

## Ten Things We Have Been Learning

Carlos Arroyo, Madrid, 2009

*Our work isn't made to be photographed. The visual is important, and, yes, some beautiful photographs can be taken. But we also concern ourselves with movement, change, sound, touch, smell, damp. Time and emotion. We consider the actions of inhabitants, their encounters, their solitudes.*

La Arquitectura de las Relaciones. Arroyoguidotti 2004

### The family is not the only reality

In Project H-H (Carlos Arroyo and Eleonora Guidotti, published in "Ideas sobre vivienda social y vivienda de protección oficial" *El Croquis 119*, Madrid 2004) it was concluded that:

*Practically all the housing that gets built, whether social or otherwise, is designed for the specific needs of a nuclear family with n children living according to the customs of the first half of the 20th century: the nLDK type (n bedrooms, living room, dining room, kitchen and baths), with a clear hierarchy, the woman at home, the man out all day, and a reduced, rigid concept of domesticity. But 56% of homes are not that hierarchized, nuclear family with n children.*

In the time since then, figures from Spain's National Statistics Institute (in a study conducted with data from 2001) indicate further evolution in this same direction. Let us concentrate on single-person homes. Between 1991 and 2001, the number of Spanish single-person homes increased four times faster than population growth, coming to 20.3% of the total. In 2008 they accounted for 24% of all homes. Without as thorough a census as the 2001 edition, it is harder to evaluate the evolution of other groups, especially that of non-hierarchized nuclear homes (i.e., homes in which a family breadwinner who leaves the house is not distinguished from a homemaker who cares for the home), but we would like to think that they too are on the rise, since gender equality and the reconciliation of work and home are explicit objectives of our society.

We can affirm that, when we study Spanish homes today, we find an entire rainbow of different situations with no dominant model. The largest minority is probably the single-person home, while homes constituted by the hierarchized nuclear family of yore are a clear minority today.



Images from the book 'Retratos de familia: miradas a las familias españolas del siglo XXI' Edited by Dirección General de las Familias y la Infancia. Funded by Ministerio de Trabajos y Asuntos Sociales.

### Flexibility is the key to accepting different realities

*As complexity increases, precise propositions lose meaning and meaningful proposals lose precision.*

Lotfi Zadeh ("Fuzzy Sets", Information and Control, Berkeley 1965)

In order to furnish a response to the complexity of social structures, we must know how to propose imprecise structures that can absorb unpredictable situations. In addition to providing valid responses, fuzzy strategies create dynamic laboratories where we are able to analyze their reality.

We have two pathways we can follow to achieve flexibility:

- Enabling users to define and redefine the characteristics of enough spaces in their housing unit to adapt it to their needs. These are fuzzy strategies.
- Enabling users to switch housing units easily when their needs change, moving into a specifically designed housing unit. These are type-specific strategies.

Fuzzy strategies are perfectly compatible with type-specific strategies. All type-specific strategies must include fuzzy elements, and vice-versa.

Fuzzy strategies are applied successfully in many fields, such as underground railways, air conditioning and washing machines. For years washing machines had six programmes that they followed strictly and linearly. They used Boolean logic.

The washing machines of today act differently depending on the quantity of clothing their sensors tell them we have loaded, the water temperature, our own instructions as to fabrics, temperatures or even the time we have available. They use fuzzy logic.

In our field, the idea is to propose buildings or bearing structures that allow different housing configurations to be made available and, moreover, to be modified over time. For that to be done, the decision-making chain comprised of *infrastructure/urban fabric/lot/building* has got to envisage an extra step, where *building* is split into *supporting structure* and *housing*.

There are many examples of supporting structure buildings constructed in the last fifty years, but those who study them tend to focus on the technical aspects: the spatial relationship between installations, structures and partitions, so that changes can be made.

The hardest thing to achieve, however, is for users to know that their space can be transformed. In a survey we conducted to study the La Meme building (1974) by Lucien Kroll, we asked the inhabitants, and we discovered that nobody knew their room configuration could be changed. Nobody. The theoretically flexible structure had kept its initial configuration for more than 30 years.



Lucien Kroll (Bruselas 1927)  
1974 Maison Medicale ('La Meme')  
Woluwe-Saint-Lambert, Bruselas  
(pict André Mouraux - cc)

For their part, type-specific strategies also require a good deal of communication work. In a public event we ran to foster the citizen demand for quality (*Debate Abierto, ¿qué puede ser la vivienda que ahora no es?* [Open Discussion: What Can Housing Be That It Isn't Now?], Madrid, 14 December 2008, C.A. and Emilio Luque), we recorded the participants' opinions before and after an informative discussion.

Before the discussion, the people attending thought that everybody ideally looks for one home for the rest of their life. In the discussion, it was asked who of those present had changed homes and why. Many of those present had moved time and again as their priorities evolved (when studying and starting their career, they needed to be close to the action; when raising children, they looked for a quiet area with facilities and good schools; later, when the children moved out, they looked for a more peripheral location; and they returned to the centre so everything would be handy as they got old). It soon became evident that the people who could easily switch homes were much better off. Which radically changed the initial hypothesis.

#### There is experience with other kinds of living arrangements

In Project H-H, we also recorded the testimony of Rosa, a 52-year-old maths teacher:

*Entirely alone is not how I see myself. Ideally we could get friends and acquaintances together and have something that ... well, everybody with their independent zone, like apartments, but then for us to share, even to have somebody to wash and iron, to cook, and have a common dining room, or something as simple as a lounge where we can meet up and talk over the day.*  
Rosa, age 52

Since then, we have designed various apartment buildings inspired by this testimony and found a multitude of enthusiastic responses. Generally the response to a proposal along these lines is:

*Actually, this is everything I've always wanted, but I thought it was impossible.*

And easy it is not. There are laws that make it difficult, city planning that does not consider it, rigid systems of financing.

However, it is possible. At least in Australia, Belgium, Canada, Cyprus, France, Germany, Ireland, Italy, Japan, Jersey, Mexico, the Netherlands, New Zealand, Poland, South Africa, the UK and the USA, countries where the Abbeyfield association exists.

Abbeyfield houses are homes shared by independent persons of a certain age who would otherwise be forced to live alone. They take their name from the Abbeyfield Society, a not-for-profit organization devoted to facilitating and improving the lives of the elderly.

The history of the Abbeyfield Society began in 1956, when young British officer Richard Carr-Gomm discovered just how many elderly people there were living alone in Bermondsey, southeast London. Richard immediately resigned his army commission and became the first male social aid in the United Kingdom.

Shortly thereafter, he decided to invest the money the army paid him by purchasing a house on Eugenia Road, Bermondsey, and he invited four of these elderly persons to live with him. On Christmas 1956 Richard became the first Abbeyfield housekeeper.

Very soon other people of a similar mind joined him, including the woman who later became his wife. They set up a second house, on a London street called Abbeyfield Road, which was to become their meeting place and, in time, would give the association its name. Two years later, Abbeyfield had six houses open in Bermondsey, providing a home for 26 elderly people.

In late 1960 there were Abbeyfield societies in eight London districts and 15 localities outside London. The parent group then was incorporated as the Abbeyfield Society, and since that time it has lain at the core of the entire movement.

Today there are around 700 Abbeyfield houses in the United Kingdom, half of which belong to the Abbeyfield Society while the rest are affiliated houses, in addition to 80 homes for assisted living. Replicas have been set up in 16 countries the world over, all united in the Abbeyfield International association.

See [www.abbeyfield.com](http://www.abbeyfield.com) and [www.abbeyfieldinternational.com](http://www.abbeyfieldinternational.com).

In the work mentioned previously, we recorded other testimonies and we identified other ways of living, for which we generated the corresponding type-specific proposals. We have run across successful examples of them all in very different latitudes; we hope to be able to collect them in another context.

Proposing supporting structures built for a better way to articulate society is also a sustainability criterion. For many complex reasons; but let us just share this

reflection: one hundred elderly people living alone leave an ecological footprint three times the size they would leave if they lived together in Abbeyfield houses.



One of the 700 Abbeyfield Houses in The UK  
Abbeyfield Court  
Sidmouth, Devon  
(pict. [www.abbeyfield.com](http://www.abbeyfield.com))

### Social sustainability is as important as heating, or more so

In the Sustainability-to-the-Dictionary Platform, we proposed the following definition of sustainability:

*Economic principle according to which external costs do not exist. It implies the need to include in the accounts all real short-, medium- and long-term costs. It is based on the proven fact that, in a global economy capable of transforming the environment, all costs eventually have a repercussion on all segments.*

The difficulty lurking inside this definition is precisely the difficulty of visualizing all the real costs that tend to be outsourced and thus left off the books.

We are just barely beginning to visualize the relationship between the design of our constructed bearing and its direct, obvious costs, the expenses itemized on power company invoices.

We have just barely begun to recognize that, when users have an indicator of their consumption, they tend to take decisions that reduce energy expenditure - which also reduces the supposedly external costs of energy, which can be measured in terms of greenhouse gas emissions, acid rain in a forest in another country, the destructive potential of radioactive waste, flooded valleys, the melting of polar ice caps, etc., and which in reality affect us just as much as the supposedly direct costs do.

How much more difficult it will be to include on the accounts the indirect costs that are even more difficult to evaluate, but even more important.

Going to school from the suburbs has a cost. In some places they have studied the case (San Francisco, Feb. 2000), and they have reached the conclusion that 26% of morning traffic is for taking children to school. Calculate the greenhouse gas emissions involved; it is what has come to be called “baby miles”.

Closer to us, many people are familiar with the excruciating morning round from crèche to school to work, and many postpone motherhood *ad aeternum* in view of the impossibility of solving the equations involved, dragging birth rates down to historic minimums.

### Architecture influences the birth rate

Indeed, as we saw in our first point, housing is still being designed as if the woman stayed home taking care of the children and preparing meals while the man went out to work.

That model is so firmly established that it is not easy to see alternatives.

Under Project H-H, we proposed Pregnant Houses. Since there is already a law making it compulsory to include common telecommunication infrastructure in all new buildings, there could be another law making it compulsory to make a place available where childcare can be arranged while the parent or parents are at work. In France there are regulations for what is called the “crèche parentale”, a kind of informal nursery where parents can organize themselves and take turns caring for the children of all members, provided that they comply with a set of rules.

All the misgivings aroused by the thought of the “little crèche on the corner” can be quelled by calling to mind the swimming pools kept by communities of property owners. Swimming pools are highly dangerous for children, and yet an entire *practice network* (see last point) has been successfully erected under which there are thousands and thousands of shared swimming pools in operation right now in Spain.

We would have to think of a specific location visible from many housing units, so that anyone could peep through the window at any time. A central location, one of the best spaces in the building, sunny, with an indoor portion and an outdoor portion. Roofs are hardly ever used to their best advantage, so they could be used for this purpose (and if this calls Le Corbusier to mind, read on).

### Shared spaces are a necessity

The development of a civilization is a function of its ability to share. Successful civilizations are those that manage to strike a balance between the individual and the collective.

The traditional division between the black and white of public and private gets blurred as the economic and social fabric becomes more complex. By hypothesis. Experience shows that, beneath the illusion of a radical separation between the private and the public, there always hides a gradient of privacy that makes for infinite intermediate situations.

Furthermore, a parallel can be drawn between the graph of the quality of life of an environment and the graph of awareness of shared space, although it is not easy to establish the direction of the cause/effect relationship.

We would like to think that, to increase the quality of life, and to guarantee the sustainability of life, it is necessary to strengthen the gradient of what is shared and make it more obvious.

### Shared spaces are not the same everywhere

It is clear that the gradient of what is shared has a strong cultural component, which translates into different customs, attitudes and even laws.

Spain’s Horizontal Property Act, which regulates the creation and management of communities of property (flats or houses) owners in Spain, tends to surprise, for example, British citizens. Not only because there is no equivalent law in the United Kingdom, but because this system that is so very normal in Spain is utterly exotic for them. Their first reaction is to associate the concept with some kind of hippy ideal in the best of cases and with some kind of con job in the worst of cases; and they always consider it weird and not the sort of thing a Western country does.

The book “You and the Law in Spain: The Complete and Readable Guide to Spanish Law for Foreigners”, a real best seller among British residents of Spain, devotes several chapters to this issue, which it introduces by saying:

*Like it or not, when you buy property in Spain you automatically become a member of a community of property owners, [...] you will pay the fees and meet with your*

*neighbours to decide whether to paint the building or fire the gardener. [...] Even if it is a detached house, it most probably belongs to some kind of condominium. [...] A million foreigners have already been through this.*

To identify these cultural differences, we have been conducting a series of workshops studying different places: Sharing Tokyo, Bogotá Compartida, Sharing Vienna, Sharing Downtown Manhattan and Madrid Compartida.

Precisely one of the most difficult differences to visualize is the legal situation of what is shared and the different ownership structures, which have a decisive effect on housing design.



Workshop: Sharing Downtown Manhattan  
Student: Fiona Zayas Hemingway

Task: Ábacos visualizing shared spaces and services in the standard property structures in Manhattan: Condo, Coop, Condop, etc.

Studying the situation in Manhattan, a student constructed an abacus for visualizing the shared services and spaces in the different usual Manhattan ownership structures, such as the condo, the coop and the condop. Some of them look very foreign from over here in Spain, although we have seen how they work in the cinema. When a comedy of manners (for example, *Green Card* with Andie MacDowell and Gerard Depardieu) includes a very normal Manhattan scene in which a board of tenants decides who the best person is to rent a given housing unit, as if conducting a casting call, the situation looks unreal to Spanish eyes. Curiously, when the same scene refers to a room in a shared flat (instead of a housing unit in a shared building), there is an entire generation of Spaniards who do recognize it, who have been through that kind of casting call. Perhaps that generation can construct the necessary system of relationships so that the shared

spaces of a building can be experienced once again in Spain as matter-of-factly as in other countries.

### Social construction is as important as construction with concrete

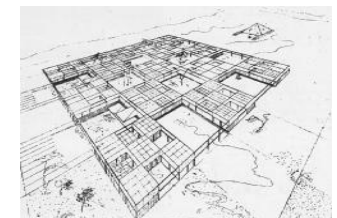
If we are going to talk about housing complexes with shared spaces, we must inevitably refer to the Soviet experiences of the early 20th century, the Dom Kommuny.

At that point in time, architects were trying to transform society through architecture, proposing ways of organizing space that would force a new social model to appear, advocating a new way of organizing work and daily life, with the liberation of women and the implicit dissolution of the family as the “*production unit of the capitalist system*”.

In 1926 one could read in the journal *CA (Sovremennaya Arkitektura)*, “Contemporary architecture must crystallize the new mode of socialist life”, a statement of the ideals expressed by Alexandra Kolontai, minister of social affairs after October 1917, and ideologist Clara Zetkin. That crystallization produced paradigmatic buildings (especially those of Moisei Ginzburg) that changed the history of architecture (Recall the 1930 trip to Moscow by *l’Architecture d’Aujourd’hui*, with Le Corbusier along, and how it transformed him).

*One of the social change/new space binomials of that revolutionary point in time was translated into the need to design houses with a nursery to achieve women’s liberation.*

*It is hard to tell how well architecture succeeded in transforming society, but in the mid-30s Soviet architects abandoned their avant-garde position and enthusiastically re-embraced the models of the past.*

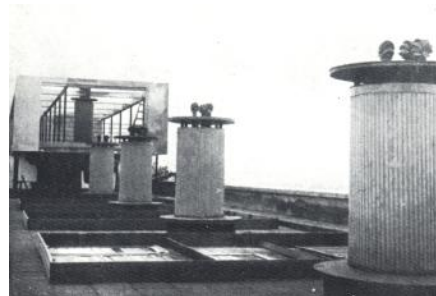


Hnos. Pavlov  
Shared city for  
1000 inhabitants. 1930

Our problem is the reverse. Women’s liberation is a given. New social models have appeared, with an entire gamut of ways to organize work and daily life. The family is no longer the dominant model for managing domestic affairs.

And nevertheless, the architecture being built today not only does fail to promote or accompany the transformation; it hampers the transformation outright. Society is transforming *despite* the rigid corset of an architecture designed behind society’s back.

Le Corbusier was an intermediate point between that time and the present. He proposed to his clients an organization of domestic space where common spaces formed the backbone, but he was not too successful: only a few such spaces were accepted. One of them was the crèche. Whether or not he drew inspiration from the Dom Kommuny or the forms of the Narkomfin Building, he placed a crèche on the roof of his Unité d’Habitation.



M. Ginzburg  
Shared House. 1928  
(NAR.KOM.FIN)  
inhabited roof;  
shared dining room in the background  
(pict. 1930)

Ask any mother/father in any Spanish city what they would think of having a little crèche in their building....

### Standards are not as bad as everybody thinks

At the workshop entitled “Vivienda: Habitabilidad e Innovación” (Housing: Liveability and Innovation) that we directed in Valencia in 2006, seven architecture offices, all recent winners of the European competition, participated at the invitation of the Directorate-General of Housing and Urban Designs of the regional government of Valencia to study the extent to which housing-design standards were hampering the implementation of their innovative projects.

The ultimate objective of the workshop was to contribute to the writing of a new housing-design standard more open to changes demanded by society, to replace the current standard, HD-91.

In the first round of work, something very odd happened. Many of the teams considered that current standards were preventing important aspects of their proposal from being implemented...which was not really true.

What was preventing their proposals from being implemented was interpretations of the standards. The legal text in itself was much more open.

Furthermore, HD-91 distinguishes clearly between the conditions that must be met and the minimum parameters, and it allows the requested conditions to be dealt with on the basis of different parameters.

For example, it gives a table of space ratios, with a series of headings (living room, dining room, kitchen, bedroom, etc.)

that may not adequately describe the programme in an innovative proposal.

However, the document includes an annex with a description of spaces according to human functions (food preparation, food consumption, cleaning, etc.) that “may be

compartmentalized in enclosures” according to the previous headings. This leaves open a possible *justified* redefinition of spaces.

In the last round of work, we all clearly saw something that had seemed unthinkable to us at the outset: HD-91 is architecture.

Standards are simply one of the phases of a project - of a collective project.

### What is really difficult is changing networks of practice

A large part of this text attempts to show changes in society that require a new way of thinking about housing architecture, with new objectives, new questions and new interpretations. In philosophy of science, that has been called a

	A	E	C	K	L	T	D
A acceso							
E estar							
C comedor							
K cocina							
L lavadero							
T trabajo							
D dormitorio							
B baño							

☐ compatible conectable

▒ no compatible conectable

■ no compatible no conectable

“paradigm shift” (since the 60s) and in architectural criticism (lately) it goes by the same name.

There have been some frankly spectacular paradigm shifts in the different scientific disciplines. The Newtonian paradigm, in force for 300 years, was reduced to a simple individual case by a single article by Albert Einstein.

Paradigm shifts in architecture tend to have much more troublesome beginnings, due to their slow adaptation by networks of practice, those lattices of relationships, knowledge and customs that “everybody knows”, under which, for example, everybody knows what a brick is, engineers can calculate a brick’s strength, and bricklayers know how to lay one.

Any plumber knows a full bathroom consists (in Spain) of one toilet, one bidet, one washbasin and one bathtub (with a shower head); the plumber knows whether this requires eight or nine water points (and knows what a water point is) and can make an estimate in thirty seconds, because the plumber knows how long it will take to do the job.

If I want a drain in my floor, which is very normal in other countries (and may be very necessary if I am redefining spaces on a *justified* basis according to the human functions defined by HD-91), it is not enough for me to put it in the drawing. I will have to tell the plumber several times and in various languages. And once I have managed that, I will have to sit on the drain so the foorer does not floor right over it, thinking it is a mistake by the plumber.

So, the really hard thing to change is networks of practice. The development of an entire network of innovative practice is required, among all the agents taking part in the production of the supporting structure built for habitation, changing the legal frameworks, the mechanisms for government control, the mortgage market, marketing techniques, local culture, the involvement of inhabitants and, of course, the construction industry too. Stubborn perseverance will be necessary until the new models begin to attain maturity, site by site, dealing with unexpected conflicts and celebrating the findings.