

EMOTION DEVICES

The role of concrete frame structures in the architecture of Kazuo Shinohara

Enric Massip-Bosch

Universitat Politècnica de Catalunya-BarcelonaTECH

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Figure 1: House in Uehara

English Abstract:

The work of the architect Kazuo Shinohara had as main goal the creation of emotion in the center of the house. His work, although mostly consisting of few, rather small single-family houses, places him as the most influential of his generation in Japan today.

In his designs of the mid-1970s he uses concrete frame structures as a fundamental device to question the foundations of domesticity. By contrasting scales and textures, and the geometry and dimension of support elements, achieves a de-domestication of the house and turns it into a total space of emotion.

Key words: Kazuo Shinohara, Japanese Architecture, Residential Design, Concrete Frame, Emotion.

Spanish Abstract:

El trabajo del arquitecto Kazuo Shinohara tuvo como objetivo fundamental la creación de emoción en el centro de la casa. Su obra, basada mayoritariamente en unas pocas casas unifamiliares bastante pequeñas, lo sitúa sin embargo como el más influyente de su generación hoy día en Japón.

En sus casas de mediados de los 1970s usa las estructuras porticadas de hormigón como dispositivo fundamental para cuestionar los propios fundamentos de lo doméstico. Mediante contrastes de escalas y texturas, y por la propia geometría y dimensión de los elementos resistentes, consigue des-domesticar la casa y convertirla en un espacio total de emoción.

Palabras clave: Kazuo Shinohara, arquitectura japonesa, diseño residencial, estructura de hormigón, emoción.

1. Shinohara in context

Kazuo Shinohara (1925-2006) was an architect that pushed architecture, especially domestic design, beyond its conventional limits. But although his work is widely acknowledged he remains a relatively unknown figure in the West. (Fig. 1)

He is arguably the most influential architect of his generation in current Japanese architecture, and his long and lasting shadow spans the likes of Toyo Ito, Itsuko Hasegawa and Kazunari Sakamoto through Kazuyo Sejima and beyond, to the many excellent young studios of today.

His importance and inspiration are felt across different aspects of architectural activity. The impact of his work on teaching, theory and design is very big, probably bigger now than when his proposals were first published, adding to the leading visionary nature of his work.

It is then all the more surprising to realize that this enormous influence is based almost entirely on a very short list of houses, rather small for the most part, and on his architectural reflections, which mostly revolve around the idea of domesticity and the house as a device to create emotions.

Domesticity, though, is taken by Shinohara to such degree of abstraction, criticism and re-elaboration as being capable to inform a whole set of theories about the city, about technique and about the very role of architects, resonant with today's preoccupations.

It is also surprising to realize that his current influence has been established almost by stealth, against all odds, navigating through different periods in which Shinohara's was an isolated and antagonist voice in the midst of roaring noises promoting other directions for architecture: Metabolism at the beginning of his career, Postmodernism in his final years of practice.

But the fact is that current young generations of architects in Japan, and increasingly in other countries like China as well,¹ look up at Shinohara as a model, maintaining a sort of legendary status already achieved early in his career. As Toyo Ito explains: "In the early 1970s

[...] I attended one of his lectures. It was packed and there were many people standing. A lot of young architects and students sighed and roared each time Shinohara showed a slide. It was just like seeing a Godard movie in a small theater among students who felt defeated by the outcome of the students' movements".²

Perhaps this legendary status somehow prevents a clear and thorough understanding of his work. But it is quite understandable that it is upheld today, given that Shinohara always advocated for recognition of small-house design as a field of experimentation, and understood the architect as an artist, two conditions now prevalent among young practitioners in Japan.

2. Questioning domesticity

Of course Shinohara was not the only one centered in the small house as main subject of architecture.³ Kiyoshi Seike (1918-2005), Shinohara's mentor but only seven years his senior, is one name that readily comes to mind. But in those times of accelerated changes, most architects went for the big, well-paid commissions available.

The sociocultural climate created by the rapid development of Japanese economy, willingly embraced among others by the Metabolists, fostered a positivist, economicist approach which led to big development schemes and to the booming of the industrialization of the house. Architecture was instrumentalized in favor of big interests and corporations.

Nowadays, in times of uncertainty and economy stagnation, most architects in Japan have but few small single-family house assignments, very much in the line of Shinohara's chosen commissions. His plea for the dignity and independence of the architect, at any scale or program, and his ascetic vouching for it, can quite naturally be seen now as exemplary. Above all, his claim that the house is a form of art inspires many in the profession.

Furthermore, Shinohara's is a very strong influence in the issues or, to be more precise, in the epistemological fields that these architects choose as their preoccupations in architecture. How else, if not referring to Shinohara, can positions such as Toyo Ito's "Tarzans in the Media Forest", Kengo Kuma's "Erasing Architecture" or "Anti-Object", Junya Ishigami's "Another Scale of Architecture" or Sou Fujimoto's "Primitive Future", be understood?

Even acknowledging the possibility that all of them share a common, or Japanese, approach to nature,⁴ they all refer to a desirable condition of wilderness or primordality ('savagery' to use Shinohara's

wording) of architecture brought about by him in the first place, as a response to the technocratic approach of the Metabolists.

An architectural expression of 'savagery' was already present in his House of Earth (1964-1966).⁵ This very small house consists of a single space, brightly colored in red and black, and an underground, windowless bedroom. The design stresses the primeval irrationality of inhabiting a womb, a way of going back to a stage when domesticity, understood in the usual bourgeois fashion, was unthinkable. This was one of the several ways he devised of stating the house as the space of aesthetic experience, in opposition to the house as the space of domestic complacency.

But it was in the 1970s that Shinohara articulated more precisely this idea of 'savagery' as a central theme of his designs and as a way to bring forward his reexamination of domesticity.⁶ In this new approach to the de-domestication of the house he used concrete frame structure as the main protagonist of the space, capable of summoning emotions beyond the realm of the domestic and effectively rendering the house, and its space, as a work of art.

3. "The House is Art"

Already at the beginning of his career Shinohara published what I regard as the key text to understand his position about the role of architecture in general, and of domestic space in particular: the article titled *Jūtaku ga geijutsu de aru* ('The House is Art', 1961).⁷

It has to be seen primarily as a reaction against Metabolism, which advocated a mechanist approach to residential design. Shinohara marks distances with the then increasingly prevalent idea of disposable architecture, while at the same time makes a strong statement in favor of architects designing small houses ('authors of houses', he calls them to reinforce their role as artists, as opposed to the conventional 'architects of houses') as a way to fight against the de-humanization of society taking place at a great speed as economy expanded and power concentrated in industrial conglomerates.

For Shinohara, to say that the house is art means that "the house has to be separated from the territory of architecture: It has to be moved into the realm of Art, where painting, sculpture, literature and others belong."⁸

This may seem paradoxical because it is conventionally assumed that architecture is one of the arts, and that a house is architecture. But claiming that the house is art, while architecture is not, is one of the key points of the essay.

Shinohara associates the term 'architecture' to a production related to economic, political or social power, beyond their possible intellectual or aesthetic values. These, in fact, are in Shinohara's understanding little more than an alibi that legitimates and can actually make architecture fraudulently pass as art, thus masking its true depersonalized (or, as Shinohara says, "dehumanized") nature.⁹

For Shinohara the true function of residential design, and consequently of domestic space, is another one. It must be the place for personal fulfillment, and thus must be able to induce a range of emotions not normally associated with the interior of a house.

Even if his interiors are remarkably comfortable, domesticity in Shinohara's work is never complacent or banal. It is rather a challenge to conventions, both practical and intellectual, a challenge that demands an active response from the inhabitants of his houses.

Most of Shinohara's clients were artists or publishers, and this helps to explain the many occasions that he had, and didn't miss, to bring forward such unconventional designs, and their endurance over time: many of them are still standing and are inhabited by the original families –both very exceptional facts in rapidly-changing Japan.¹⁰

Quite naturally, an unconventional space needs a willing user, not only to commission and accept it, but especially to find a way to inhabit it in unconventional terms. To put it differently: to be willing to challenge preconceptions and to make the effort to understand the new lifestyle possibilities opened up by that space and make it his or her own.

Shinohara was well aware of that: "My venture towards abstracted simple forms could hardly be realized without the support of families able to understand how abstraction can empower spaces, which in turn invites a leap towards a new style for themselves. My contribution to such a leap may be quite minimal but I am hoping that it is a positive one that can be stored up for the future."¹¹

In fact, what Shinohara is after is to make of the house a realm of emotions, bringing in the core of the house an awareness of which is not domestic, because "the house, the one space that comes in most direct contact with humanity, must face the uncertainty of both interior and exterior worlds".¹²

These uncertainties he talks about are not to be muffled by a pretended stability offered by the house. On the contrary, he is attracted by those uncertainties generating irrational conditions as a source of inspiration: "I have found topics for my spaces in those

areas of the heart where irrationalities are constantly being built and torn down. Consequently, I have insisted on the restoration of the irrational".¹³

This will be done in a "super-human space", that is, making "spaces that are beyond mere human physical scale, and then return these to human beings".¹⁴ A psychological space, in short, capable of giving human experience a dimension different from those proposed, systematized and conventionalized by society.

It will be the task of the architect to offer that, and he or she must "realize his unique expressive talent to create spaces that, by highlighting raw human emotions, will save architecture from becoming a unitary model. That is to say: spaces that incline toward the irrational, yet somehow remain at the heart of today's vast flood of material production."¹⁵ The "author of houses" must be an artist and move away from the main currents of conventional production.

Shinohara bases his design method on the idea that emotion has to be established at the core of the house as a way to supersede its intrinsic character of being prosaic and ephemeral. An emotion that is generated most usually by invoking irrational feelings, or shocking or contrasting juxtapositions that are integrated in the everyday experience of domestic space.

Shinohara's use of juxtaposition is not only limited to specific house designs, but extends as a key structuring method throughout his oeuvre, to the point of becoming his most favored design strategy in order to achieve moving, compelling spaces.¹⁶

4. The cocoon and the transgressor

Many of the instances in which juxtaposition plays an emotional role in Shinohara's work involve the contrast between a private interior (which I will call 'cocoon') and an external figure (which I will term 'transgressor') that apparently does not belong there. Most of the times the role of transgressor in his designs is given to structural elements that pierce or occupy the cocoon, seemingly regardless of its inhabitants.

From this chance encounter, or "misalignment" as he put it,¹⁷ of possible Surrealist roots,¹⁸ a new meaning is derived, a new expression of domestic space is achieved, and a new consciousness or awareness of the fragility of contemporary life and its many tolls on the aesthetical experience is attained.

Even when it was not a transgressor, it has to be noted that experimental structure always played a critical role in the definition

of Shinohara's works, to the extent that he regularly engaged structural consultants to solve it, even for the smallest of his houses.

Although adhering to conventional techniques at the beginning of his career, when the spaces of his houses were characterized by structural elements directly related with traditional Japanese architecture, Shinohara's tour de force with structure was part of an effort to go beyond traditional construction methods and carry structural possibilities to the limits.¹⁹

But the references from Japanese architecture used by Shinohara in his first period are not the traditional, light-timber and paper houses, even though his designs may look similar to them. Instead, interiors such as the ones of House with a Big Roof (1960-1961) or House with an Earthen Floor (1963) recall the large elements of old farmhouses or sake breweries, or the heavy wooden structures of temples and shrines.²⁰ (Fig. 2)

The role of these structural elements in his earlier interiors is, in spite of their big dimension, reassuring by evoking past spatial experiences linked with tradition and memory, and thus fixing domestic life beyond the passage of time. They thus reinforce the idea of the house as a central, stable point of existence. (Figs. 3, 4)

From that moment on, big structural elements will become a recurrent presence that in time will only grow more conscious as a composition device and larger in size. But they will acquire a different role in the house, because Shinohara is not interested in a reenactment of tradition: "Tradition is the starting point, not the destination", he subtitled his first article.²¹

Instead, what he is searching for, and positively achieving, is an expression of contemporary life. It is by way of 'displacing' into the house the scale and the role in the space of non-domestic elements that he is giving a new, contemporary meaning to them –and to the house. Moreover, by using other materials, notably reinforced concrete, Shinohara will be able to convey new meanings, pushing the experience of domestic space towards the uncanny.

It must be noted that his choice of materials and techniques throughout his oeuvre has another component: even though his designs were for the most part highly experimental, Shinohara was always very concerned about the material quality of his constructions, and tried to avoid construction solutions that were not sufficiently proven or that could mean problems for his clients.²²

This is the main reason why he stuck with wooden structure and slanted roofs until he was convinced that he could use concrete walls and flat roofs without the risk of leaks. The first example is the house called Repeating Crevice (1969-1971), in which he took, again, the possibilities of the new material to the limit, designing large cantilevers that would have been otherwise impossible with a wooden structure.

With only the notable exception of Tanikawa House (1972-1974), a summer house in the middle of a thick forest, all his subsequent designs were built in concrete, right up to his last houses, which featured a combination of light steel frame construction and concrete walls, like House in Yokohama (1982-1984) and Tenmei House (1986-1988).

5. Concrete emotions

We could understand all the houses designed by Shinohara as belonging to two main groups. One is composed by those designs that rely on walls as main spatial devices. The other is formed by those houses in which free-standing structural elements become protagonists of the space.

In his designs of the late 1970s Shinohara will perform what might seem like a quasi-direct translation from those heavy wooden elements to concrete frame structures, going one step forward liberating space of any traditional connotation.

Recalling the heavy wooden construction of traditional Japanese industrial and religious architecture, that is, non-domestic references, Shinohara explores the capabilities of concrete structural elements to generate emotions like awe, restlessness or uncertainty in his domestic spaces. It is crucial to raise these emotions, as opposed to conventional domestic emotions if, as he stated, "house is art".

These emotions are also different from those sensations commonly assigned to Japanese architecture: "It is 'abstract space' that I have sought to find in the tradition of Japanese architecture. In the Japanese tradition that has formed a graceful harmony between man and nature, people find the world of emotions, not the world of abstractions I have been thinking about."²³

Two houses very close together in a pleasant upmarket residential area called Uehara, in central Tokyo, entirely composed until recently of detached houses, may serve as perfect models of his approach to conveying emotions in the domestic space through the use of concrete frame structures.

One is the so-called House in Uehara (1975-1976), a small house built for the well-known photographer Kiyoji Ōtsuji on a very small plot. (Fig. 1) The other is House on a Curved Road (1976-1978), the largest house ever designed by Shinohara, built for the poet Yasuyuki Suzuki and placed on a corner piece of land –and hence its name. (Fig. 5)

House in Uehara makes use of a two-fold separation of the spaces of the house typical in many Shinohara projects: a smaller ground floor including the entrance and some functional spaces, and an upper floor charged with emotional characteristics. In this case, domestic space is pierced by huge freestanding structural elements around which dwellers live.

These columns and struts support the cantilever and the roof: all these elements together form a concrete shell on which at a later stage an additional lightweight, half-cylinder volume was added. Only after this shell was poured as a single space, the floor separating the ground floor from the upper level was put in place as an added wooden element, like an inhabitable platform on the branches of a tree. (Figs. 6, 7, 8)

Comparatively, the dimensions of columns and struts are extraordinarily big for a house. They are out of scale, belonging more to the world of the road infrastructures built in Tokyo from the mid-1960s onwards than to the domestic realm.

This very basic, non-domestic interior in the conventional sense, recalls that of the holiday mountain cabin built for the same family by Shinohara in the early 1960s, House with an Earthen Floor. At Uehara, a permanent urban dwelling where some comfort might be expected, the idea of basic lifestyle is taken to the extreme of not furnishing the interior but with a single table and benches.

Living in this space is not exactly easy: one revolves always around the recurrent presence of the structure in the relatively small plan. It gets literally in the way and actually conditions life inside the house, calling for constant attention on the part of the dwellers.

House in Uehara stirred many comments when it was first published, centered around its 'violence'. Although we have all grown accustomed to strong emotions in the meantime, it is still viewed nowadays as a wild interior, the exact opposite of a domesticated interior.

Built few years after House in Uehara, House on a Curved Road is once again an interior pierced by huge structural elements which

have the capacity of erasing any conventional domestic feeling of the house. But here, in a reverse movement of that of House in Uehara, it is as if the 'home' (the cocoon) has been built around the 'infrastructure' (the intruding pillars and beams). (Figs. 9, 10, 11)

The original pictures published by Shinohara show some Thonet-like chairs in this space, representing the maximum fragility of human life confronting the permanence and solidity of concrete structure. The mere juxtaposition of both elements is enough to generate in the dweller and in the observer an attractive emotion of uneasiness, capable of questioning the values of time and life.

This displacement of scales is another device to make an un-domestic interior in which the inhabitant will need to find his or her own way of dwelling it. Or, to put it in other terms, will need to negotiate with the structure and its powerful presence a way to reconcile life and emotion. At any rate, it places the dweller out of the usual comfort zone that domestic space is supposed to provide, almost by definition.

Structural system of posts, beams and braces plays a fundamental role throughout Shinohara's oeuvre. It represents a sort of counterpoint to formal, or "abstract space" as he put it. But not always in the same way. Early in his career spatial effects are induced by the relationship between two compositional systems, generating ritualized interiors defined by a static presence.

However, in the second half of his career he tends to design dynamic experiences around the structure of the house. Inhabiting these structures, or the voids that these structures generate, is synonymous with a permanent negotiation of the relationship of the dweller with them, which must be understood as other 'inhabitants' of the space, maybe its protagonists.

Both moments in his career constitute a persevering research towards a new domesticity defined by what we might call anti-domestic strategies, designed to awaken the soul of modern man. With the adoption of concrete frame structures Shinohara could exploit the possibilities offered by this technology and bring it to the fore as a key element to convey emotions directly related to their material, physical and geometric properties. Concrete emotions.

Enric Massip-Bosch

emb@emba.cat

+34 932112268

Architect and Professor at UPC-BarcelonaTECH. Worked at Shinohara Atelier, Japan (1987-1988). Director of the UPC-accredited Urban Design Master Program *Building the City Now*, Saint Petersburg (Russian Federation) & Barcelona. He was co-founder and member of the editorial board of *WAM-Web Architecture Magazine* (1996-2001). His theoretical work has been widely published in magazines and books. He is currently working on a compilation of his articles to be published in *Biblioteca TC*. In 1990 founded the studio EMBA with which he has won many international competitions and awards. The last publication of EMBA's works is the monograph *EMBA: ARQUITECTURA/ARCHITECTURE 2005-2015* (TC Cuadernos n. 121, 12.2015).

Arquitecto y Profesor de la UPC-BarcelonaTech. Trabajó en el Shinohara Atelier, Japón (1987-1988). Director del Programa de Máster de Diseño Urbano acreditado por la UPC *Building the City Now*, San Petersburgo (Federación Rusa) & Barcelona. Fue co-fundador y miembro del consejo editorial de *WAM-Web Architecture Magazine* (1996-2001). Su trabajo teórico se ha publicado extensamente en revistas y libros. Actualmente está trabajando en una recopilación de sus artículos, a publicarse en *Biblioteca TC*.

En 1990 fundó el estudio EMBA con el que ha ganado muchos concursos y premios internacionales. La última publicación de las obras de EMBA es la monografía *EMBA: ARQUITECTURA/ARCHITECTURE 2005-2015* (TC Cuadernos n. 121, 12.2015).

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IMAGES

Figure 1: House in Uehara

Figure 2: Sake brewery

Figure 3: House with a Big Roof

Figure 4: House with an Earthen Floor

Figure 5: House in Uehara, exterior

Figures 6, 7: House in Uehara. Construction of concrete shell before floor division.

Figure 8: House in Uehara. Floor division in place.

Figures 9, 10, 11: House on a Curved Road, interior.

All images by Koji Taki, except number 2, by Enric Massip-Bosch.

NOTES

¹ The biggest retrospective exhibition ever of Shinohara's work was held in Shanghai in 2014 at Powerhouse of Art.

² In Rem Koolhaas & Hans Ulrich Obrist, "Project Japan. Metabolism Talks...", Cologne: Taschen, 2011, p. 241.

³ For a contemporary account of the role of house design in the post-war generation see for instance Chris Fawcett, "The New Japanese House. Ritual and Anti-Ritual Patterns of Dwelling", London: Granada Publishing Ltd, 1980. It is also interesting to realize how many of the examples cited in that book are no longer relevant to explain Japanese architecture development after the bubble economy burst.

⁴ This idea is further developed in Joan Ramon Pascuets, "Facing up to the 21st Century", included in the book edited by M. Gras, J.R. Pascuets and I. Ontiveros, "Architects of Nothingness", Barcelona: Casa Asia & Japan Foundation, 2013, pp. 18-29.

⁵ I am using throughout this article both the names and dates of Shinohara's houses established in the monograph edited by Enric Massip-Bosch, David B. Stewart and Okuyama Shin-ichi "Kazuo Shinohara: Casas/Houses", 2G n. 58-59, Barcelona: Gustavo Gili, 2011.

⁶ In this respect, see his articles "Dai san no yoshiki", *Shinkenchiku*, 01.1977 (translated as 'The Third Style' in 2G n. 58-59, op. cit.), and "The Savage Machine as an Exercise", *The Japan Architect*, 03.1979.

⁷ *Shinkenchiku*, 05.1962. No translation into English has yet been published. I am using my own translation, done in collaboration with Tomoko Sakamoto.

⁸ Ibid.

⁹ Years later still he insists on the de-personalized character of contemporary technological society: "I have adopted the militant viewpoint of trying to discover what things, when expressed in the small spaces of the house, will give spiritual support to the residents in the face of the terrifying growth power of contemporary technological society. "In" Beyond symbol spaces", *The Japan Architect*, 04.1971, p. 82.

¹⁰ An extraordinary fact indeed, but not one that Shinohara didn't want, or didn't foresee. He once famously wrote in 1967: "I would like for the houses I make to stand on this earth forever." It is a statement that not only antagonizes the Metabolist approach, but departs from the received wisdom that domestic architecture in Japan, and any other sort of Japanese structure for that matter, is materially fragile and ill-equipped to resist the passage of time. In "Theory of Residential Architecture", in 2G n. 58-59, op. cit.

¹¹ Ibid., p. 257.

¹² "Beyond Symbol Spaces", op. cit., p. 83.

¹³ Ibid.

¹⁴ "Theory of Residential Architecture", op. cit., p. 251.

¹⁵ Ibid., p. 250.

¹⁶ The critic (and photographer) Koji Taki bases his seminal study of Shinohara's oeuvre precisely in this dual mechanism of contrast: "Oppositions: The Intrinsic Structure of Kazuo Shinohara's Work", *Perspecta: The Yale Architectural Journal*, Vol. 20 (1983), pp. 43-60.

¹⁷ "The Third Style", op. cit. p. 273.

¹⁸ David B. Stewart has pointed out this relationship in several texts. See in that respect his fundamental works "The Making of a Japanese Architecture, 1868 to the Present", Tokyo & New York: Kodansha International, 1987, and "Centennial Hall", Stuttgart: Axel Menges, 1995.

¹⁹ Shinohara's fascination with the architectural possibilities of structure played a key role, by his own account, in his decision to turn from mathematics, his first major, to architecture, and was already reflected in his first texts. See in this respect any of his articles included in the special issue of *The Japan Architect*, 06.1964, devoted to traditional Japanese architecture.

²⁰ Although it is not part of the discussion posed here, it should be noted that some of the first houses designed by Shinohara the central pillar plays a symbolic role similar to the *daikokubashira* or *shimbashira* ('mainstay') of part of Japanese sacred architecture. See in this respect my article "Kazuo Shinohara: Beyond Styles, Beyond Domesticity" in 2G n. 58-59, op. cit.

²¹ "Jūtaku-ron" ('Residential Theory'), *Shinken-chiku* 04.1960.

²² There are many instances in which Shinohara wrote about it as a fundamental choice for his architectural forms. One of the earliest is the conversation (in which he is introduced as "one of Japan's brightest residential designers") "The New Movement in Residential Architecture", *The Japan Architect* 09.1968, p. 88.

²³ "Architectural theory for 16 houses", in "Kazuo Shinohara: 16 houses and Architectural Theory", Tokyo: Bijutsu Shuppan-sha, 1971, p. 11. Text in Japanese and English.