout the 1950s.¹² But, undoubtedly, the most extensive and interesting article that was published around the tradition-technology duality is the well-known “Stocktaking” by Reyner Banham, which the magazine *Arquitectura* (Architecture) published just one year

after its appearance in *The Architectural Review*.¹³ The text was translated and proposed by Fernando Ramón Moliner, a Spanish architect then living in the United Kingdom, and a group of ten prestigious architects¹⁴ came together to hold a series of meetings – also ten – to discuss it. After these, Antonio Fernández Alba wrote up his own impressions on the subject. When finished, a copy was distributed among the other attendees of the meetings and they decided to publish it in the pages of the magazine. As not all the opinions were similar to that of Fernández Alba, it was decided that each participant would write a brief reflection on their ideas and that they would appear together in the magazine, in the same order as they had been reported.¹⁵

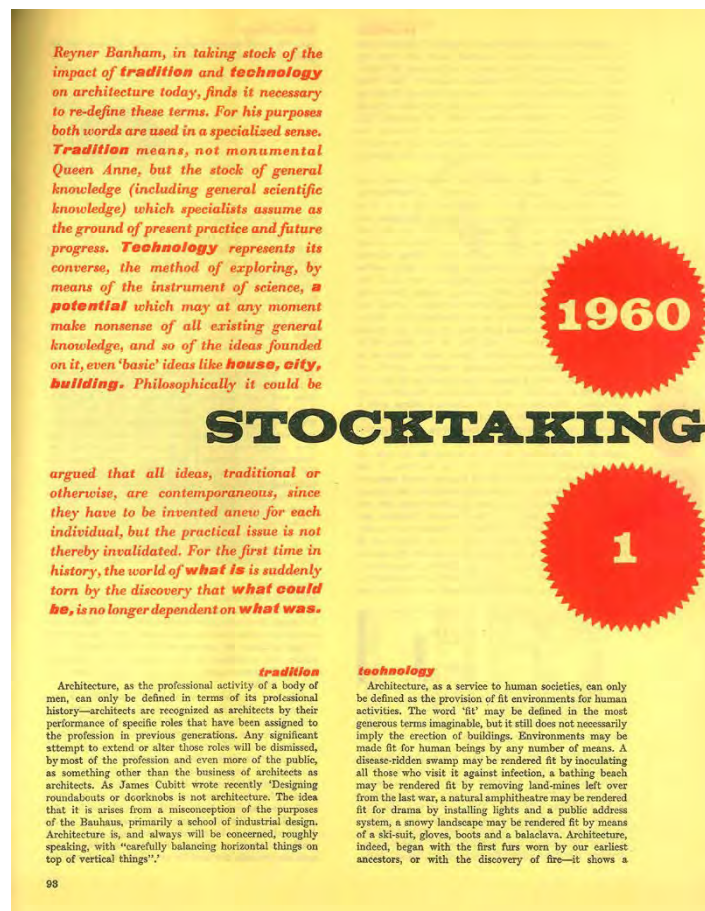


Figure 1. 'Stocktaking', by Reyner Banham
(Source: *The Architectural Review*, 127 (1960), 93).

In the original text, Banham tried to redefine the terms 'tradition' and 'technology' from the point of view of the architecture of the moment. For him, 'tradition' was not the direct copy of a series of ancient styles but related to the meaning of the English word 'lore', a term that refers to popular knowledge.¹⁶ Banham expounded the different traditionalist trends that, with different nuances, had been alternating and the internal contradictions that arose from them, as well as the possible advantages of these type of trends.



Figure 2. ‘Tradition, Technology’, by Reyner Banham
 (Source: *Arquitectura*, 26 (February 1961), 2-3).

The article consisted of two independent texts – one for ‘tradition’ and the other for ‘technology’ – that were presented in parallel. In the one dedicated to technology, mechanization was considered “a powerful stimulus” for the professional activity of architects. The vehemence of Banham on the subject led him to affirm that “under the impact of these intellectual and technical upheavals, the solid reliance of architects, as a profession, on the traditions of that profession must eventually give way.”¹⁷ But he was equally vehement when speaking of tradition – well-understood as a body of general knowledge, including scientific knowledge – which is the basis of the practice and, therefore, the seed of future progress.

In short, Banham did not specify the way forward in his article. His intention was not to clarify what was the best option, but to promote the awareness of the advent of ‘technology’ and, therefore, encourage the abandonment of the traditional consideration that “everything that exists depends on what it was” for a new argument that considered that “what could be no longer depends on what was.”¹⁸

But what was the view of the Spanish architects convened to discuss the Banham article? Among the most significant responses, Antonio Fernández Alba acknowledged that “the

evolution of technology is a fact that cannot be ignored”, but also pointed out that, due to the special circumstances that Spain was experiencing, “the approach to the dilemma about a technological future as a substitute for the values of the inner world of free men, perhaps does not correspond to us.”¹⁹

Miguel Fisac was also not reluctant to embrace progress, as long as it was real progress: “To the fears of architectural tradition being absorbed by technology, I only raise objections to this technology if it is bad. Assuming it were good, I would have no qualms to oppose it.” Like Fernández Alba, Fisac thought that “unfortunately, this was not a current issue in Spain.” But he did not renounce technology in any way and presented the Spanish backwardness as a circumstance that was not entirely inconvenient: “the advantage of our technical development being fifty years behind in relation to other countries is that it gives us the possibility of industrializing in another way.”²⁰

Curro Inza also considered that, although Reyner Banham’s analysis showed “true acuteness”, it was “a bit circumstantial” for the Spanish case, as it corresponded to a “situation that is not ours, and about which I do not think it is even prudent to give an opinion without more information.” And that balance that characterized previous discussions returned: “tradition and recent technology are not two antagonistic elements [...] but rather related subjects that merge and complement each other very well.”²¹

Fernando Ramón, the instigator of the debate, focused on analysing the possibilities that Spain had of opposing an authentic tradition to the entry of technology. Finally, not finding any reason to oppose its entry, Ramón Moliner asked: “Why do not we give ourselves up to Technology, that generous adoptive mother?”²²

Defenders or detractors all agreed that the choice between tradition and technology had no real meaning in the Spanish case. Mainly because there was no possibility of technological development in any way comparable to other countries but also because they even doubted that they had a traditional culture strong enough, or with weighty enough arguments, to oppose progress as a source of architectural inspiration. However, that does not mean that the subject did not interest them, especially in the 1960s, where technology and progress maintained a constant presence in the pages of *Arquitectura* through the section ‘30da’ (30 days for architecture).

The sixties: technology comes from the Pacific

From the mid-1960s onwards, the then student Mariano Bayón marked a clear trend in the content of the section, through which he was able to transmit and share with the avid architects his own interest in the latest technologies applied to architecture. The initial objective of Bayón was to select and summarize the most interesting content from the foreign periodicals that came to his hands. Soon, the '30da' section became the most accessible way that Spanish architects had to be in contact with the global architectural landscape. Month after month, they 'drank' the information from its pages, so that, in a very little time, the section went from being an insert between the final pages of advertisements, to occupying a privileged place in the magazine and to becoming one of its biggest attractions.²³

But, as suggested a few moments ago, Mariano Bayón's selection had no pretensions to being fair in any way. If we analyse its contents, it is clear that it was strongly influenced by his personal taste for the most advanced architecture in its technological aspects. This can be detected immediately by reviewing the biographies he prepared on various architects, including Jørn Utzon, Richard Buckminster Fuller, Kenzo Tange, Alison and Peter Smithson, Jean Prouvé and Arne Jacobsen.

However, his desire to show the most recent avant-garde trends is even more evident when reviewing the examples and topics that he reported on: focusing on instilling in readers the confidence in a new architecture that would be able to overcome all the constraints of the traditional one. "More than ever, we are in need of a method that gives, in a clear and clean way to the work that creates our spaces, a solution as clear as a theorem, a shape as clear and convincing as the gears of an engine."²⁴

Mariano Bayón's articles in '30da' always pointed to the most advanced architectures and the change that was being made in architecture:

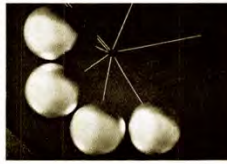
...the emergence of the new technological mentality and the unavoidable development of a technified society in its notions of uses and consumption are already practically outlining the profile of a construction industry disinterested in ideology[...] and interested in the problems of quality and quantity of a technicalisation similar to that which operates in other facets of life, such as industry or science.²⁵

30 da *Hacia una tecnología integral*

MARIANO BAYÓN ALVAREZ

Publicamos en este resumen la noticia de varios ejemplos de trabajos cuyo denominador común es el de reunirse en torno a la búsqueda de una tecnología integral. De una tecnología que parte de la base de que la cantidad de energía resistente de la materia edificable necesita de formas de trabajo diferentes a la de la arquitectura adintelada, mediante un gasto mínimo que le dota de sentido, es decir, mediante la utilización máxima de las propiedades mecánicas de los materiales. Una arquitectura para la que el principio de la forma sea sustancial desde el punto de vista de la distribución tensional y no desde el punto de vista de la transmisión de una cierta carga ideológica, o de valores sentimentales, estilísticos o simplemente estéticos.

La consideración de estos principios deja en condiciones de inferioridad sarcástica a la gran mayoría de las producciones de la actual cultura arquitectónica. Desde este crucial panorama, tanto los últimos estereotipos del post-wrightianismo, con sus desenfrenados recursos pintorescos o sus sutilísimas y agotadas inconsistencias rítmicas, como los romanticismos sentimentales de la llamada "tercera generación", e incluso visiones aparentemente más evolucionadas como las procedentes de un brutalismo desencadenado de móviles cartelitas, aparecen todos ellos definidos en su justo término, como digresiones incongruentes de actividades que nada tienen que ver con lo puro y constructivamente arquitectónico, más cerca de la reacción, aunque el resultado, la obra arquitectónica, sea visible e incluso físicamente habitable.



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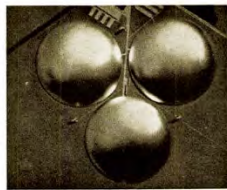
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Figure 3. 'Towards an integral technology', by Mariano Bayón (Source: *Arquitectura*, 102 (1967), 43).

His speech in defence of technology would reach the highest levels in the article entitled 'Towards an integral technology', in which he defended a type of architecture based on:

...a technology that starts from the point that the amount of resistant energy of the buildable material needs forms of work that differ from that of lintelled architecture [...]. An architecture for which the principle of the form is substantial from the point of view of stress distribution and not from the point of view of the transmission of a certain ideological load, or of sentimental, stylistic or simply aesthetic values. [...] The architect's intervention in the future will be marked not by the works that set him up as the holder of an artistic monopoly, but by his opening to research.²⁶

All these articles written by Bayón were illustrated with examples that appear to represent all world geography. However, if one carefully reviews the nationalities of the buildings and projects published, it is striking that, only behind the giants of America and Britain – which

in the Spanish case stand out above the rest of the nationalities, and not only in terms of technology, but in general in all subjects – and from nearby Italy, Mariano Bayón’s interest moved towards the Pacific, particularly towards Japan and Australia. In fact, except for a first article previously published in *RNA*, announcing the awarding of the first prize to Jørn Utzon’s project for the Sydney Opera House,²⁷ it would be Mariano Bayón who, from his section, stirred up a debate around said building, which would become a decisive theme in Spain due to a series of circumstances that we will relate below.

One building: the Sydney Opera House

Bayón’s first text in this regard announced the expected construction of the roofs of the Opera House, whose final solution was “more suggestive and successful than the first.”²⁸ Bayón defended the result of the competition and supported the fact that the Jury’s choice had been based on an idea, which had no need to be completely resolved, given that the technology of the moment would help solve the difficulties that would arise. A year later, he would dedicate one of the issues to reviewing the work of Jørn Utzon,²⁹ especially the Opera House, which he described in detail, mainly in its more technological aspects, such as the geometric and structural design of the roofs and the motivation behind the specific distribution of the air conditioning ducts. Surely this interest in the project for the Sydney Opera House was connected with a certain parallelism that could be established with the city of Madrid, where in 1963 an international competition was called for the construction of an Opera House that would never be built, but that monopolized many pages and the attention of specialist journals.³⁰

But the most critical point of the debate was marked by Felix Candela and Rafael Moneo through the magazine *Arquitectura*.³¹ Felix Candela had achieved worldwide fame for the structures he had built in Mexico, but he was originally from Spain, from where he had emigrated after the outbreak of the Civil War. Candela had been a classmate of Carlos de Miguel, director of *RNA* and *Arquitectura* between 1948 and 1973. In fact, due to this relationship, he was one of the first exiles who saw his buildings on the pages of Spanish magazines. So, when Candela published ‘The scandal of the Sydney Opera House’ in the Mexican magazine *Arquitectura*,³² he immediately sent it to Carlos de Miguel, who reproduced it in the pages of its Spanish namesake.³³ Candela’s text was a harsh criticism of the development of the competition and of the construction of the building and detailed the various circumstances that hindered the execution of the project. These went from what Candela considered a bad choice during the competition phase, through the problems that arose with the land where it had to be built and Utzon’s obstinacy with the “structural honesty” of the roofs, to the exponential growth of the costs of the work and the erroneous

political decisions that were made. The only person who was saved from his criticism was Ove Arup, whom his friend Candela relieved of all responsibility in the process.

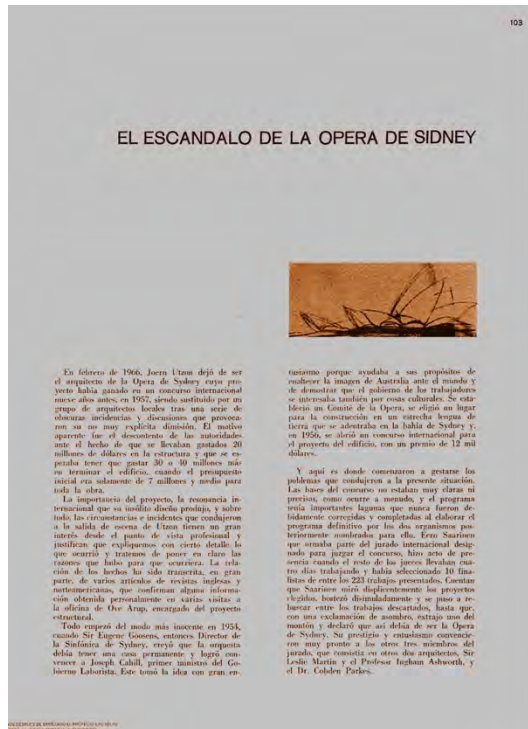


Figure 4. ‘The scandal of the Sydney Opera House’, by Félix Candela (Sources: *Arquitectura* [Mexico], 98 (1967), 103; *Arquitectura* [Madrid], 108 (1967), 29).

But Candela could not know that the article would be read by Rafael Moneo, at that time a young architect who was probably unknown to Candela but, thanks to his skills and analytical capabilities, had earned an unquestionable reputation in Spain as a learned, critic of architecture. And what Candela could not know either was that Rafael Moneo had been a great admirer of the work and the figure of Jørn Utzon since his student days:

[...] I had been attracted to Utzon for a long time. I remember a number of *L'Architecture d'Aujourd'hui* that had seduced us all a few years before. It featured a group of young architects from around the world and its cover was dedicated precisely to the project for the Sydney Opera House.³⁴

Moneo liked Utzon so much that when he was granted ministerial support to work abroad, he wrote to the architect asking to work in his studio, but the Dane did not respond to his letter:

[...] So after the summer I showed up at his studio [...] It was a time when it was a bit more difficult to travel, and he must have been impressed by that determined will of mine to go there ... The fact is that he accepted me and I

spent a whole year living in a boarding house in the then village of Hellebæk [...] near Utzon's house and studio."³⁵

Moreover, the arrival of Rafael Moneo at the studio of Jørn Utzon coincided with the moment in which the design team had just found the solution to building the vaults: a series of spherical triangles built with prefabricated elements that formed a set of 'ribs'. This idea, which resolved the distribution of the forces, demanded the definition of the coordinates of the spherical triangles in the original sphere. And that was precisely the job that Rafael Moneo had to do.³⁶ So we can only imagine the damage inflicted by Candela's fierce criticism.

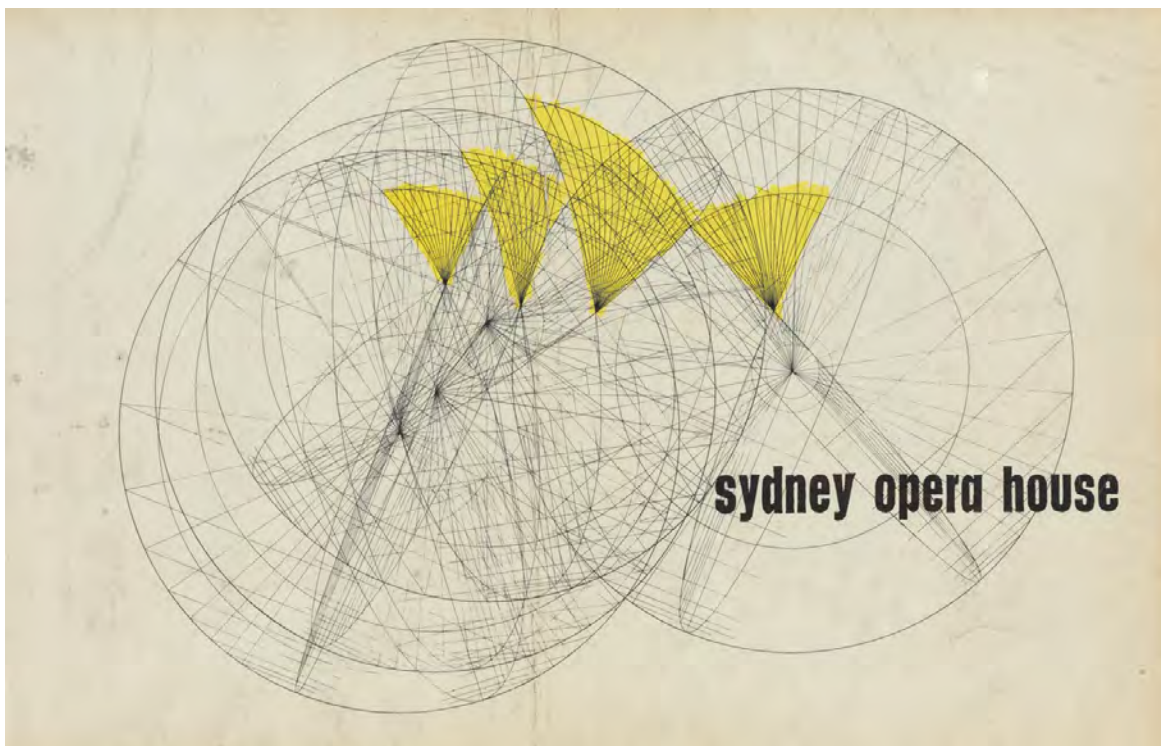


Figure 5. In the words of Rafael Moneo to the author of this paper, the drawing of the cover of the *Yellow Book Sydney Opera House* could be drawn by him.

Moneo's response was immediate. A month later he published a text in the same magazine:³⁷

The task of the architect is not limited to updating a building typology that is already established through new techniques. As history teaches us, it is in his hands to propose to society new images of itself. Candela is right when he stresses that these paths are expensive, even at times wasteful, but it does not detract from their value and it is important, therefore, not to forget it when talking

about the Sydney Opera House. And in admitting this role, nobody will ever think of denying the existence of architecture as a service.³⁸

Except for Candela, all the opinions on the Opera House that were expressed through the main Spanish architecture periodicals were positive and defended the work and its architect against its detractors. As formulated by Juan Daniel Fullaondo through the pages of *Forma Nueva-El Inmueble* (New Form-The Building):

This work gives prestige to the society that welcomes it, raising its cerebral life, enriching its culture, changes the ill-fated, pleonasmic and reactionary part of spiritual immobilism. Utzon, within all the possible criticisms (logical, on the one hand, within the complex problems he has undertaken) should not be other than congratulated.³⁹

As early as 1971, *Informes de la Construcción* (*IC*; Construction Reports) would return to the Sydney Opera House to deal, once and for all, with explaining its construction technique. The magazine presented its structure as “original and advanced” and as a technological and architectural showcase. It is certainly a very complete document, comparable with the publications that were published about the building in other much more recognized journals than the Spanish one.⁴⁰

One architect: Harry Seidler

But the Spanish gaze towards Australia in search of technology was not only for Utzon and the Sydney Opera House. In fact, there was an architect who took up more pages than the Dane: Harry Seidler, who was presented by Spanish magazines as a paradigm of the interest in industrialisation and prefabrication of architecture. In fact, the publication that devoted more pages to him was *IC*, which already in 1952 showed the Turrumurra House in Sydney.⁴¹ In general, to Spain, it was Seidler’s residential works that were the most interesting. In 1958, *Temas de arquitectura* (*TA*; Architecture Topics) presented Seidler’s House of the Future, a steel home prefabricated at Sydney’s Armco factory, that had been the centerpiece of the Architectural and Building Exhibition held at Sydney Town Hall in 1954 to coincide with the conference of the Australian Institute of Architects. *TA* presented it as an example of a ‘Growing House’ and well-understood prefabrication.⁴² But, again, the most extensive example would be from *IC*, which would devote seven full pages to describing to its readers the house that the architect and his wife built in Sydney.⁴³

Beyond residential buildings, Spanish periodicals were especially interested in his large-scale, quality works, such as the Olympic Stadium in Melbourne, which was published in 1955 in *RNA*,⁴⁴ and years later Australia Square in Sydney, to which *IC* devoted an extensive article in which his “beautiful structural solution” stood out.⁴⁵ Apparently, another of the architects whose technological solutions greatly interested the Spanish, Pier Luigi Nervi, had also been consulted on its design.

Attention to the work of Harry Seidler even meant that, on the publication of the book *Harry Seidler 1955/63. Houses, Buildings and Projects*,⁴⁶ Carlos Flores dedicated a monographic article to his work in the section ‘An architect in a book’ of *Hogar y Arquitectura* (Home and Architecture).⁴⁷ Curiously, the introduction to this book was written by Reyner Banham, the author of the aforementioned text ‘Stocktaking’, with which we finished off the discourse on interest in technology in the Spanish media.



Figure 6. ‘Harry Seidler’, by Carlos Flores
(Source: *Hogar y Arquitectura*, 58 (1965), 81).

Given this, the appeal that Harry Seidler and his work had in Spain could not be considered prominent, as he was not even close to being the most published architect in the Spanish media. His presence is relatively discreet compared to other international figures. However,

if we step away for a moment from the data from Spanish journals and open up the focus to review the presence of Seidler in the periodicals of other countries, it turns out that the interest shown by Spain in his work is very similar to that in Japan (a country much closer to Australia geographically). Obviously, the figures do not reach those of the British or German magazines, much less those of the US and France, but these countries always stand out as publishing more information on foreign architecture so it is not surprising that it was the same with the Australian output too. Nevertheless, the trend for publishing Seidler in the Spanish magazines of the 1950s and 1960s was clearly on the rise and began very soon after other leading publications of the time, which places them only a little lower, but in line with the general interest.

But the Spanish attention to Harry Seidler was not only reflected in the pages of the journals. There were even some architects who took him as a reference for their works. Josep Maria Fargas (Barcelona, 1926-2011), who together with Enric Tous (Barcelona, 1925-2017) had one of the most 'technological' trajectories of Spanish architecture in the second half of the twentieth century,⁴⁸ remembered him as one of his greatest influences, on the same level as Mies van der Rohe or Richard Neutra:

I have been inspired by: Richard Neutra, for the beauty and elegance of his works. Mies van der Rohe, for the spatial treatment (neoplasticism) and for the rigor, precision, simplicity, and purism of his latest proposals. And Craig Ellwood and Harry Seidler, for their formal simplicity, flexibility, and versatility, difficult to be equaled.⁴⁹

It is very interesting to compare some of their works with those of Harry Seidler and to verify that the formal and conceptual similarities are frequently present. For example, in the Casa Mestre (Platja d'Aro, Gerona, 1954-1956) we can find formal references to the Rose Seidler House (Wahroonga, Sydney, 1949-1950) not only in the roof system, but also in the way in which both houses come into contact with the terrain, through the construction of a 'rocky plinth'.⁵⁰

Conclusion

In short, we have made a journey in search of the technology that has taken us from Spain to its antipodes. During the 1940s and 1950s, the adoption of technology was not a fact. Tradition or technology? It was a question asked many times but that never got a clear answer. Technology interested Spanish architects, but in the post-war decades the country

did not have the conditions to apply certain techniques and they were perfectly conscious of that. During the sixties, technological conditions improved and Spanish architects began to look for references in other countries. Curiously, they found them in very distant places, such as Japan and Australia. It would seem much more logical if the Spaniards had looked to countries like England or the United States, much closer by and leaders in the debate in this regard. And it seems that they did rely on them when looking for texts to discuss, but not when choosing concrete examples on which to fix their attention. There do not appear to be any clear reasons why Spaniards who were interested in the progress of technology looked to Australia, beyond the coincidences that have already been pointed out around the Sydney Opera House. Perhaps the key is in the memories of Josep Maria Fargas:

We could not copy Mies, he was above everything, he made exposed bronze frames, huge windows ... How could you compete against that? You had to compete on another level and that level I found in these two architects [Harry Seidler and Craig Ellwood].⁵¹

However, what has been shown here is that, despite their economic difficulties, Spanish architects wanted to participate in the worldwide debate on the suitability of technology to the architectural tradition. In terms of their specific interest in Australia, one could hazard that, besides the previous, pertinent assessment by Fargas, it could be because progress was something that was so unattainable for Spaniards that they sought their technological references in faraway countries. Oddly, they felt closer to the furthest away. And, for Spain, there is nothing more distant than the Australian lands, which they watched for two decades gazing at what they did not have.

Endnotes

¹ This paper is a result of the project 'ArchiteXt Mining. Spanish modern architecture through its texts (1939-1975)' HAR2015-65412-P (MINECO/ERDF), funded by the Government of Spain through the 2015 Call for 'Excellence Projects' of the Ministry of Economy and Competitiveness (MINECO) and the European Regional Development Fund (ERDF).

² Juan de Zavala, 'Tendencias actuales de la arquitectura', *RNA*, 9 (1949), 264-269.

³ Paul Bonatz, 'Tradición y modernismo', *RNA*, 23 (1943), 390-397.

⁴ For further information, please see Ana Esteban-Maluenda, 'Tradición *versus* tecnología: un debate tibio en las revistas españolas', in José Manuel Pozo (ed.), *Arquitectura, ciudad e ideología antiurbana*, (Pamplona: T6 Ediciones, 2002), 97-106.

⁵ 'Arquitectura española', *BDGA*, 5 (1947), 3-6.

⁶ Alberto Sartoris, 'Orientaciones de la Arquitectura contemporánea', *Cuadernos de Arquitectura y Urbanismo*, 11-12 (1950), 48-55.

⁷ Juan Rivaud, 'Luz propia', *RNA*, 100 (1950), n.pag.

⁸ Mariano Rodríguez Avial, 'Arquitectura moderna y deshumanización del arte', *BDGA*, 18 (1951), 9-14.

- ⁹ Denison B. Hull, 'La libertad en la Arquitectura', *BDGA*, 20 (1951), 17-18.
- ¹⁰ In the context of the Sesiones de Crítica de Arquitectura (Sessions of Architecture Criticism), meetings between Spanish architects to discuss issues of shared interest that were held periodically in the 1950s and 1960s.
- ¹¹ 'Funcionalismo y *ladrillismo*', *RNA*, 119 (1951), 35-47.
- ¹² Juan Margarit, 'Técnica y cultura', *BDGA*, 36 (1955), 24-25.
- Juan R. Sepich, 'Arquitectónica y Técnica', *RNA*, 175 (1956), 1-4.
- ¹³ Reyner Banham, 'Stocktaking of the Impact of Tradition and Technology on Architecture Today', *The Architectural Review*, 127 (1960), 93-100.
- ¹⁴ Pedro Casariego, Carlos de Miguel, Miguel Fisac, Antonio Fernández Alba, Curro Inza, Julio Lafuente, Luis Moya, Fernando Ramón Moliner, Francisco Javier Sáenz de Oíza y Alejandro de la Sota.
- ¹⁵ Reyner Banham, 'Balance 1960. La tradición, la tecnología', *Arquitectura*, 26 (1961), 2-17.
- Antonio Fernández Alba, 'Para una localización de la arquitectura española de posguerra', *Arquitectura*, 26 (1961), 20-22.
- 'Comentarios al artículo de Reyner Banham', *Arquitectura*, 26 (1961), 22-32.
- Including the opinions of Luis Moya, Miguel Fisac, Fernando Ramón and Curro Inza.
- ¹⁶ This term had already been used by Charles Eames in a conference delivered at the Royal Institute of British Architects in 1959, when referring to the traditionalist reaction to the attitude that inclined towards sociology and technology as the determinants of architectural form.
- ¹⁷ Banham, 'Stocktaking', 94-95.
- ¹⁸ 'Comentarios al artículo de Reyner Banham', 26.
- ¹⁹ Fernández Alba, 'Para una localización de la arquitectura española de posguerra', 22.
- ²⁰ 'Comentarios al artículo de Reyner Banham', 28.
- ²¹ 'Comentarios al artículo de Reyner Banham', 29.
- ²² 'Comentarios al artículo de Reyner Banham', 26.
- ²³ For further information, please see Ana Esteban-Maluenda, 'Los 30da de Mariano Bayón: ¿Foco de difusión de las referencias arquitectónicas internacionales?', *DC. Revista de crítica arquitectónica*, 8 (2002), 108-123.
- ²⁴ Mariano Bayón, 'La arquitectura industrial', *Arquitectura*, 80 (1964), n.pag.
- ²⁵ Mariano Bayón, 'El edificio industrializado', *Arquitectura*, 89 (1966), n.pag.
- ²⁶ Mariano Bayón, 'Hacia una arquitectura integral', *Arquitectura*, 102 (1967), 43-44.
- ²⁷ 'Concurso para la Ópera de Sídney', *RNA*, 187 (1957), 15-20.
- ²⁸ Mariano Bayón, 'Australia. La Ópera de Sídney', *Arquitectura*, 70 (1964), n.pag.
- ²⁹ Mariano Bayón, 'Jørn Utzon', *Arquitectura*, 81 (1965), n.pag.
- ³⁰ Germán Castro, 'Un monumento para una época', *TA*, 65 (1964), 10-35.
- Fernando Chueca Goitia, 'El concurso del Teatro de la Ópera', *TA*, 66 (1964), 13-32.
- 'Concurso de anteproyectos para el teatro de la Ópera en Madrid', *TA*, 64 (1964), 21-34.
- 'Concurso del Teatro de la Ópera', *TA*, 67 (1964), 14-19.
- 'Anteproyecto para el teatro de la Ópera en Madrid', *TA*, 70 (1965), 42-56.
- ³¹ *Arquitectura* was the continuation of *RNA*, once the Dirección General de Arquitectura returned responsibility for the publication to the Institute of Architects of Madrid.
- ³² Félix Candela, 'El escándalo de la Ópera de Sídney', *Arquitectura* [Mexico], 98 (1967), 103-110.
- ³³ Félix Candela, 'El escándalo de la Ópera de Sídney', *Arquitectura*, 108 (1967), 29-34.
- ³⁴ Ana Esteban-Maluenda, 'Sustrato y sedimento. Los viajes en la formación y evolución del arquitecto: el caso de Rafael Moneo', in José Manuel Pozo (ed.), *Viajes en la transición de la arquitectura española hacia la modernidad*, (Pamplona: T6 Ediciones, 2010), 153-164.
- ³⁵ Ana Esteban-Maluenda, 'Sustrato y sedimento', 156.
- ³⁶ As Rafael Moneo told the author of this text in an unpublished conversation held at his studio in Calle Cinca in Madrid on 7 January 2010, the drawing on the cover of the yellow book is probably his.
- ³⁷ Rafael Moneo, 'Sobre el escándalo de Sídney', *Arquitectura*, 109 (1968), 52-54.
- ³⁸ Rafael Moneo, 'Sobre el escándalo de Sídney', 53.
- ³⁹ Juan Daniel Fullaondo, '¿La ópera más cómica?', *Forma Nueva-El Inmueble*, 17 (1967), 20.
- ⁴⁰ 'Teatro de la Ópera de Sydney', *IC*, 231 (1971), 22-32.
- ⁴¹ 'La casa Turrumurra en Sídney', *IC*, 51 (1953), s.p.
- ⁴² 'Prefabricación. Casa creciente. Australia', *TA*, 2 (1958), 54-57.
- ⁴³ 'La casa Harry Seidler', *IC*, 226 (1970), 3-9.
- ⁴⁴ 'Estadio olímpico en Melbourne (Australia)', *RNA*, 159 (1955), 42.
- ⁴⁵ 'Complejo 'Australia Square' en Sidney (Australia)', *IC*, 227 (1971), 3-14.

⁴⁶ Harry Seidler, *Harry Seidler 1955/63. Houses, Buildings and Projects*, (Sydney/Paris/Stuttgart: Horwitz Publications/Vicent Freal et Cie/Verlag Gerd Hatje, 1963).

⁴⁷ Carlos Flores, 'Harry Seidler', *Hogar y Arquitectura*, 58 (1965), 81-88.

⁴⁸ For further information, please see David Hernández Falagán, *Tous & Fargas: optimismo tecnológico en la arquitectura catalana de la segunda mitad del siglo XX*, doctoral thesis, (Barcelona: Universidad Politécnica de Cataluña, 2016).

⁴⁹ Josep Maria Fargas, 'Perfiles en el tiempo', *Eupalinos*, 19 (2005), 27.

⁵⁰ For further information, please see Glenn Deulofeu, *Reconstrucción digital de cuatro casas de Fargas y Tous. 1954-1963*, doctoral thesis, (Barcelona: Universidad Politécnica de Cataluña, 2013).

⁵¹ David Hernández Falagán, 722.