

Ecological Housing in Helsinki: Case study of Viikki

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Background

Today, the urban designers and architects are confronted with new challenges. Among these, ecology, sustainability and cultural biases have produced important discourses for planning urban housing. They all promote designing the human abode without burdening the context where we build. These concepts seem to have taken for granted that they are ethically correct paths of action, yet without describing our vision of context of ecology. It is for following generations to judge whether we have used environmentalism as a new discursive means of justification of same-old design solutions. It is not so long ago a major Sunday newspaper reported of a Ceylinco sponsored 'Ecological Housing Project' in planning. The architects of this project are an Australian firm with M/S Design Consortium Ltd as the local consultants. The article also reported that all fittings in these houses would be imported, brutally violating one of the major principles of eco-thinking: that is use of local material and know-how. There are stories of importing cow-dung to floors of ecological houses in Colombo. As such, ecological design/ building solutions may be drifting towards another trend or a fashion. The idea of ecology seems to have been used to jack up the prices of mass-produced houses- in which ecology becoming a value-laden wrapping.

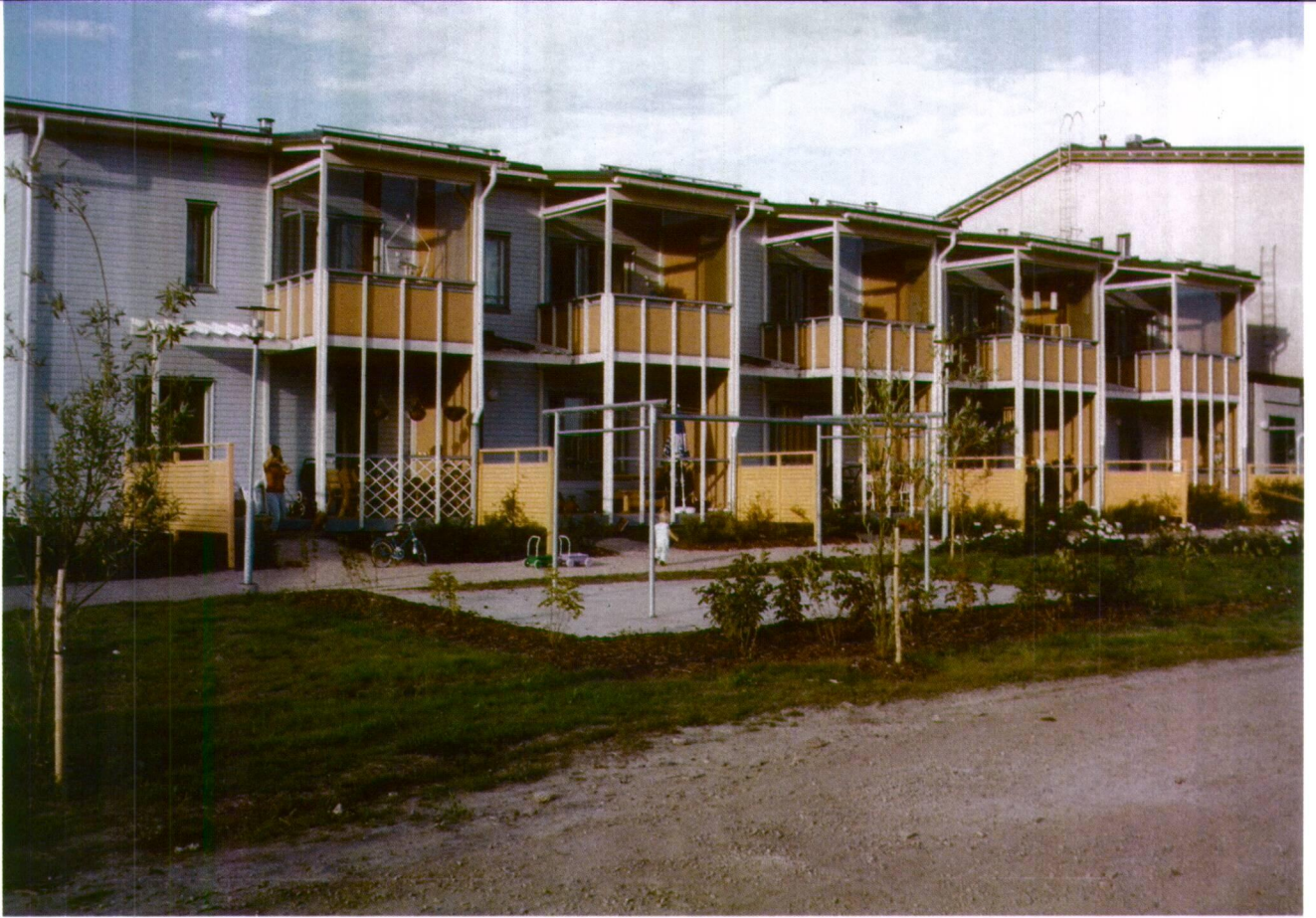
The concept of housing is necessarily ecological and sustainable, the only concern being the scale, size, composition, diversity and impact. Among the records

of most ecological living are the ancient villages such as Mahakirinda in the North Central Province.

In Finland, the City of Helsinki (Helsinki Municipal Council) is a major real estate dealer and a provider. The city accepted the challenge proposed by the idea of planning ecological housing in the context of a very high urbanization that threatened the peaceful image of Helsinki and the urban sprawl, and organised an urban design competition for an ecological housing project in the district called Viikki in 1995. This was a result of a research project, entitled Eco-community, carried out by the Ministry of Environment, and its aim to experiment the possibilities of developing urban design/ architectural forms. The winning entry of the competition is being constructed in stages while post-occupancy assessments of the constructed districts are being carried out in order to improve the following stages. The author of this article was one of the first families to move into the Ecological Village of Viikki and, a member of a team that conducted a post-occupancy evaluation. This article describes his experience of living in a new design/ architectural solution along with an account of his work on it.

Architectural Competition of Vikki

The urban district Viikki, located about ten kilometres north-east of the central business district, has been known for its nature reserve, conservation cum

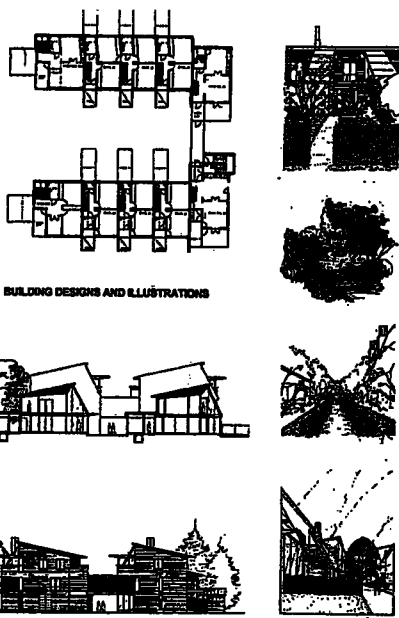


recreation area, and the Vikki campus- Faculty of Agriculture and Forestry of the University of Helsinki (see map 1). This urban district remained a rural setting lived mostly by the university students, who often are children of farmers. The 350 hectares of research fields and the experimental animal farm as well as the living pattern of these car-dependent future farmers dominated the surrounding of Vikki since the campus had moved in late sixties.

The university traded off part of their land with the city, which in turn would build essential facilities. The new Master Plan proposed in 1995 included the establishment of a science park, in which nearly 3000 new jobs would be created, and a housing district of 13000 inhabitants with 3000 more new jobs. Among these features, Ecological Village would be the most significant for its nature as an indicator of a possible future for urban housing planning. The extent of the competition site was about 24 hectares of agricultural land, and the demand was to design about 60,000-70,000 sq m of gross floor area, mostly residential. The specified ecological objectives given in the programme were, minimum use of energy and non-renewable resources, guaranteed biodiversity, innovative sewage and wastewater treatment, mixed land use and promotion of community feeling. Most interestingly, these fields have been harvested for centuries, and the new comers would pose a threat to the bay known as a nesting ground of migrant birds, and the city sewage plant is only 2 km away from the site. As a whole, the aforementioned specifications were broad and vague, and not necessarily project-specific. The competitors interpreted them differently and the jurors were faced with numerous challenges as a result.

The most uncontroversial fact that the ecological problems and prospects, in spite of their global nature, are place-specific- the state of nature, environmental risks, transportation, construction-costs, social/cultural make ups, was not honoured in the project. As they all contribute towards sustainability in different ways, there cannot be a common set of ecological problems and solution- a universal model- and no place shall be an ideal for experimentation. In short, all design problems/ solutions should be ecologically justified.

The programme argues that Viikki Housing deserves a 'green' outlook because its close vicinity to the nature conservation, biological science park, experiment farm managed by the Faculty of Agriculture, and the recreation area around the arboretum. However, from the structural point of view these create more challenges to new development with new inhabitants using the natural resources and energy, and producing waste. The programme conceded an inherent tension between green identity and the ecological/ sustainable development as the background objective in planning. The competitors were expected to accept the tensions created by the conflicting functions as challenges to overcome in their proposals. Among the structural problems were the close links to the natural bay, a well-known nesting ground of migrant birds, and being 10 km away from the city centre thus promoting a vicious need of car ownership. At the same time, Viikki's central role in the Eastern metropolitan area would not allow the Eco-village to develop into a self-sufficient community. The danger of becoming another satellite neighbourhood is looming.



direct access to nature". Yet, this master plan promotes building houses in rows, one behind the other. With the green corridors also separating the housing rows from each other, the social and humane aspects of ecological living, and the living diversity of an urban setting have been streamlined. As a result, the community spirit in the ecological village has been found lower.

The report further states that the ecological merits of this structure, such as protection from wind, possibility to use solar energy, composting household waste, and reusing rainwater and grey water, etc., however leaving out more crucial architectural and urban dimensions-architectural and urban orientation of ecology. The report does not comment on how this project may disturb the ground water movements or how the controlled wind could have helped energy management. The finger-plan has grown out of a nature-oriented ecological consciousness- and that consciousness with man as a visitor to nature rather than a dweller in a particular place. The proposal to face all houses to the South in order to get the maximum Sun on the front facades as well as the said oxy-generators force the dwellers to confine into their cells, depicting another 'rural' Scandinavian city. The finger-plan has more to do with environmental technology than with urban housing planning, as it forces divisions among the villagers.

Among the potentials of the plan is identifying different types of housing development, especially different types of housing construction, but the failure to control and guide these, or these guides being mere environmental-technological aspects, is turning Viikki into another IBA (Western Berlin)- an architectural circus.

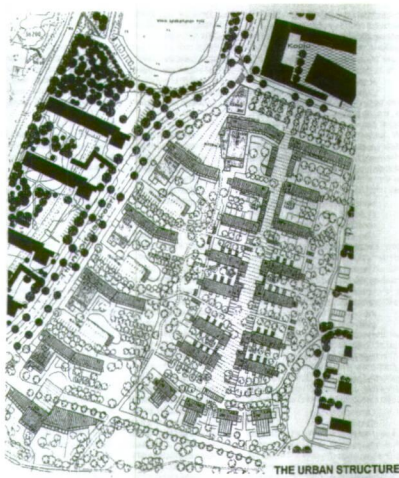
Living in Viikki

In Viikki, bordering nature had been active, penetrating into the human realm. Some residents (12%) had decided to move in to Viikki due to this close proximity to nature, and many (72%) use the nature as a recreation area. The Jury Reports states, "(T)he borderline between nature and restricted access street is sliding, the natural biotopes penetrates into the city and are step by step transformed into cultural biotopes". The green corridors, tamed-shrew name of the streets, are called fingers, which most of the dwellers found as 'safe' extensions of their living spaces. With their small children finding playmates in this courtyard-like space, residents also come to know each other. The closeness of the finger-plan to the neo-grid plan of 1970s and the Finnish wooden towns, where much of the Finnish urban way of life has evolved is also hailed by the jury report. Also, the finger-plan has the potentials to bring back the good-old town, in which people lived and worked. This small-town way of life, in which the Finns used to live comfortably, is reconstructed in Viikki that is one of the most cosmopolitan urban districts in Helsinki. Viikki has been attractive to young upper-middle class and middle class families, who do appreciate the idea of ecological

Winning Entry

The jury unanimously decided that the entry named 60° 15' pohjoist leveyttä (Latitude North 60° 15') as the winner. The Jury Report states that this place-specific named project as, "... profound, taking into account the special problems of the site, and developing its forms accordingly". The plan was a classical finger plan, in which densely built streets for both vehicles and buildings, and green corridors between every other row of houses thus composing a 'relaxed-if not lazy' character. The Jury Report finds, "... the structure is like that of lungs, the bio corridors would act like oxy-generators. The urban hierarchy is clear: from an urban internal distributor street one arrives to a small-scaled restricted access street, and then to an intimate court. The courts open via gardens into green fingers, with





planning as well as 'living off the nature'. The direct access to nature and engaging in agricultural activities during summer has been instrumental in building a strong community. These families wish to allow their children to grow with nature but their childhood culture of flat-life comes to dominate their socialising.

On the other hand, Viikki may show the inflexibility of 'traditional' planning interestingly enforced upon a very flexible concept of ecological housing. The invisible zoning that pushes people back into their modest houses does not encourage socialising. The most significant architectural element in these houses is a veranda. This is not necessarily used as a semi-public urban space but more a private space. The 'low' density is one of the areas many residents as well as planners feel as inappropriate. From the urban ecology point of view, the residents are placed too far away from each other. The row houses, standing behind each other like columns of soldiers, would not promote community spirit, but rather divide the community based on their housing row.

Different housing forms did however follow several lead types. Most common lead type is a two-storied row house- living/ dining/ kitchen being on the ground and bedrooms on the first floor. The mostly used construction material is wood. However, the architects have not furthered the ecological thinking in terms of surface treatments of the building, and above all the house form is just a 'modern' context-less one.

Concluding remarks

As anticipated by the competition organisers, the over crowding of the natural bay and recreation area has become inevitable. The car parks are not sufficient for the inhabitants. With their visitors also travelling by cars, Viikki looks like a car sale during the weekend. The close vicinity to the central sewage plant never allowed the Ecological village to develop its own innovative sewer and wastewater treatment. The use of local energy, especially solar power, has certainly become a cosmetic with the characterless buildings using solar power to market their products. As we know, these solar panels are among the most anti-ecological when they are disposed. The Ecological village did not respond to the structural problems of the evolving urban district. The social composition, that is highly diversified, is not addressed through planning of the housing areas.

The problems of the competition can be classified into three; first is the conflicts between the intentions of the planners and their actual ability to implement ecological solutions in plans, second is our assumption that ecology in the process could be used as a catalyst in selling the real estate, and third is our assumption that planning, implicitly and explicitly, may develop a defensive strategy in front of the ecological critique.

The concepts of Ecology and Sustainability shall discuss humane as well as cultural aspects: how a particular cultural or a sub-cultural group respond to the physical and socio-cultural setting. A true balance between emotions and intellect, proper use of exactly required resources in appropriate quantities, and minimum wastage are considered as the golden principles of ecological designs. In delivering these, we shall depend on local materials, skills, and technology, and in their absence, we shall instigate the development or improvement of those. Architects shall develop innovative solutions, in which the architectural form and language would not challenge the 'Genius Loci'- the composite spirit of the place. They shall carry forward the ecological label beyond the mere bio-centric definition ●