Cohousing: A Solution for Sustainable Urbanism

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"When planning and design are not integral to alternative social formations, the modern dream to engineer a new society cannot be realized."
– Malcolm Miles

INTRODUCTION

As society begins to make the transition towards a sustainable future, there is a serious need to address the inadequacies of our current housing and neighborhood typologies. Many of the common environmentally- and socially-disruptive typologies were developed and designed after the introduction and subsequent exploitation of inexpensive energy sources, and were further promoted by federal subsidies that encouraged single-family suburban sprawl. Intentional communities, specifically the cohousing model, offer an innovative solution to many of the problems that are associated with these common housing typologies.

Consideration for the social equity aspect outlined in the three E’s of sustainability (also including environment and economy) has historically been overlooked, however, more and more it is being recognized as an integral part to any successful, sustainable endeavor. Shelter is one of the most basic of all human needs, and due to many of the characteristics of our modern capitalistic society, this basic necessity is not being met in an equitable way for many underserved populations. Home ownership is becoming increasingly more difficult to obtain, as can be seen in the development of many new federal subsidy programs to support down payment financing, and the need for more affordable housing projects.

Additionally, it is becoming apparent that much of the urban fabric that has developed since the last half of the twentieth century lacked careful consideration of human nature and basic necessities in their design and planning, leading to a disintegration of community relationships and
a reliance on technology and material wealth to thrive in these modern districts.

In Small is Beautiful, E.F. Schumacher suggests reverting back to more human-scaled operations to reclaim some of the more functional aspects of societies. He writes, “we must look for a revolution in technology to give us inventions and machines which reverse the destructive trends now threatening us all.” The three main types of change that he suggests are: “methods and equipment which are 1) cheap enough so that they are accessible to virtually everyone; 2) suitable for small-scale application; and 3) compatible with man’s need for creativity. Out of these three characteristics is born non-violence and a relationship of man to nature which guarantees permanence.”

The cohousing model fits all three of these criteria, in that the initial investment in a project is affordable enough to provide an opportunity for homeownership to those who may not have the means to invest much financially. Also, examples exist around the globe that demonstrate that the model works on all scales and in all places, from retrofits of both urban residential and commercial spaces to larger greenfield and brownfield developments. Thirdly, because the model incorporates community member involvement in the design, planning, and operation of the development from the initial phases, the opportunity for creativity and collaboration is available in ways that traditional methods of development do not offer.

The Random House Unabridged Dictionary defines community as “a social group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage.” That same resource, however, defines an intentional community as “a community designed and planned around a social ideal or collective values and interests, often involving shared resources and responsibilities.” They are “specifically designed to enhance their resident’s quality of life by balancing concern for interpersonal relationships (social capital), personal growth and development (human capital), and connection with nature (natural capital) with needs for physical subsistence (built capital and income).” Another defining characteristic of most intentional communities is that the membership is often responsible for screening and accepting new residents.

There are many different arrangements that fall under the broad category of “intentional community.” These include religious communities, communes, ecovillages, and cohousing. Religious communities have various structures, but are focused around a shared belief system. A commune is defined as a living situation where incomes, property, and work responsibilities are often shared. Ecovillages are typically organized as cohousing, but are more specific in their vision: environmental sustainability and stewardship. In cohousing, also known as housing cooperatives, people share housing and make decisions collectively, under the framework of a legal entity - usually a corporation or association that owns the real estate.

Cohousing is an intentional living trend that has recently become more popular. The concept originated in Denmark in the 1960s and spread to North America and many other industrialized countries two decades later. This model is popular because members own their houses, but share ownership of the land on which they all reside together. Residents often share meals and socialize like an extended family. This type of living situation is also popular among the elderly, as it is a nice alternative to assisted living or nursing home facilities. While there are many varying levels of involvement and cooperation within various intentional community structures, the cohousing model is the least restrictive and most applicable to the existing urban fabric, as well as the most similar to current models of neighborhood and multi-family typologies, and as mentioned before, are adaptable to both urban retrofits and greenfield or brownfield projects.

Until very recently, humans have lived communally, sharing and respecting the resources that supplied them with food, water, shelter and goods, as well as sharing experiences with a group of people who predominantly shared the same values. Reactions to the shortcomings of more modern community models (Fig. 02) have led to increasing interest and participation in these alternative structures.

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Cohousing is an attempt to bring some of these qualities back into community planning and design, while also honoring our desires of privacy, property, and financial equity in our homesteads. It is a blend between traditional home ownership and rental property, which also incorporates self-organization and community involvement. This is an important quality, because not everyone that is interested in ecological awareness or living in a close-knit community can join an eco-village or would like to share incomes in a commune. The cohousing model is an appropriate blend of human-scaled communal living and private property that is gaining popularity and recognition as a functional alternative to traditional models of development.

Also, by their very nature of being an alternative community structure, these projects inherently tend to support and incorporate other sustainable initiatives, such as green building practices, supporting a local economy, addressing food security with community gardens, and sharing certain types of resources associated with maintaining a home.

Germany has many successful examples of cohousing projects, with 1950 housing cooperatives in total, housing an astonishing 3.1 million members nationwide. Munich has a recently developed example that has three complexes, Wagnis eG. These complexes aim to provide socially- and environmentally-responsible housing that is secure, affordable and permanent.

Freiburg, Germany, touts two separate eco-neighborhoods, Vauban and Rieselfeld, that incorporate cohousing complexes as well. Built on the site of a former French military base, the redevelopment of Vauban as a car-free, eco-neighborhood was begun in the mid-1990s and now houses over 5,000 people and 600 jobs.7 Rieselfeld encompasses seventy acres, and began development in 1994 and also houses over 10,000 people and 1,000 jobs.8

**Benefits**

The reasons residents choose to live in intentional communities are varied, but often center around environmental concerns, the desire to be more intimately connected with the people living around you, safety and healthy child-rearing surroundings, and also the attraction of sharing life experiences with people who share common values.

In one study, the subjective well-being of intentional community residents was assessed in comparison with members of non-intentional communities, and it was determined that intentional communities provided “a higher quality of life with less resource consumption than unintentional communities, and could thus serve as models for sustainable development.”9

This is in part due to the fact that in many intentional communities there is a serious dedication to the idea of social justice, or that good people should have the right to the basic needs in life, and that there should be an element of equality in society that isn’t commonly found in standard profit-driven development models.

**Sharing Experiences**

The residents who are originally invested in the cohousing complex are typically involved in the strategic planning and design of the project, as well as in the operation and decision-making once construction is complete. This is the case for all three Wagnis projects, as well as for Vauban and Rieselfeld. While this additional input from future residents may add time and energy into the design and planning of the development, the final outcome is more sustainable because residents are happier with the spaces, and feel a sense of ownership of the process and the project itself.10

One of the challenges that faces housing cooperatives is that the neighbors don’t pick each other or necessarily share common values, except that they like the cohousing idea. One important method they use in making decisions is using the sliding consensus scale. Consensus does not always mean that everyone involved is happy, and often residents must practice expressing varying levels of agreement, neutrality, or disagreement in order to come to a resolution. This is an important aspect of the collaborative characteristic of these communities - members are typically very careful with their words and actions, because ultimately they are developing and maintaining long-term relationships with the other residents, and ultimately must live with this group.

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These opportunities for social development, conflict resolution and consensus decision-making are beneficial to both adult and children residents.

An example of this mentality exists at Vauban, where the Rhino squatter settlement has occupied the site of a now-defunct development complex (Fig. 04-05). While the compound is temporary and a makeshift development of old cars and collected junk, in a recent poll, over 70% of Vauban residents voiced that they were content to leave the development as it is.11

Within the Wagnis complexes, residents are required to participate to some extent in the decision-making processes that guide the development and operation of the project. There is an annual meeting where all residents come together to give the Association board feedback about the last year, and to collectively make major decisions about the cooperative.12 Likewise, in Vauban, the participatory planning process has always involved workshops with community members - a grassroots collaboration, never a top-down approach.

One interesting development at Wagnis III that clearly demonstrates the community collaboration in the design is a top-floor terrace facing a communal greenspace that is a shared patio space (Fig. 06). In a typical development, this flat would have been one of the most desirable, and therefore most expensive, properties. On the ground floor of that same corner, the residents agreed on incorporating some commerce into their building, and collectively decided on a coffee-shop/bakery to serve some of the community’s basic needs.

Sharing Resources

Housing cooperatives often have community amenities that are accessible to all residents. These shared resources reduce the need for each individual household to purchase, store and maintain these basic household items, and also creates more spaces for social interaction on a regular basis. This also assists in keeping the cost of living in a cohousing complex affordable. Children’s playrooms, guestrooms for visitors, laundry facilities, tools and tool sheds, bike garages, appliances, and lawn maintenance machinery, playgrounds and open spaces, etc, are often among the types of resources that are shared.

In Wagnis III, several of the basement spaces that were allotted to buildings for residents to share have been converted by the residents into even more communal spaces, such as libraries, children’s playrooms, etc.

At Wagnis I, all of the apartments are optimized for financial reasons, restricting the amount of floor space in the different models. Because of this, there are no private guest rooms in apartments (which typically serve as storage or office space for the remainder of the year), and in response to this, they built several small guest apartments that residents may rent to house their visitors.

At Wagnis I, a central open space is frequently used as a gallery that is rented by the Wagnis Association to show exhibits that are requested by the residents themselves. This complex also contains a breezeway that is equipped with beams that can support light and sound systems, and this communal space is often used for concerts and theater performances.
and also hosts a farmer’s market for the residents.

In another example, the residents of one of the Wagnis complexes wanted to invest in additional technologies that would make the entire complex more energy efficient, and the residents with higher incomes subsidized this technology purchase and installation for the entire community, bringing down operating costs for everyone.

In Vauban (which is predominantly car-free throughout the development), residents that own cars are required to purchase a parking spot in the “Solar Garage” (Fig. 16) for 13,000 €, and those who don’t own a car must purchase an 8 m² plot of land at the end of the tram line for 3,600 €. This is to finance the construction of a new parking garage when they begin reaching capacity in existing garages.

Also, as car-sharing programs become more widespread, this innovative short-term, usage-based car rental system is commonly found within co-housing complexes, including all three Wagnis developments, as well as Vauban and Rieselfeld.

Community gardens (Fig. 08, 10) are also a typical feature in co-housing developments, which have several benefits, including increasing food security while also providing fresh, local, and often organic produce to the residents. These gardens also offer opportunities for education about food systems, biology and ecology, horticultural therapy, as well as a healthy way to teach children responsibility and the value of life.

Quality of Life

In a recent study, happiness surveys were issued to members of two groups within one geographic region: members of an intentional community, and residents of a non-intentional community. These findings challenge the widespread belief that increases in income and therefore an increase in material goods will automatically yield an increase in happiness. Many people fail to realize the importance of family life and interpersonal relationships within a community, two elements that are far more likely to actually increase your quality of life and therefore your happiness, as opposed to an increase in salary.

Another interesting finding from this study was the two groups’ perceptions of place. “Regarding the geographical region most identified as “home,” IC residents were statistically more likely to view an area close to where they live as home. … Those who identified areas closer to where they live as home were more likely to rate the quality of their communities as high and this trend was stronger amongst IC residents… It is feasible that dissatisfaction with one’s community leads to identifying with the larger geographic area more than the immediate community.”

Healthy Child-Rearing Environment

Experiencing a healthy child-rearing environment is also important to many people who choose to live in intentional communities, including co-housing complexes. The belief that humans are naturally communal (particularly children) is embodied in this community structure, where the adage “it takes a village” is not taken lightly. There are often many children living in close proximity to one another, and due to the low turnover rate of residents, they are likely to know each
other for a significant portion of their younger years.

Also, the design of cohousing complexes lends itself to a safe playing and learning environment for children. Cohousing complexes typically have many balconies and small yards facing central, shared courtyards, which create the “eyes on the street” that Jane Jacobs claims creates the sense of safety in urban areas [Fig. 13]. Also, as in the case of Wagnis I, II and III, and Vauban and Rieselfeld, these open areas between housing units are car-free, creating spaces that are dominated by pedestrians and allow for social interaction amongst members.

**Success Rates and Low Turn-Over**

The “success” rates or longevity of intentional communities has been the topic of several studies in recent years. According to Bader, Mencken and Parker, success is subjective, as it may be measured by a number of points, “such as its influence on society, its social cohesiveness, its ability to meet stated goals, or even its achievement of utopia by some standard.”

More importantly, they assessed the common characteristics of various communities, by examining size, land ownership, location, income sharing and join fees, shared meals, leadership, and religious path. In the end, this study showed that once other factors are taken into account with survival rates of communes, population size and the dynamics of land ownership are the determining factors. Communes where members owned their own property, and those that had more members fared better. Additionally, it can be difficult for some people to completely abandon the ingrained traditions of capitalism [i.e. private property, not sharing incomes and resources, etc.], and sometimes members abandon the community.

These two arguments support the case for cohousing as a more sustainable intentional community model, as they are typically structured in a way where there are a sufficient number of residents, with each unit being individually owned. As mentioned before, living in a commune where everything is shared is not a lifestyle that appeals to everyone. Living communally in a functional community, such as a cohousing complex, is feasible for and attractive to a wider section of society.

**STRUCTURE AND DESIGN**

**Ownership**

Cohousing developments typically have innovative ownership and financing structures, making them a viable solution for home ownership or rental for members of several different social strata and income brackets. The land is collectively owned by the community association, each member owning a share after paying the initial investment to join the association. This seed funding is the down payment on a loan to finance the remainder of the construction costs of the proposed building. This initial cost is divided up amongst the community members, often according to the size of the living space or number of rooms they are investing in. The remainder of the money needed to construct the project comes in the form of a loan to the community association.

After the project is complete, loan repayment installments are again divided up amongst community members based on the size of their respective spaces. This modest “rent” may also include a small amount of money that is dedicated to a fund for repairs or improvements on the property, e.g. photovoltaics or solar thermal water heaters, etc.

This model of owner-financing is not meant for maximizing revenues, but
rather for providing secure, affordable housing with stable rents that are not subject to the fluctuating marketplace. This is particularly important in many urban areas, where rising property values and housing shortages are causing the cost of home ownership and rental to go up.

Because the community association is usually a non-profit, many governments are willing to sell municipal properties to these entities for very little. For example, the City of Munich ultimately donated the land that was formerly military property at Ackermannbogen to the Wagnis Association to repurpose as residential.

In 2000, the social democratic government leadership in Munich humored a public discussion with the 21 original members of the Wagnis Association about investigating innovative, mixed-use and mixed-income housing types.

The City was suspicious at first that the young, diverse group would be able to pull off this kind of project, but in the end have been so pleased with the successful outcome, that they have since assisted with the development of two subsequent projects, Wagnis II (next door to Wagnis I) and Wagnis III (in the Riem district). All Wagnis projects are still managed under the same association.

After realizing that this project could succeed, they required that the project be dedicated to social, affordable housing, in exchange for the land donation. They were also a key player in assisting the association in securing low interest loans and mortgages.

In the case of the Wagnis developments, any interested adult must sign up for the waiting list to join the association, at a cost of 1000 €. Residents are given a “social mortgage” of 95 years, which may be passed on from generation to generation as the loan is paid back over time. If the community is able to pay it off earlier, the association has the ability to renegotiate the “rent.” Owners have rights to a proportionate percentage of the entire property, determined by the number of residences on the property. There is a sliding scale for financing to ensure mixed-incomes within the development. The City also required that there be a social mix in the projects and accomplished this by binding some apartments to house certain disadvantaged members of society, such as single mothers, etc. Additionally, even lower incomes can apply for rent assistance from the City.

In the case of Wagnis III, which is currently being completed in the Riem district of Munich, the government supported 70% of the project. It is owner-financed, as described above, and the residents’ deposits amount to approximately 30% of the total capital needed to obtain the loan for initial construction.

If a resident would like to sell their Wagnis unit, they will be reimbursed all of the money they’ve invested thus far into the initial construction costs, as well as what they have invested in paying back the loan. While this reimbursement process may take up to two years, it ensures that residents are accruing some form of equity while living there. This process can be shortened if the seller is able to negotiate with an incoming buyer to facilitate a form of direct reimbursement.

**Sustainable Planning and Design**

The Wagnis complexes are equipped with photovoltaic solar panel arrays on their roofs and solar thermal water heaters, which, in the cases of Wagnis I and II, provide over 50% of the energy demands of the entire complex. These buildings incorporate other sustainable architectural designs as well - the apartments are smaller in size, take advantage of both sun and shade, often feature green roofs and extensive balcony gardens, and are close to
Cohousing: A Solution for Sustainable Urbanism

In Freiburg, both Vauban and Rieselfeld require low-energy construction, the use of renewable energies, and incorporate district heating and combined heat and power generation. Additionally, many of the dwellings are passive solar houses. These two communities also incorporate a significant amount of greenspace throughout their respective districts, reducing urban heat island effect, improving air and water quality, as well as providing an aesthetic and recreational quality to the community.

Additionally, stormwater retention ditches are a common feature of the public spaces in Vauban and Rieselfeld, as Freiburg is beginning to outgrow its water treatment capacities. To further address this issue, Vauban implements a policy that states that all flat roofs must be green roofs to further reduce run-off.

Mixed-use development (Fig. 20) is also an important aspect of the design and planning of each of these cohousing complexes, giving residents access to some of the more basic commercial necessities in close proximity to their homes. The settlements in Freiburg, however, seemed to integrate commercial spaces into the urban fabric more successfully and more commonly than at the Wagnis complexes.

Density and access to public transit and public services are also important aspects of the planning and design of these projects. All of these examples offer varying levels of density, which often correspond to the variety of housing typologies associated with differing income levels.
CONCLUSION

Choosing a more sustainable lifestyle within an intentional community does not necessarily require a sacrifice in quality of life, and in fact studies have shown that many measures of quality of life increase within these communities. Cohousing is perhaps the most sustainable model at this point in time, as it addresses social justice, reducing resource consumption, engendering creativity and collaboration, as well as building community in the design, planning and operation of the project. It is also the most versatile model, applicable to urban and rural settings, adaptive reuse or greenfield and brownfield development opportunities, and can be developed at almost any scale for residents of any social strata.

Ultimately, with the threats of resource scarcity, growing divides between socio-economic classes, more frequent and severe natural disasters, and global financial instability on the horizon, living in safe, viable communities that have a history of sharing and working together will become increasingly important. As designers and planners, we have an opportunity and an obligation to create innovative examples of alternative community models to serve as working models for future developments. For this reason, cohousing, as well as other forms of intentional community, should be of interest for investigation and investment by people who seek to create a better society - one neighborhood at a time.
NOTES


7. http://www.vauban.de/


11. Delleske, Andreas. Personal interview and tour of Vauban, Freiburg, Germany. 23 June 2010.


FIGURES

Fig. 01 Sustainable housing developments near Wagnis I

Fig. 02 Typical suburban neighborhood typology.
Source: http://farm1.static.flickr.com/125/361507066_3ec7faee14.jpg

Fig. 03 Solar settlement at Vauban

Fig. 04 Rhino squatter settlement in Vauban

Fig. 05 Communal rooftop terrace and coffeeshop/bakery at Wagnis III

Fig. 07 Communal market/performance space, Wagnis I

Fig. 08 Community gardens, Wagnis II

Fig. 09 Shared greenspace between buildings near Wagnis II

Fig. 10 Community garden plots at Wagnis III

Fig. 11 Balconies and shared greenspace at Wagnis I

Fig. 12 Wagnis II

Fig. 13 Shared greenspace between buildings in Wagnis III

Fig. 14 Photovoltaics and solar thermal collectors at Wagnis III

Fig. 15 Passive house complex at Vauban

Fig. 16 Solar Garage at Vauban

Fig. 17 Bioswale for storm water retention at Vauban

Fig. 18 Green roofs between Wagnis I and II

Fig. 19 Green roofs and balcony gardens at Vauban

Fig. 20 Variations in mixed-use topologies at Vauban
Fig. 21  Differing architectural styles at Vauban

Fig. 22  Private balcony detail at Wagnis III

Fig. 23  Multi-modal transportation avenue in Rieselfeld

Fig. 24  Residential complex built along public bioswale

Fig. 25  Entrance to underground parking garage and shared basement areas at Wagnis III

Fig. 26  Mixed-use building in Rieselfeld

Fig. 27  Shared community meeting space at Wagnis III

Fig. 28  View of town center in Rieselfeld from green roof on a school facility