Contextual Trends: A Comparative Study of European and United States Co-housing Examples

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Introduction and Method of Comparison:

Our intentions for this study are to develop a general understanding of how Co-housing works, specifically in its contextual differences according to geographical location. In an attempt to accomplish this we have each chosen a pair of co-housing examples, one from a European context and one from a United States context. To further eliminate the generalities of such a comparison we have created three categories within which we feel any co-housing community could be placed according to their local context: urban, rural/suburban*, and adaptive re-use. *It seemed rather a farce to call a co-housing community suburban, as it would seem that is exactly what they are attempting to deviate from, especially in the US where that has become the housing standard.

For all intents and purposes within our study we have made a number of assumptions concerning the vocabulary we use. First of all Co-housing, we generally define as an intentional community of families who agree on living under consensus protocol. Consensus, refers to a ‘governmental’ system in which decisions must be made by complete agreement, meaning every member of the community’s council must be in agreement upon any decision. Consensus decision making is used throughout the design process and later within the life of the community. Furthermore, the mention of eco-village is in reference to a more self-sustained community, usually in a rural setting in which there is a stronger focus on living a symbiotic relationship with nature. Within this there is an assumption on our part that the community members of most co-housing developments are much closer to one might label and average working citizen, whereas those involved in eco-villages are most often attempting to deviate more drastically from common western living standards. When using the term sustainable in reference to design or community ideology, we are referring to the use of materials, processes, ideas, or methods in which there is a level of conscientious decision making based on effects upon nature, both immediate and long-term.

Our final method of comparison, and also conclusion, was achieved through a brief design exercise in which we each took what we felt worked in our pair of scenario, and applied this to a prototypical design fitting the context upon which we were focused individually.
RBAN Case Study:

WOGENO Munich: Caroline-Herschel Strasse
General Information:

Size: 60 Co-housing units
Architects: WOGENO München
Completed: 2001
Location: Munich, Germany

Jackson Place Co-housing
General Information:

Size: 27 Co-Housing Units
Architects: Michael Pyatok
Completed: 2000
Location: Seattle, Washington, United States
I. Site Planning and Community:

**Caroline-Herschel Strasse** (Street) is a community developed by a housing institution called WOGENO. The mission of WOGENO is to create sustainable and affordable housing across, for the moment being, Western Europe. As a German based group they have begun this through the acquisition and renovation of various buildings in Germany and Austria as well as the development of new communities such as Caroline-Herschel Street. Wogeno, in all of their developments, place their design focus on investing in sustainable materials, orientation, and technology. As far as the organization and placement of their communities, there is a strong desire to integrate the urban context’s amenities, especially public transportation. In the particular section of Munich there are plans in place for an extension of a major public transport line, to be in effect quite soon; this was an obvious catalyst for their acquisition of the particular site. A secondary focus of Wogeno is to provide the opportunity for residents to maintain a live/work situation easily, however, many still commute into the heart of the city. Due to heavy saturation of commuting residents it was important that they provided a number of opportunities for them to avoid auto use. In combination with the proximity to public transport, the rear of the site is also located adjacent to a green belt that contains myriad paths for bicyclists to ride without the stress and constraints of auto traffic.

During the design process the Caroline-Herschel architects took advantage of an unusually large site, considering its location, and by building up they conserved a large amount of green space surrounding their community. The architectural vocabulary of the two buildings works well together to read as a single piece, and the placement of community spaces on the bottom floor worked well to create opportunities for interaction amongst housing members.
Jackson Place, located in the southeast section of Seattle, Washington was constructed and designed under different contextual and financial pretenses, and ultimately came up with a rather different approach to urban co-housing than the community members of Caroline-Herschel Strasse. Their site is divided with two rows of condominiums on a North-South axis. The west line of condos acts as a screen to the public edge, and the rear row rises above the lower to gain a view of the sound. Between the two is a narrow courtyard containing various sizes of green spaces and plenty of opportunity for interaction with neighbors. The community house acts as a head to the development. Four stories in height it looms on the North end and looks out over the court. The Main floor is used as common space and acts as the main place of interpersonal interaction. It was important to the community that the common house act as a monument of the community to the surrounding neighborhood, and in this nature they often offer its use to the outside community for small gatherings and meetings. The site has a dynamic section that allowed for an interesting fluidity of unity design, maintaining individuality but at the same time creating an agreeable language among the cluster.

II. Social Issues and Greater Community Integration:
**Caroline-Herschel Strasse** was created on the basis of, basically three major social ideas; the creation of an intentional community where interaction was not considered *forced* but *welcomed*, where diversity of age edified the dynamic of the community, and where there was incentive and comfort in a live/work lifestyle.

The first is a token of all co-housing communities, and at Caroline-Herschel it is no different. Spaces are designed for interaction, for pause, for conversation, and the social routine is designed around meeting and knowing one another.

Diversity is a major boast of this particular community, they claim a residency of ages 1 to 71 years of age. It is important the WOGENO that all of their communities include such a spectrum of life experience. To them it is an important element of successful community to treat all ages as one, as equal, and as worthwhile. By integrating such a range of ages in everyday interaction they achieve a respect for knowledge, for youth and for the fervor of a dynamic social group.

Live/work opportunity is also a major element within all WOGENO projects. It is felt that by maximizing time spent nearby “family,” in this case a group of 60 something units, community and interpersonal relations are strengthened. Finally, most renovations done on the structure itself, as well as some additional construction have been done by the residents; a common thread among many co-housing communities is an attempt to build relations through shared responsibility.
**Jackson Place** is designed on a similar mission statement as that of Caroline-Herschel street and they have achieved many of the same elements of social interaction. By creating a tight, interior courtyard through which most circulation occurs they have in some ways maximized opportunity for interaction. There are various levels of space all integrated in this *center* which allow for various modes of inhabiting the courtyard. *Behind* each unit there is a small patio, or balcony, there are smaller green spaces for gardening and kids’ playing, and there is a more formal terrace adjoined to the common house which overlooks all of these. This hierarchy of spaces allows community interaction to exist on a number of levels.

As in Caroline-Herschel street, there is a strong desire to cultivate diversity in terms of, not only age, but economics, race and lifestyle choices. It is necessary to the residents of Jackson Place, and has been since the instigation of the design, that there be an opportunity for various economic statuses to have the opportunity to reside there. Some of this opportunity was lost in the actual process of construction, and the cost accrued through the various hurdles and semantics of financing such a community in the United States.

There are four common meals a week which is also a common practice in many communities although frequency and attendance vary. As far as complaints as to the success of the design in creating a working community, they were very small and mostly connected to finishing of interior spaces; outlet spacing, finish material quality, etc. Though, one over-arching problem seemed to be child safety. There were a number of children in the community and it seemed as though the ability for them to be seen and have a decent amount of open space was key to the design.
III. Integrating Sustainability in Design:

*Caroline-Herschel strasse,* having been located in Germany, seemed to have the upper-hand in terms of achieving the use of sustainable building practices and acquiring funding for *green* materials. They implemented a number of simple ideas in creating a seemingly sustainable complex. Beginning with solar exposure, there is a broad wall of large windows with individual balconies, and foliage as shading. This allows one side of the double loaded corridor to receive southern exposure. On the roof of each structure there is a sun space that can be used by the entire community. Also on the roof, the community invested in a number of Photovoltaic panels which gather a substantial amount of energy, which they sell to the energy cooperate, and then re-purchase at a lower cost.

Much of their labor in terms of maintenance and additions is absorbed through tenant work, as mentioned before, creating a self-maintained building system to some degree. The community also chose to minimize it’s footprint in order to maximize the amount of green space surrounding the structure; unusual in a dense urban context.

Overall, it seemed that the governmental/financial incentive as well as the individual desire to invest in progressive technologies and community systems, helped this community create a more *physically sustainable* development.
Jackson Place seemed in their attempts to create a progressive, sustainable development, in many respects thwarted by the structure of financial systems in the United States. In the process of creating a condominium development in which individuals’ own their unit, it is difficult for a bank to see profit in designing said units in a way that is popularly non-sellable if the co-housing community is not successful. Banks might define this inability to resell by; unusually small unit square footage, shared space, and designing specifically for community interaction (in many ways the antithesis for common US design of multi-family housing).

In spite of these hindrances the Jackson Place community took advantage of the simple things they could accomplish to create a somewhat sustainable development. The units are successfully oriented for a decent amount of daylight during most of the year, even though there is very little southern exposure. For the most part the materials used were chosen conscientiously, however they bargained for vinyl siding due to a late loss of crucial financing. The most successful implementation of sustainable design ideas was in the verticality of the development; for the size of the lot, they achieved an amazing amount of density and therein maintained a good amount of green space.
**RURAL Case Comparison**

1. **Drejerbanken, Denmark**
   - 20 units
   - Architect: Arkitekgruppen
   - Completed: 1978
   - Tenure: private and rental
   - Common house: 5100ft²

2. **Sunlight, Portland**
   - Portland, Oregon, US
   - 15 units
   - Architect: Church & Maslen
   - Tenure: Condominium
   - Site: Suburban, 7.5 acres
Design layout

In Danish community, houses are mostly duplexes. Houses are compact together and forming a public open courtyard at the center shared by the houses. Communal interaction takes place in the courtyard. While those houses in this American co-housing community are detached single-family houses. Houses are loosely located along a pedestrian street. Communal interaction takes place at the small lawn or porch area in front of the houses.

Common house in Denmark case is located at the center intersection of the two clusters of houses while the common house is located at the end of the pedestrian path in the American case due to the noise problem, and the priorities of the original community members. The common practice of placing car park next to common house happens in the Denmark case while it is absent in the Sunlight community. Therefore the common house in Drejerbanken is acting as a ‘welcoming” formal entrance for visitors; they can go straight to the common house without walking through the community.

Other aspect such as the size of the common kitchen and dining space is in similar approach in both cases, however the frequency of use is quite different. In the US example the communal dining space is used quite infrequently, whereas the Danish community meets several times a week for a common meal. There are both public and private garden spaces for each household in both cases.
Site plan of Sunlight. *(Church)*

2. Parking
3. Pedestrian street
4. Parking

*site plan of Sunlight*
Sustainable approaches

Solar access is often a determining factor in how the housing is placed in relationship to the outdoor areas and should be considered from the beginning of the design process. The location of the yards is dependent on solar access, and the effects of later additions to the dwellings can cause shadow lines on neighboring yards.

In Denmark, most houses are not facing south for maximum sun exposure probably due to the site limitation for frontage as they are clustering around a courtyard. While in Sunlight, houses are located along the pedestrian path going East West, so most houses can have a good sunlight exposure. Though only the short side is exposed, a unique section and southern solarium create a very thoughtful section both in terms of daylighting and ventilation.

Placement of the dwellings can decrease the wind, an especially useful consideration in the winter. This is well demonstrated in the Denmark case, as dwellings are located around the courtyard and protecting it from...
hazardous winds from all directions in winter. Houses are one to two stories in height to reduce the shading coverage in both projects. As both cases are located on an open site, trees are planted adequately as barriers to reduce wind speeds. Natural materials such as wood are used as a major construction material for both projects. There is not much active solar approach in these projects such as solar panels and wind generators though they thought of possibility of installing solar panels during the design stage. High initial cost and upkeep of such equipment have been the deterrents.
Communal life
In the Denmark project, there are five separate groups that tend the five sections of the common vegetable garden, and participation is voluntary. In fact, residents do most of the work together. Chores are done by small work groups, with each adult participating in at least one for a specific period of time, and with children also involved. Dinners are prepared every night in the common house. All cleaning jobs are performed on a purely voluntary basis, according to one’s personal proclivities. The high level of volunteerism for unpopular chores is an excellent demonstration of Dejerbanken’s success in promoting community spirit.
Drejerbanken has successfully combined owner-occupied and rental units, encompassing a diversity of incomes and households. As it turns out, renters and owners are equally involved in all aspects of management.
In Sunlight, members have little to say about who will be moving in under condominium, and many do not seem to mind. This tolerance does not mean the community is conflict free. Members have strong opinions, and they are not always in agreement. But after ten years, the issues are not as complicated as in the beginning, and a rhythm of past decisions guides the community.

Like all co-housing projects, all decisions are made by consensus in both projects.
social life in Drejerbanken
ADAPTIVE RE-USE Case Comparison

There are many different types of co-housing and eco-village. In this paper I am going to look more specifically into co-housing projects that have been developed from existing buildings and/or complexes. There are not a lot of co-housing or eco-village that are renovated from some abandoned structure. The two projects that I am going to study are very interesting and unique in many ways.

Jernstoberiet (Renovated from Iron Foundry), Roskilde, Denmark.

General Information:
21 Cohousing units  
Architects: Jan Gudmand-hoyer, Jes Edvard, Helge Christiansen  
Completed: 1981  
Common House and Public Area: 3230 ft2 with a 6500 ft interior court.

Project Background:
Located in urban area in Roskilde.  
The original structure was built in 1946 as an Iron Foundry.  
Started with a group called SAMBO  
Creating a community encourages the interaction between neighbors  
Economic issues: investment and construction cost

Design Issues:
Large central hall transformed into central courtyard.  
Public and private space under one roof  
Sun light: glass window skylight  
Residents did most of the work, demolition and construction  
Recycle all reusable material  
The old structure confines the design for individual residents.  
21 residents units but none of them are the same.

Social Issues:
Covered courtyard encourages the use of public space during wintertime.  
Accommodate a variety of income and household types.
Swan's Marketplace, Oakland, CA, USA

**General Information:**

18 Affordable Rental/ 20 Cohousing Loft units  
Building Ownership: East Bay Asian Local Development Corp.  
Year of Completion: 2000  
Project type: Mixed-Income, Mix-Use  
Site Area: 60,000 sqft  
Retail Area: 31,000 Sqft

**Project Background:**  
Renovation of the historical Market Hall.  
Market Place was built between 1917 and 1940.  
Closed down in 1980's and abandoned for almost 20 years.  
Most important shopping district in the Oakland for over 60 years.  
The existing structure has very unique facades,  
Important shopping district in downtown.  
Closed down in 1980’s  
The most significant landmark.  
EBALDC & Pyatok Associates renovate this structure.  
Concerns: Reluctance to invest  
Concern of downtown safety  
Advantages: Convenient life in down town, transportation, working, shopping.

**Design Issues:**  
Complex design challenge  
Historical preservation: façade and keep 75% of the old structure.  
Design scheme: daylighting into the interior courtyard

**Social Issues:**  
Complex social interaction, public and private  
Neighborhood: Revive the surrounding commercial district  
Affordability

**Comparison between Jernstobereit and Swan’s market:**  
1. Compare the urban living behavior in Europe and American and how does that effect the design strategy/ approach toward the community dwelling in urban context.

The surrounding contexts of this two co-housing projects are quite different. The Demark co-housing sit in a more industrial part of the city, there are not many commercial activities in these particular area. So the design intention of the place is to create a very strong community bond which result in an enclosed and inward facing scheme. Even most of the public space is enclosed; the day lighting quality is quite nice and creates a very spacious
interior courtyard. In the Swan’s Market co-housing, the renovation project was facing more complex issues but at the same time these problematic issues became opportunities and advantages. For this renovation project, I think it put more thoughts on the commercial issue in the downtown area. The design scheme utilize the commercial district and placed a series of shops in the street side, which successfully defines the transition between the openness of downtown district to the more private co-housing community. The retail shops on the public square play an intermediate role in the transitional process between public and private and it also reflects the commercial characteristic of the downtown district without sacrificing the privacy of housing unit. Although both projects are in the urban area, because of the different factors in the surrounding neighborhood result in a very distinct and different design strategy.

2. The architectural design of these two communities have very different characteristics, one is emphasis on the enclosure while the other is more open. How does this architecture character influence the dweller’s social interaction and behavior?

In this comparison, the weather almost dominates the design options. It is very clear that the winter in Denmark is much colder and hard to enjoy any outdoor activities. The enclosed public courtyard and common house encourages the residents to spend more time in the public space during the long and wet wintertime. The enclosed areas were carefully designed in a way that; during the summer, the skylight can bring in sufficient daylight and light the whole space while during the dark wintertime these areas can be lit by electrical lighting to facilitate the lighting quality in public space. This design strategy encourages the use of the public space and helps to bring this community together without the influence of the weather. In the Swan’s Market, winter condition is quite mild, and the characteristic of the main public area presents a very different atmosphere. The openness of this center courtyard is clearly articulated in the design strategy. I particularly like the exposure of the steel trusses over the open space, this design gesture successfully represents the history of this site and visually ties the co-housing units and the community courtyard together, which create a sense of wholeness and connection in this co-housing community.

3. Comparison of the ecological aspects of both projects and how the renovation work emphasis the sustainable issues?

In both cases there is the obvious green approach in re-using a large amount of existing structure, and building on top of an existing site therefore not increasing the global footprint. Besides this material re-use there was not any notable design approach towards sustainability. However, in terms of social sustainability, due to its location and prior dilapidation, the Swan’s Market project received a large amount of help from the local government to renovate the space. This aide came with the agreement that they integrate the outside community with the design objectives and with the integration of
some affordable housing. This creates an antithesis to our theory of financial support in Europe versus the United States, though it seems to be an isolated situation. Perhaps, there is a greater amount of support for re-use of existing infrastructure and the possibilities for grants and/or subsidies in this area is of note.

Photos

Jernstoberiet (Renovated from Iron Foundry), Roskilde, Denmark.
**General comparison between European and American cases**

The European examples attest to the many benefits of living in collaborative communities – security, friendship, sharing of tasks and a good environment for children. While in American examples, there are more concerns of the greater possibility of conflict within the group and a loss of personal freedom. Collaborative communities require organization and interdependence among households that does not need to be dealt within the typical detached home. Decisions that are generally made within family or by the individual now move into the sphere of the group. Residents in these communities need different social and communication skills than individuals living in a typical neighborhood.

Clearly Americans have values, beliefs and attitudes that are not the same as those of Europeans, but similar types of collaborative housing can be seen in the United States. Some developments, although they are only a handful, incorporate many of the same ideas.

In American cohousing projects, there is not one particular housing prototype to point at; instead there are a spectrum of approaches and solutions.

The motivation behind developing the U.S. examples we followed was to create a socially supportive community for the residents. In most of the examples, creating and maintaining affordable housing was also important. In Denmark, Holland and Sweden similar motivations were apparent, but in these countries another motivation seems to come from the numerous possibilities of working together with twenty or forty other households, creating new organizations and integrating common spaces more within the everyday circulation of any given individual.

In collaborative communities that we studied in the United States, not as many activities seemed to occur in the common house or common spaces, and they are not used quite as frequently as in those European countries. In terms of group meal planning, it seemed less frequent in US examples, once a week or once a month; whereas in European exemplar their communities seemed to gather at least a few times a week (*with the exception of WOGENO Munich)*.

The management of communities in either context appeared to be maintained in a similar way. In the US most communities are developed as a condominium development, whereas in the European examples the terminology may be different though the financial organization seemed to remain very close. Decisions in all communities are made by consensus, a process that requires all members’ approval on any community proposal.

The American examples developed independently of European collaborative housing, but with a large influence from many texts based on prior Danish examples.
Most of the American examples of Co-housing communities have managed to blend into the surrounding neighborhood(s) and do not call attention to themselves. They stress a homelike quality and de-emphasize the architecture of collective living. A large part of the modesty of their structures may be related to the up front financial constraints placed on the development of any larger scale, high density community. Two rural examples, Monan’s rill, California and Herbie’s in Washington, are a tribute to the individual family home. The image of the rural examples – individual homes surrounded by landscaping – remains strong in both suburban and urban examples.

In the 1990s, environmentalists increasingly are taking a holistic approach to housing. The emphasis is on combining housing with gardening, shopping, and places to work. The local government is conspicuously absent in the development of most of the U.S. examples, unlike most European models. European developments receive direct government support. Attempting to find some formal explanation as to why this might be we researched the goals or statement of intent for various European and US government financial institutions with differing results/success. The following is a breakdown of the goals placed online by the German Federal Ministry of Economics and Labor*:

* a high level of employment  
* sustained opportunities for the German economy to grow and compete with other economies social security  
* the promotion of new technologies and innovation to maintain the economy’s competitiveness  
* the linking of economic and ecological goals  
* intensification of the worldwide division of labor and a free system of world trade  
* economic assistance to Germany’s new states.

Whereas, on the us website www.Grants.gov, which is an official list of the global expenditure of grant money we were unsuccessful in uncovering anything relating to the advancement of building technologies, or the increased production of high quality affordable housing. Also, on the website for the US Department of Housing and Urban Development (www.hud.gov) there seemed no mention of advancing or aiding in any attempt to integrate building technology and affordability in high(er) density housing developments.

**Conclusion**

As mentioned before, as a way of concluding that which we found worked within the examples at hand, we have formed a series of prototypes according to their respective contexts. In combination with these prototypes we also found that, seemingly the most important component to the success
of co-housing (and perhaps eco-villages) is the interest of general society in progressive building, and sustainable living. The most sustainable communities are those that receive assistance, mostly financial, from local or federal government. With a limited amount of research, we found very little information on financial assistance available from the US government, however this may vary locally; and conversely there seemed a prominent desire to create incentive for progressive building in ‘Europe.’ Aide may also come in the form of new legislation written in support of radical living and building, but that may be a whim reserved for those who reside in such places as Eugene.

**Urban Prototype:**

![Urban Prototype Image]

By integrating the volume of the European example with the encased public courtyard seen at Jackson place, this prototype creates a more adaptable community realm, and the *dynamic* section is an attempt at creating a better response to solar orientation.
Rural Prototype:

In an attempt to typify, what we saw as the key to a successful removed community, we found the most successful community containing a well-defined central court to encourage interaction. Similarly, the parking is located directly in front creating a direct path of circulation from entrance, through the common house, and then to the individual clusters. In a figure:ground analysis the common house is obviously the figure head of the community, another element we found crucial to a successful community.
Adaptive Reuse:

The adaptive reuse prototype was an obvious hurdle to typify, but it seemed that of the existing examples the most successful contained some type of central corridor, street or court. In some cases this was a public space used for live/work or other forms of commerce, in others it simply replaced the common outdoor spaces found in more malleable community contexts. A second important element, found at Swan’s market was strong and obvious division between public and private, allowing the community to interact with it’s context while still maintaining a good degree of privacy.