Slow housing – competitive edge for innovative living environments

SIRKKA HEINONEN, MINNA HALONEN AND LORENZO DALDOSS



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A new concept for housing foresight is introduced as a hypothesis in analogy to slow food, and as a contrast to hectic urban life. The idea of slow housing is proposed for discussion on the basis of preliminary results from a project carried out at VTT in 2004–2006 studying experimental and innovative models of housing, working/production and transport. The aim of this Eco-Regions project was to identify best practices in eco-efficient development of regions, linked with socio-culturally sustainable patterns of living.

The theoretical framework was deduced from the urban and regional theory of Patrick Geddes (1854–1932). This Scottish urbanist and biologist developed various interesting concepts, which have proved to be useful for modern urban studies as well. In the present paper we utilise the concept of analytical triad – place, work and folk, corresponding to the geographical, historical and spiritual aspects of the city or the region – to explore innovative housing and living environments.

Traditionally it is considered that innovations take place in cities, where the speed life and concentration of people create the necessary 'buzz' for the innovations to come up. But the hectic urban life is found alienating by more and more people and an emergence of slow and long-term-orientated lifestyle can be noticed in many Western countries. The interest in Slow movement (Slow Food, Slow Cities and Slow Design) is a clear sign of that.

In this study we discuss the concept of slow housing as one element contributing to pleasant living environments and with a specific connection to innovation creation. We argue that a slow, i.e. balanced, way of life increases well-being, which has a positive impact on creativity and thus on overall productivity. Meaningful life is a fertile ground for innovations.

Sirkka Heinonen, Minna Halonen & Lorenzo Daldoss, VTT, PO Box 1000, FI-02044 VTT, Finland. E-mails: sirkka.heinonen@vtt.fi, minna.halonen@vtt.fi, ldaldoss80@yahoo.it.

Introduction

A new concept for housing and for housing foresight is introduced to discussion as a hypothesis in analogy to slow food, and as a contrast to hectic urban life. The idea of slow housing as enabler of innovations is based on preliminary results of a project carried out at VTT (Technical Research Centre of Finland) in 2004–2006 studying experimental and innovative models of housing, working/production and transport (see *www.vtt.fi/ekoseutu*). The aim of this Eco-Regions project is to identify best practices in eco-efficient development of regions, linked with socio-culturally sustainable patterns of living. In this paper we discuss the concept of slow housing as one element contributing to pleasant living environments and with a specific connection to innovation creation.

A holistic framework for living environments

When assessing living environments a holistic analysis of places, temporal rhythms, and lifestyles is appropriate. Therefore, geographically seen, whole regions – rural regions consisting of small villages and small towns, as well as city regions – consisting of a major city with surrounding localities, become interesting. They provide a complex setting for people to live and work in, and for companies to benefit from human and social capital. Patrick Geddes (1854–1932), the Scottish "father" of regional planning, emphasised interconnections between city and the countryside. We argue that as people may successfully change their living environment from rural to urban and vice versa, it is equally important for creativity and innovations to be able to combine periods of slow and fast living. Moreover, in modern times of globalisation, regionalism is giving people strength (see e.g., Bakas 2006: 218).

Geddesian thoughts on complex living environments

The theoretical framework of our Eco-Regions project is deduced from the urban and regional theory of Patrick Geddes. This Scottish urbanist, biologist and *uomo universale* developed various interesting concepts, which have proved to be useful for modern urban studies as well, and for evaluating living environments. Geddes named emerging groups of cities as 'conurbations' referring to "extended geographical areas characterized by a network of settlements ranging from villages to towns, cities, and region-cities" (Welter 2002: 74). Geddes also developed a theory of 'biopolis', which in a way anticipates eco-efficient cities and regions. Biopolis theory rests on two bearer feet: 1) ecological approach (biology), in which city is seen as organic entity, and 2) Greek idea of 'polis' (Welter 2002: 2). Furthermore, Geddes aimed at linking science, morality and aesthetics in regional planning. These three fields can be roughly interpreted to present the scope of modern eco-efficient regions and towns: science representing today facts and using new technologies; morality representing values and ensuring that the wellbeing of people will be achieved in socially equitable and ecologically appropriate ways; and aesthetics representing experiences of pleasant living environments (Fig. 1). Poor living environments can also be enjoyed if only aesthetic experience is conveyed from them.

Science, in the Geddesian 'tripolis', embodies devices and applications of different technologies such as ICT, biotechnology, nanotechnology or genetic engineering, which are utilised to increase the eco-efficiency. Science is based on objectively stated facts. Morality stands for the social dimension of sustainable development including justice, equality and well-being (welfare of humans and quality of the environment). It means also that ecoefficient innovations, products and working methods are ethically acceptable and highly qualified. Morality is largely based on the shared values of a community. Significance of aesthetics for a pleasant and enjoyable living environment is undeniable. In addition, when linked to the rest of the socio-cultural diversity, it improves the competitiveness of communities in urban and rural regions (Heinonen 2006). In the present paper we also re-



Fig. 1. Geddes' ideas set in a tripolis combining science, morality and aesthetics as central aims for urban planning (modified, Welter 2002: xvii).

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Table 1. The Geddes' triad place-work-folk (Welter 2002: 34).

place-folk ("natives")	work-folk ("producers")	folk
place-work	work	folk-work
place	work-place	folk-place

fer to Geddes' concept of analytical triad – place, work and folk or in other words environment, function, and organism, corresponding to the geographical, historical and spiritual aspects of the city or the region – to explore innovative housing and living environments (Welter 2002). Geddes' triad is an analogy with the social theory of the French sociologist Frédéric Le Play. Le Play's social theory was based on the triad of lieu, travail, and famille (Welter 2002: 11). Besides work itself, both place and people can inspire innovation.

In the Geddesian way of thinking any human settlement, whether big or small, urban or rural, can be understood by applying the triad placework-folk. A town occupies a certain location i.e. place, where the inhabitants are engaged in all kinds of activities i.e. their work. Life is structured by work and influenced by the conditions of place. The residents themselves form thus a folk with a common superstructure of shared believes, traditions, and customs (Welter 2002: 33–34). In addition to these three main categories six subcategories can be formed by the interrelations of the main categories (Table 1).

A picture of the "every day world of action" can be achieved by applying the nine categories to any town in the world (Welter 2002: 34). A city can accordingly be perceived as a superstructure erected on the basis of place, work, and folk. It is a cultural reflection of a given environment (Welter 2002: 68). How well a given living environment can nourish creativity and inspire innovation in these nine categories, determines to a great degree its attractiveness and also the competitiveness of the region in question.

Continuing changes in the living environment

The living environments change as the pace of change in society at large is accelerated. Change is rapid and it pervades all activities in communities. How we work is changing, how we live is changing, and how we spend our leisure moments is changing. Technology is a major driver in all areas of life. In work, ICT not only provides tools for



Fig. 2. The Bermudan triangle of urban planning (Heinonen 2006).

work but enables mobile and decentralised working modes (e.g., Heinonen 2004; Himanen 2004; Virtanen et al. 2004). Thus not only "how" but also "where" we work is changing. In the home, technology is applied to make living more easy, safe and healthy. In leisure, lifestyles vary based on the increasing individualisation. This means a demand both for technology-heavy activities and for technology-free choices.

Because of the certainty of rapid changes and of the uncertainty and variations in the outcome of changes we can construct major community activities – work, housing and leisure – as "the Bermudan triangle" of urban planning (Heinonen 2006). This triangle is full of turbulent changes within each of its sectors and within their interconnections. Here work represents "work", housing represents "place", and leisure represents "folk" in Geddes' triad (see Fig. 2).

The Bermudan triangle of living environments emphasises rapid change and uncertainties involved in the processes of changing communities. It is the task of foresight and futures studies to alleviate uncertainties by anticipating change and by providing future visions and alternative strategies to cope with the changes (Heinonen & Dalslow housing within the chain of other slow movements

(slow food -> slow housing -> slow design -> slow cities -> slow life = slow philosophy)

Fig. 3. Slow housing inside the chain of various movements as key arenas of slow philosophy.

doss 2006: 25–26). Here a vision of a good living environment could be constructed based on Aristotle's ideal of good life. Instead of opposition to change, advantage can be gained from turning changes into opportunities for improving the living environment – for providing elements and conditions that encourage both welfare and creativity. An until-now-neglected or rather unnoticed goal in creating innovative living environments is to enable meaningful life through slow housing.

Slow philosophy

In the Western countries we are living in the speed society where the cult of speed is dominating our lives and efficiency highlighted as a common virtue. According to Thackara (2005) there are signs, however, that speed is a cultural paradigm whose time is up. Economic growth and a constant acceleration in production, have run up against the carrying capacity of the planet. Many of us want faster computers, but we also want to live more balanced lives - lives lived at speeds we determine, not at speeds dictated by the logic of systems beyond our control (Thackara 2005). Even though there is much scientific work ongoing for human life extension, philosophically taken, a fast or long life should not be a goal in itself. Objective time extension, however, is not an option - we only have 24 hours per day to fill in with meaningful or not so meaningful activities. It is more the question of what you do in your life, how you do it and in which surroundings you do it (cf. Geddesian axes of science, morality and aesthetics in Fig. 1).

Questioning speed and acceleration raises interesting design and innovation questions. Is it worth continuing to design only to make things faster? Can selective slowness be consistent with growth and innovation (Thackara 2005)? In the same way as we can problematise the modern myth of progress (von Wright 1992: 143; Heinonen 2000: 14) that expresses belief in limitless and neverending progress as natural and necessary, the modern myth of speed can be seriously questioned. For innovative living environments slow movements may add considerable value. We can talk about slow philosophy as comprising several key slow movements such as slow food, slow housing, slow design and slow life (see Fig. 3). The slow time movement is not, however, institutionalised like e.g. the labour movement. There is no counterpart for negotiations and no official time policy in public policy (Jalas 2006: 72). Time-activism and voluntary simplicity as expressions in line with sustainable development are ideological. In the following we aim at opening up slow housing in this context of other "slows".

Key arenas and definitions of slow philosophy

The theme of slow refers to a balanced, calm and stress-free way of living (see e.g., Thackara 2005; Bakas 2006; Honoré 2004; Jalas 2006). It means quality of life. Moreover, we argue that slow may be a source for innovation. This is because slow does not always literally mean slow. It does not mean a lazy, negligent or dull attitude toward work, free-time or social life. Slow does not mean stupid, speed does not mean smart. Slow means control and consciousness of your own life, listening to your own rhythm and resulting in ideas, insights and innovations that otherwise could have been left unnoticed in the hectic treadmill of modern life. Slow housing and other slow movements can be seen as part of "slow life" way of living, originated in analogy to slow food.

Slow housing

In our analogy of using the comparison between fast and slow food to fast and slow housing, we define fast housing and slow housing, respectively, as follows. Fast housing means home as a family and work life nerve centre for carrying out multiple activities in an efficient way. Fast housing refers also to home as a hectic "24/7 active life control" tower, leaving little space for relaxation. Slow housing means home as a haven for relaxation and socialising.

It also refers to non-standardised construction methods and traditional materials. Artisan work, carefully conducted on the special needs of the families, can realise savings and economies of scale that come from prefabrication and largescale planning for infrastructure and construction (Jennings 2005: 12).

A concept related to slow housing is the idea of stress-free area in living environments. The concept is based on conditions in neurophysiology. The environment is conceived as having a huge impact on vitality and well-being of people. Especially in cities we are overloaded by *stimuli* coming from near and far. Stress free -concept can be adapted for homes, office buildings as well as for shopping centres. With a conscious use of lights, colors, geometry and materials, new and existing buildings turn into stressless places for living and working.

Slow housing is not only a kind of lifestyle-based housing preference, but it can also be a different way to design a house. So designing of a house has to follow people's needs. Many architects, from the second half of the 20th century, studied the organisation of space; one of the most important French architects Le Courbusier designed his buildings following the physical measures of human beings. Buildings should be designed not only considering how much physical space people need, but also what they need emotionally; so a house is not only considered a place to pass a few hours after work. Slow housing is connected to a residential area designed with sufficient green space or space for leisure time. So starting from a new slow housing building process it is possible to arrive to the regualification of entire neighbourhoods and cities.

Slow food

Slow housing means that the house itself has been constructed with a view to a well and peacefully planned building process, using perhaps local traditions in terms of form, orientation or materials. Residents in slow housing buildings prefer slow food as part of their lifestyle. The Slow Food movement was founded in Italy in 1986 by Carlo Petrini. The initial aim was to promote declining food and wine culture. So far the Slow Food movement has multiplied its mission: 1) to defend the need of customer information on food, 2) to protect cultural identities tied to gastronomic traditions, 3) to safeguard food, cultivation and processing techniques, and 4) to defend domestic and wild animals and vegetable species. The official manifesto of International Movement for the Defense of and the Right to Pleasure (Official manifesto... 2006) speaks out clearly against rushed way of living: "We are enslaved by speed and have all succumbed to the same insidious virus: fast life, which disrupts our habits, pervades our privacy and forces us to eat fast food. To be worthy of the name, Home Sapiens, should rid himself of speed before it reduces him to a species in danger of extinction."

Fast food means something that can be consumed in a few minutes. The concept of "fast" does not involve only the way of eating it, but also the way of cooking and selling it. Fast food restaurants are present everywhere from cities' centres, shopping centres, airports, train stations to outskirts, stadiums, college campuses and so on. They are a symbol of globalisation, but they can also bring to a homogenisation and standardisation of taste. Slow food means a rediscovery of the pleasure of eating around a table with other people, enjoying this time forgetting the speed that regulate people's life. It opposes the great diffusion of fast food restaurants in the whole world, they are seen as symbols of fast life, virus of the modern society. Slow food means also the promotion of culture of a country through its food and its culinary traditions, knowledge of diversity against the homogenization of taste.

Slow design

Slow housing is based on slow design principles. The concept of slow design is a functional approach to slow life. Its aim is to slow human, economic and resource use metabolism, encouraging the long view. Thus, it is related to long-term thinking as adopted as an essential element in futures studies. Slow housing based on slow design takes into consideration the dimensions of sustainable development. It repositions the focus of design on individual, socio-cultural and environmental wellbeing.

Slow cities

Slow housing as a multiplied and agglomerating concept can lead to creating slow cities. Slow cit-

ies is another slow movement founded in Italy in 2000. The movement aims to improve living conditions with the use of new technological devices without forgetting the heritage of the past. Slowcity model concerns urban planning, environment, energy, transport, tourism, agriculture and education. There is also a strong emphasis on the bound between citizens, city and environment.

Slow cities philosophy is manifested by the movement (Official manifesto... 2006) as "looking for towns brought to life by people who make time to enjoy a quality of life." According to the manifesto "Living in a slow city, but also administrating it, is a kind of being slowed down, less frenetic and fast, but without doubt more careful to human beings and nature, more solidly behind actual and the next generations, respectful to local characteristics. It is a model that does not deal only with food, tourism, agriculture, but also with young people's education. Thus both living in a slow city, and also administrating it means taking the right time to achieve the quality in all sectors, slowing down living rhythms and fighting the paradoxes of our society."

Slow life

Slow housing – in its widest scope – opens up to a comprehensive slow life approach. In our analogy of using the comparison between fast and slow food to fast and slow housing and, in a wider perspective fast and slow life, we define fast life and slow life, respectively, as follows. Fast life means to be active all the day, having only little time to relaxing, having fun or enjoying leisure time. Many modern societies are characterised by this fast life, in which speed = more efficiency = more productivity = more money. We can compare this to the Futurism movement in early 1900s which advocated the cult of speed and saw the world enrichened by the beauty of speed. This chain brings to follow fast rules; on one side this can improve efficiency and productivity bringing benefits to economy, society and so on. On the other hand, this can generate frenzy that causes stress and health problems to a lot of people, thus decreasing efficiency in the longer term. Slow life means to take some time to dedicate to oneself, to own private life, to own leisure time. It is a life system more attentive to people's needs than to the search of money and success. Slow life includes living in a different way social life and cities as places where to have fun and socialize. The most important thing is to not mistake slow life with unproductiveness, laziness.

A better quality of life means i.a. one can decide own speed. According to Honoré (2004) the slow movement offers a recipe for marrying la dolce vita with the dynamism of the information age. He emphasises that technology and improved methods and patterns of behaviour should do the busy and routine parts, leaving quality time for more creative activities. The importance of chronobiology should not be underestimated. We can solve problems better during certain times in our daily rhythm and we absorb information better in specific times. People who feel in control of their time are more relaxed, creative and productive. However, certain rules and frameworks are necessary for creative and innovative working methods and way of life, in general. Concept thinking is a well-known working method among designers and other creative people. Choreographers and musicians call it a 'theme'. A concept or a theme offers a necessary framework for creative work, which would otherwise risk losing its sharpness and scope.

Pros and cons of fast and slow

Positive and negative aspects of fast and slow are being compared in the following Tables 2, 3 and 4. It must, however, be born in mind that the slow thematique is highly dependent on personal values and priorities, also varying at different stages of life of an individual.

Evolution of different societal phases

Slow thinking perceives long-term developments. What then is the position of slow philosophy and slow thinking in the present information society? Society can be seen as evolving in a process of transformation from one dominant societal phase to another. It is much debated whether, when and by which criteria such a transition could quantifiably be made (see e.g., Webster 1995). Humankind has lived through gathering and hunting societies to nomad and agricultural societies, from industrial society to information society, at least in industrialised countries. The transition is never abrupt or fast, but gradual and slowly building up based on changes in the structure of industry, economy, technology, and culture. Economic and technological advances are faster than, for example, changes in legislation or attitudes. We can alTable 2. Comparison of fast and slow food.

	Positive aspects & impacts	Negative aspects & impacts
FAST FOOD	 time savings possibility to have a relatively low-cost meal available everywhere, in every country safe and solid brand (you know what you get) social meeting place (especially for young people, and for families) open almost 24 hours a day and 7 days a week 	 largely unhealthy (causing overweight problems) lack of local traditions monotonous and homogeneous brand staff in strenuous conditions (low income, temporarily employed, long opening hours) sometimes crowded = not-so-fast food
SLOW FOOD	 emphasis on local traditions locally produced whole life cycle for meals: producing, purchasing, making, consuming food (what, how and where produced, with whom) way of thinking, lifestyle cultural & social experience connecting people (around table), socialising 	 time consuming sometimes unpleasant surprises about quality and origin of food lack of information good quality ingredients may be expensive or hard to get throughout the year

Table 3. Comparison of fast and slow housing.

	Positive aspects & impacts	Negative aspects & impacts
FAST HOUSING SLOW HOUSING	 home as a family and work life nerve centre for carrying out multiple activities in an efficient way home as a haven for relaxation and socialising	 home as a hectic "24/7 active life control" tower, leaving little space for relaxation possible inefficiency when work and private life not flexibly connected

Table 4.	Com	parison	of	fast	and	slow	life.

	Positive aspects & impacts	Negative aspects & impacts
FAST LIFE	 action and buzz almost 24 hours a day and 7 days a week efficiency at work 	 difficulties in reconciling work and family stress, healthy problems
SLOW LIFE	 no stress time to spend with your family and friends time for your own hobbies 	 not enough stimulus working career also slow? (unless slowness means high quality work, owing to fewer mistakes) slowness = laziness = unproductiveness

ready anticipate what the next societal phase after the information society will be. However, it must be born in mind that all the previous phases still remain to some extent and contribute to the outcome of a new phase. The information society may turn into a Bio-Society (as advocated by e.g., Rifkin 1998), or into an Experience Society (as suggested by the term Dream Society by Jensen 1999). A common all-pervasive feature for any subsequent societal phase will be digitalisation. Thus, some might prefer to call the coming phase Digital Society. It is, however, only instrumental depiction and does not reveal enough of the contents and dy-

namics of the new phase. Therefore, we discuss here the transition to the Experience Society where the role of slow thinking may gain more prominence.

Experience society may also be seen to evolve as culture society where humans on one hand seek for identity and meaningful life from culture, and where on the other hand art and culture will become important factors of production and prosperity. Here creativity and innovations are necessary fuel and foundation of citizens' welfare. Slow thinking goes hand in hand with the aphorism "vita brevis, ars longa". Experience society will construct itself on the emerging experience economy (Pine II & Gilmore 1999). The experience society or culture society is also said to form a creative economy. Florida (2002) even sees a creative class emerging, adamantly focusing on quality of life and seeking for high-quality and innovative living environments. Creative economy flourishes in a creative living environment. Experience or Culture Society means that new culture products and services will be diffused in homes, and residential areas through increasing number of media (tv, internet, multimedia services), interactive and spontaneous local culture products, housing becomes a culture product instead of a staple commodity (Heinonen et al. 2005).

Individuality rules in experience society (culture society). Individual ways of life and lifestyles are more and more expressions of one's identity. Branded homes, social status related housing solutions, housing and living environment expressing the way of living and the identity are an increasing phenomenon. New subcultures of housing sprout out on a set of values and ethnical diversity. The footprint of experience society is both ecological and cultural (Heinonen et al. 2005; Bakas 2006). As reflected upon slow thinking, the Experience Society can be roughly characterised as follows: On one hand, people seek for experiences from speed: experiences and identity from adventures, tourism, games, sports, entertainment, technology etc. On the other hand, people seek for experiences from "slowness": experiences and identity from nature, religion, retreats, silence, relaxation, etc.

Time

Time as a crucial element for quality of life

Time is regarded in this paper as a crucial element for the welfare (quality of life) of humans in their living environments as well as for innovativeness, and thus for the productivity. Everything in this world happens in time and space. Time can be defined from different aspects such as at least from the physical, psychological, social, cultural, economic and historical point of view. There is a subjective and an objective side of it. Time is discussed here as a resource and a quality of life factor. Paradoxically, many of us are being pressed with the lack of time especially in working life, while others can have too much time – with feelings of loneliness or uselessness in life.

As Thackara (2005) reminds us the Greeks had two words for time: chronos and kairos. Chronos means absolute time: linear, chronological, and quantifiable. Kairos, however, means qualitative time - the time of opportunity, chance and mischance - the event time. If you go to sleep because the clock says say 11.30 PM, you are adhering to a chronological time system. If you go to sleep because you are tired, you are following kairological or event time. We are all born with a sense of event time. Before they shifted to a more clock-based way of doing things, people listened to their bodies to tell them when to do things. The clash between personal time flow (e.g. getting food, going home) and the public time flow (e.g. standing in a queue) is experienced as disturbing. Excessive social speed degrades social quality. The more the speed, the less the time (Thackara 2005).

Time knowledge

Time is our most precious commodity. Lack of time is a bigger problem than lack of money for many people of the western countries (Robinson & Godbey, ref. Florida 2002: 150). Florida (Robinson & Godbey, ref. Florida 2002: 150–151) argues that the continuous sense of lack of time, the time famine, is a considerable problem especially for workers, who do project-oriented, time-consuming and stressful creative work. Besides having long workdays, households have usually two working parents or a working single parent. The coupling of work and private life is getting increasingly laborious.

Time knowledge is an important feature of information society, knowledge society or experience society. Time knowledge covers three dimensions that are embedded in time knowledge: availability, applications, and attitude. In other words, the time knowledge is based on the capacity to make time resources available, the allotment of time resources, and the cognitive and psychological approach to the concept of time. Time knowledge is in our thinking composed of the following four elements:

- 1) allocation of time;
- 2) utilisation of global on-line society (real time, universal connectivity);
- utilisation of desynchronisation of society or the flexibile schedules (maximum mobility, maximum immobility);
- 4) futures thinking (foresight, proactivity).

Bakas (2006: 101–102) points out that the technological revolution has changed the way we manage time. The non-stop supply of experiences keeps us awake late in the night. During the last hundred years the average sleeping time has decreased from twelve hours per night to six hours per night. Probably it will drop to six hours a night in a century's time. Another human adaptation to the modern times is the capability of multitasking, which is required and desired both in work and free time.

According to Jalas (2006: 42), some researhers have observed that being busy means the constant collection of experiences and active leisure, but only as a mask to boredom, which is the prevalent condition of our time. He concludes that business and boredom coexist in the same time. Bakas (2006: 102) also states that we have to stay busy, and entertained. This evokes a metaphor of world and work as a theatre (see also Pine II & Gilmore 1999), Bakas (2006) further reports on research findings made by the European research agency Motivaction. People seem to be in search of a good combination of work, care tasks and free time. The constant time pressure makes people deal with time more rationally than ever before. Ever growing demands of work makes people desire for more "domesticity", for the security of the home environment. Time stress and overall feeling of insecurity is leading to the rise of "cocooning". Thus the home will regain its status as an oasis of rest in our hectic and complex society. This is in line with slow housing thinking.

Innovation and innovative living environments

The Committee for the Future of the Finnish Parliament (2005: 3) defines innovation as a process comprising many factors, to which the customer yields essential features. An innovation can be a novel product, service, process, working method or strategic approach etc. (Ståhle et al. 2004: 11):

Innovation = realisation + new idea + implementation + creating value

The Austrian economist Joseph Schumpeter (1939) was among the first to define innovation and entrepreneuship. He showed that entrepreneurs innovate, not just by figuring out how to use inventions, but also by introducing new means of production, new products, and new forms of organisation. An economic impact is explicit in the

traditional definition of innovation. However, Tuomi (2002: 2) argues that in the era of Internet this definition is problematic and possibly misleading. He refers especially to the flourishing open source development work (e.g. Linux) done by a large community of volunteers without any concern for intellectual property rights or economic profit. On the other hand, Tuomi (2002: 3) emphasises the indirect economic importance of the open source phenomenon. The success of many new companies is based on the productive activities of open source communities such as Linux. He (2002) points out that innovation is always a collaborative networked effort, even when co-operation and networking is informal and not fully acknowledged. Moreover, the users of a technology are often contributing the most interesting innovations instead of the original developers.

Innovation is usually associated with proactiveness, inspiration and energy. Innovation is also about originality. Thus, innovation can also be defined as an opposite to imitation. Innovators are proactive and energetic. They set out to create, to experiment, to inspire, to build on new ideas. Kelley (2005: 6) reminds us that all good definitions of innovation pair ideas with action, and the spark of fire. Innovators have their heads in the clouds and at the same time their feet on the ground. Innovation can be forced out with speed when facing obstacles or problems to be solved. Innovative solutions emerge out of necessity. Innovation can also blossom in another type of context - surrounded with ample time, idleness, and relaxating ambience. This is a less frequently discussed soil for innovation, but can be nurtured through the slow housing concept.

An innovation can also have a social purpose. Social innovation is a solution to a problem which concerns a community (Committee for the Future 2005: 4). Paternity leave, school catering and safephone for elderly are examples of social innovations (Ståhle et al. 2004: 11). Tax deductions for commissioned household work, mobile telework e.g. while commuting on train and resulting diminished work hours at office end (Heinonen 2004), as well as car share pools are further examples. Innovation is not an "externality", nor a deus ex machina. It evolves within our societies (Conger 2005) and inside our living environments. Innovative environment is an essential platform for realisation of novel ideas and their implementation. Committee of the Future (2005: 4) has defined it as follows:

Good innovative environment = information flows + networks + buzz + action + trust

When considering innovative environments it is important to study both working environments and housing environments in the framework of living environments. Innovations evolve within our living environments i.e. encompassing both working and housing environments. A good innovative environment sets the scene for novel ideas and their implementation.

People create the innovations and therefore innovating is always a human and social process (Committee for the Future 2005). Tuomi (2002: 23) points out that innovation occurs when social practice changes. Therefore, drivers for innovation can often be detected by looking for tensions and contradictions in existing social practice. Tuomi (2002) underlines that social practices form a complex network of interlinked practices and this network is continuously evolving. Technology addresses a need when it reduces some of the tensions created in this process. Innovation arises in all corners of society: in public sector, industry, science and culture (Conger 2005). Cultural flows, due to globalisation as well as to transnational and domestic migration, influence lifestyles, knowledge and innovation. These forces of change create complex dynamics of interaction generating further novelty in all sectors of life (Conger 2005).

Flow and creativity

Hungarian born psychologist Mihaly Csikszentmihalyi (1990) suggests another source of innovation - individual exploration and optimal experiences of "flow". He claims that a generic feature of the human psyche is that humans feel happy when they succesfully perform at the edge of their capabilities. Tuomi (2002: 23) takes this as an example of how individual creativity often drives change in social practices, also creating tensions in the process. By flow Csikszentmihalyi means a mental state of operation in which the person is fully immersed in what he or she is doing, characterised by a feeling of energised focus, full involvement, and success in the process of the activity. The experienced flow distorts the sense of time when our subjective experience of time is altered. A sense of personal control over the situation or activity is also typical of Flow. An important condition for getting into flow, is the non-disturbing environment. Every disturbance, such as a phone call, or a new person

entering the room, will probably pull a person out from flow experience back to the reflecting mode. Flow means intensive concentration and immersion in what you are doing. Csikszentmihalyi (1990) emphasises that by controlling our consciousness, sense of time evaporates. Flow equals optimal experiences and they can be interpreted as giving meaning to life. Can slow life through slow housing create such environments for optimal experiences (flow)? Flow may be an outcome of exercising one's creativity and vice versa – flow regenerates creativity – a virtuous circle of flow, resulting in innovations and personal wellbeing.

In Finland, the Prime Minister's Council recently renewed the national strategy for information society. The strategy is aimed at creating a common national vision for the kind of information society that we want for Finland. Based on a preliminary survey of the preferences for developing the Finnish information society, the following attributes were chosen as goals for national efforts: creative/ innovative, human-centered and competitive Finland. The need for time and innovative environment was identified as one of the quintessential prerequisites for creativity (Fig. 4).

Innovations in our living environment

Optimal living environments are like cornucopia or wishing wells, comprising all good qualities simultaneously at the same setting. Buildings, spaces, and surroundings in optimal living environment should be functional, safe, healthy, pleasant, stimulating, peaceful, silent, aesthetic, accessible, communal, individual, and ecological. As stated earlier, innovations evolve within our living environments: both working and housing environments. Meaningful life should be achieved in both (working + housing). A necessary prerequisite for this is balance between work and family. The opportunity to follow a more humane working rhythm and to be more able to balance work and family life is a motivating prize in our increasingly stressful times (Himanen 2004: 15). Bakas (2006: 132) also pays attention to this need and sees the "rushhour family" as becoming the cornerstone of society.

A clear shift from the emphasis on the role of the work to the role of the housing as a center of people's life can be detected. Already Le Corbusier thought was that home should be a site for comfort and relaxation (Jayne 2006). According to Renzo Piano et al. (2004) the new language (of architec-



Fig. 4. The mind map of creativity (modified, Hietanen et al. 2006).

ture) has to respond to changing needs with a greater attention to the quality of life and work, and an awareness that the inadequacy of housing is the source of much of the malaise in contemporary society (*http://www.rpbw.com/*).

The importance of place has not decreased in the digital era (Kotkin 2000: 6). On the contrary place matters more than ever. Thanks to technology, locational choices have become more elastic. Traditional physical factors of a place – such as access to raw materials – are less important compared to the concentration of human skills. In order to thrive, individual localities have to appeal to the workers of the new economy – highly educated, creative people. Quality of life is a feature of great attractiveness. It is an asset for small localities also in rural environment competing against bigger cities and towns.

Location underpins innovativeness in many ways. The location or living environment effects on creativity, which is one component of innovativeness. At the same time, creative and potentially innovative people are looking for a better quality of life. They are seeking their way to an unhurried living environment such as countryside. When they bring out their creative ideas into a new living environment, totally new ideas can come up from the impact between new forms of business and traditional sources of livelihood as well as form the impact between the new comers and the native people of the place. This "collision" presents a fertile soil for innovative enterprises. Himanen (2004: 16) argues that in order to maintain (and improve, develop) the welfare society, we need new ways of promoting a socially, mentally, physically and culturally balanced development. He (2004: 19) stresses that the cultural balance of development also requires self-fulfilment outside work. This means an active approach to life that is realised in the private sector (entrepreneurship) as well as in the public sector (innovativeness) and non-governmental organisations (caring, art, hobbies etc.) (Himanen 2004: 19).

Honoré argues that there is a direct correlation between cars and community: the less traffic that flows through an area, and the more slowly it flows, the more social contact there is among the residents (Honoré 2004: 99). For Himanen (2004: 6) communality means openness, belongingness, willingness to include other people and to do things together. It is a fundamental value of the welfare state. Communality is one of the most energising experiences of life – being part of a larger community that shares your interests. It means living together (Himanen 2004: 6).

Rural environments

In big cities and their suburbs long distances between home and work have created urban sprawl and a strong car-dependency. This has effected negatively on the quality of life, social relationships, and on the living environment in general (see e.g., Kotkin 2000; Honoré 2004; Jayne 2006). Kotkin (2000: 38-39) sees that core cities and their suburbs are not anymore found attractive by knowlegde industry and its workers. Smog, traffic jams and soaring dwelling prices are pushing the old suburbs into decline. A more lifestyle-driven second wave of development has emerged. These new urban regions, nerdistans, are able to attract the rising technological elite. They might lack social diversity, but they seek to eliminate crime, traffic and commercial blight, considered endemic harms of cities and suburbs. Nerdistans invest in parks, schools, and amenities in order to attract science-based industries and their workers. In their physical aspect, nerdistans favour a campus-like environment, "with landscaped walkways and access to bikeways and other recreational facilities". Often these communities are located near major universities.

Honoré (2004: 251) writes about the effects a speedy life can have on children, who suffer from upset stomachs, headaches, insomnia, depression and eating disorders brought on stress. As a result more and more people are looking for a better quality of life for themselves and for their children. Countryside outside the hectic cities presents an attractive solution for stressed people. There they can find a pleasant, stress-free living environment, which offers them a possibility to relax and enjoy the life and the company of their closed ones as well as the neighbouring community. However, paradoxically a car is especially needed when living in countryside due to low service levels of public transport. Also Kotkin (2000) sees that rural hinterlands are involved by the new dynamics of place. Kotkin (2000: 11) calls these places Valhallas: rural areas, with amenities and pleasant landscape, "where knowlegde workers can enjoy pastoral paradise yet remain plugged into the burgeoning information economy." Kotkin probably overestimates the paradisiacal effect of the rural environment. In rural Finland long distances, decreasing level of public services and the long period of darkness define strict frames to the rural in-migrants and their new lifestyle.

As a consequence more and more people are buying second homes in the country or conditioning summer cottages into all-year second houses. Finland is already the promised land of summer cottages (almost 500,000, for a population of 5 million). In Great Britain there are approximately 150,000 second homes and a rise to at least 340,000 is predicted within 20 years (Franks 2004: 16). Bakas (2006: 83) foresees the rise of "parttime living", where people live different periods in different places during the year. This gives more opportunities to incorporate periods of slow housing in your life.

The Finnish Committee for the Future (2005: 1– 2) stresses the importance of strengthening the local and regional innovative environments in order to realise the world's best innovative environment in Finland. The present threat is that the innovativeness decreases substantially outside the metropolitan areas or their proximity. Innovative sources of livelihood are needed to replace the farming in decline.

Slow housing enabled in rural environments may become a new attractor for rural in-migration. Information society turned into an experience society means that experiences will be sought, for example, from slow housing (silence and peaceful milieu), also from clean environment and clean food. Locally produced food is a related concept to slow food: slow food emphasises making food in no hurry and as a holistic process – from fetching the raw materials (growing) to making a meal and enjoying it in good company. Slow housing in rural living environment can include efficiency and the countryside can be considered a "natural" environment for slow housing. However, slow housing "islands" can also be incorporated within larger city complexes. For example, Shiodome complex designed in Tokyo according to slow philosophy aims at attracting people by creating cultural and entertainment facilities in the urban texture.

According to the Committee for the Future (2005: 7) the innovativeness must be considered as the centre of the development of the Finnish working life and Finnish society as whole. One of the most important challenges, when developing regional innovative environments, is to identify development targets, to which the great majority of the local innovators are willing to commit themselves (Committee for the Future 2005: 6). Regional innovation can be strenghtened. Factors of regional innovation vary from creative tension and competition among local actors, to developer networks and culture of collaboration, and to the image of the locality. The importance of innovation leadership and management as well as inspiring leadership is especially stressed by the Committee. In order to foster regional entrepreneurship, new business development and small business growth, reforms in the Finnish education and incentive system as well as risk financing should be done (Committee for the Future 2005: 13). According to the Committee (2005: 14) "...breaking free from the traditional modi operandi and preconceptions as well as crossing borders create the foundation of regional success stories". Solutions for creating slow housing environments would be such a challenging new development target.

Conclusions

The slow philosophy and slow thinking means a balance between different dichotomies, which should not be treated as intrinsically contradictory aspects of life, but as complementary and alternating elements: work + leisure, quantity + quality, material + immaterial, science + art, mobility + immobility, urban + rural, and people + places. Due to the high novelty of the subject, empirical data on Slow Housing is not much available. Therefore the conclusions are naturally largely tentative by nature. We also underline the balance between slow and speed. Certain ideas and creativity flourish in slow moments, free from time pressures, but their implementation and commercialization necessitate fast responses.

We maintain that slowing down does not mean less productivity. On the contrary, productivity could increase on the basis of positive and energising experiences from relaxation and flow. We therefore conclude that slowing down does not mean less innovativeness. By stopping to think you might come up with various innovations that would not otherwise have been generated in the prison of tight schedules. Slow life and slow housing thus provide a chance to improve your quality of life, to better balance your work and private life, and to approach self-fulfillment.

The optimal experience Flow may be better achieved through Slow. This process can take place both in cities, which usually are associated with speed and energy, as well as in rural areas, where quality of the living environment may in return encourage the residents to better self-fulfillment. Therefore, we came to the conclusion that the concept of slow housing is not directed exclusively to the new global urban elite, to the new working poor serving them nor to the middle class fleeing the city. It is primarily an open concept for people seeking for meaningful life. Slower lifestyle will also become a healthy trend for humans. There is social demand for innovations to facilitate slow life and slow housing, which in themselves make room for creativity as people become liberated from the chains of objective clock time.

The employers and planning authorities of regions that can offer people with milieus for slow housing will gain in competitiveness. In the planning process of such environments, Geddes' concepts of conurbation in a meaningful scene for combining people, place and their activities (cf. analytical triad) could be successfully adapted. If "Slow" can generate "Flow", who will be fast in a healthy way and first pick up the challenge of developing a Slow Region?

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