

## In Defence of Others: Culture and Context in Sustainable Housing Typology

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**Abstract:** A central principle of sustainability and the foundation for livable community design and development is the recognition of the interdependence of economic, environmental, and equity issues. These principles are clearly evidenced in the resurgence of non-traditional housing involving forms of shared accommodation, which seek to reduce total housing cost (and total construction), provide opportunities for collective use of space, and increase overall quality of life by enhancing opportunities for social interaction. Literature on these forms of sustainable housing is dominated by research carried out in Scandinavia, the UK, and the US, with houses being narrowly classified as either examples of communal or co-housing, affordable housing or green-housing. Yet there are other emerging forms of sustainable housing which are almost unreported in the literature.

This paper discusses some of the political, economic and socio-cultural issues at work in sustainable housing design typologies. It begins by exploring the current definitions of sustainable housing and asks whether these are adequate descriptions of emerging housing designs such as conjoined or compound housing, which are not easily classified under the literature. Through an exploration of typology and case studies, it illustrates how the notion of sustainability has come to represent ecological sustainable models, as is seen with green housing, while other forms of sustainable housing designs have receded into the background. It argues that in the planning and design of sustainable housing attention must also be given to the sharing of resources and space as an added method of conservation.

### Keywords:

Eco-housing; culture; sustainability; housing typology

### Introduction

*"The Culture of Maxima which enshrines consumerism and materialism has caused many to continuously seek bigger homes, ignoring the toll of their residential activities on the natural environment. We seldom ask ourselves whether we need all the space in our homes, how often the different rooms are used, and whether we need the sizes of the rooms as they are." (Chiu, 2004).*

*"What I've learned, living here in India, is that the most wonderful traditional solutions exist which exemplify all the concerns of the environmentalist today—we don't have to invent these things again" (Corrier, 2004).*

Examples of emerging housing types that address all four dimensions of sustainability outlined in the often cited

Agenda 21 (UN 1992)<sup>1</sup> do exist in the West as well as in non-Western countries. Yet in the bulk of literature on sustainable domestic architecture these examples hardly feature. Instead, what are found after a typological search are the same conventional examples of 'collective', 'affordable', and 'eco-housing' or 'green-housing'. While collective or communal housing is heavily stigmatised by its counter-cultural past as being 'So Berkeley, so 60s', eco-housing has become the housing exemplar of sustainability for middle-class home owners in the West. This ever-popular techno-fix design exists predominantly in the literature and as a result alternative designs are effectively side-lined in the sustainable housing typology.

In this article, we argue that eco-housing is a Western cultural housing type, which despite being represented as the 'universal' solution to a global problem, is not entirely sustainable because of its sometimes inflexible layout, consumption of space and elision of the dynamics and particularities of context. We argue that sustainability must be recognised as a place and time specific prob-

lem—with its own potential local solutions—as much as a global one. As the above quote from Indian Architect Corrier makes clear, solutions to sustainability already exist; it is just a matter of acknowledging this fact rather than ignoring it.

What follows in this paper is first a brief interpretation of the concept of culture as it pertains to sustainable housing and our research. We follow this with a closer look at the three categories of sustainable housing most commonly found in the literature, beginning with a discussion of the cultural history of eco-housing. After introducing the three categories and placing them in a cultural frame, we consider why an emerging form of housing, called conjoined housing, does not feature in the sustainable domestic architecture literature. We then discuss the parameters of the definitions and suggest that these be widened to include alternative designs such as conjoined housing.

### 'CULTURE' in Sustainable Housing

*"It is incorrigible to build a glass skyscraper in Ecuador and the same building in Moscow. The climates are different, the customs are different. There's a word that is seldom used in architecture nowadays, one that is rather kitch, and I believe it should be used more: appropriateness. Things have to be appropriate."*  
(Souto de Moura, 2003)

To take into account the many complex influences of context, in the design and building of architecture, means to act appropriately. The above words from renowned Portuguese architect Souto de Moura (2003) can be fittingly mapped onto the progressive sustainable housing movement, with its lack of contextual gaze and disregard of people's divergent needs and values. De Moura's words, which echo critic Frampton's call for a 'critical regionalism' (1980), ask us to not only be mindful of the physical contextual elements but also of culture. A simple swapping of his words 'skyscraper' with that of 'eco-house' would produce the same rhetorical answer that indeed it is incorrigible to build this design in two different places, which have separate customs and histories. The reason for the incorrigibility is that people occupy houses, they do not leave their cultural understandings and ways at the doorstep, and as a result these behaviours and perceptions affect the way the house is experienced; whether its intended use and function is fulfilled or not.

Furthermore, houses—as objects made by people—are cultural artefacts; material evidence of a culture's values, ideals, politics and history. A basic anthropological definition of culture makes this aspect perfectly clear, "Culture

consists of the things people make, their behaviour, their beliefs and ideas" (Rosman & Rubel, 2004). Culture therefore is both a verb and a noun; that it is a concept, a way of seeing the world which becomes materialised and visualised into objects like buildings, into clothing, performances, and even everyday behaviours that are taken for granted such as putting out the rubbish.

Culture is not an isolated entity, held by some and not others. We are all part of culture; agents who are informed by culture and able to change it to a certain degree. Yet despite this accepted thinking about the built environment and its intimate relationship to context, Western sustainable solutions such as eco-housing are represented and presented in literature and the media as though they are cultureless and context-free (see Guy & Farmer 2001). This problem of disassociation or denial means that sustainability remains in the realm of science, and the socio-cultural influences that have created the ecological crisis are not fully recognised nor addressed<sup>2</sup>. Eco-housing and other western housing types need to be placed back into the cultural realm. In order to do this we must recognise the historical and political influences of the single family house design—the basic building block of eco-housing.

### ECO-HOUSING: history and culture of a western model

From the late 1800s through to the 1950s, there were manifold examples of non-traditional housing types in the West (Grieve & Hon, 2005). However, after World War II the idea of living communally with non-kin or in an extended kin-situation lost desirability, as people sought individualised, private, secure spaces in which to reside (King, 2004; Whitehand & Carr, 2001). The prototype of post-war housing was the detached single-family dwelling, a post-industrialist version of the European villa. This Anglo-Saxon model of housing was developed in tandem with suburbanisation, a phenomenon now gone global. The two embodied the ideals pursued by the growing middle class at the time: low density; auto-dependency; single-use zoning; controlled development; safety and privacy.

The spatial layout of the single family house materialised these citizen ideals, while the house itself became a symbol of upward mobility as it referred back in form to the country houses of the English upper class. In this way, the single family house brings together nostalgia for a past offering certainty—before industrial capitalism destroyed human relations and created urban congestion—and a desire for the freedom promised by modernity through consumerism. This desire to retreat from the crowded, dirty city and aspire to a higher social position was met through the Fordist production of generic 'cookie-cutter' designs. This basic design remains ever popular to both

developers and consumers alike; one achieves predictable market performance and the other, knowable conventionality. This marriage, marketed to steer consumers towards the same few designs, has created landscapes of sprawl, standardisation, and unsustainable living in the West<sup>3</sup> and is spreading globally as the taste for the lifestyles these houses promote and sustain increases (see Munch, 2004), "Of what use are energy savings in a sustainable house if the occupants must continue to use the automobile on the average nine times per day?" (Ingersoll, 2006).

The current trend in the West, to build single family eco-houses, is in part because of the representation of the single-family house as a transferable commodity. Because of this emphasis on the house being ultimately exchangeable on the market, the reliable and popular design layout of the single-family home has remained unchallenged, even within the sustainable discourse. Its design layout reinforces certain rituals and ways of living that are Anglo-American and unsustainable: individualism and reclusion into the private residential space away from the public sphere of society. In the house, modes of expression take form in the purchasing of modern appliances and as a result the house has increasingly become a mere backdrop to these consumables<sup>4</sup>. Moreover spaces have expanded, as houses have continued to grow to meet the cultural values of privacy. "The problem is not so much that current energy conservation initiatives are flawed, but that they do not consider the most significant determinant of building energy use—space" (Addington, 2003).

The cultural aspect to eco-housing—the unsustainable behaviours conducted through the spatial layout—is often elided in the media because of eco-housing's association with the universalistic solutions offered by science. It is precisely because science appears objective and above people and culture that eco-houses have been assigned such a predominant role in the literature on sustainable housing; as a global, universal solution to a global problem. Yet sustainable issues are grounded in places and are pluralistic; articulated through particular time specific locales. Authors Guy and Farmer (2001) write that the technically focused sustainable model of eco-housing that attends to the global rather than the local is similarly distanced from context in time, through its constant reference to the future and not the present. These two aspects—time and place—when coupled with the technological solutions of eco-housing, further separate it from the concrete situations from which sustainable issues are lived and experienced. In the two following sections we briefly introduce the other two dominant categories of housing that appear in the literature and then end the typological overview with an introduction of a new housing type: conjoined.

### Collective Housing Types: longing for community

Collective or communal housing has been used in the literature to describe a whole spectrum of types, from 1920s Soviet apartment blocks to post-materialist intentional initiatives such as cohousing. The quintessential example of contemporary collective housing in the West is the philosophically minded cohousing or eco-village.

Cohousing was first developed in Scandinavia in the 1970s, and was adopted in the United States, Australia, Canada, New Zealand and England in the 1990s. As a new form of intentional community, cohousing organisations form with an explicit intention of creating a socially cohesive and mutually supportive community (Meltzer 2005:2). In this type of housing, the 1960s counter-cultural movements' societal and ecological promises remain important cardinal points for the advocates of cohousing. Because of this philosophical underpinning, collective housing groups all perceive a modern living malaise in contemporary industrial society and 'believe' that the only living model equipped to remedy this is a community-centred one. In cohousing an implacable belief in the benefits of community manifests at every possible level. From the initial stage of site planning through to whose turn it is to cook the communal meal at night; all decisions are made consensually and with the strengthening of an ecologically sustainable community in mind. Thus 'community' is the central concept of cohousing, and is a guiding ideal that is held above context. In this regard, like eco-housing, eco-villages and cohousing offer their solution to sustainability as a universal, humanistic one that should be adopted by all.

In design, cohousing and eco-villages consist of either free-standing self-contained dwelling clusters or multiple suites in one dwelling (see Ahrentzen and Francks 1989). Invariably collective housing designs include a common building or central common space, which provide residents with a shared kitchen, dining hall and, depending on the model, a library, laundry or hobby-room. The occupants of collective housing are usually multiple single families, who maintain their own individual households and are home-owners not tenants, as is the case in shared or affordable housing.

Although the definitions of what actually constitutes cohousing vary somewhat, differences are only minor. McCamant and Durrett (1988), who coined the term, describe it as resident-owned, developed and managed cooperative communities in which individual households are clustered around a village-like courtyard or street and share facilities in a large common house. The shared facilities are for cooking, dining, social activities and child-care. In some instances there are also shared recreation and workshop areas outside the main common house. The number of households in cohousing can be from as

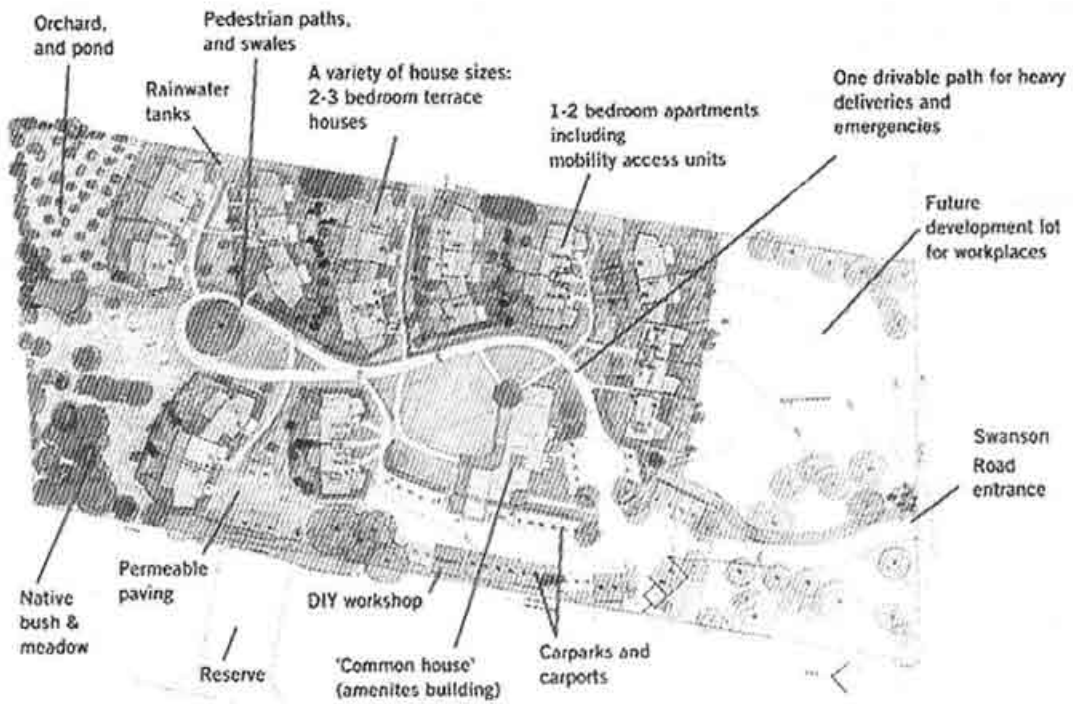


Fig 1: An example of co-housing—Earthsong Eco-Neighbourhood, Auckland, New Zealand.

few as 3 to over 100, however most are made up of 10 to 40, with the number of households allowed being set by the collective's members. Numerous publications deal with cohousing, from handbooks for interested groups (Norwood and Smith 1995) to case studies and in-depth analyses of individual cohousing communities (Fromm 1991, Meltzer 2005). All of these publications begin by sketching a brief history of communitarian movements, from the nineteenth century utopian communities in the US, through to the experimental communes of the 1960 and 70s.

Meltzer (2005), in a serious attempt to distinguish cohousing from its stigmatised precedents, singles out four key points of difference. In cohousing, he argues, the political philosophy is one of democracy not autocracy; decision-making is always reached by way of consensus. Secondly, cohousing residents are enmeshed in mainstream society, not marginal to it (this he names the 'Outreach vs. Withdrawal' approach). Thirdly, the amount of private space granted to individuals is larger than what past intentional communities allowed. In fact, privacy is fastidiously debated among residents during the initial design phases<sup>5</sup>. Apart from the points of difference made by Meltzer (2005), contemporary collective housing types, and its predecessors, share at least one feature: a belief in the benefits of community.

### AFFORDABLE HOUSING TYPES: economics as the bottom line

The euphemistic term 'affordable housing' is used to describe the Western equivalents of public or social housing (Bullivant 2003, Fromm 1991, Hemmens, 1996). It is linked to sustainability through its emphasis on economics and equity issues. Commonly defined in the literature, affordable housing is policy driven, subsidised, low-cost housing for people who can not afford to own their own homes. The 'affordability' in housing refers to the amount of rent residents should pay and is accepted as being no more than one-third of their gross monthly household income. One of the principal design aims in affordable housing is to make units desirable for occupants to live in and to move away from the high rise, high density standardised modernist apartment blocks of the past that blighted landscapes across the globe. An essential part of this departure is the change in terminology, as well as in design. However these solutions only address two of the four principles of sustainability.

According to Ahrentzen and Franck (1989), affordable housing is when individuals, kin or non-kin, share a kitchen, living room and possibly a bathroom. They have little autonomy and minimal private space. Examples of shared housing include multi-family dwellings (MFD); sin-

gle-room occupancy (SRO); mingle units and group homes. This category of housing includes government subsidised housing and other forms of economically driven housing options for those on limited incomes. The sustainability of affordable housing is mostly economically motivated, as a result of the sharing of services and housing infrastructure, energy and materials. As Ahrentzen and Franck make clear, the motivation for sharing of this type, including more innovative examples such as the United States GoHomes, is still "Largely economic rather than social or practical" (1989:7). In the literature, sharing is described as being a situation borne out of necessity rather than a choice.

Publications about affordable housing in the West range in focus from those concentrating on housing for single people, to those that give overviews of plans and the types of multi-family dwellings (MFDs) built in Japan, Europe and the United States (Cooper and Rodman 1992, Crosbie 2003, Mackay 1977, Raimy 1979). A great deal of the literature traces the emergence and evolution of shared habitation from the late nineteenth century through to the early twentieth century<sup>6</sup>. The main concern in affordable housing literature, both past and present, is how to house the poor or working in liveable dwellings. This perpetual societal and cross-cultural issue is, for the most part, the reason for the mass and breadth of publications on the topic.

Recent innovative cultural types of affordable housing include 'homesharing' for the elderly or single-parent fam-

ily in Australia. In this situation, a home owner is matched with another person who is seeking a home, for a temporary period of time. This matching is facilitated through an NGO, church or homesharing agency such as [www.co.abode.com](http://www.co.abode.com) or [www.homeshare.org](http://www.homeshare.org) (Homeshare Organisation 2005). Shared housing types are also built to accommodate large numbers. Recent examples include the YWCA Family Village in Washington D.C., which is a residential apartment of two to three floors refitted to include common facilities; and California's Laurel/Norton Intergenerational Complex with multiple self-contained units for families of forty or more (Crosbie 2003).

**CONJOINED HOUSING: an emerging type in the blind spot?**

Conjoined or Compound housing is a pastiche of affordable, collective and eco-housing and depending on the design, is concerned with addressing economic, environmental and social-cultural issues because of its focus on context and regionalism. It is both similar to yet distinct from the dominant sustainable housing models discussed in the literature. Designed for non-discrete, non-traditional households, conjoined housing is where a small number of kin and/or non-kin owner-occupants share a dwelling that is designed for both common and private space use. As well as being purpose built, a conjoined house may also be formed from two or more detached

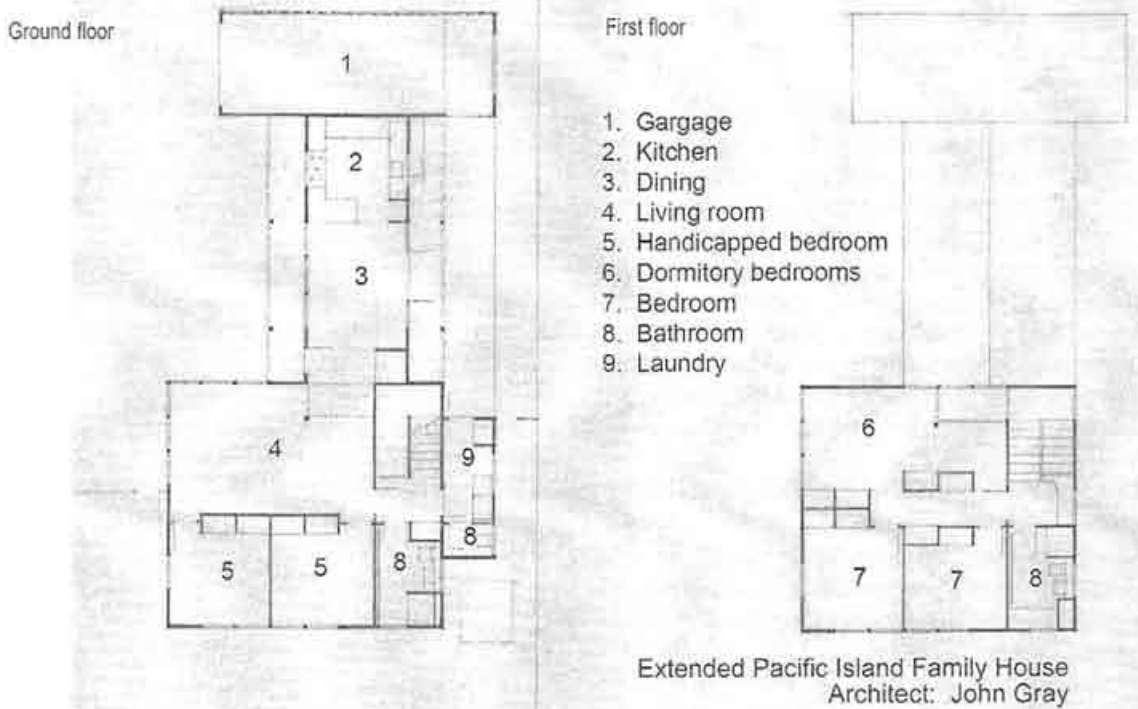


Fig 2: An example of shared, affordable housing for an extended (9 member) Pacific Island family, Wellington, New Zealand.

houses that are joined together to create shared space(s). The occupants come to reside in a conjoined house for a myriad of reasons; there is no single, stated philosophy in residents' housing choice. Our identification of this emerging type was first noticed in a design brief, a request by two sisters (the King House, see fig.3 ) to join their adjacent houses to create both communal and private spaces for the extended family.

Questions of how to design for two individual yet inclusive families arose in the process, the answers to which were not found in the architectural literature because of the narrow defining and biases of Western sustainable housing types. Preliminary research uncovered the terms conjoined and compound, but searching for contemporary examples proved problematic. An image search, for example, found only the most superficial of examples, such as terrace housing.

Although by definition conjoined or compound households may be formed on either kin or non-kin relations, in general it was found that households consist of extended families, stem families, joint families and siblings. Stem families are fuller versions of an extended family; they occur where two single-families in adjacent generations are linked together by one individual who is a member of both families. The joint family, another form of kin relation, occurs where two or more unrelated single-families create a corporate unit. This was the case with the architect Rudolph Schindler's (1887-1953) Kings Road house in West Hollywood, California. In this prototypical Western compound housing model built in 1921, Schindler and his wife co-resided with another single-family, the Chaces until 1924, after which a different single-family, the Neutras, moved in.

The Schindler house is a one-story, open floor plan dwelling, with two adjoining wings, one for each of the two couples with a guest room linking the wings. Schindler's house (1922) was purposely built for two couples: the Schindlers and Chaces; his design reflected their close, friendly relationship with its two adjoining wings and shared kitchen. The contextual element of compound housing makes it different from other sustainable non-traditional housing types which narrowly focus on making material social or economic agendas and often elide the cultural context.

### CLASSIFYING SUSTAINABLE HOUSING TYPES IN THE WEST

*"Sustainable housing development can be defined as housing development that meets the needs of the present generation without compromising the ability of future generations to meet their needs and demands. Housing is more than meeting accommodation demands;*

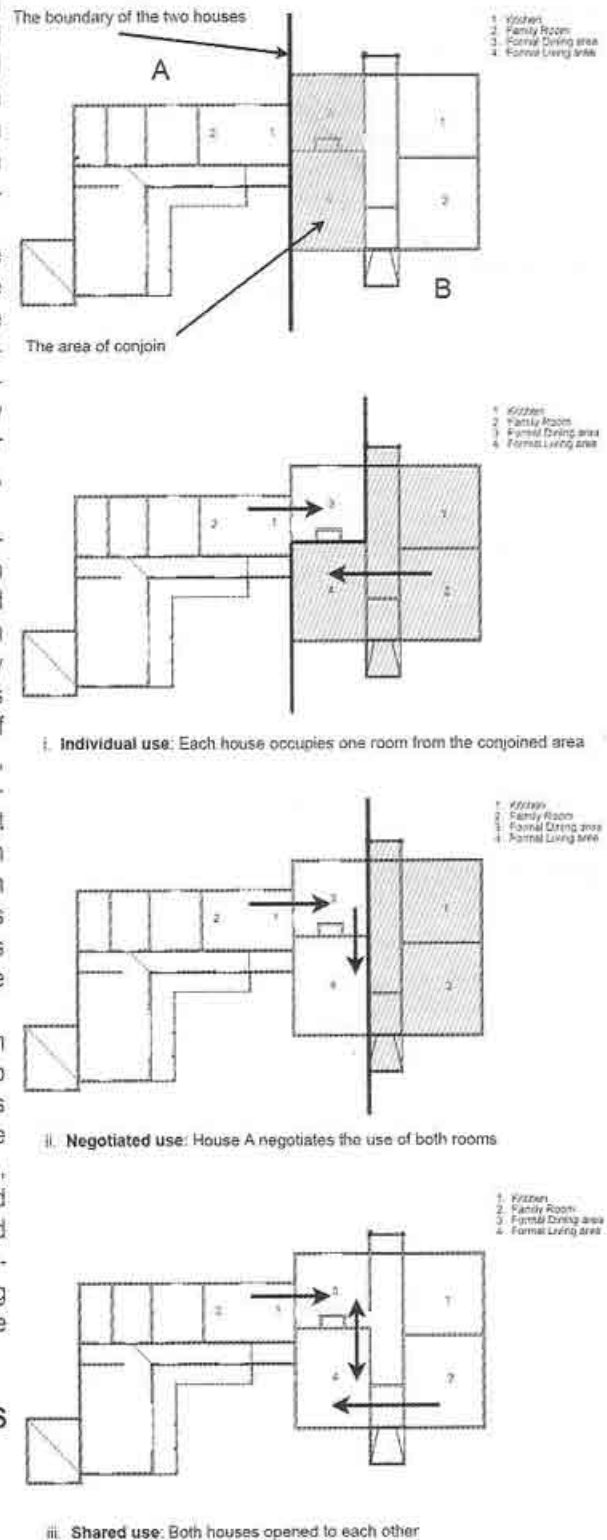


Fig 3 : Diagrammatic representation of the King House conjoined design. External limits of the two existing houses

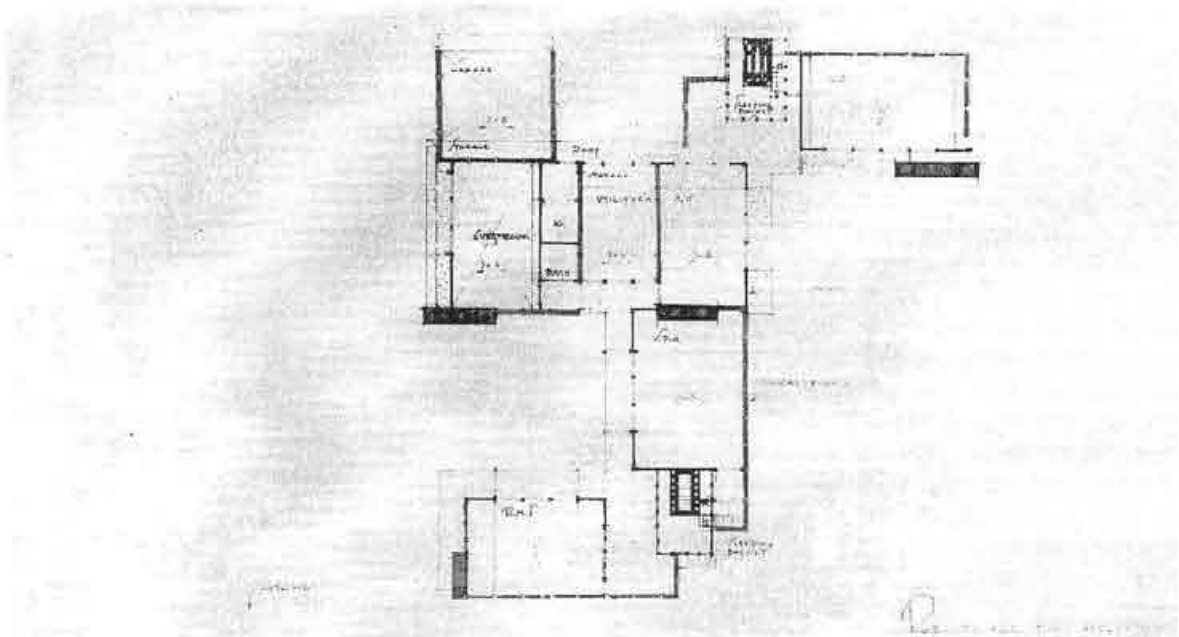


Fig 4: Floor Plan—Schindler House, West Hollywood, California

*it is simultaneously an important measure of social developments, a key economic concern and a cultural element. Thus sustainability of housing development embraces the environmental, social, cultural and economic aspects"* (Chiu, 2004).

Conjoined or compound housing is an emerging sustainable housing type that in practice incorporates elements of economic, environmental and socio-cultural sustainability. However within the sustainable housing literature, this housing type can not be easily placed as belonging to any one category. Principally, this is because the definitions of the categories are too narrow. The literature only captures examples of affordable housing, cohousing and most predominantly, eco-housing. Historically, the literature has been split between housing for economic sustainability—affordable housing—or socio-ecological sustainability as is the case with the philosophically driven cohousing model. But more recently, the notion of sustainability has come to be overly represented by the supposed universal solution of ecological sustainable models, as is seen with eco-housing, while other forms of sustainable housing designs have receded into the background<sup>7</sup>.

A search on research databases reflects the predominance of this particular definition of sustainability, with most if not all articles focused on detached single-family houses fitted with ecologically sustainable technologies. However, sustainability in housing means more than ecological sustainability as is stated in Agenda 21

(UN, 1992) and the Brundtland Report (World Commission on Environment and Development, 1987), it also means attending to the 'soft' socio-cultural dimensions alongside the environmental and economic, "Today, an appreciation of the significance of the non-technical issues is growing and it is realised that these so-called 'soft' issues are at least as crucial for a sustainable development in construction. Economic and social sustainability must be accorded explicit treatment." (Agenda 21, 1992)

Despite the various ways of defining sustainability, for the most part sustainability has come to stand for a one-size-fits-all 'ecologically responsible', detached single-family homes, which use recyclable materials and are energy efficient: scant attention is given to the option of sharing resources or space as an added method of conservation. In addition, most of these designs do not take into account the cultural needs of the occupants. The definition of sustainable housing designs needs to be widened to include models that may not stand for just one principle of sustainability, but in varying degrees incorporate all.

### Conclusion

In this article we have attempted to place eco-housing and other forms of sustainable housing models from affordable and collective categories into a cultural frame. We have also shown how the examples all in some way fail to encompass the four principles outlined in Agenda 21. With collective housing there is a presumption that by simply attending to the community, our relationship with the environment will also become more harmonious and

less hierarchal. Similarly, with affordable housing types, the environment and socio-cultural aspects are ignored for the bottom line of economics. After highlighting these short comings, we questioned why western models such as conjoined do not appear in the typology and why eco-housing has risen in prevalence; presented as the universal solution to an essentially contextual experienced and created issue. This problem is one that can be addressed by redefining it as one cultural solution that has been formed from a particular place, in time, and according to a belief system. What we call for is an exercise in vernacularising eco-housing in order to make room on the housing typology for other models, such as conjoined housing. By placing the models in this frame we can then look for local solutions outside of the West, and explore the notion of appropriating different models and methods of sustainability rather than narrowly relying on the one standard model of eco-housing, which is appropriate in some contexts but cannot be for all.

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#### End Notes :

<sup>1</sup> The four principles or dimensions stated in Agenda 21 are: social sustainability; cultural sustainability; environmental sustainability and economic sustainability. As Chiu (2004) notes, these four strands actually interlink and should not be thought about in isolation. This stance is similar to our approach to sustainability in housing.

<sup>2</sup> Guy and Farmer (2001) write that the preoccupation with finding consensus transnationally in the sustainable movement is one of the reasons why science, with its 'objectivity', has come to dominate research.

<sup>3</sup> For the past few decades in the US, 75% of all new construction has been of this generic form (see Dunham-Jones 2000).

<sup>4</sup> For a sharp comment on this new consumerist function of houses see Ingersoll (2006).

<sup>5</sup> Norwood and Smith (1995) offer a diagram of the ideal spatial arrangement of private and communal areas. The authors suggest that in order to maintain a stable community, a graduation from public to private space is necessary. At the design level, this requires the placing of patios, porches, walk ways and gardens in the zones between the public and private spaces.

<sup>6</sup> See, for example Hayden's seminal work *Redesigning the American Dream: gender, housing and family life* (1984), and *The Grand Domestic Revolution* (1981).

<sup>7</sup> The problem faced with such narrow and slanted definitions within the literature is that different ways of living, which could be understood as being sustainable such as compound or conjoined housing, are not being recognised and researched. As a result therefore, urban legislation and cultural biases which restrict the exploration of alternative housing forms are not identified and challenged.