Wells Coates' studio apartment in Yeoman's Row, 1935. An attitude towards the optimization of space

Apartamento estudio de Wells Coates en Yeoman's Row, 1935. Una actitud hacia la optimización del espacio Ignacio Román Santiago | Luis Gil Guinea

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Abstract

Throughout 1935, Wells Coates worked on the design and construction of a studio house for himself, renovating a former artist's studio at 18 Yeoman's Row, London. It was a very delicate moment in his life and a minimal space, a real personal challenge.

He managed to achieve one of the most brilliant exercises in spatial optimisation of his time. He condensed into less than $60m^2$ his trajectory up to that point with particular intensity, from his industrial roots, experimentation with new materials and forms, and dimensional adjustment, to his finely tuned emotional sensibility, formed in the Eastern tradition. Moreover, Coates found in that small but remarkably tall space the perfect occasion to test the system of spatial organisation in section that he was beginning to develop, and which has become over time his most important contribution to modern English architecture.

Key words: Wells Coates, minimal space, planning in section, furniture, space optimization, experimentation.

Resumen

A lo largo de 1935, Wells Coates trabajó en el diseño y la construcción de su propio estudio, renovando el taller de un antiguo artista en el número 18 Yeoman's Row de Londres. Durante un delicado momento de su vida y en un espacio mínimo, supuso un verdadero desafío personal.

Logró realizar uno de los ejercicios de optimización espacial más brillantes de su tiempo. Condensa en menos de 60m² su trayectoria y particular intensidad, desde sus raíces industriales, hasta la experimentación con nuevos materiales y formas, con un ajuste dimensional y su delicada sensibilidad emocional, formada en la tradición oriental. Además, Coates encontró en ese espacio pequeño pero notablemente alto la ocasión perfecta para probar el sistema de organización espacial en sección que estaba comenzando a desarrollar y que se ha convertido con el tiempo en su contribución más importante a la arquitectura moderna inglesa.

Palabras clave: Wells Coates, espacio mínimo, proyectar en sección, mobiliario, espacio optimizado, experimentación.

Introduction

In early 1935 Wells Coates had just separated from Marion Grove after a fifteen-year relationship, a marriage and a daughter. He had achieved, through unstinting dedication, a certain prestige among modern English architects despite his foreign background and his beginnings as industrial designer.

However, the attention to his work, the instability of his early career, and the complicated balance of two opposing characters, had frustrated his deep love for Marion. He had long ago lost his two best mates too, Alfred Borgeaud and Fred Law, and at that time the profession to which he had devoted all his efforts was not paying him back. At the age of 40, his life was in a truly delicate moment.

Coates found a small artist's studio, a 58 m² attic space at 18 Yeoman's Row. Throughout the year he worked on the design and construction of an extraordinarily fine-tuned piece, composed of multiple functional and furniture elements that transformed and adapted it to different activities. He moved there in February 1936 to make it his home and workplace for the next 20 years, practically until the end of his days.

Completely concentrated on the task, perhaps to forget his troubles, he managed to condense in a few square metres a long career of experimentation in functional design, decidedly technical and complex, innovative in materials and forms, but deeply anchored in a humanist and multicultural background that linked him to universal emotional aspects. It is undoubtedly the work in which the values that had brought him to that moment were expressed with the greatest intensity.

But that small flat was also the first example of a form of architectural design that Coates was beginning to develop. It was a project based fundamentally on the section, trying to find the right distribution, the proportion of spaces and harmony in the environment through an elaborate relationship between levels and free heights, and the use of furniture that took advantage of the vertical dimensions.

It served as a testing ground for Coates' subsequent projects, centred on this way of handling space, which is probably where his most transcendent theoretical contribution to modern English architecture lies.

A personal crisis had become the opportunity to raise his trajectory to its best version and to start with other initiatives in his personal architecture, far from the conventional, coming from other disciplines, and still in full force.

This paper will analyse the work in Yeoman's Row in depth, from the relevant aspects of Coates' training, his previous projects and the study of his compositional principles and the functional elements that compose it, in an attempt to offer a complementary and useful perspective on a way of understanding architecture that has perhaps not been sufficiently evaluated.

- 1 University of British Columbia, Vancouver. June 1957. Laura Cohn, The Door to a Secret Room. 11.
- 2 J.M. Richards refers to this question in Memoir on Wells, The Architectural Review, December 1958. One of the recurring themes in Wells Coates's conversations would be precisely everything to do with his origins and the description of the distant and attractive place that was Japan. It seems that he was particularly comfortable establishing this cultural distance with his interlocutors. James Maude Richards, The Architectural Review. 357-360.
- 3 Sarah Agnes Wintemute, studied under Sullivan in Chicago. She founded and built a girls' missionary school and was the mother of six children.

Figure 1 (Left). Crown Prince's Palace. Sketch from the journal Sights and Experiences in Japan, 1908-1909. COHN, Laura. The door to a Secret Room: A Portrait of Wells Coates; Figure 1 (Right). The Coates Family. 1910. Wells, back left. Laura Cohn, (1999).

window-frames, were decorated with gold. The large pullars were of different colors of markle when you get to the top of the stairs you come to a place where ore many pillars of marks like this: 0000 staircase Canniter electric i amps divisto ball wom If you go straight from the stairs you would come to a door. I pen the door and you are in the grand purior, one of the most beautiful of all the rooms. The were sixteen pullars of out mon penk masblencheased with eight your They were or so window arranged thus: chandler table and chairs who quing and starts.

Learning. From art and engineering to architecture

In a speech to architecture students at the University of Vancouver, expressed almost as a prose poem, Wells Coates spoke nostalgically of his childhood:

... I have never been to a school of architecture Indeed, I have never been to a school at all For I was born in the Far East, in Japan, where no such facilities existed,

And my own course was directed by private teachers A French governess, a Japanese painting master who taught Drawing with a brush

A Japanese architect-builder, who taught the skills of shaping Materials

Into elements of structure, and the arts of regulation of dimensions

Pleasing to the eye and to the mind ... 1

He was born in Tokyo in 1895 and was educated in science and philosophy in the context of the meticulous traditional Japanese 'art of living'. At the age of 18, he moved with his family to his mother's native Canada. He settled permanently in England in 1929, where he developed his professional life thereafter. An evident and proud sense of alienation, of being different, accompanied his figure and personality throughout his life.²

His father, the Reverend Harper Havelock Coates, a professor of theology and philosophy, and his mother, Sarah Agnes Wintemute, the first woman to train and practice as an architect³, forged Wells' character in a stern Methodist environment, spiced by an exquisite and varied education based on Eastern values and aimed at the development of artistic expression. (Fig.1)



He devoted his early working years to reading and writing, as a journalist, and balanced his sophisticated and disciplined oriental training with the relativistic and dynamic vision of the European artistic and philosophical moments of the 1920s. The pavilions of Le Corbusier and Melnikov, which he was able to study at the Paris Decorative Arts exhibition in 1925, triggered an interest in architecture that grew strongly from then on.

As an engineer, he was aligned with the functionalist and machinist side of modern architecture, mass production, dimensional adjustment, innovation in materials and construction systems. As a good 'Japanese', he sought to push these aspects to their most refined and essential limits.

In 1927, newly married to Marion, he renovated the flat in which they would live, designing all the functional elements with precision and independence from any orthodoxy. Soon after, his friend Tom Heron entrusted him with the design of furniture, fittings and signage for his Crysede silk shops, and later the Cresta factory and stores. In these works, he began a design research with new materials such as plywood and folded steel sections, which had a certain impact on London contemporary interiors. Charles Laughton commissioned him to renovate his house, which was published in the specialist press. The BBC hired him as interior designer of their studios, including their radio equipment. In 1931, through a relationship with Jack Pritchard, owner of the Venesta plywood board and furniture factory, he was commissioned for his most important work: the block of flats in Lawn Road, completed in 1933, which was a profound investigation into the minimal dwelling and the character of modern man. J.M. Richards wrote of this architecture:

It is nearer to the machine à habiter than anything Le Corbusier ever designed.⁴

By 1935, the year in question, Wells Coates had already played an important role in the progress of the Modern Movement in England, and had worked on projects in which he was able to extend the idea of a 'mechanized' architecture beyond a circle of elite individuals. But at the same time, he had developed a particular identity that distinguished him from the prototypical modern architect, underpinned by an exceptional sensibility for harmonious and essential design.

A new model over the pre-existence

Following Marion's separation, Coates acquired the top floor of one of the terraced blocks comprising the Egerton Place Studios complex, a group of Victorian-style houses built in red brick. Their configuration was common in late 19th-century London: terraced buildings with a 6-metre frontage and three levels; one slightly below street level, a generous first floor, and an upper level that gained height through its sloping, glazed roof in this case designed as an artist's studio.

Through a series of clever and painstaking operations, Coates transformed this third level into a studio house of astonishing versatility and emotional delicacy. (Fig.2)

The starting room was a 2:1 rectangular plan, just under 60 square meters. It was connected to the main street through a large window, also folded in the roof, which occupied almost the entire width of the façade. The opposite side opened with small openings to the rear, shared with the crescent of Egerton Place.

In section it was a much larger volume than the usual dormer, its main asset. The height of the space in line with the façade was 2,16 meters (7 feet)⁵, and when the façade sloped down to the roof, it reached a maximum clear height of 3,7 meters (12 ft.).

4 James Maude Richards, *The* Architectural Review 124 (1958): 357-360.



Figure 2. View of complex Egerton Place Studios. Photographer: Felton, Leo Herbert, 1930. Architectural Press Archive / RIBA Collections.

5 We have chosen to refer to the international system and to quote, in brackets, those specifically defined by Coates in the Anglo-Saxon system.

Figure 3 (Right). Interior of Yeoman's Row studio. Pre-renovation condition. 1935. Darling, Elizabeth (2012). *Wells Coates*.

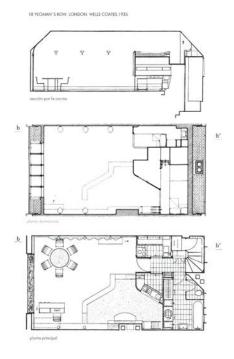


Figure 4 (Left). Section through the kitchen and guest cabin, and two horizontal sections (bedroom and floor level). Wells Coates. 1935. In Cohn, Laura (1979). Wells Coates. Architect and Designer, 1895-1958.

"Our society is above all determined to be free. The love of travel and change, the mobility of the worker himself grows with every opportunity to indulge him. The 'home' is no longer a permanent place from one generation to another... we move away from the old home and family; we get rid of our belongings and create a new and exciting freedom. A new freedom which demands greater comfort and a more perfect order and repose, also a new type of intricacy in the equipment of the dwelling-scene". Wells Coates, "Furniture Today Furniture Tomorrow" (1932); 32.

A total of 200 m³ of air was available, which the architect had to manipulate masterfully to arrange the best possible setting for life.

Coates found in the uniqueness of this space, reduced in surface area and generous in height, the opportunity he was looking for to propose a new domestic model that broke with established patterns, pushing dimensional adjustment and ingenuity to the limit. (Fig.3)



He planned a large room, open to the window, where life would take place, and which occupied most of the surface area. The specific functions of sleeping, cooking, storage and toilet were placed at the back of the space.

He horizontally divided this rear part, which was about one-third of the floor area, to enlarge the living space and provide an upper level of sleeping quarters. As the 3,65 meters (12 ft.) height was insufficient for two levels, Coates used the space under the beds to provide headroom on the ground floor. Conversely, he placed the gallery above the wardrobe and kitchen fittings to gain space on the upper floor. (Fig.4)

Here, two sleeping 'cabins' are positioned in perpendicular directions. Coates's, along the rear wall, is supported by a full bathroom and cupboard. The cabin for his daughter Laura or an occasional guest, with a washbasin area, runs parallel to the party wall above a tight kitchen. The 'carving' of this functional zone produces an astonishingly complex spatial composition. (Fig.5a)

The large living room, almost 2/3 of the floor area, reaches full height. A single built element and two pieces of furniture delimit, without any enclosures, the different programs: recreation, work and dining. The living space is enclosed, oriented towards an electric fireplace, by a fixed concrete shelf, linked to a trapezoidal volume which includes equipment to meet the needs of the modern, nomadic and technified man who was drawn in the design for the flats on Lawn Road.⁶ (Fig.5b)

The large room is completed with the only transportable furniture that Coates allowed himself to place.

Next to the window and facing the kitchen, a round table, the architect's preferred form for the added furniture as an abstract symbol of independence and mobility⁷, and the chairs he designed himself.

On the other side of the window, a desk with his typewriter which could be converted into a drawing board; the two activities essential for the development of Coates's profession were thus condensed in a minimal object.

7 In many of the interior design projects that Coates had done years ago, the shape of the circle is set in a large place where the space is enhanced and completed by its incorporation.





Figure 5a (Left). Interior view of the flat. Figure 5a (Right). Interior view from Coates's bedroom-cabin. In the foreground, at ground level, the Japanese-style scene.

Photographer: Dell & Wainwright.

Sherban Cantacuzino, Wells Coates. A Monograph, 1978.

The inhabiting machine and the useful detail

In a lecture given at an Industrial Design Council workshop, Coates defined the three dimensions that a designer should use:

The dimension of human beings which have always determined the dimensions of things; the dimension of things -of components and elements- which have to be studied in their own right; and last, the dimensions of human beings doing or using things - the dynamic rather than the static dimension.⁸

Consideration of these dimensional orders was key to the development of the furniture pieces designed by Coates in his home studio. In fact, the whole work can be considered an artefact that responds efficiently and sensitively to the requirements and actions that have been incorporated into it.

It is a machine that aspires to perfection, albeit full of imperfections, in order to produce delight. The functions are arranged to favor the ideal place to rest, socialize or work. All the tools acquired during his training as a mechanical engineer were put at the service of the project.

It is revealing to discover that hardly any sketches were made to define the layout. In contrast, we find numerous detailed plans of each piece of furniture: the tubular stairs to access the bedrooms, the wardrobe with built-in rotating wardrobe (Fig.6), the sophisticated desk, the electric fireplace, the constructed boundary that gathers the living area, the sli8 In Peendlebury Manor, April 9th 1946. In Sherban Cantacuzino (1978); 27. 9 Laura Cohn writes about her father's passion for boats, which had begun in his childhood: "He sailed whenever he could (although not as often as he would have wished). He amassed a splendid sailing library, and he evolved several original plans for improving of boat design and construction". Laura Cohn (1999), 172.



Figure 6a. View of the stairway to Coates's cabin.

Figure 6b. Elevations, sections, plans and details. (Left) Stairway to Coates's double-bed cabin, (Right) Stairway to guest cabin.

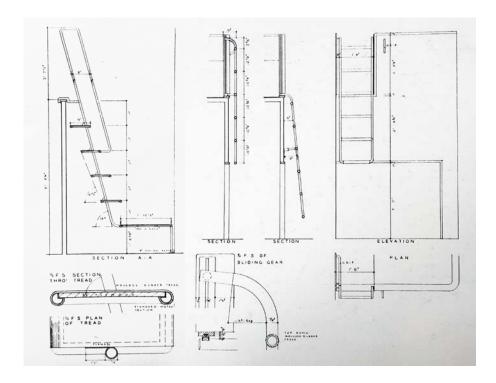
Wells Coates, "Planning in section", The Architectural Review (1937): 82.

- 10 76 centimeters in external height and just under 70 centimeters measured from the inside, minus the thickness of the tatami.
- 11 Coates uses a continuous base layer of rubber, covered by a mat made from reed stems. Traditional tatami mats were originally made from woven rice straw, reed stalks, silk and hemp threads. Teiji Itoh, 1965.

ding trolley between the kitchen and the dining table, the delicate window-greenhouse, or the niche with the wireless equipment setting the main scene, among other 'inventions'.

Detail is used to achieve the optimum design and beauty is obtained as a consequence of simultaneously attending to the dimension of man, that of the object and that determined by both, that of man interacting with the piece.

The tubular steel staircases had a clear naval inspiration that extended to the sleeping cabins conceived with the same requirements of compactness and optimisation as the marine⁹ cabins. The staircase-railing of the Coates cabin curves and fits expressively into the floor, and the small ladder of the guest cabin is mobile to allow for the galley hatch. (Fig.6)



Perhaps the element that most determines the way the large room is used is the device that brings together the living area. It is a cleverly geometrically designed bench that delimits a space around the fireplace. With an asymmetrical section, the number of decisions taken in such an apparently simple piece is astonishing. The wall and the upper shelf are made of reinforced concrete. Despite its almost reckless thickness, it guaranteed adequate resistance: acting as a backrest, the wall would support the weight transmitted by several people, and the height¹⁰ of the upper shelf invited seating. The rest of the shelves are made of mahogany wood, reducing their thickness to the limit. They are supported by a small recess in the concrete wall and by two hollow cylinders which at the same time carry the electricity supply to the sockets in the top shelf. (Fig.7a)

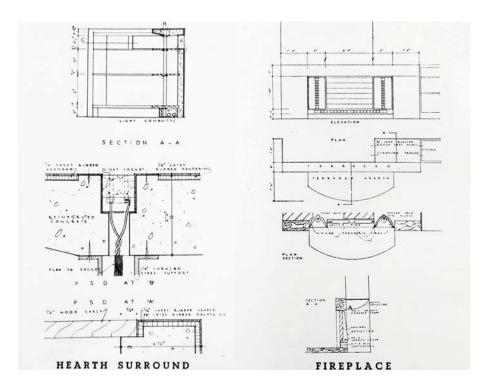
This and the inside face of the wall is coated with a mixture of latex rubber and cement, a durable and pleasant finish.

The space enclosed by this piece was fully cushioned at floor level, as a modern adaptation of the traditional tatami¹¹ mat and filled with cushions for seating in front of the electric fireplace.

The actual hearth is configured as a 'Japanese-style' scene around the fire. Measurement, technification and material character are employed to define a new living machine sensitive to the needs, including the emotional ones, of its occupants. Coates finds here the opportunity to take his understanding of the domestic environment, where certain Western standards do not fit, to its ultimate consequences.

I do not like big sofas and easy chairs, so I make a hearth scene, à la japonais...¹²

In the design of the electric fireplace, the material quality showed again his care for the senses and the memory. The fire at the heart of the scene is reminiscent of the hearth described by Muthesius in *Das Englische Haus*. ¹³



Coates' design was based on the Thermovent devices he had just developed for Ecko. The radiating louvres occupied the centre of the composition; on either side, electrical resistors housed in concave planes directed the hot air currents; and the ventilation grille gathered the whole ensemble at the bottom. All the parts were made of burnished¹⁴ bronze to facilitate the precision of the bending. The chimney was framed at the top and sides by terrazzo blocks. A semi-circular tongue, made of the same material, provided a hot stone mat as a transition between the fire and the cushioned area of the tatami. (Fig.7b)

On the frequent film sessions on the uncomfortable¹⁵ tatami, the raised wall that housed the chimney pipes came to life as a projection screen; the sound reverberated from the same framed recess that projected the images, at the top of the service core.

The radio chassis, housed in a recess cut into the lower part of this core, allowed the internal workings of all the machinery to be viewed through a methacrylate shield. On the wall of the washroom, rotating clothes rack simultaneously held two complete sets of clothes.

- 12 Wells Coates, "Planning in section", The Architectural Review 82 (1937): 53.
- 13 For an Englishman, the idea of a room without a fireplace is "simply inconceivable". Fire as a symbol of the hearth was taken up by modern architects who were sensitive to the benefits of British traditions. Henri Muthesius (1979): 181-188.

Figure 7a (Left). Detailed plans of the back-shelf that forms the hearth surround in the flat. Figure 7b (Right). Detailed plans for the fireplace in the Yeoman's Row flat. Wells Coates, "Planning in section", The Architectural Review (1937): 82.

- 14 Burnishing is a process widely used in the finishing of engine cylinders, connecting rods, etc. Again, Coates' debt to mechanical engineering is reflected in the processes, materials and systems used.
- 15 "Everyone except Wells, who could happily squat eastern style, [was] very uncomfortable on the padded seating area but not daring to say so." In Denys Lasdun Papers, RIBA and V&A Archives, LaD/1/2.

The mechanical and dynamic condition with which the whole flat was conceived was perfectly reflected in the architect's testimony on how he had designed his mobile desk:

The desk is designed to be movable to any desired position in the room, and is not everyman's piece of furniture. I like to type on a table which is delicately balanced, with a foot-rest bringing the knees tight under it, so that with the springy steel chair, the whole ensemble allows one to "ride" the machine... 16

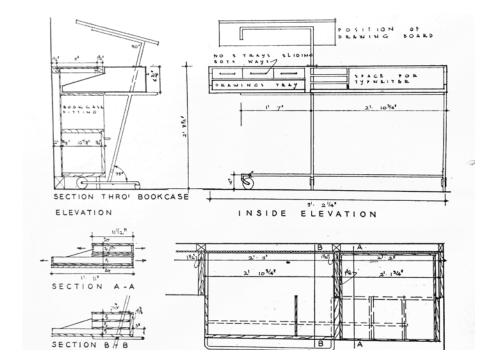
In addition, the desk was transformed into a drawing board with a small extension and, for meetings with friends, it was moved against the wall shelf, telescoping into it to form a side table. (Fig.8)



16 "Planning in section", The Architectural Review 82 (1937); 58.

Figure 8a (Right). Plans for the mobile desk. Wells Coates, "Planning in section", *The Architectural Review* 82. Figure 8b (Left). Coates typing at his desk. 1935.
Sherban Cantacuzino, *Wells Coates. A Monograph*, 1978.

- 17 Sherban Cantacuzino, 76.
- 18 An outer skin "[...] obscured enough to omit the detail of the houses on the other side of the Row, but not enough to make you feel they are not there". Wells Coates, "Planning in section", 56-58.
- 19 It contained a ventilation unit that filtered the air in the room.



The manipulation of the large window opening onto Yeoman's Row definitely shows Coates's fascination with visualizing the mechanisms in action. The obligatory preservation of the exterior image only allowed him to intervene in the window from the inside. He provided a new transparent enclosure, separated 14 centimetres from the original, producing a thick boundary that collected air inside it. The new skin copied the cut-out of the pre-existing window, but modified its geometry in section, softening it by curving the upper section. An acrylic sheet, a product of industrial design, allowed this curved transition between the vertical panels and the sloping part.

Between the two sides he lined up a selection of exotic plants, "a window garden between you and the outside world".¹⁷

The deep window is topped at each end with mirrors, facing each other to create an enlarged and undefined image of the garden. The reflections of the different layers, the darkening of the existing glass¹⁸ and the plant species multiplied by the specular play add to the misty atmosphere of London. The whole ensemble forms a dense filter that sets a scene without any scalar reference to nearby buildings. In addition, the light was filtered and the air purified.¹⁹

The work on the large window was able to alter the view of the outside world and, consequently, the sensibility of all those who at one time or another inhabited 18 Yeoman's Row.

On the tatami in front of the fire, 3 meters of air floated and the immense window enveloped the guests. From this position, everything took its right measure: the bench became an enclosure; the hollow under its upper shelf, a window; the fireplace, the great fire that configured the hearth; the bedrooms disappeared into another level, now distant; the furniture integrated into the dividing wall established a plinth linked to the plane of the floor. The gramophone, the naked radio in operation, the bar cabinet and the staircase turned into an improvised seat; everything concentrated and accessible in a strip barely 80 centimeters high. The eyes had been invited to descend definitively to the floor.

This handling of scale, determined by the position of the people, comes from the oriental tradition in which Coates was educated. He had a predilection for certain framings in the Dell & Wainwright's photographs, with the camera positioned at the height of everyday postures, which aptly conveyed his intentions.²⁰ (Fig.9)



With the scent of tea, the music coming from an untraceable place overhead, the feel of the walls finished in different textures and shades of white, the cork on the floor, the warm terrazzo, the rough feel of the tatami with the smell of dried reeds, the sound of the typewriter and the drops of water condensing on the conservatory window... we could understand the complete experience proposed by Coates.

You must remember that, as interior designers, we have to, first of all, plan for the use, but also design for our delight. The dimensions here are perhaps four; in any case, the problem is not exclusively three-dimensional. And you will find what the colour; the texture; the type of lighting whether artificial or natural; the selection of materials and the way of arranging them, - you will find what all of them - are going to do in reference to the dimensions.²¹

20 Dell & Wainwrigh's pictures of modern buildings, "glowing in perpetual soft sunshine, beautifully composed within a frame of leafy branches or on a foreground flecked with shadows, when reproduced in the glossy pages of the Review approached the ideal that their designers had in mind. They were part of the brave new world...". Commentary published in the 13th June 1946 issue of The Architects' Journal.



Figure 9 (Left). Image 26210. Interior view from the tatami. Dell & Wainwright. Architectural Press Archive / RIBA Collections;

Figure 9 (Right). Wells Coates seated on the stool, in the background the blurred image of the street through the window. Howard Coster. National Portrait Gallery.

21 Notes for a lecture at the Remain School, 14 June 1939. Quoted in Architectural Review 224, September 2008, 72-77. This is how he summarized his strategy, listing the mechanisms at his disposal to intervene on the interiors. The materialization of these fundamentals is identified in his studio house with more intensity and conviction than in any other exercise by the architect.

His daughter, Laura Cohn, writes of Yeoman's Row:

I lived in the flat for twelve years after 1947. The height of the room, and the effect of the ladders and the two levels, were perhaps the most striking things about the studio. It was airy, spacious, cool; it was unlike anywhere else. Even in 1962, it seemed more modern than anything else I knew. It actually affected the way one thought and lived.²²

22 Laura Cohn, Wells Coates. Architect and Designer, 1895-1958 (Oxford: Polytechnic Press, 1979): 20.

Conclusions

With the design and construction of his studio flat, Coates succeeded in synthesizing into an extraordinarily complete and intense model the almost ten years he had devoted to architecture. The degree of sophistication of the functional elements, the quality of the materials, new and traditional, the dimensional precision, the extreme care in the perceptive aspects of the inhabitant reached a peak in his career.

Yeomans Row also set a definitive precedent for the standardization of the use of industrial materials that began to be incorporated into the palette of English domestic architecture.

But more importantly, as suggested at the beginning of the article, he succeeded in producing the first example of a truly novel way of organizing space. Rethinking the spatial organization of the house had been a constant preoccupation in his architecture. He had begun work on it as early as the Darling Hall flat of 1932, an attempt to demonstrate that the freedom demanded by the conditions of modern life required a corresponding liberation from the enslaving and burdensome tasks of furnishing the domestic scene.

This attention to organization materialized shortly afterwards, in the course of 1934, in the Lawn Road building. This work made significant progress in establishing the new model of the modern, multi-equipped, collective flat, but it did not yet include the spatial possibilities in height that Coates began to investigate through a process of more than five years, under the title "Planning in section".

This was a technical response to the deficiencies Coates found in the distribution of the program in blocks of flats, governed fundamentally by economic and aesthetic criteria, which had been accepted by inertia and which were clogging up the city of London.

23 It consisted of planning the section in such a way that a part divided into two levels benefited from a direct relationship with a double-height space.

In this context, the intervention on the attic of Yeoman's Row appears as the germ and test of an exploration entrusted to the section. In this case a 2:1 system²³ where every centimeter of space is optimized in the configuration of the best possible scenario for life.

From his studio home, Coates found the resources and motivation to extrapolate this operation on a larger scale.

The contemporary technique of planning multi-storey dwellings had crystallized into a set of strictly defined forms, all of which started from a pre-established organizational criterion: each flat had all its rooms on a single floor and with the same ceiling height. Orientation is being defined by the contingencies of location and regulations and the consequent inability to plan freely. Coates concluded that these basic types could not be improved on the basis of floor plan alone but had to be revised on the basis of their sectional organization.

In 1939 his project for thirty flats at 10 Palace Gate, Kensington, became the first example of the 3:2 section in Britain. The basic principle was to have two living rooms, the equivalent of three bedrooms, so that two complete flats would occupy three floors of the building with access only from each third floor.

However, Coates had little further opportunity to apply this principle of sectional spatial organization. Conditions in Britain during and in the early years after the war in England did not favor the development of this system, which was soon forgotten. However, in the 1950s some revisions of this model appeared. Outside England, in Pierre Vago's 1957 buildings in Hansa Quarter for the Interbau competition; and later in the exquisite Green Park flats designed by Denys Lasdun in 1960, who, having trained with the Tecton group and Coates himself, would be called upon to lead post-war British architecture.

From a heterodox stance, based on the application of knowledge from other technical disciplines and values from other cultures, the work of Wells Coates in general, and especially his own studio flat in Yeoman's Row, constitutes a revealing contribution of new alternatives, materials and solutions to the architecture of his time that can be very useful for today's architecture.

Bibliography

- Coates, Wells. "Material for Architecture". *The Architects Journal*, 74 (1931): 586-618.
- Coates, Wells. "Furniture Today Furniture Tomorrow". *The Architects Journal* 72 (1932): 29-34.
- Coates, Wells. "Planning in section". *The Architects Journal* 82 (1937): 51-58.
- Cohn, Laura. *Wells Coates. Architect and Designer, 1895-1958.* Oxford: Polytechnic Press, 1979.
- Cohn, Laura. *The Door to a Secret Room: A Portrait of Wells Coates*. Hampshire: Scolar Press, 1999.
- Cantacuzino, Sherban. *Wells Coates. A Monograph*. London: Gordon Fraser, 1978.
- Dal Co, Francesco; Tafuri, Manfredo. *Modern Architecture*. Vol.2. London: Faber and Faber, 1986.
- Darling, Elizabeth. "Wells Coates: Maker of a Modern British Architecture", *The Architectural Review* 224 (2008): 82-87.
- Darling, Elizabeth. Wells Coates. London: RIBA Publishing, 2012.
- Giedion, Sigfried. *La Mecanización toma el mando*. Barcelona: Gustavo Gili, 1978.
- Itoh, Teiji. *Arquitectura tradicional de Japón.* Buenos Aires: Eudeba, 1965.
- Hitchcock, Henry-Russell. *Modern Architecture in England.* New York: MOMA, 1937.
- Lasdsun, Denys. Denys Lasdun Papers en RIBA & V&A Archives. LaD/1/2 File Containing Publicity and Correspondence Relating to 32 Newton Road.
- Muthesius, Hermann. *The English House*. London: Crosby Lookwood, 1979.
- Richards, James Maude. "Wells Coates 1893-1958". *The Architectural Review* 124 (1958): 357-360.