

– ON YONA FRIEDMAN’S MANUALS

The capsules attached to the core in Kisho Kurokawa’s Nakagin Capsule Tower are not apartments, but *cells* that grow from a central structure. That is, of course, the metaphor of choice for the loosely formed group referred to as the Japanese Metabolists. Their architecture was required to be adaptable, reconfigurable, and updatable, allowing for limitless, organized growth and improvisation. Indeed, many of Kurokawa’s contemporaries were trying to achieve the same goals using a similar logic of a structure (“megastructure”, “mega machine”, “infrastructure”. etc.) to which interchangeable, individual units (“capsules”, “cells”, “modules”, “dwellings”, etc.) are attached. While the Japanese Metabolists used biological metaphors, their British counterparts from Archigram borrowed from technology: in Peter Cook’s Plug-in-City, industrially built houses and stores are lifted and “plugged into” a megastructure by cranes. And in France, more or less at the same time, Yona Friedman was trying to achieve similar goals using a slightly different logic in his life-long *Ville Spatiale*, an infrastructural grid supports people’s activities.

However, in sharp contrast to the strategies of the Metabolists and Archigram, the design of the dwellings is absent in Friedman’s *Ville Spatiale*. Instead, people would self-organize and build their own homes wherever and however they wanted. Instead of taking advantage of standardization and the increased efficiency of factory production, Friedman took a hands-off approach, trading some inefficiencies in production for individual freedom of choice and expression. To this end, Friedman developed a series of manuals that would help non-experts to organize, design, and build the homes that would infill the structure. These documents provide an interesting counterpoint to the Kurokawa’s capsules: instead of a precise plan for an expert fabricator with little to no room for error or modification, Friedman imagined a set of open instructions that were to be appropriated, interpreted, and adapted by a non-expert. Indeed, by shifting the focus from the professional fabricator (an expert in making objects) to the individual dweller (an expert in using said objects), these manuals open up all sorts of questions about the value of professional architecture.

The *Ville Spatiale* was never built, and Yona Friedman went on to develop a different series of manuals, not for this imagined megastructure that sits on top of a city, but for the vast swaths of land that were being urbanized in the Global South during the second half of the twentieth century. These documents were made by the Communication Centre of Scientific Knowledge for Self-Reliance of the United Nations University in Paris, whose mission was, In Friedman’s own words, “to make accessible for the disfavored such knowledge of scientific origin which might enable them to improve their life conditions through means they can dispose of without cash expenses.”¹ The manuals, written in the seventies and eighties and distributed across the Global South, were “highly simplified communication supports, with many drawings simple enough to be copied easily by unskilled people and with brief text captions. The presentation [had] to appeal to knowledge already possessed by the target public and must emphasize the effective benefit the recipients can expect from the innovation.”² Although they are mostly referred to as ‘manuals’ and were published as books, they were also meant to be distributed as “inexpensive presentations like wall journals or posters, more sophisticated ones like animated cartoon features and, finally, some highly complex operations such as the Museum of Simple Technology.”³ Among other topics, these manuals explain how to organize an architectural program using diagrams, how to cook using sunlight, how to collect rainwater, how to plan public buildings, and how to beautify a house.

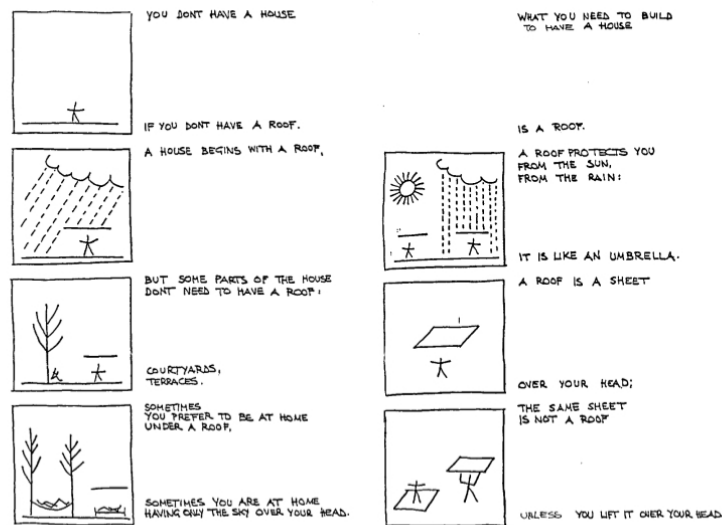
1. Yona Friedman, “Communication Centre of Scientific Knowledge for Self-Reliance,” *Leonardo* 19, no. 4 (1986): 333, <https://doi.org/10.2307/1578382>.

2. Friedman, 333.

3. Friedman, 334.

A brief etymological detour reveals the importance of these documents being manuals, apart from their other presentations. The word ‘manual’ comes originally from *manus*, the latin word for hand. Indeed, manual are books meant to be held in one’s hand, but in this case, they also contain information on how to perform physical labor *made by hand*. Similarly, ‘enchiridion’, the late latin term for a manual comes from Ancient Greek *εγχειρίδιον*, from *εν* (en, “in”) and *χείρ* (kheir, “hand”), and a ‘vademezum’ is a book that goes with you: from the Latin *vāde* (‘go!, walk!’), the second-person singular present active imperative of *vādō* (‘I go, I walk’) + *mēcum* (‘with me’), meaning ‘go with me’.

Perhaps the most widely distributed set of these documents was *Roofs*, originally prepared for India. *Roofs* was published in two volumes by UNESCO in 1990 and 1991⁴ and was re-edited as recently as 2017 by the Italian publisher Quodlibet.⁵ Because a manual cannot contain all the information on how to build a house, *Roofs* starts by delineating what is a house, and in that sense, the book is no less than a model for a house. Indeed, in the first pages of the book, Friedman explains that the two things that a person encountering this manual cannot procure for themselves are a site and a roof. The other elements of the house (columns, posts, screens, enclosures) can be built “in a way you already know” with materials “you yourself can find”. The site, on the other hand, along with secure property rights, cannot be provided by anyone else than the government. As for the roof, since it is usually made with expensive materials, these must be provided by the government, but because it is also the most difficult thing to build, this is the focus of the manual: A manual for making a house is a manual for making a roof.



A manual for making a house is a manual for making a roof.
Yona Friedman, *Roofs*, Pt. 1 (Unesco, 1990) and, *Roofs*, Pt. 2 (Unesco, 1991).

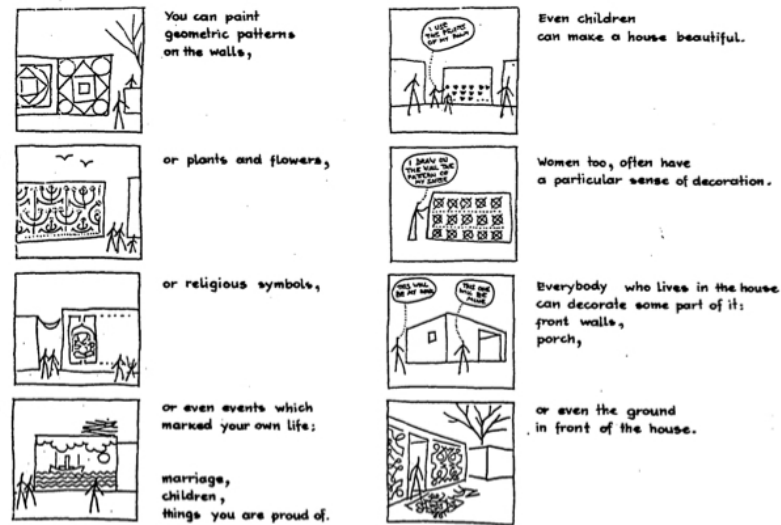
Another striking feature of *Roofs* is that along with knowledge that Friedman describes as scientific,⁶ it also illustrates many traditional building techniques. This presents a world where the people for whom the manuals were made (specifically “the lowest income people in India”) not only lack access to professional architects and engineers, but they have also lost their traditional building techniques: they are disconnected from modern science as well as their past. Being mostly concerned with bridging these knowledge gaps, Friedman made a unique place for himself and future architecture professionals. Within the network of agents who contribute to the built environment, the architect emerged from the sixties and seventies as a generalist who connects different actors. As Friedman himself asserted multiple times in his career: architecture is a problem of communication.

4. Yona Friedman, *Roofs*, Pt. 1 (Unesco, 1990); Yona Friedman, *Roofs*, Pt. 2 (Unesco, 1991).

5. Yona Friedman, *Tetti. Ediz. illustrata* (Quodlibet, 2017).

6. An expert is cited on every manual that includes a technique developed specifically for the series. For instance, Yona Friedman and Eda Schaur are cited as researchers in the beginning of their chapter on “Bamboo domes with suspended mat cover”, and Yona Friedman is cited as the researcher for his iconic “Structures with ring-balls”.

What is left outside the manuals is also telling of Friedman’s view of the world: a manual must not tell people how to live. Instead of providing a standard house which prescribes a standard family, Friedman wrote *Planning your House*,⁷ one of his most striking manuals, which in 32 outlines an entire methodology for making architecture. By drawing diagrams that then turn into floor plans, anyone can plan their own house according to their tastes and idiosyncrasies . Similarly, the self-explanatory *Beautifying the Home*⁸ is more an invitation to paint one’s façade than any kind of technical guide. Friedman leaves room for the things in which people *are* experts: their own lives.



Beautifying the Home is more an invitation to paint one’s façade than any kind of technical guide.
Yona Friedman, “Housing Is Everyone’s Concern, but Particularly Yours” (Unesco, 1977)

Yona Friedman’s manuals were surely not the ultimate solution for the housing problem, and it is indeed difficult to know much impact they really had on the built environment. However, they provide a useful way of thinking about how the relations between experts and non-experts are structured and where the agency of architecture lies. Indeed, if Kurokawa and the Metabolists imagined an organism that could indefinitely grow cells, the logic behind Friedman’s manuals is that of a virus. Instead of identical copies of a single design, the manual is meant to pass on information: a series of techniques that empower humans to improve their own living conditions.

This essay was written for the exhibition “Nakagin Capsule” during the Second Basque Country International Architecture Biennial (2019) and will be published in their upcoming exhibition catalog.

7 Yona Friedman, “Community Participation in the Construction of Educational Buildings” (Unesco, 1984), <https://unesdoc.unesco.org/ark:/48223/pf0000060889.locale=en>.

8 Yona Friedman, “Housing Is Everyone’s Concern, but Particularly Yours” (Unesco, 1977), <https://unesdoc.unesco.org/ark:/48223/pf0000027516.locale=en>.