



Abstracts

W15- Housing and Urban Sustainability

Last update: 13 june 2007



www.enhr2007rotterdam.nl

The examination of the formation of a village in Turkey. Through past to present
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Most of the traditional houses have collapsed in the village of Alagöz in Bingöl which is in the Eastern Anatolia region, due to its location on the seismic zone. Type houses have been built within the project of 'Earthquake houses' by the state. As these kinds of houses have not been preferred by their residents due to the fact that they do not fit the cultural life, the state has taken the decision of demolition of the traditional houses and enforced this decision. People who started to live compulsorily in the 'Earthquake houses' have started to mention their complaints. The villagers even tried to complete their own houses which have partially collapsed and returned to live in those houses.

The houses in the region have been analyzed according to their periods, the opinions of the residents have been taken, the requests in this direction have been emphasized and the actions performed in the name of requirements have been discussed. The findings have been evaluated in order to preserve the continuity in the settlement and they have been finalized with the clues on what should be done. The reasons of the intensive migration from the rural regions to the cities should be resolved on site in the countries like Turkey. The study which aims to provide approaches that make up for the inadequacies of and support the people who are happy to live in their villages instead of completely new formations is the product of the cultural continuity.

Urban regeneration as a tool in achieving sustainable urban development of the historic urban quarters: Nicosia Walled City

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Urban areas are constantly changing and evolving as a result of external and internal dynamics: expanding, contracting or undergoing internal restructuring in response to economic, social and political pressures. In this context, the wholeness between the parts of the city can be achieved with the holistic planning decisions and effective urban governance strategies that can control and direct the overall development of the city.

Thus, in lack of holistic planning approach, changing demands of the market based economy, daily trends or political settings will decide for the future developments of cities, mostly resulted with uncontrolled and unsustainable development. Historic urban quarters are the ones, which directly affects from uncontrolled development.

In this paper, the concept of urban regeneration will be explored as a holistic approach and will be accepted as a tool in promoting the sustainable development of the historic, Walled City, Nicosia.

The walled city, with its historic, cultural and architectural importance, reflects the mixture of different cultures and is considered as a landmark of international heritage. In the paper, this architectural heritage is recognised as a cultural and economic asset to be integrated into the life of contemporary society. Therefore, it is important to explore and identify the existing framework of Walled City, for to improve and re-establish its future role by achieving its sustainable development within the contemporary Nicosia.

As a methodology, the existing framework of the Walled City will be exemplified with the selected case studies from several parts of the historic centre. Thus, it will be tried to provide an approach that will combine physical, socio-political and economical aspects of development into a common perspective, for promoting the sustainable development of the Walled City.

Tools for sustainable urban planning regarding the protection of ground water resources under fast growing urban areas

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In the developing countries urbanisation is growing rapidly since the last three decades. Especially in Asia, rapid economic growth led by modernisation and industrialisation in urban areas attracts rural population to migrate to urban centres. Mostly fast growing unstructured cities and mega cities are the consequence of these processes. The unplanned urban development is leading to uncontrolled land use. In the research area Yogyakarta City for example the residential and commercial areas are mixing. There is no main industrial complex in Yogyakarta City, but there are a lot of locations of domestic industries which are working with environmental hazardous substances threatening groundwater resources essential for the local water supply.

In order to avert the resulting danger to man and the environment the situation needs to be investigated and potential risks need to be evaluated, mapped and made available to decision makers in a risk information system.

The chosen approach describes a combination of approved methodologies for hazard assessment in groundwater protection where the main modules are:

- Classification of land use patterns in urban areas and correlation of specific hazardous substances
- Vulnerability mapping of groundwater resources using geological, meteorological and land use information
- Building up a database of water supply using local groundwater resources

New important information for danger prevention and urban planning can be derived through combining the results of the three modules 'land use classification, vulnerability assessment of groundwater aquifers and spatial water withdrawal information'. Hence, an interactive tool in a spatial information system can be developed and implemented. Such system offers a wide range of applications, comprising the assessment of hazards to groundwater resources and health risks through local groundwater withdrawal, land use planning and risk simulation.

Tasks of architecture for the environment: Awareness questioned

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The product of Architecture is the 'Built-environment's where human life, with all its assets, takes place. Beside the socio-cultural and economic factors, the fact that built-environments are located on specific sites with unique natural environmental factors necessitates that the architecture through which they are created meet human needs and serve the user requirements, while preserving respect to nature, without destroying it and ecology in the process.

Every culture has accomplished this through its vernacular architecture of which the examples are, still, bold enough to take lessons from, in spite of all the damage given to it for the sake of implying new type of architectures following the concerns brought by 'Global economy'.

Northern Cyprus is a piece of land where architectural practice is directed, mainly, to housing developments, as the response to the demand of the foreigners, mostly, and the local people belonging to high or higher middle -income groups.

Although it is a fact that the local economy has gained great impetus through housing construction, the effects that it imposes on to the ecology, natural resources, energy expenditures and rapid deterioration of the environment has also reached to a level that can not be ignored, anymore.

In this paper, these issues will be taken into consideration within the context of the recent housing developments built during, especially, the last five years due to the ongoing debateful socio-political environment and its consequences on the economy.

The aim of the paper is to discuss and question the architectural and building practice in Northern Cyprus as to the sustainability and energy-saving principles with special reference to design, building materials and construction techniques utilized in housing. Relevant elements in vernacular architecture of the country will be referred to through examples, with the aim of helping develop some selective modes to make future built-environments more sustainable.

Energy innovations in construction: Network effects and energy policy in Dutch constructions

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The European Directive on Energy Performance of Buildings (Directive 2002/91/EC, in short: EPBD) urges European member states to develop and introduce energy performance regulations for the building sector by the year 2009. Only few member states are experienced with energy performance policy. The Netherlands is the only member state where already a decade of experience exists with energy performance policy as the only way of showing compliance with energy regulations [1]. The Dutch experience therefore offers a good basis for exploration of learning effects of energy performance policy in practice.

Since the introduction of energy performance regulations in the Netherlands in 1996 a number of evaluation studies have been performed, covering several aspects of the functioning of energy performance policy in practice. Not only energy savings have been analyzed. Also secondary effects of energy performance policy, such as influences on costs, user behavior, design freedom, planning and comfort, have been subject of evaluation. Specific attention will be paid to studies that have evaluated the innovation effect of energy performance policy. Up to now an overview of existing evaluation studies and the lessons that can be learned from them is lacking.

In this paper we will present an overview of evaluation studies of experience with energy performance policy in the Netherlands. We will focus on studies performed in the Netherlands because of its unique experience with energy performance policy. We will describe a broad range of items that have been subject of study. The common findings will be classified in order to try to come to general lessons that have been learned and possible improvements to energy performance policy.

5 Architects, 5 houses: The concept of sustainability in housing design

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The relation between man and natural environment became under focus in the last millennium. This millennium entails effective use of resources and transferring them to our future not with ordinary, static and conventional systems but with environmental-friendly, inventive, dynamic, productive and intelligent systems. In architecture environmental thinking and sustainable design become important concepts and the role of architect in contribution to sustainable world puts into discussion.

Turkey, as a developing county, experiences a dynamic process in which amount of housing construction has a striking increase. Aim of this research is to focus on five Turkish architects and their housing projects to illuminate their approach for evaluating the concept of sustainability in their design and practice.

The research is carried out with the intention of defining answers for two major questions:

1. How do these architects evaluate sustainability as design criteria? Talking about concepts, ideas, discourses, etc.
2. How do these architects reflect these ideas into design? Talking about reflection of these ideas into built form in terms of technology, material, detail, etc.

In this study these research questions are investigated by the help of interviews with these architects and the findings are comparatively evaluated. We believe that their discourses and design strategies will bring new perspectives in housing issues and open new horizons to future housing projects in Turkey.

Analysing the spatial and market ambiguities of densification in activity centres: Case study South East Queensland

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Heralded as the third largest conurbation in Australia and the fastest growing metro-regional area, South East Queensland (SEQ) faces a challenging future as it seeks to deliver both a sustainable urban form and network of sustainable communities.

The recently released Regional Plan for SEQ makes significant reference to the delivery of higher densities as a means to accommodate the future expansion of the region. A number of statutory strategic directions are presented which demand new planning and development responses. Principal among these directions are the focus on transit oriented development and activity centres. An additional requirement that some 40%-50% of future residential development across the region will occur on infill sites within the newly identified urban footprint, poses a significant challenge to planning and development action.

However, there is a lack of history, limited practice and a paucity of research in the SEQ context to support and endorse the use and application of density tools. This poses a significant problem for the delivery of the metro-regional planning exercise, for local authorities establishing newly prescribed local growth management strategies, for the development industry diversifying market product and for the existing communities in targeted growth localities.

A range of spatial and market ambiguities remain and demand detailed analysis, including:

- Is there spare physical (land and infrastructure) capacity?
- Is there a viable market for the range of new housing products?
- What spatial governance modifications are necessary beyond the broad strategic directions of the metro-regional exercise?

This paper begins to answer these questions. Drawing upon an empirical analysis of three transit based activity centres in Brisbane, the paper addresses the governance and market difficulties of delivering greater housing densities in existing locations. A range of recommendations are made which challenge both the existing and future spatial governance frameworks and market product delivery.

An economic and environmental comparison of standard versus energy efficient homes in Toronto, Canada

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Three designs for a detached single-family dwelling are examined for use in a southern Ontario, Canada, climate: the first meets standard building code requirements; the second meets the R2000 standards for energy efficiency, which requires homes to be 30% more efficient than the building code requires; the third is approximately 30% more efficient than the R2000 standard.

Analyses are done to calculate lifetime economic costs under a variety of market scenarios. In addition to this, a Life Cycle Assessment (LCA) is carried out on all three houses to determine lifetime environmental impacts. The LCA and economic analysis show that by building more efficient homes lifetime environmental and economic impacts can be minimized.

Building in sustainability in developing mixed income communities: An examination of three mixed income developments in England and Scotland

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A current housing policy aim of the UK government is to develop sustainable mixed income communities, in order to help to achieve the aim that, 'by 2021 no-one should be seriously disadvantaged by where they live' (Social Exclusion Unit, 2001, p3), but also to increase social cohesion (Tunstall & Fenton, 2006). The desire to break-up areas of deprivation has its origins in the Hope VI projects in the United States (Berube, 2005) and the inclusion of wider issues than housing in these developments flows, in part, from that experience. In Britain, mixed income communities are generally defined by tenure rather than income and comprise market housing for sale alongside affordable housing. The effort to 'build in' sustainability is a notable feature of some recent mixed income developments, both in relation to environmental sustainability and developing communities that sustain into the long term.

Using research carried out for the Joseph Rowntree Foundation on creating and sustaining mixed income communities (Bailey et al, 2006, 2007), the paper explores three examples of recent mixed income developments in England and Scotland in order to identify aspects of these developments that are intended to contribute to sustainability. The three developments examined are Ardler in Scotland, Upton in Northampton, England and Kings Hill in Kent, England. These developments provide interesting contrasts in relation to regeneration, housing markets, design and good practice. This paper examines the assumptions in recent policy guidance and research in the UK about factors that contribute to sustainability in building mixed income developments and compares these to the experience of three recently completed mixed income developments. The paper concludes with some interim findings on the likelihood of sustainability in each case, and examines barriers to sustainability.

Greening housing in Australia: A question of institutional capacity

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A program of regulating for higher environmental standards for new housing has gathered pace since 2004. These prescribe minimum standards for heating and cooling loads and also provide for a menu of options for energy and water efficiency. Originally implemented in Victoria these so called 5* regulations were incorporated into the nationwide Building Code of Australia in 2006. This paper will present an account of the development these standards which involved both processes of collaboration and resistance. It then presents an analysis of the capacity of both government agencies and the building and materials industries to support the effective implementation and observance of environmental regulation. This analysis will be informed by comparisons parallel process of environmental regulatory change in UK. This issue of institutional capacity is of particular importance given that more far reaching environmental regulation of the housing sector is necessary if we meet environmental challenges of the 21st century. The paper will offer initial suggestions about how key actor groups can plan for developing additional institutional capacity in this area.

Un-sustainable urban growth and housing developments: Case of Kyrenia, North Cyprus

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Economic pressures in rapidly developing tourism-based economies like Cyprus are associated with a tendency for maximum utilisation of land and physical resources, not

necessarily compatible with long-term environmental and social objectives and the cohesion of existing settlements and historic city centers.

Suburbanisation on the island of Cyprus in the eastern Mediterranean, which is an overwhelming pattern of urban growth in almost all urban areas, takes the form of rapid population and urban development sprawl in the suburbs located at the edge of the city boundaries. This type of urban growth is not matched by social and environmental improvements, it imposes environmental impacts and leads to degradation of resources instead, due to the inadequacy of management and planning strategies and institutional capacities. As a result, the dynamic process of urban growth becomes un-sustainable.

Kyrenia, a small coastal town on the island, one of the attractive tourism destinations in the Mediterranean basin, which will be focused on in this paper, is faced with the fastest urbanization in North Cyprus. Additionally, the town attracts the citizens of the country with regard to second or weekend homes, which also puts a pressure for development throughout the entire coastal area of the town.

This paper intends to put forward the urban sprawl that the town of Kyrenia faces with along its coastal line and to discuss the reasons behind this unhealthy and un-sustainable development. Accordingly, the paper aims to highlight the weaknesses and threats that the housing developments present as a part of urban sprawl in the town. The paper will first review and analyse past research on the definitions of urban form, compactness versus sprawl. Then, through a series of analyses, the present situation of the case study will be presented with special reference to housing areas.

Ecosystems, society and economy in urban areas: A search for a common framework

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What is sustainability? The concept of sustainability may be approached from very different points of view. Ecological sustainability relates to the environmental impact of activities on ecosystems. Social sustainability deals with issues like liveability, equity and social inclusion. Economical sustainability is about maintaining economic capital. Although integration of these three aspects is often referred to as being of great importance, and was the subject of the Brundtland report 'Our Common Future' in 1987 and the following UN Agenda 21 in 1992, there is still very little integration of these three aspects yet. Research in each of these three disciplines still proceeds within its own specific framework. However, new models are emerging from ecosystem theories and from social ecology. In these models the same structure and the same language is used to describe sociological, ecological and economical structures and functions. The concept of sustainability is split up in sharper defined terms as resilience, which is the capacity of a system to absorb shocks without losing its identity; adaptability, which is the capacity of a system to react to external changes and finally transformability, which is the capacity of a system to create a new system when the existing one cannot be sustained. These models are used to study the interrelationships between several scale levels within a system (from macro to micro) and to study the relationships between several systems as well. However, these models are still in their infancy and have never been used to analyse the sustainability of the built environment. In this paper, an attempt is made to give more insights into the suitability of these models to integrate ecological, social and economic sustainability of urban areas.

Environmental impacts of renovation activities

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The Dutch building stock amounted to more than 6.6 million dwellings in 2001. The number of new-built dwellings in that year was less than 58.000, which is less than 1 percent. Improving

the environmental quality of the housing stock is therefore essential to lower the total environmental burden of buildings. The most widely applied way to increase this environmental quality is to take insulation measures or to replace low efficiency dwelling services systems like heating, by high efficiency ones. However, these measures consume material and energy too. For instance, insulation material is needed to insulate a dwelling. This insulation material must be manufactured, which also causes an environmental burden. This initial environmental burden may be recovered by a lower energy use for heating purposes than before insulation. This paper proposes an analysis of the environmental efficiency of several renovation activities, taking into account the initial burden as well as the reduced energy use during the service life of the dwelling. The results of this analysis are expressed in terms of environmental impacts rather than in energy or material use. This is because energy or material use is not an environmental burden in itself, but causes impacts like depletion of resources, greenhouse effect, smog, ozone depletion, human toxicity or ecotoxicity. The results are given in terms of environmental pay-back time, which is the time necessary to recover the initial environmental burden of the applied measure. The paper shows great differences between several measures and between the different environmental effects.

Visualizing energy in households: The Power Aware Cord as a means to create energy awareness

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In order to support increased consumer awareness regarding energy consumption, new ways of representing and interacting with energy in electric products intended for domestic environments are being developed. In this user study, a fully functional prototype of one such product, i.e. the Power Aware Cord, has been tested in six households. The study has been performed during a period of three months, and two in-depth studies in combination with the writing of time-diaries have been performed. The intention of this paper is to answer the twofold question of if and how the Power Aware Cord can be used to increase energy awareness in households. A modified version of 'The moral economy of the household' by Silverstone et. al., is used as an analytical tool in order to understand the domestication of technology, i.e., the Power Aware Cord, as a way of structuring the empirical material.

The study shows that the Power-Aware Cord is an accessible and intuitive mean for better understanding energy consumption. However, its effects are not consistent if the method is not combined with other energy-visualizing methods. The potential for combining the method with for example energy guidance, information campaigns and other Ambient Information Displays of electrical equipment, the effects of human behaviour in connection to it, as well as visualizing the heating and/of electrical system itself is encouraging. The combination of these methods need to be investigated further. The learning potential of the Power Aware Cord has been shown to be good and its possibilities of becoming a successful product on the household market is high. This is, however, mainly due to its design and that it is perceived as being something more than a common electrical power strip. Future studies should include further development of the mapping between load and visual pattern.

Does size matter? The struggle for sustainable density in recent student housing in Melbourne

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Australian cities are experiencing a rapid growth in inner-city, high-density apartment building. The principle driver has been structural changes to the higher education system designed to increase the number of full-fee paying international students attending Australian institutions. The scale of the increase in overseas students has been dramatic; from a few thousand in the

early 1990s to over 330,000 in 2006. The students form a cohort that has had a substantial impact on the Australian cities where they live. The demand from this new market for accommodation that is affordable and close to university campuses has precipitated the flurry of high-density apartment construction.

Some trends in the morphology of the new dwelling stock have emerged. This paper examines the shift from a two-bedroom apartment model, based on existing precedents, to an student-specific model typically less than 20m² in area. This implies a substantial increase in the dwelling densities attainable. Six apartment projects are examined, with the developers, builders, architects and property managers concerned interviewed to determine the economic motivations and restrictions that have affected the final built outcomes. Of particular interest is the emerging role of property management companies in determining the physical parameters of the new built stock.

The questions arising from the study concern the impact of density over other factors. By what parameters can an appropriate density be defined? By the number of dwellings per hectare or the rate of return on investment? When specific developments are considered, the desire for density and environmental amenity are often in conflict. At what density should established environmental design conventions of natural light, ventilation and privacy be abandoned? The paper will show that, despite complying with existing local government regulations and being market effective, Melbourne's housing suppliers are still struggling with the Faustian choices associated with density and quality.

The significance of indoor air emissions in life cycle assessment of dwellings

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Life cycle assessment (LCA) is a commonly used tool to assess the environmental performance of buildings. In LCA, the dwelling is assessed from cradle to grave: several environmental aspects of the winning of raw materials, the production of building materials, the use phase and the waste treatment are assessed. Current LCA tools, however, do not address the indoor environment, but have a main focus on the environmental effects of the production and waste treatment of building materials and of energy consumption in the use phase. In a recent study, a methodology was developed to include the damage to human health due to emissions from building materials to the indoor air in building LCAs. This damage can be compared with the damage to human health associated with the construction and demolition phase of the building, including the production of the building materials. It was shown that for the Dutch reference single-family row house, these health damages have the same order of magnitude. Indoor exposure to pollutants emitted by building materials should thus be included in the life cycle assessment of dwellings in order to make the assessment better reflect full impact of the life cycle. The consequences of these findings for the environmental modelling of houses based on life cycle assessment will be discussed.

Towards sustainable urban growth in Famagusta

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In the city of Famagusta, Northern Cyprus, the dynamics of urban growth and development is characterised by incoherent, haphazard and scattered growth with lots of derelict and unused leftover interstitial spaces. This is due to the absence of a working master plan for the city and the improper land use practices that follow from it. In this context, the growth towards the University and the suburban pull (sprawl) beyond it is gaining momentum, and the historic core of the city suffers from social and economic problems. If this trend continues unabated, what will ensue is the hollowing-out of the city both physically and socially. Moreover, land is a finite

resource for an island nation like Cyprus and thus Famagusta cannot afford to allow the incessant encroachment upon its green field agricultural land.

Carrying out research and analysis in the newly developed quarters of Famagusta and examining the current development practices, this paper aims to highlight sustainable ways in which the city should be allowed to expand and develop and to bracket ways in which the theories advanced can be implemented in the city. This entails the redesign and development of the unused and derelict interstitial spaces according to smart growth theories and principles that are the antitheses to a negative urban growth. However, although the principles of smart growth are germane to a sustainable urban growth, these must be followed by enough political support, delivery of development projects that is led by design professionals who attest to the suitability of individual projects according to a set of guidelines and public-private partnership. This paper could be considered a basis for the authors' relatively new research project 'Measuring the Quality of Urban Life in Famagusta' funded by the Scientific and Technical Research Council of Turkey (TUBITAK).

Assesing the level of sustainability in housing environments: A theoretical approach
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The sustainability of housing environments has three inter-related dimensions - environmental, social- cultural and economic. The primary concern of sustainable housing is to meet the accommodation needs of the citizens; the concerned housing environment has to be safeguarded from deteriorating to an extent that it diminishes the ability of future generations to meet their housing needs. Further, sustainable housing should not be merely about meeting basic needs, but should also improve livability.

While designing sustainable housing environments, in order to provide the existing housing areas a healthy and sustainable future, there is need to measure and assess the level of sustainability in those areas so that future planning decisions ' such as maintenance, refurbishment, revitalization etc. can be taken accordingly.

The main aim of this paper is to propose a model for measuring and assessing the level of sustainability of housing environments, based on a range of indicators. With this aim in mind, the paper will be composed of three main parts. In the first part, the relationship between sustainability and housing will be presented based on past research and a theoretical framework will be put forward for sustainable housing. In the second part, sustainability indicators will be discussed thoroughly within the context of state, impact and responds indicators, concentrating on their development and selection processes. Finally in the third part, the model for measuring and assessing the level of sustainability in housing environments will be presented. It is believed that this model will be used as a tool in decision-making process for the future development of housing environments.

The 'green' technology-lifestyle change dialectic. On the possibility of an ecologically rational growth

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An essential feature of the contemporary Western environmental planning discourse is the belief that it is possible to endorse both economic growth and environmental protection, simultaneously. This paper represents a critical stance as for that belief. Drawing on earlier neo-Marxist conceptions of the 'societal-environmental dialectic', I try to show that apparently sustainable development is not likely to be a matter of simultaneously pursuing both economic growth and environmental protection. To attain a genuinely sustainable development, one has to realise that growth and 'ecological rationality' are two contradicting features of reality; sustainable development can never be an uncomplicated win-win situation. That is: economic

rationality and ecological rationality is not the same thing. If they were, the eco-modernist idea of ecological rationality 'catching up with' the hitherto dominant economic rationality would just be a mere tautology.

By using some empirical examples ' especially from the field of energy savings in dwellings ' I try to depict the 'societal-environmental dialectic' in a palpable manner. These examples end up in something of a conclusion: the formulation of a "green' technology-lifestyle change dialectic' ' a more empirical and down-to-earth equivalent to the genuinely macro-theoretical 'societal-environmental dialectic'. It is my conviction that these dialectical conflicts stem from an even more general and logical contradiction between economic rationality and ecological rationality.

Finally, an empirical study with the purpose of (sort of) verifying these mainly theoretical arguments is outlined.

Study of the dwelling environment formation process in historical urban areas of Tokyo
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This study is an empirical research of alley spaces to understand a form of dwelling environment of historical urban areas in Tokyo.

Tokyo, the capital of Japan, was formed in the Edo period, and has 400 years history. It has changed its urban structure in the history. With the recent development, social change has diversified and broadened in scope. In addition, as a sphere of action increases, so too does specialization within it, and relationship between individuals and groups where the efficiency of centralization and networks is preferential to deal with the broadening area, there are excessively large gaps and mutually isolated individuals.

This study focuses on the alley spaces in the historical urban areas, where inherits the shared space as a living environment, and considers nature of historical urban areas. By understanding of transformation of spatial structure, it aims at the development of planning methodology of dwelling environment. It showed general relationship between spatial structure and inhabitants' consciousness by analysis of latent factors which strongly affects inhabitants' consciousness and living activities, and spatial structure where the clarified inhabitants are living in. A typifying based on the mode of living of residents in traditional urban areas was performed. On the basis of the result of the questionnaire and analysis, the relationship between configuration of alley space in the subject areas for investigation and living and consciousness of residents were able to be grasped and the structure of the residents was made clear from the type of mode of living of the residents.

It is carried out for sustainable urban planning to derive a universal principle of the formation process of the city from this study. For the sustainability, it is needed to understand the factors of the formation of the city and pass the history onto the next generation.

Community development for sustainable urban regeneration: Reflections on Zeytinburnu Ottoman Neighborhood Case

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Practicing sustainable urban regeneration is a complex and challenging task. Most important factors effecting urban regeneration practice in Turkey are necessity towards modernisation and coordination of local government, effective evidence based national policy, and institutional capacity in order to provide a participative urban regeneration approach. On the other hand a vital challenge in public participation practice within urban regeneration is that community development process is not integrated with regeneration practices. This paper's emphasis on

official discourse constructs a top-down view of the regeneration process and handles the institution and community roles in an integrated approach which is here reflected through Zeytinburnu Ottoman Neighborhood Case.

Through Ottoman Neighborhood case this paper looks at the experience of the 2000s in order to contribute to the discussion of how to face the more recent challenges of the changing Europe. Having a look at Turkey, these components can be examined within milestones of Zeytinburnu Ottoman Neighborhood Urban Regeneration Project (OnURP) as a part of Cultural Valley Project, and Matra REGIMA Project as a supporting set of training activities for community development.

The main aim of the paper is to illustrate an innovative way to help establish the most conducive conditions for stimulating or 'kick-starting' the sustainable regeneration process. To achieve this aim, first part of this paper examines the changing nature of 'urban regeneration' and 'Community Development', second part focuses on the thematic analysis for Ottoman Neighborhood, third part evaluates the vision workshop as the initial stage of community development programme, and reflections on sustainable urban regeneration.

Achievements of this paper present a potential for improvement of sustainable urban regeneration and community development issues and thus, attract attention of policy makers, practitioners and communities regarding the integration of community development principles into sustainable urban regeneration process.

Tourism and sustainable development: Two opposite trends?

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In 1993 Minorca was declared a Biosphere Reserve under the UNESCO's MAB (Man and the Biosphere) programme. The island was regarded as a local economy towards sustainability. Certainly, the path towards a sustainable model is absolutely dependant on tourism as the phenomenon, together with the exploitation of natural resources, has determined the economic development of the island in the past. The competitive strategy adopted by the Island Territorial Plan (2003) was based on the preservation of a high environmental quality. Theoretically, market forces of the sector should contribute to the social desirable option of sustainable tourism. However, given the fact that current trends of leisure consumption patterns support the proliferation of second/holiday homes and change of uses of existing dwellings -from residential to part time occupation-, certain contradictions in Minorca's development for the above modalities might be not excessively 'sustainable'.

Therefore, is the current situation the result of a deliberated policy or has it been decisively influenced by exogenous elements such as the change in patterns of leisure consumption? This paper aims at exploring the main determinants to the current preservation of natural resources in Minorca. In particular, we will examine the role played by public authorities throughout the elaboration of territorial plans. The side-effects of these planning instruments will be analysed as well.

Purchasing a house - Is there a place for environmental arguments?

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In this paper we discuss the transition to sustainable housing in the Netherlands from an everyday life consumption perspective. We analyse the greening of the social practice of purchasing existing houses. For this we draw upon the Social Practices Approach (SPA) in which the social practice is a set of common activities of buyers or occupants that take place in interaction with and responding to the system of provision, consisting of a network of house-sellers, real estate agents, mortgaging companies, and insurance companies. SPA takes into

consideration the fact that occupants (buyers) are a heterogeneous group involving different lifestyles. We analyse the purchase practices in interaction with and responding to social-technical environmental innovations, like green residential areas or 'green' heating installations, as provided by the system of provision. We investigate the ways in which Dutch occupants assess and evaluate these green innovations and the way they are provided to them in relation to their lifestyle and their practices. For this we focus on the space where the providers and the buyers meet: the consumption junction. In the practice of buying an existing home we selected the interface between real estate agents and buyers as consumption junction. In this paper we will present the results of the focus group of real estate agents providing existing homes and (as far available at that time) the results of reflection on the provision of environmental innovations in the focus groups of buyers. Preliminary results from the real estate focus group show that in current practices of selling existing homes relevant environmental information oriented at the buyers of homes is lacking and suggest that information innovations like the energy performance label (EPBD) can break down several of the current barriers for greening the buying practices.

The organic growth of ideas: Time building in housing communities in the Northern Netherlands

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In the 1970's, Dutch artist Louis Le Roy undertook projects in Friesland to create landscapes for, and by, residents in housing developments. Le Roy utilized a methodology that is now described as 'Time Building'. The method involves using recycled building materials to encourage natural regeneration of plants and the creation of habitat for fauna, which is built over time, improvised rather than designed. Two of these housing projects remain, both of which had been left for nearly 20 years: one on the outskirts of Groningen which has degraded somewhat, and another, the Kennedylaan in Heerenveen, which has been recently renovated and reactivated. Since these two earlier projects, Le Roy has created a more refined experiment with this method on his own property at Mildam, which he calls an 'Ecocathedral', and from this a community group the, 'Stichting Tijn', has arisen that seeks to document and learn from his methods for use more widely. Le Roy's ideas, as represented in these environmental 'Time Building' projects are now being considered in relation to other diverse issues such as computer technology, community development and even business. The project also provides a real model for how sustainability can be truly engaged in a community context. This paper will consider how what was fundamentally a community development art project can expand to engage these other issues, when so much so called 'participatory design' has failed through lack of community interest. It will do this by examining the two projects in Heerenveen and Groningen in the context of the 'Time Building' methods to ascertain what it is in these methods that has allowed this expansion, as well as why one of the housing related projects has survived intact while the other has degraded, considering the same model was used in both places.

Attitudes and behaviour of German homebuyers towards aspects of sustainable housing

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The issue of high resource consumption by new housing developments is usually researched using life-cycle analysis or indicator-based measurement. These approaches are mainly concerned with integrating cutting-edge technical, architectural or planning solutions in

sustainable new town planning projects and to assess the impacts of these objectives on the neighbourhood or city. This study, in contrast, pursues the question how concepts of sustainability can be included in actual land use planning, taking into account that a master plans' objectives need to address the preferences of private house owners, who are the principal investors into new housing developments.

It is argued, that information about the least and most preferred aspects of sustainable housing could be used to generate an idea about the most preferred or 'optimum' housing types and neighborhood planning that would at the same time limit resource input.

A behavioural approach investigated the decision making process of private building owners. The individual decisions of private building owners are strongly characterised by trade-off aspects. Hence, based on random utility theory, a discrete choice experiment was used to model the preferences of private home owners on aspects of sustainable housing on the neighbourhood scale. To reduce the complexity of the questionnaire, the models were presented as 3D-film animations to the interviewees. Also, a decision support system was developed.

In this study we identified high approval for sustainable aspects of new town planning, even for segments with low environmental awareness. Therefore we conclude that currently there is a lack of supply of sustainable housing and that the market place still has room to exploit the overlap between sustainability and the choice of housing investment made by private home owners.

Mixed Communities - How does tenure alter the picture?

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The notion of mixed communities has a long history but recently is political currency has risen with the renewed interest in ideas of society, community and neighbourhood. With planning and housing policies focussed on delivering 'sustainable communities', mix is presented as the glue with which to secure the relevant components. In the UK, tenure mix is the main planning tool adopted in achieving these outcomes. The assumption is that tenure is a sufficient proxy for both social and income mix. Using evidence from 5 new housing estates in England this paper explores the potential and limitations of using mixed tenure as a means of delivering mixed and sustainable communities. It outlines the background to the policy of tenure mix. It analyses the evidence of house prices, interviews with developers, residents and housing managers and the results of a social survey to understand the type of community that is created. The paper argues that by using such a blunt tool focussed on quantitative elements, the qualitative turn required to deliver more sustainable communities is not taken and that continued implementation of this strategy may be counter productive.

Sustainable urban areas. Residential quality and the implications of densification

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Concentration and building of new housing areas in the centre of the cities has been a political formulated strategy for more than 10 years as a way to stop urban sprawl and develop sustainable urban areas. In this paper we are asking: What are the consequences of this policy for housing qualities; such as outdoor areas, sun exposure and daylight qualities? NIBR has studied several new 'fill in' housing projects in Oslo and Stavanger, and it turned out that the most contested discussions between the developers and the planning authorities comprehend the total amount square meters the developers were allowed to build versus the need for outdoor areas. It also turned out that planning policy documents actually lacked any significant impact on these discussions. In 8 out of 9 cases the municipality allowed projects that contradict adopted policy guidelines. Densification has a range of pros and cons. This paper

presents findings from this study and discusses the need for a thorough evaluation of urban densification strategies.

Emerging forms of sustainable urban housing

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The idea of sustainable urban housing is examined in this paper in more than the environmental and ecological aspects, to highlight the emergent forms of urbanism based on new paradigms that inform on the shape of cities to come. The built experiments discussed embody complex topics of design, dwelling, community in space, building technologies, environmental strategies, as well as models of affordability, but at the same time, explore new trajectories in the development of sustainable urban housing. This study is an inter-disciplinary collaboration, which discusses possible new forms of urban housing in the 21st century, based on the following case studies:

Case Study 1: Vauban describes the guiding principles and their implementation in the planning and design of a new major development of a sustainable city district: a 38-hectare former barracks site near the town center of Freiburg, Germany that was purchased by the city in 1994 with the goal to convert it into a flagship environmental and social project. Vauban comprises 2,000 homes to house 5,000 people, as well as business units to provide about 500-600 jobs. The project is currently nearing completion and is widely seen as one of the most positive examples in Europe of environmental thinking in relation to urban design.

Case Study 2: The Solar City in Linz-Pichling, Austria currently comprises about 1,300 homes and 3,000 inhabitants on 32 hectares of land. Solar City was designed as a flagship development for renewable energies in urban design and includes projects by architects like Norman Foster, Richard Rogers and Thomas Herzog. Construction time of the nucleus of the solar city took place from 1999 to 2005. It eventually will grow to 25,000 inhabitants and become the largest sustainable town planning example in Europe.

Urban cottages rural homes? Changing home cultures: Challenges towards sustainable development

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During the last years, there has in Norway been a significant increase in the number of second homes as well as in their size and standard. This is also the case in many other European countries. Second homes have several benefits on both a societal and an individual level. On the other hand there are negative environmental consequences of this phenomenon that must be dealt with: Increased transport and demand of energy and material resources, effects on the ecological equilibrium of recreational areas as well as on visual and historical values of cultural and natural landscapes.

The paper will argue that the growth in second homes must be seen as part of changes within the home culture as a whole. Literature states that second homes is strongly related to urban life and that one of the driving forces is the wish to escape temporarily from a stressful everyday life in the city. Contemporary understandings of home involve dwelling through multiple places. Home is not so much about belonging and investing oneself in one place but rather about connecting to different arenas with complementing meanings and practices. Second and primary homes must thus be understood in relation to each other.

Rethinking strategies and policies towards more sustainable regions and urban areas must therefore be based on a comprehensive understanding of socio-cultural shifts in home cultures as well as of the recent physical transformations of urban living environments. The paper aims to outline important questions for integrated research within this topic.

Compromise, failure or necessity - Analysing the brownfield development of Hammarby Sjöstad, Stockholm, as negotiated sustainability processes in governance networks

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It is often assumed that at least the environmental aspect of sustainability can be defined in definite, quantitative terms. However, we argue that sustainability is such a complex notion that already in its environmental dimension there are potential conflicts between different objectives as well as between long and short-term ambitions. When all three 'pillars' of sustainability are to be integrated, things become even more complex. In previous research on the environmental management of Stockholm's large brownfield development Hammarby Sjöstad, the concept of Situations of Opportunity was developed. That concept focused analysis on those shorter periods of the process when the City's Project Team could powerfully contribute to the realization of the project's environmental objectives. In this paper, we take analysis further in two ways: We apply theory on governance networks to arrive at a deeper understanding of the negotiations between the Team and the developers, contractors, consultants and other stakeholders. Furthermore, we use the concept of 'negotiated sustainability' to analyse the epistemological disagreement on how the Sjöstad development's environmental objectives were interpreted during the negotiations taking place in the Team's Situations of Opportunity. Through this analysis we find, that the more the negotiations were burdened with rules, the smaller was the imprint of the environmental objectives on their factual outcome; and this in spite of the stakeholders' not adhering strictly to the routines and rules of the Situation. In other words, the rule-regulated Situations resulted in a less ambitious level of negotiated sustainability. We also conclude that the application of governance networks theory produced a deeper understanding of the negotiation process. Finally we argue that the concept of 'negotiated sustainability' was useful, and that it should benefit from further development through using it for the analysis of other processes of environmental management where several stakeholders are involved.

How do we deal with 'Environmental inequalities' in urban areas?

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The paper looks at environmental inequalities as one of the complex issues faced by public authorities to achieve sustainable development in urban areas. It examines the conceptual background underpinning these inequalities before analysing how this issue is raised and addressed in urban policies of five European countries.

At the origin of the 'environmental inequalities' concept is the 'environmental justice movement' that emerged in the United States in the 1970's. It is based on a conception of the environment developed by British and American philosophers in the 17th century considering the environment as fragile and unpredictable. On continental Europe, where Greek-roman philosophical heritage prevailed, environment was considered as a sum of mathematics and physics laws for much longer. The consequence of these diverse philosophical influences is that concepts underpinning environmental inequalities such as public action, citizenship and inequality have different meanings according to the countries.

Unsurprisingly, the analysis of environmental inequalities in urban policies reveals various approaches and ways of addressing these inequalities. Environmental inequalities are linked with the ideas of justice and health in the United Kingdom, with those of environment and the city in Germany. In those countries, but not in France or Spain, these inequalities are mainly addressed by national programmes.

Furthermore, the analysis highlights diverse obstacles faced by public authorities to address this issue. In France, local authorities lack of financial support from the government. In Spain and Italy, the main obstacle is institutional with a weak coordination between authorities in

charge of planning and those in charge of sustainable development in urban areas. Nevertheless local authorities develop innovative ways to overcome these difficulties. The paper concludes that the difficulty to identify and address environmental inequalities reveals a need to rethink public action at local level and the politico-institutional framework in the light of sustainable development.

Sustainable regeneration, sustainable communities or both? Assessing the impact of housing renewal on community sustainability - A theoretical model

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A growing number of regeneration initiatives are being planned with principles of sustainable development in mind. These initiatives are usually innovative projects that exhibit the latest thinking in terms of built-form and sustainable technologies. There is also a belief, mainly among policy makers, that 'applying' principles of sustainable regeneration will help a community to become sustainable. But how could one assess the impact of urban regeneration on community sustainability? More precisely, how could one show that a community in a regeneration area moves towards or away from sustainability? This paper tries to answer these questions in two stages.

First, the paper looks at community sustainability from a regeneration perspective and brings forward theoretical issues surrounding 'community sustainability' as well as measurement questions. Furthermore, it acknowledges that a multidimensional framework is appropriate for assessing community sustainability. Such an observation immediately raises the question, which dimensions?

Second, the paper addresses the issue of which dimensions are important to assess. Drawing on Sen's approach, it argues that there is no uniquely correct answer in trying to capture complex concepts 'and 'community sustainability' is such a concept ' and a normative process of selection influenced by the context and purpose of examination is equally valid as long as it is transparent, well-informed and democratic. Therefore, a conceptual and analytical framework is proposed by applying a three-tier selection process to a range of dimensions. The resulting framework, made of five aggregate dimensions, aims to make possible the comparison of different regeneration experiences in terms of community sustainability and reveal particular realities of various communities undergoing regeneration. Moreover, the framework aims to bring together a simple and representative list of dimensions that can be collected and evaluated for any regeneration project in order to give a diagnostic of how far towards sustainability a community has gone.

Vernacular urban fabric as a source of inspiration for contemporary sustainable urban environments: Mardin and the case of 'Mungan House'

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In order to achieve sustainable architecture, cultural and ecological contexts should be considered in a dialectical relationship. Cultural context, implies a sound respect to the traditional knowledge of place, technology and local materials. Ecological context implies the recycle of energy, either by the use of passive energy or renewable energy. It also requires harmony with local economies and data supporting biological diversity.

Vernacular built heritage can be seen as the essence of sustainability with its inherent characteristics addressing both cultural and ecological contexts. This paper aims to draw attention to the architecture of Mardin courtyard houses especially to one single mansion 'Mungan House' that provides a vast source of inspiration and knowledge for the creation of contemporary sustainable urban environments. From such a point of view, certain themes such

as harmony with typography, collaboration with climate and energy conservation will be discussed in addition to the sustainability of cultural values.

Unfortunately, planned interventions since 1970's that gave way to urban sprawl at the fringes of Mardin, do not make use of formal, structural, climatic accumulations of the old fabric, consequently, identical apartment blocks are spreading all around telling nothing about the special characteristics of the region. However, traditional/vernacular urban architecture has too many data to guide the new housing production in favour of lessening the energy consumption and being in harmony with the geographical and natural conditions. Moreover, Mardin courtyard houses might be a source of inspiration for further housing production, with their capacity of smoothly responding to the unavoidable changes in the family life styles. Specifically Mungan House, by enabling to accommodate different families within a multi-storey house block, providing private door ways, suitable open spaces to support the traditional way of outdoor living protecting their intimacy at different levels, presents a very significant case to be dealt with.

Living Oeiras. A strategic plan and the development of an international network of cities Paulo Vistas¹ // sofiamorgado@mail.telepac.pt, Maria Clara Mendes², João Pedro Costa², Sofia Morgado², Dora Empis², Pedro Alfonso de Paulo³

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The Municipality of Oeiras (Lisbon Metropolitan Area) and the Laboratory of Urban and Territorial Planning (School of Architecture, TU Lisbon) are developing a common project consisting on the creation of an international network of cities focusing on the housing policies which are relevant to inform future developments in the municipality.

This project aims to implement a knowledge network of 6 cities on specific housing policies, adjusted to the priorities defined by the municipality of Oeiras for the period 2007-2015.

As a result of previous projects and the ongoing proposal concerning the implementation of this network of cities, the article and the presentation will consist on:

- Housing development in Oeiras and the Strategic Plan «Living Oeiras» (2006) - a short synthesis;
- The international network of cities - methodology and adopted criteria;

The municipality of Oeiras is a heterogeneous territory neighbour to the municipality of Lisbon, integrating an important part of the technological companies and institutions of the Lisbon Metropolitan Area; it is also the Portuguese municipality with the best indicators regarding general and superior instruction averages or general income of its population.

Regarding the housing policies, the pioneer policies of Oeiras in the Portuguese context resulted on being the first Portuguese municipality to eradicate the precarious housing districts. Thus, a new strategy for the housing policy has been developed in the Strategic Plan «Living Oeiras», defining new priorities for public investment.

One of the initiatives regards the creation of an international network of cities with similar priorities as Oeiras. This international network of cities will allow identifying a common group of indicators which might become criteria's for the evaluation of new realizations, complementing the strategic plan mentioned. The participation on the Conference will allow the municipality and the researchers to identify other experiences that might be useful for the project.

Heat absorption cooling as an option for sustainable air conditioning of households

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Urban planning can be based on lots of principles; it could be based on the old medieval towns and their road structures, the flow of (former) rivers or for example the structure of farmyard.

Urban planning and architecture are often also influenced by the sun.

Especially in the colder countries of Europe, like the Netherlands, houses are mostly designed for cooler periods: well insulated, large windows and living spaces oriented on the south, small windows and less-used rooms on the north, etc. Due to climate change (and improved insulation) the main issue of in-house climate control is no longer just to keep the house warm in winter but to keep it cool in the summer.

Due to extremely warm summers households are increasingly purchasing energy-intensive air conditioners to keep their houses cool. Air conditioners are relatively cheap and easy to install, but consume much electrical energy which increases the use of fossil fuels and additional exhaustion.

This paper looks at heat as a means for cooling to reduce the need of electricity. It for example investigates the possibilities of using district heating systems that use waste heat from industry or power plants combined with heat absorption cooling. It could have large advantages to use this waste heat in summer for cooling, to avoid discharging it in rivers or coastal waters possibly causing large ecological damage.

We discuss options to counter urban heat in summers. It explores the possibilities of heat absorption cooling to replace air conditioners and increase sustainability of the cooling process. It does so by regarding costs, energy-use, user-friendliness and compatibility with existing climate systems. It will present a feasibility study that compares this technology to other options, such as CHP combined with absorption cooling, heat pumps and underground cold storage

Second homes in scenic rural areas of Ireland: Preliminary results from a cross-border study of social, economic and environmental impacts

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With the significant growth in second homes in many countries, it is essential to examine their impact on sustainability development. Some countries have specific policies on them and a variety of instruments may be employed in the areas of housing policy, taxation and planning/land use regulations (e.g. occupancy controls, or change of use with planning permission required for shifts from primary to secondary use). This paper will explore the effectiveness of relevant strategies with a particular emphasis on the case on Ireland. As in many other countries, rising disposable incomes have resulted in a significant increase in second homes in the Irish context, especially in scenic rural areas. This has occurred in a housing market where many first time buyers cannot afford to enter the private market. The international literature suggests that second homes are not inherently bad but may be problematic if left unrestricted. In particular, their type and use will have varying effects on the economic, environmental and social sustainability of local areas. These issues are examined when evaluating relevant policies. The different types of second homes include: holiday homes lived in for short periods of time; second homes lived in for longer periods of time, including cases where one partner lives there on an almost permanent basis while the other works in the city; investment properties rented out for varying periods of time; newly constructed versus existing dwellings; one off housing in rural areas versus those in existing settlements; proximate or distant dwellings requiring varying amounts of travel by car or plane.