From domestic setting to display space: the evolution of the Foster Associates' work spaces and methodology

*Du cadre domestique à l'espace d'exposition: l'évolution des espaces de travail et
de la méthodologie de Foster Associates*

Gabriel Hernández

Electronic version

URL: <https://journals.openedition.org/craup/6137>

DOI: 10.4000/craup.6137

ISSN: 2606-7498

Publisher

Ministère de la Culture

Electronic reference

Gabriel Hernández, "From domestic setting to display space: the evolution of the Foster Associates' work spaces and methodology", *Les Cahiers de la recherche architecturale urbaine et paysagère* [Online], 9|10 | 2020, Online since 28 December 2020, connection on 15 February 2023. URL: <http://journals.openedition.org/craup/6137> ; DOI: <https://doi.org/10.4000/craup.6137>

This text was automatically generated on 15 February 2023.

Creative Commons - Attribution-NonCommercial-NoDerivatives 4.0 International - CC BY-NC-ND 4.0
<https://creativecommons.org/licenses/by-nc-nd/4.0/>

From domestic setting to display space: the evolution of the Foster Associates' work spaces and methodology

Du cadre domestique à l'espace d'exposition: l'évolution des espaces de travail et de la méthodologie de Foster Associates

Gabriel Hernández

Introduction

- 1 After the dissolution of Team 4 Architects in 1967,¹ Norman and Wendy Foster founded Foster Associates later that same year. Unlike their former colleagues, who opted to operate under the name of Su and Richard Rogers Partnership, the Foster couple established themselves as associates. The willingness to work collaboratively was implicit in their choice of the word *associates*, despite being only two.
- 2 In September 1972, after five years of independent work, the Foster Associates team was portrayed on the cover of a leading magazine, *Architectural Design* (fig. 1). The AD cover presents eight associates in a science fiction-like aesthetic, similar to superheroes emerging in perspective from a mirror-like façade. The reflective imagery is suggestive of the then recently completed works by Foster Associates: Fred Olsen's Amenity Centre (1968-1970) and IBM's office building (1970-1971). Moreover, a cross-section drawing with perspective is overlaid, showing the integration of technical services within the structure, one of Foster's early trademarks.

Figure 1. Cover of *AD* (*Architectural Design*), November 1972;

© Norman Foster Foundation Archive.

- 3 What message does this collage image intend to convey? As this article argues, the cover image effectively expresses the identity that defines Foster Associates at that time — the emphasis on collective effort, the search for efficiency, the aesthetic quality of materials along with a careful graphic production based on an emblematic drawing style.
- 4 Foster Associates' meteoric rise has been attributed to the emphasis on collaboration and interdisciplinary work by several of its practitioners.² The studios' evolution has led the office, currently known as Foster + Partners, to become a global studio paradigm in architecture and design. The salient features of the *AD* cover are the result of a working methodology that emerged from the creation of a diverse team of architects, engineers, consultants and clients with an enriching perspective. Indeed, at that time, Foster Associates began to systematically include clients in joint design processes.
- 5 The spaces from where Foster Associates operated played an important role in the rise of these innovative features. However, the impact of workspace on innovation has been understudied in architectural history³; The publication of the *AD* cover coincided with the inauguration of the Fitzroy Street office, which was the first workspace adapted to match their identity. This move became a turning point in the trajectory of the practice.
- 6 This article explores how the office's spatial configuration was able to facilitate interactions among team members and highlight individual contributions to the practice⁴. The Fitzroy Street studio became a melting pot of unique talent, housing renowned architects such as David Chipperfield, Michael Hopkins and Jan Kaplicky, amongst others.

- 7 Retracing the architectural evolutions of Foster Associates through images and discourse, the following research builds on visual studies of unpublished sources at the Norman Foster Foundation (NFF)⁵, providing a complementary view to those already offered by authors such as Alastair Best, Charles Jencks, David Jenkins, Ian Lambot, Malcolm Quantrill and Deyan Sudjic. The creation of the Norman Foster Foundation Archive has revealed unexamined workspace features and intragroup dynamics⁶. The NFF Archive has also opened new frontiers of study, such as the heretofore understudied role of essential collaborators such as Loren Butt, Birkin Haward and Tony Hunt.⁷
- 8 There, in the Fitzroy Street studio, a series of singularities and novelties took place, directly influencing Foster Associates' working methodology. On the one hand, this new workspace reflected earlier experiences: the knowledge acquired from a series of factory and office buildings that called into question the hierarchy in work environments by promoting the spatial integration of multidisciplinary workers⁸. On the other hand, the Fitzroy facility anticipated new schemes as the office became a full-scale mock-up of pieces of built and unbuilt projects, where the team coexisted and tested the components under design. This coexistence, together with the spatial configuration, inevitably affected the architecture that was created by the studio. Finally, the use of a curtain wall on the façade produced a compelling similarity to a vitrine, turning the studio into a workspace-showroom and a literal reflection of Foster Associates' identity. As a sign of a meticulous communication effort, distinctive drawing techniques⁹ were used for servicing clients and users, as well as for architectural magazines and reviews. A fruitful relationship between the practice and the world of editorial publishing was thus consolidated.

From the domestic setting in Hampstead Hill Gardens

- 9 Foster Associates' evolution from its inception to becoming Foster + Partners must be traced back, in order to examine the Fitzroy Street office workspace. The progression started in an apartment in Hampstead Hill Gardens (1963-1970), continued into the offices of Bedford Street (1970-1971), Fitzroy Street (1971-1981) and Great Portland Street (1981-1989) until its last move to the present custom-made premises at Battersea in 1990. Each shift in the workplace location has resulted in an update of the working model.
- 10 The practice's working methodology has been a key aspect since Team 4, having been aware of the liaison between the workspaces designed for clients and their own workspaces. Foster + Partners has built upon Foster Associates' expertise in the research and design of custom workspaces and workstations.¹⁰
- 11 Foster Associates' professional career begins in the domestic realm, under the name of Team 4 Architects. These young professionals worked from a two-room flat in Hampstead Hill Gardens where Wendy Cheesman (later Wendy Foster) lived, who was one of the founding members. This domestic setting in Hampstead had to be transformed on a regular basis to disguise itself as an office. A widely reported anecdote describes how a plinth was created to cover the bed with models and magazines in other words, erasing any record of domestic elements in front of potential clients.¹¹

Figure 2. Team 4 looking out from the window at Hampstead Hill Gardens, c.1964.

© Norman Foster Foundation Archive.

- 12 In this iconic 1964 photograph, the team comprising Team 4 Architects looks out from the Hampstead flat window (fig. 2). It is obvious that there are more than *four* individuals in the picture. Behind the first row of women, and without clear differentiation between who the four founders are, eight casual-looking people can be seen, depicting a mood which has led comparisons to be drawn between them and a rock-band from London's Swinging Sixties¹². This way of portraying the team at or from the workspace became a tradition that has been repeated consecutively in their successive workspaces.
- 13 Leaning out of the window with the Fosters and Rogers is a crucial figure from Team 4 Architects, engineer Anthony 'Tony' Hunt. Paradoxically, in addition to not being an architect, Hunt was also not officially part of the team. Hunt began as an external consultant of Team 4 for the structural development of the Reliance Controls factory (1965-1966). During the 1950s, Hunt had worked for Felix Samuely and Frank Newby, both celebrated engineers who developed some relevant works that enriched the post-war British architectural context, such as the Skylon at the 1951 Festival of Britain.¹³ With them, Hunt became accustomed to working with outstanding architects, such as Cedric Price, James Stirling and James Gowan. Together with fellow engineers Peter Rice and Edmund "Ted" Happold, Hunt became the maximum exponent of the collaboration between British engineers and architects during the so-called *high-tech* movement. After a decade working for Newby, Hunt founded AHA (Anthony Hunt Associates) in 1960. Since then, Hunt operated from the independence of his own practice, cooperating with many architects as a consultant. With this formula, he had achieved a name before coming into contact with Team 4 Architects¹⁴.

Bedford Street and the office as a luring space

- 14 The close collaboration between Foster Associates and Anthony Hunt Associates increased during the 1970s. Still operating from Hampstead Hill Gardens, the Fosters found themselves in need of a 'proper' meeting room to seduce a prospective client seeking a design team for their new offices. Hampstead's domestic setting did not seem appropriate for meeting IBM, the emerging technological company of that time. This led the Fosters to arrange with Hunt to temporarily occupy a vacant floor at AHA's office in Bedford Street.
- 15 Impressing IBM became an exercise of forecasting their own workspace. Given the short time at their disposal to create an office setting, two rooms were occupied with the resources available to them: a Marc Vaux painting, borrowed *designer* furniture and presumably a selection of seductive architectural essentials, such as large format drawings and models¹⁵.
- 16 The setup proved to be successful. Foster Associates received the commission and decided to rent the same space where the deal took place, launching a fruitful period of coexistence with their collaborator and new landlord, Tony Hunt. Weekly work meetings were instituted, following the methodology of integrating a variety of consultants during a project's strategic stages. Meetings turned into a fundamental working tool, with its consequent impact on the physical space: the meeting table is where decisions, discussions and debates take place.

Figure 3. Inside view of the Hampstead Hill Gardens living room/office, c.1967.

© Norman Foster Foundation Archive.

- 17 Not surprisingly, the meeting table became the office's centre of gravity. Its position within the office space affected not only the floor plan distribution, but also the layout of visual references displayed on the walls facing the table (fig. 3). The only existing image of the Hampstead space shows that their only visual reference on display was a New York *walk-up building* photograph¹⁶, whereas the walls at Bedford Street were totally packed. This transformation can be seen as an inevitable consequence of moving away from the domestic space of Hampstead to a 'professional' workspace in Bedford Street.
- 18 A 1970 photograph shows Norman and Wendy Foster working at the meeting table, the heart of the Bedford Street studio (fig. 4). Behind them, the walls are seen full of visual inputs. The selection of images, plans and drawings implies a curatorship to represent

the studio's visual identity, both for the team and for the clients and collaborators. These visual references derive from a wide variety of sources and reveal an interest in technology that exceeds the limits of architecture and design. Some of these images ranged from Ezra Ehrenkrantz's School Construction Systems Development (1961-1967) to Neil Armstrong's recent landing on the moon (1969). The key was that references were not hidden, but shared.

Figure 4. Norman and Wendy Foster at the Bedford Street Office, c.1970.

© Norman Foster Foundation Archive.

- 19 The space surrounding the meeting table became a dynamic setting that was updated with new projects and references as they emerged. These walls converted into a sort of collective *Atlas Mnemosyne*, where the visual catalogue that Foster Associates had been assimilating and cultivating was proudly exposed.
- 20 In 1971, Buckminster Fuller had an informal conversation with Norman Foster, who had just been introduced to him during a reception at the Institute of Contemporary Arts in London. Motivated by the first commission received in the UK, Fuller was searching for a British collaborator to develop a proposal for the Samuel Beckett Theatre at St Peter's College in Oxford (1970). Foster aimed to make an impression on Fuller: "I had got the office all organised to receive Bucky, but he didn't come that time. I was trying to impress him that I was the person to collaborate with (...)"¹⁷. The office awaited, curated and prepared to act as a luring device.
- 21 Although Fuller did not visit the studio that same day, he chose Foster as the local partner for the theatre commission. When Fuller finally reached the Bedford Street office, his visit was widely documented, representing the most captured moment of Foster Associates' period in Bedford Street (fig. 5). The images show Fuller at the meeting table, surrounded by the team as well as consultants. The scene perfectly

summarises this period at Bedford Street: a multidisciplinary team, a meeting or debate as a working tool, the first successful projects displayed on the walls and, most importantly, the opportunity to establish a link with one of the leading technological and environmental gurus¹⁸.

Figure 5. Buckminster Fuller at the Bedford Street Street Office, 1971.

© Norman Foster Foundation Archive.

- 22 Bedford's setting resembled a contemporary mood board, with drawings and photographs occupying almost the entirety of the walls. Behind Fuller we can see a photograph and a large-format drawing of the Reliance Controls façade, which was placed strategically in a dominant position¹⁹. The wall facing Fuller was full of additional visual references. To his right, there were large cross-section drawings of Fred Olsen's Amenity Centre. This wall thus comprised an overview of Foster Associates "greatest hits". The choice of *designer* furniture was also part of the outreach, just as it was in the setting created for their first meeting with IBM. Fuller sits on an Eames DSW chair, while Alvar Aalto's stool is visible in the foreground – seeking to impress Fuller with a careful balance of European and North American references.
- 23 Fuller's visit came at a time when Foster Associates were elaborating a large workspace project: the new offices of Willis Faber and Dumas in Ipswich. Given the large surface area of the site, the Schnelle brothers' *Bürolandschaft* and the open-office scheme references were considered. These had already been tested on a smaller scale at Fred Olsen's Amenity Building. Strategies on creating a flexible and adaptable office space were shared with Fuller. Another matter of discussion was how to integrate and combine existing buildings with newly developed ones – one of Ipswich's site constraints. Fuller suggested an evolution of a large-scale shell structure to allow a

large volume of surface area to be acclimatised, along the lines of the Dome over Manhattan (c.1960) and the Biosphere for Montreal's Expo 67 (fig. 6).

Figure 6. Climatoffice: Perspective and Cross section, c.1971.

© Norman Foster Foundation Archive.

- 24 The outcome of this conversation produced the *Climatoffice*, an open-plan scheme of freely arranged platforms englobed by an evolution of Fuller's geodesic dome, creating a double skin protective shell. Birkin Haward, one of the practice's most celebrated draughtsmen, synthesised the proposal's key aspects in a combination of colourful perspectives and cross-section drawings, including some elements – main atrium and escalators – that were under consideration for the Willis Faber and Dumas office building²⁰. The *Climatoffice* has encompassed many concepts that Foster Associates have developed ever since in different settings, shapes and variations.

Fitzroy Street: mirror and catalyst

- 25 With the team steadily growing, now exceeding ten practitioners, the office space in Bedford Street became too crowded; and in mid-1971, the opportunity to expand to a larger office in Fitzroy Street arose. This new studio location became home to Foster Associates for the following decade. The customisation of Fitzroy Street was planned to match Foster Associates' identity and design philosophy. Additionally, the relocation implied a series of important considerations related to the working methodology:
- 26 By 1971, the practice had perceived a need for space which would allow teamwork to develop more fully, a place where mock-ups and models could be more closely linked to

the design process, where large-scale presentations could be made, and in which experiments with lighting and servicing systems could be carried out²¹.

- 27 The quote indicates how Foster Associates had identified and promoted their working tools at Fitzroy: teamwork, mock-ups, prototypes and large-scale presentations. This is the first time that Foster Associates began to act as their own client. Taking advantage of having total freedom to express, experiment and test their ideas, the result was a *Gesamtkunstwerk* of their architectural principles.
- 28 The new workspace, located in central London, was shaped as a fusion of “showcase office” and large-scale “living mock-up”. This was also a result of combining the practice’s working methodology with its expertise from past and present projects. The choice to install a glass curtain wall as a façade transformed the inside space into a showcase from which to display an office conceived as a full-scale mock-up of their own work. This allowed the team to be the first to experiment and test prototypes, construction elements and spatial arrangements that were later implemented in some projects designed at Fitzroy Street²². Moreover, many customised details designed for Fitzroy, such as the lighting system and curtain wall, immediately saw their improved evolution in subsequent projects. The Willis Faber and Dumas building is a prominent example of this.
- 29 British writer Deyan Sudjic suggests that each of Foster’s office spaces can be understood as a piece of their own buildings: the Fitzroy Street office emulates the Willis Faber and Dumas premises (1971-1975), whereas the Great Portland Street office replicates the Sainsbury Centre of Visual Arts (1974-1978)²³. Though such comparisons are accurate, we could also make the comparison between Fitzroy office, in typology and chronology, to Fred Olsen’s Amenity Building (1968-1970). Both buildings share a strong commitment to integrating the team into a single open-plan workspace serviced by enveloping technical services. Such display had not been possible in Bedford Street, due to the traditional distribution of connected rooms along a corridor.

Figure 7. Cross-section of Fitzroy Street office, 1971.

© Norman Foster Foundation Archive.

- 30 Many customised elements designed for Fitzroy’s studio created an impact, both in the working methodology and in the office’s visual landscape. The first decision on how to customise Fitzroy’s office space can be seen in a cross-section drawing (fig. 7), dated 1971. Drawn in a recognisable *Foster style* – cutaway section with one-point perspective –, the combination of system services within the structure are outlined, providing the workspace with a double skin enclosure that enables functionality and flexibility. Air conditioning and lighting systems can also be seen integrated into the ceiling, whereas wiring and electrical outlets are below ground level, and the glass

curtain wall on the façade an enclosure that maximises natural light. These were features that had already been explored in previous projects²⁴.

- 31 Every aspect of the Fitzroy refurbishment aligned with Foster Associates' vision of efficiency and, in the words of architecture critic Reyner Banham, an example of *appropriate technology*²⁵. The toilets, kitchens and machinery rooms were grouped as a laterally located service block. This strategy was further developed at the Sainsbury Centre for Visual Arts (SCVA) in Norwich, where service blocks were planned on the perimeter of the central area. Furthermore, doors leading to auxiliary areas evoked a technological reference amid the effervescence of science fiction – a child's reference to many of the early associates. Metal polished doors with carved rounded corners unleashed all sorts of comparisons: "It wasn't any normal office; it was more like a starship, with its rubber gaskets, bulkhead doors (...)"²⁶.
- 32 The strategic move from the first floor in Bedford Street to the street-level in Fitzroy Street encouraged the transformation of the wall facing the street as a showcase and luring device. Foster Associates' identity was to be literally projected to passers-by through large glass panels. During the day, the tinted glass revealed a subtle mirror-like effect, whereas by night the interior lighting transformed the office into a full format vitrine, achieving a striking visual effect.
- 33 Across the glass, a series of large eye-catching photographs mounted on partitions could be seen. As in Bedford Street, large format visual inputs were an essential part of the studio's imagery and graphic repertoire. In the Fitzroy office, the photographs' layout created a visual exhibition with an open itinerary across the office space. However, an important change took place: all visual references consisted only of Foster Associates' works, in a distinctly showroom-like manner. The most iconic works were selected to create an overview of significant achievements, including Reliance Controls' cross-bracing and the Amenity Centre's celebrated mirror reflection façade.

Figure 8. Title: Night view towards Fitzroy Street office, 1972.

© Norman Foster Foundation Archive.

- 34 An additional showroom element consisted of a magazine rack which was strategically mounted on a partition facing the façade, where Eames Plastic Side DXS chairs constituted the waiting area. The rack illustrated the practice's successful outreach, as they had been featured on the covers of many specialised magazines. The studio's façade could be interpreted as Foster Associates' renovated "cover". Its literal translation took place when the night view became the cover of *The Architectural Review* in September 1972, where Joanna van Heyningen and Birkin Haward can be seen as figurants of an Edward Hopper painting (fig. 8). The successful move to the Fitzroy studio resulted in a very well-documented project that received similar editorial coverage, just as many of Foster Associates' other works did.

- 35 Once inside Fitzroy, it was noticeable how the workspace was set up with a remarkable lack of hierarchy. Despite constraints posed by the building's structure, flexibility and continuity were achieved by setting up Herman Miller's Action Office II (AO-2) workstation modules and partitions. The entire workspace was organically distributed by interchangeable workstations and partitions arranged in a 120-degree angle pattern (fig. 9). Foster's choice of Action Office II workstations was not accidental. Herman Miller's Head of Research and Action Office ideologist, Robert Propst, had been researching for over a decade on how to create a flexible and accommodating office space.

Figure 9. Distribution plan of the Fitzroy Street Office, 1971.

© Norman Foster Foundation Archive.

- 36 In 1968, Propst published his seminal *The Office: A facility based on Change*, where the notion of the office's *social space* and the links between the workspace and the human performer are linked to a list of design parameters. The first Action Office introduced a new variety of furniture and equipment designed by George Nelson in 1964, whereas a variety of system combinations were presented with the Action Office II in 1968. In this second version, a wide range of spatial layouts with an open plan distribution were recommended (fig. 10). The intention was to create fluid environments that would facilitate team interaction by defining partially individual workspaces.²⁷

Figure 10. Extract from Action Office Catalogue, 1968.

© Courtesy of the Herman Miller Archives

- 37 Furthermore, Fitzroy's deployment also included cutting-edge equipment such as telex, projectors and a large format Xerox 3600. Technology was thus understood as a tool. This ambitious investment was part of Foster's commitment to strengthening the practice's expansion and outreach. With these resources, tools and spatial configurations, Foster Associates was able to undertake larger projects that eventually catapulted the studio into the international arena²⁸.
- 38 One of Foster's axonometric drawings produced to describe the use of Action Office II at Fitzroy Street seemed to be directly inspired by Herman Miller's catalogue illustrations (fig. 11). The significant difference, however, was that instead of individual workstation units, collective units were created. The layout formed partitions into a 120-degree angled setting, combined to create an equivalent perimeter of an open octagon. Each unit hosted up to eight workstations mounted on the partitions.

Figure 11. Axonometric view of the Fitzroy Street lay-out, c.1971.

© Norman Foster Foundation Archive.

Figure 12. Inside view of the Fitzroy Street office, c.1972.

© Norman Foster Foundation Archive.

- 39 Additionally, each octagon was equipped with a round table at the centre, providing a meeting point or display unit for the surrounding workstations (fig. 12). The presence of these round tables was an opportunity to add an intermediate layer of interaction to the working methodology, fomented by, as Prost says, spontaneous or informal meetings:

Pause or byway areas for brief conference interchange can be a highly functional part of traffic design. This is particularly useful if it also is utilized as a general display centre focusing on matters that help keep goals and objectives on a current awareness basis²⁹.

- 40 The only spatial differentiation of Fitzroy's workspaces were the two octagons dedicated to "formal" meetings, where the Action Office II partitions were left clear in order to be used as large-scale pin boards (fig. 13). The variety of sources displayed during a meeting can be seen in a 1972 photograph. The setting is a natural evolution of the meeting room at Bedford. A thoroughly curated repertoire of images, drawings, plans and models made up a scenography that emphasised Foster Associate's ethos. Highlights included Haward's *Climatroffice* full colour drawing, Jacoby's Willis Faber and Dumas urban *vistas*³⁰ and a geodesic dome model that recalls Fuller's influence at the practice.

Figure 13. Meeting's area of the Fitzroy Street Office, c.1972.

© Norman Foster Foundation Archive.

- 41 The meeting area's curatorial approach, together with large-format photographs mounted on the AO-2 partitions, could be the immediate precedent for Foster Associates' first monographic exhibition at the RIBA Heinz Galleries in 1979³¹. Furthermore, the use of the panels to display contents could have been at the origin of the layout of the artwork at the Sainsbury Centre of Visual Arts (SCVA), as angled partitions were used to replicate the artworks' original setting – Robert and Lisa Sainsbury's private domestic setting. SCVA's layout responds to a scenography composed by a series of self-standing partition panels and plinths, as in the Fitzroy office. Further examples of the use of partitions can also be seen at Palmerston Special School in Liverpool (1973-1976).
- 42 Fitzroy's design strategy also suggests a distinctive approach to colour: yellow and green AO-2 partitions were placed on a dark blue carpet, with mint green enclosing walls and doors. Coincidentally, this colour palette was similar to the ideal office space depicted in Haward's *Climatroffice* drawing. The use of colour in Foster Associates projects thus saw its golden age in Fitzroy's green, yellow and blue work environment. Several spaces where colour performs a fundamental role were designed. Aware of the effect that chromatic spectrums produce in perceiving an ambience, the interiors of both Hackney and Palmerston Special Schools were devoted entirely to the use of

bright green, yellow and orange. SAPA factory building was equipped with a chromatic system in which vivid colours differentiate between equipment and service systems. Moreover, the structures for Modern Art Glass factory, the IBM logistics centre and Renault Distribution Centre were painted in Fitzroy's colour palette.³²

- 43 A tactical use of colour was also present within Foster Associate's corporate identity. Bringing back the concept of a "*total work of art*", all the elements of the office in Fitzroy were in *harmony* with each other: the studio's stationery featured bright green as the predominant colour, green Eames Plastic Side DSX chairs were positioned in a space enclosed by mint green walls, and a green "foster associates" neon sign crowned the front door. Alluding to this scenery, architecture critic Alastair Best points out that "Fitzroy Street resembled the offices of an advertising agency or even an airline, rather than an architectural practice³³". Moreover, the practice showed an extensive mastery of these tools in its refurbishment of Fred Olsen's travel agency in 1975, where a glass curtain wall, blue carpet and green Eames furniture were Fitzroy's natural evolution.

Refinement and evolution to Great Portland Street

- 44 The validation of how Fitzroy's design parameters enhanced working methodology can be found in the special edition of the Japanese magazine *architecture + urbanism (a+u)* edition about Foster Associates in October 1975. The front page of the main article is entirely occupied by a grid composed of 54 circular portraits, featuring each team member and collaborator of Foster Associates. In addition to observing an exponential growth in team size – with there being only eight on the 1972 *AD* cover –, this non-hierarchical structure shows the influence that plural contributions had acquired within the firm. Engineers, surveyors, cost consultants and other specialists were portrayed in the same way as the practice's founders, Norman and Wendy Foster (fig. 14).

Figure 14. Inside cover of the *Architecture + Urbanism* (a+u) magazine, 1975.

© Norman Foster Foundation Archive.

- 45 The most remarkable aspect of the magazine is the narrative in which information is arranged, exposing the practice in an extremely accurate self-assessment of their own principles. Striking for its clarity, an X-ray of Foster Associates' design process was extensively communicated using a powerful visual language throughout over 30 double pages. The framework of the main article was arranged by sequenced categories named as follows: *teamwork, projects, programming, communication, research, design development, subsystems, systems integration, flexibility, on the drawing board and acknowledgements*.
- 46 This 360-degree overview could still be accurate today. Foster Associates' working methodology had gradually evolved to operate with a similar workflow to a factory or industrial sequence, in which tasks are phased or consecutive. In fact, "teamwork" is the first category in the report, illustrated by five individuals pedalling in tandem as an emblem of collective endeavour.
- 47 The magazine includes a six-page interview with Norman Foster, where he is asked: *is the office layout a diagram of the way you work?* This question is set in the context of a double page dedicated to possible layout variations at Fitzroy. It is noticeable how changing workspace patterns becomes a highlight, indicating the extent to which working spaces and methodologies had become central to the practice. Foster's answer is premonitory:
- At the moment, the layout is running behind our own working methods. (...) My main criticism of the office is that the environmental systems can't adapt themselves to changing patterns of projects, and the dynamic of the way people work together.
- 48 Foster Associates' expansion during the 1970s tested Fitzroy's resilience and adaptability. In the search for flexibility, the *environmental systems* (AO-2 workstations)

had to be reconfigured due to the increasing number and scale of projects. Rearrangement proposals varied from reducing individual space between Action Office II components to combining workstations with table rows to accommodate extra staff³⁴. In both options published in *a+u*, an increasing amount of space was set aside for large scale models, mock-ups and presentation devices, confirming the prevalence of these *show-room* parameters.

- 49 The relentless development of models as a working tool resulted in an increasing number, scale and size of mock-ups. This caused both a lack of display space and storage area within Fitzroy's showroom. In 1978, a new layout proposal was drafted for extending the studio to include adjacent premises, although without success (fig. 15). In this scheme, the former garage space is transformed into an enlarged modelling workshop. Additionally, to offset the removal of most AO-2 partitions, Fitzroy's enclosing walls were intended to become a giant pin-board for large scale presentations – another working tool that expanded throughout the decade. The *a+u*'s sequence had already referred to this tool as a sole category, 'communication'.

Figure 15. Plan with proposal for expansion of Fitzroy Street Office, 1978.

© Norman Foster Foundation Archive.

- 50 Two major milestones for Foster Associates overlapped at the end of the decade, in 1979. Firstly, they won the international competition to build the new HSBC headquarters in Hong Kong, paving the way to their appearance on the international scene. Secondly, the first Foster Associates solo exhibition at the RIBA Heinz Galleries took place, presenting the practice's evolution to London's vibrant architectural scene. Discretely placed on a corner of the last page of the exhibition catalogue, a drawing of a football team referring to Foster Associates stands out (fig. 16). The uniform implies no differentiation between the diverse professionals composing the team, with the same non-hierarchy exposed at *a+u* magazine years before. The drawing shows a strong commitment to the concept of team, as if Foster Associates was *playing* the game of

architecture. This cohesiveness had already been predicted by Banham in September 1972, when he described his first impression of Fitzroy's working atmosphere, "It's a success scene: it's an architectural office doing its thing for fun and profit³⁵."

Figure 16. Extract from Foster Associates RIBA Heinz Gallery Booklet, 1979.

© Norman Foster Foundation Archive.

- 51 The increasing workload in the early eighties made it essential to move to a larger premises. In 1981, Foster Associates relocated to a two-story office at Great Portland Street³⁶, adapting the ground-floor to be used as the studio and the basement for the model shop. Just like the move from Bedford to Fitzroy exactly ten years earlier, the leap from Fitzroy to Great Portland involved updating working patterns, teams and tools³⁷. Some of the practice's most relevant figures had left to pursue solo careers. Paraphrasing Tony Hunt when asked how he influenced the genesis of Foster Associates, "it is always best to be at the beginning³⁸".

Figure 17. Foster Associates team at Fitzroy Street, 1981.

© Norman Foster Foundation Archive.

- 52 In a 1981 photograph, the Foster Associates team can be seen in front of Fitzroy's glass curtain, before the move to Great Portland Street (fig. 17). The team's layout, placed in front of their showcase office ⁵⁰ outside the vitrine ⁵⁰ summarises Foster Associates' evolution from Team 4 rock-band to the creation of the large sports team that had enriched the architectural debate during the 1970s. The requirement to monitor the HSBC onsite meant that Foster Associates had to transfer to Great Portland Street and to Hong Kong at the same time. The resulting split into two teams can be understood as an in-depth examination of the practice's working methodology, connections and interactions that had been built, refined and customised throughout a decade at Fitzroy Street³⁹.

Conclusions

- 53 Foster Associates period at Fitzroy Street serves as a prominent example of how a working methodology can be grounded on experimentation and innovation to achieve its own identity. The office's spatial elements were able to facilitate interactions, highlighting individual contributions and building a collective visual catalogue, showing an early understanding of the power of agency, communication and media – superheroes, football teams and tandem riders. This research shares similarities with architectural historian and theorist Beatriz Colomina's insights about workspaces. Her seminal book, *Privacy and Publicity*, depicts the spaces from which Adolf Loos and Le Corbusier operated, considering the agency as a *means of communication in itself*⁴⁰. Most recently, anthropologist and Bruno Latour's disciple, Alben Yaneva, has pointed out the importance of the maker's design experience and workspace influence at *Made by the Office for Metropolitan Architecture: An Ethnography of Design*. These views consider the

backstage of an architectural office as the focal point in understanding the way architecture is thought, processed and produced.

- 54 In a time when the agency of architectural studios is being questioned due to the pandemic and the increasing drift towards remote work, it is important to value how the working environment enhances collaboration and intragroup dynamics, especially in fields which benefit from collective creativity. To this end, instead of focusing exclusively on design parameters and architectural outcomes, more than ever we should also focus on the process, tools and interactions. The combination of these could be achieved by complementing two equally key questions posed to Foster in the 1970s: Buckminster Fuller's "How much does your building weigh?" with an anonymous "Is the layout of the office a diagram of the way you work?"

BIBLIOGRAPHY

Architecture + Urbanism magazine (ed.), *Foster Associates*, Tokyo, September 1975.

Reyner Banham, "LL/LF/LE v Foster", *New Society* magazine, 9 November 1972.

Beatriz Colomina, *Privacy and Publicity. Modern Architecture as Mass Media*, Cambridge, MIT Press, 1994.

Foster Associates, *Foster Associates*. Introduction by Reyner Banham, London, RIBA Publications Ltd, 1979.

Norman Foster, *Talking and Writing*, Madrid, Norman Foster Foundation, 2017.

Norman Foster Foundation, *Annual Report 2019*, Madrid, Norman Foster Foundation, 2020.

Norman Foster Foundation, *Inside the Archive: Loren Butt*, 2019. Interview recordings accessed at the Norman Foster Foundation Archive [accessed July 2019].

Norman Foster Foundation, *Inside the Archive: Birkin Haward*, 2018. Interview recordings accessed at the Norman Foster Foundation Archive [accessed July 2019].

Norman Foster Foundation, *Inside the Archive: Tony Hunt Haward*, 2019. Interview recordings accessed at the Norman Foster Foundation Archive [accessed July 2019].

Peter Galison, *The Architecture of Science*, Cambridge, MIT Press, 1999.

David Jenckins (ed.), *Norman Foster: Works 1*, London, Prestel, 2002.

Ian Lambot (ed.), *Norman Foster: Buildings and Projects Vol. 1 1964-1973*, London, Watermark Publications, 1991.

Angus Macdonald, *The Engineer's Contribution to Contemporary Architecture: Anthony Hunt*, London, Thomas Telford Publishing, 2000.

Carlos Solé Bravo, *La Casa de Norman y Wendy Foster en Hampstead. El sueño de la casa tecnológica*, Madrid, Diseño Editorial, 2019.

Robert Propst, *The Office: A Facility Based on Change*, Michigan, Business Press, 1968.

Deyan Sudjic, *Norman Foster: A Life in Architecture*, London, Weidenfeld & Nicolson, 2010.

Malcolm Quantrill, *The Norman Foster Studio: Consistency through diversity*, London, Taylor & Francis, 1999.

Albena Yaneva, *Made by the Office for Metropolitan Architecture: An Ethnography of Design*, Rotterdam, nai010 Publishers, 2009.

NOTES

1. Team 4 Architects (1963-1967) was founded by sisters Georgie and Wendy Cheesman, along with Norman Foster and Richard Rogers, who were classmates at Yale University from 1961-1962. Although Su Rogers, Richard's wife, was also at Yale and was involved in Team 4 from the beginning, her role is often confused with that of Georgie Cheesman, as Su is mistakenly attributed as co-founder.

2. See the "Working Methods" chapter in Deyan Sudjic's *New Directions in British Architecture: Norman Foster, Richard Rogers, James Stirling*, London, Thames and Hudson, 1986, pp. 73-87.

3. In recent decades, several disciplines have focused their attention on the *spatial* dimension in which the activities being studied take place, in what has been called the *spatial turn*. The history of science has been interested in exploring the laboratory's or museum's role in the development of science. Art historians have turned their attention to the artist's atelier as a place of exchange between various agents in the creative process. We can cite, for example, *The Architecture of Science* (1999) by Peter Galison, where the work of Hannes Meyer in updating Bauhaus workspaces to new methodology and tools is described. Office spaces have also attracted researchers in the industry. This is the case of *The Office: A Facility Based on change* (1968), by Robert Prospt at Herman Miller. A notable contribution in this regard was Paola Antoineli's *Workspheres* (2001) exhibition at MoMA. In this context, the "architectural office" also deserved special attention, underlining the importance of the workplace's study for the history of architecture. This article is inserted in this specific field, following precedents such as Albena Yaneva's *Made by the Office for Metropolitan Architecture: An Ethnography of Design* (2009).

4. This article is linked to the author's PhD research at the Doctoral Program of Transversal Studies in Architecture and Urbanism at the Universidad Politécnica de Madrid (UPM), under the mentorship of Prof. Dr. Javier Girón Sierra.

5. The headquarters of the Norman Foster Foundation (NFF) are based in Madrid since 2015, were the author assumed a variety of roles, firstly as Archive & Projects Coordinator (2015-2017) and secondly as Head of Education and Research Units (2017-2019).

6. The establishment of Norman Foster's archive at the NFF under Margarita Suárez Menéndez archival project can be framed similarly to other architects who had their funds systematised. Outstanding examples can be found with Frank Lloyd Wright's collections at Avery Architectural and Fine Arts Library, and Fondation Le Corbusier's holdings at Maison La Roche. According to the latest accounting in the NFF Annual Report 2019, the NFF Archive has over 190,000 archive items, including 31,340 plans and drawings.

7. The NFF Oral History Programme channeled individual contributions through a series of interviews with key figures related to the earlier period of Team 4 and Foster Associates. The first ten interviews took place in Madrid and in the UK, conducted by this article's author between 2018 and 2019.

8. In 1971, the year in which Fitzroy Street premises' renovation were planned, Foster Associates had already undertaken the following projects related to workspaces: Reliance Controls factory (1965-1966), Fred Olsen's amenity centre (1968-1970), Computer Technology factory (1970-1971), IBM's Cosham office (1970-1971) and the Willis Faber and Dumas offices (1971-1975).

9. Following the drawing style that Paul Rudolph enhanced at Yale, cutaways with one-point perspective were extensively used. These got widely published and were associated to a *Foster style* of drawings.
10. The latest examples are Apple's headquarters in Cupertino (2009-2018) and Bloomberg's headquarters in London (2010-2017). Both were developed including the client as an element of design.
11. Additional information about this anecdote can be found in John Walker's "In the Early Years" text at *Norman Foster Works 1*, p. 94. See bibliography.
12. In photographer John Young's words, "in this photograph [in the *Architectural Design* April 1965], the team looked more like a rock-band than a bunch of architects". Extracted from 'Inside the Archive: John Young interview recording by the NFF. <https://www.normanfosterfoundation.org/es/archive/john-young/> (accessed 22/09/2020)
13. With Newby, Hunt was exposed to the philosophy of 'multidisciplinary' work and collaboration between practitioners and clients. By learning this methodology, Hunt became a reference engineer for many prominent architects, collaborating not only with the Fosters and Rogers, but also with Nicholas Grimshaw and Michael and Patti Hopkins. For more information, Angus Macdonald's *The Engineer's Contribution to Contemporary Architecture: Anthony Hunt*, 2000.
14. This fact leads us to believe that AHA's business structure may have been the inspiration for Norman and Wendy Foster to establish themselves as Foster Associates in 1967. Since then, Foster Associates relied on Hunt's consulting services for most of their projects until the late 1970s.
15. *Designer* furniture came from Zeev Aram, who was an influential figure in London's product design scene. He introduced Eileen Gray's product design to the British public, as well as many of Herman Miller's prototypes which were seen in different Foster Associates offices. For more details about this meeting, see Deyan Sudjic, *Norman Foster: A life in Architecture*, 2010, p. 96.
16. Probably commemorating Norman Foster, Su and Richard Rogers's American *grand tour* along the U.S. East Coast during the 1961-1962 school year while at Yale University.
17. Deyan Sudjic, *Norman Foster: A life in Architecture*, 2010, p. 150.
18. All initiatives conceived jointly with Fuller will come to have a deep influence on Foster Associates, who will absorb and integrate many of Fuller's visionary ideas in future projects.
19. Reliance Controls became the first symbol of Foster Associates trademark. Norman Foster's façade photograph contributed to its success, being widely published in many international magazines, such as *The Architects' Journal* (July 19, 1967), *Architectural Review* (June 1967) and *Domus* (February 1967), etc.
20. Birkin Haward, architect, painter and one of the early associates, worked at Foster Associates between 1969 and 1983. He was one of the most outstanding individuals due to his excellent graphic skills. In Ian Lambot's *Norman Foster: Building and Projects Vol. 1 1964-1973*, Tony Hunt considers his role at Foster Associates equivalent to that of Richard Rogers in Team 4 (p. 146).
21. Text extracted from the project description at *Foster Associates. Introduction by Reyner Banham*, London, RIBA Publications, 1979, p. 37.
22. Based at Fitzroy Street (1971-1981), the practice completed the Willis Faber and Dumas building and developed projects such as Sainsbury Centre for Visual Arts, competition entry for the BBC headquarters expansion, HSBC tower and Renault Distribution Centre. In *Norman Foster Drawings 1958-2008*, 2010, p. 71, Prof. Luis Fernández Galiano resumes Foster Associates 1970's decade as "the cult of precision in technical monuments".
23. Deyan Sudjic, *Norman Foster: A life in Architecture*, 2010, p. 180.
24. Many of these innovations had been shaped by services engineer Loren Butt, who joined the practice in 1968. He became essential in the integration of building services with architecture. For additional information, see the "Inside the Archive: Loren Butt" interview (<https://www.normanfosterfoundation.org/archive/loren-butt/>, accessed 22/09/2020).

25. Reyner Banham became a close figure to Foster during the 1970s, being invited to write a critical introduction in Foster Associates' 1979 RIBA exhibition catalogue.
26. Graham Phillips, a prospective Associate, described the experience of entering Fitzroy when attending a job interview. Malcolm Quantrill, *The Norman Foster Studio: Consistency through diversity*, 1999, p. 6.
27. Robert Propst didn't foresee how the Action Office system was the forerunner of the so-called "cubicle", which maximized the use of office space with 90 degree partitions to create isolated workspaces.
28. It is not surprising that an anonymous graffiti, "this is going to cost a mint", appeared on the information drawing about the setting up of new tools when moving to Fitzroy.
29. Robert Propst, *The Office: A Facility Based on Change*, 1968, p. 27.
30. Helmut Jacoby (1926-2005) worked for Foster Associates as an external draughtsman for two decades, between 1971 and 1991. The outsourcing of image production represents a change in the studio's productive structure in pursuit of bigger commissions.
31. The exhibition *The Work of Foster Associates* took place in 1979 at the RIBA Heinz Gallery. The catalogue that accompanied the exhibition can be considered the first major editorial project at Foster Associates.
32. In the 2011 *Lecture Series: Leading figures in Twenty-First Century Architecture*, Norman Foster (accessed on 05/05/2020) at Fundación Juan March in Madrid, Prof. Dr. Luis Fernández-Galiano linked this development to the impact produced by the Centre Pompidou building by Richard Rogers and Renzo Piano (1970-1977).
33. Alastair Best, *Designer*, London, June 1983.
34. Resettings were already envisaged in the Action Office 2 catalogue. On its last page, there is a Q+A section, including: 'What if the office layout as planned doesn't fully meet the desired solution? The answer is we call AO 2 a forgiving system. That means if it doesn't fully meet your needs, it can be easily changed without undue expense.'
35. Reyner Banham, "LL/LF/LE v Foster", *New Society*, 9 November 1972.
36. This will be the last space they will adapt to house the studio, as in the next expansion the current headquarters was planned in Riverside, London, where they relocated in 1990. We observe a natural evolution at the premises: first they occupy, then they refurbish, and lastly, they build their headquarters as a custom-made suite.
37. As the AO-2 units were left behind, the opportunity to design a customized workstation prototype arose, based on furniture prototypes designed at the Renault Distribution Centre. This was the seed of what later evolved with Tecno to create the Nomos table and drawing boards.
38. Nigel Dale, *Connexions. The Unseen Hand of Tony Hunt*, Whittles Publishing, Dunbeath, 2012, p. 34.
39. Many distinctive elements and design parameters developed during Foster Associates early period remain with Foster + Partners to this day. Interestingly enough, the practice's actual configuration of six independent studios within the practice seems to emulate Fitzroy's management scale, as in six Fitzroy's working jointly under the same roof.
40. Beatriz Colomina, *Privacy and Publicity. Modern Architecture as Mass Media*, Cambridge, MIT Press, 1994, p. 29.

ABSTRACTS

The Foster Associates team has been depicted, among many other identities, as superheroes, a rock-band, tandem riders and a football team. Founded by Norman and Wendy Foster, their collective working methodology has become one of the practice's primary trademarks. This article explores how the studio's spatial configuration, in its many iterations from the beginning of the 1960s to the early 1980s, has enhanced innovation, team interactions and individual contributions.

The practice's distinctive design philosophy has been mirrored in the many workspaces that have housed the practice, from its domestic setting in London's Hampstead Hill Gardens, to its current main office space in Battersea. In this progression, the Fitzroy Street studio, where Foster Associates operated for almost a decade (1972-1981), is the best example of how a series of design concepts influenced teamwork and produced the successful merging of a 'showroom office' and a 'mock-up office'. The office at Fitzroy Street was conceived as a lab that rethinks the built environment, blending individual contributions to support a collaborative working methodology that enhanced collective multidisciplinary dynamics.

L'équipe de Foster Associates a été dépeinte, entre autres, à une bande de superhéros, des cyclistes pédalant en tandem, un groupe de rock ou une équipe de football. Mené par Norman et Wendy Foster, le studio se distingue et se caractérise par sa méthodologie de travail collective. Cet article se propose d'étudier comment la configuration de l'espace de travail a facilité les interactions au sein de l'équipe et y a favorisé les contributions individuelles.

De l'environnement domestique de l'appartement de Hampstead Hill Gardens au studio actuel à Battersea, les lieux de travail que Foster Associates a occupés au fil de son développement sont devenus un reflet de sa philosophie du design caractéristique. Au cours de cette évolution, le local de Fitzroy Street, où l'entreprise était installée de 1972 à 1981, s'impose comme le meilleur exemple de l'influence d'un ensemble de modèles de design sur le travail collectif, grâce à la mise en application réussie de concepts comme « le bureau showroom » ou « le bureau maquette ». Le studio de Fitzroy Street sera un endroit conçu pour l'interaction, où l'association des différents paramètres qui entreront en jeu se traduira directement dans la manière de travailler et de concevoir l'architecture.

INDEX

Mots-clés: Environnement de travail, Méthodologie de travail, Foster Associates, Norman Foster

Keywords: Workspace, Working Methodology, Foster Associates, Norman Foster

AUTHOR

GABRIEL HERNÁNDEZ

Gabriel Hernández is an architect and researcher living and working in Madrid. His work embraces interdisciplinarity, exploring and enhancing the links between architecture, art, books and design. He complemented his Master's Degree in Architecture at UPM/ ETSA Madrid with international stays at ENSA Paris La Villette, CUJAE Havana and CEPT Ahmedabad. He was appointed Art Projects Coordinator at Ivorypress (2013-2015), later Archive & Projects Coordinator (2015-2017) at the Norman Foster Foundation and, more recently, as Head of

Education and Research (2017-2019). Since 2020, he is an Associate Professor at ETSA Madrid and a PhD candidate at UPM's Transversal Architecture Doctorate Program.

Gabriel Hernández est architecte et chercheur, il vit et travaille à Madrid. Son travail est régi par l'interdisciplinarité, déterminé à explorer et renforcer les liens entre l'architecture, l'art, la littérature et le design. Dans le cadre de ses masters en architecture suivis à l'école technique supérieure d'architecture (ETSA Madrid) au sein de l'université polytechnique de Madrid (UPM), il a effectué des échanges universitaires à l'ENSA Paris-La Villette, à l'université technologique de La Havane (CUJAE) et au CEPT d'Ahmedabad. Il a été nommé gestionnaire de projets artistiques chez Ivorypress (2013-2015), avant de travailler en tant gestionnaire de projet et des archives à la fondation Norman Foster puis, plus récemment, comme chargé d'enseignement et de recherche (2017-2019). Depuis 2020, Gabriel est professeur associé à l'ETSA Madrid et candidat au doctorat en architecture transversale de l'École Polytechnique de Madrid. g.hernandez@upm.es