D o s s i e r E d i t o r i a l

New approaches to creativity and creative thinking

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In this issue, we invited our colleagues to discuss *new approaches to the creativity concept and creative thinking*. As members of planning and design fields, who are very familiar with the creative processes, we are aware that any discipline -such as psychology, philosophy, the arts, business, and the sciences- would require the defining of its own creative ways of thinking. Every period in history has its own form of creativity; today's is a matter of cross-questioning, cross-fertilizing, crossing boundaries. It will increasingly be more important to see the parts and the whole, while thinking horizontally and vertically at the same time. It is also important to create environments in which one can think, plan and act with imagination - where ordinary people can act in extraordinary ways if given the opportunity. Innovation happens at the boundary of difference, where things can really start to occur.

As was stated in the text of the call for papers of the dossier, creative city, creative university, creative class, creative capital, creative skills, creative industries, creative climate, creative milieu, creative core, and creative leadership are some of the new concepts used by the theoreticians and intellectuals of different fields, indicating the current perspectives and ways of thinking. We find it important to discuss these new approaches to the creativity concept and creative thinking for future studies.

We live in an ‘information’ age and a ‘knowledge’ economy powered by human creativity. Creativity - ‘the ability to create meaningful new forms’, as Webster’s dictionary puts it - now defines technological, economic and cultural creativity. In virtually every industry, from automobiles to fashion, food products and information technology itself, the winners in the long run are those that can create and keep on creating.

Societies need to strengthen their *creative capital* in order to benefit fully from the knowledge economy. Creative capital is to be treated as the combined assets of a society that enable and stimulate its people to be creative. Being creative is, in the first place, a continuous learning process, as gaining knowledge helps one to begin to realize new possibilities. But it also means the ability to explore new ideas and to create new connections and turn them into reality. The challenge is to build environments where

people can develop their talents and apply them to work and life. This may require new approaches to the future design of the knowledge society and the role of public policy. It implies a wide array of strategies, varying from education and economic policy, from urban development to cultural policy, and from technology to intellectual property (http://www.creativecapital.nl/reports/pdf). For the further development of creative capital, *open innovation*, *open infrastructures*, *open environments*, *creative skills*, and *creative industries* play vital roles. Also a creative environment requires *openness to diversity* in order to attract creative people of all types and stimulate creative interplay.

The city as "a product reflecting man's creativity" requires more and more interdisciplinary, holistic and creative ways of thinking for the future success of its individuals, institutions and administrations. Cities (Landry, 2000) have one crucial resource - their people. Human cleverness, desires, motivations, imagination and creativity are replacing location, natural resources and market access as urban resources. The creativity of those who live in and run cities will detemine future success. As Jane Jacobs pointed out, successful places are multidimensional and diverse – they don't just cater to a single demographic group; they are full of stimulation and creativity interplay. Places need a people climate - or a creative climate - as well as a business climate.

The reason to focus on creativity within city relations is obvious. Historically, creativity has always been the lifeblood of the city. Cities have always needed creativity to work as markets, trading and production centers, with their critical mass of entrepreneurs, artists, intellectuals, students, administrators and power-brokers. They have mostly been the places where races and cultures mix and where interaction creates new ideas, artefacts and institutions. And they are the places that have allowed people room to live out their ideas, needs, aspirations, dreams, projects, conflicts, memories, anxieties, loves, passions, obsessions and fears.

A *creative milieu* is a place - a cluster of buildings, a part of a city, a city as a whole or a region - that contains the necessary preconditions in terms of 'hard' and 'soft' infrastructure to generate a flow of ideas and inventions. Such a milieu is a physical setting where a critical mass of entrepreneurs, intellectuals, social activists, artists, administrators, power brokers or students can operate in an open-minded, cosmopolitan context and where face to face interaction creates new ideas, artefacts, products, services and institutions and as a consequence contributes to economic success (Landry, 2000). The university as a creative milieu can bring these various groups together with its creative partnerships and projects reaching out to business and community. *Learning from others, inspiration from outside* and *being open to unexpected conditions* can be mentioned as performance indicators for a creative university. Bringing together disparate disciplines or people can widen horizons and generate new forms of creativity. The creativity of others is often an effective means of sparking creativity in oneself, especially in shared experience.

In 'The Rise of Creative Class', Florida and Tinagli (2004) develop new indicators for the creative class and competitiveness that are based on the 3Ts -Technology, Talent and Tolerance- of economic development for 14 European, Scandinavian and Nordic countries and compare them to the United States. Every region has a distinct creative economy, and a definition

used in one place would not necessarily be relevant to another. A definition of "*creative core*" comprises nine industries (www.nycfuture.org): *Advertising, Film and Video, Broadcasting, Publishing, Architecture, Design, Music, Visual Arts, Performing Arts.* The first step in measuring the creative core was to identify the number of enterprises involved in these creative core industries and the number of individuals who make all or part of their living through employment in a non-profit enterprise, or through self employment.

These nine fields as the components of the creative core idea are obviously important for the development of critical success factors for creativity in a university. Existence of programs, departments, courses or activities related to these fields motivate creative thinking. These also have the potential of the arts and artists in the neighborhood renewal projects and the 'regeneration' of urban communities that are assessed to be in physical, economic and social 'decline'. Major regeneration development projects, notably waterfronts, industrial quarters and entertainment centers have been successfully conducted with the collaboration of universities, municipalities, NGOs and artist groups.

The contributors in this issue have considered the creativity concept related with two main headings: creativity in design education and creativity of institutions / universities / cities. As it can be seen, instead of discussing the limits and the boundaries of creativity and creative thinking, we are in need of discussing unlimited creative thinking. We believe that these contributions will create an atmosphere for new and meaningful further discussions.

The paper titled '**Architectural design studio organization and creativity'** written by **Paker Kahvecioğlu**, aims to compile general descriptive reading through experience and practices of design studio education and to compare and evaluate it within traditional perspectives. Design studio education is taken as an organizational structure and position of the studio instructor in constituting an organizational style when studio education is being investigated. In order to develop in the design studio creative strategies as tools, components and layers, 'group organization', 'teamwork', 'design studio medium', 'roles of student-designer and studio instructor', 'communication', 'knowledge and information acquisition and transfer', 'representation tools', and 'risk and motivation management' have been taken into consideration based on the theoretical information gathered from other disciplines and fields. It is concluded that there is a need for greater understanding to the instructors' role as an 'education/tutoring coach' of their implicit studies in the studio regarding teaching and leading creativity.

The article, '**Can creativity be institutionalized?'** prepared by **Köknar and Erdem**, provides a debate on attaining a creative environment for learning architectural design through a multi-dimensional tool-based strategy. The underlying hypothesis is that a dynamic model for teaching architecture could only be possible through a *loosely structured open network of tools allowing customizable design strategie*s. It is also argued that such a dynamic network could be determined through a thorough analysis of the state-of-the-art of the architectural discipline. In order to justify the acceptability of an architectural design education paradigm based on an open network of tools, the impacts of the individuality of the actors, ambiguity of the design problem, boundaries of the discipline, *or the unbounded state of the art*, and the unpredictability of the outcome have been discussed in depth. The definition of creativity as the ability to adapt

knowledge, information and experiences from various areas of life and thought, interpret them in a new way and thus break away from existing patterns of structure and thought; determines the framework of the approach. In order to attain creativity, an institution should not use repetitive procedures based on precedent experiences reproducing the past, but apply open network structures easy to change and adapt to current issues and problems.

The paper titled '**Creativity in design education: From problem-solving to puzzle-solving**', written by **Çelik and Aydınlı**, introduces a new approach to creativity in design education based on puzzle-solving activity in a world where ambiguity and change is essential with the innovations of the 21st century. Design as a puzzle-solving activity makes it possible to generate new ideas, to think about something differently, to be able to integrate knowledge and imagination which gives rise to generation of form – creative thinking. According to the writers, a puzzle-solving activity can be considered as choreography emerged in dialectics of multiplicity which leads us to the mythical stage between the real and virtual, between the possibilities and limitations creating shifting balances. In the paper, a broader network relationship for understanding creativity which cannot be taught, but learned through the notion of narrative, has been introduced and a Visual Design Course has been structured according to the design practices based on narratives in order to help students constitute a flexible thinking and also develop a more unified mind by which both open the doors for creativity.

Starting from the point that architectural design studios are highly sophisticated means of creative problem solving, **Ayıran** emphasizes in his article titled '**The role of sketches in terms of creativity in design education and the effects of a scientific ideal'** that, sketches are a very important means of creative design solutions since they magnify mental capacity. Therefore, they have the ability to play a significant role in the architectural design studio. However, the inclination that gives sketches a secondary role by attaching primary value to theory has been affecting design education. The reason for this situation, according to Ayıran, is the dominancy of a scientific ideal which regards that verbal and computational expression with theory is superior to praxis and visual expression.

The impact of visual analogy upon generation of creative concepts appears to be long debated. The study of **Çubukçu and Dündar**, titled '**Can creativity be taught? An empirical study on benefits of visual analogy in basic design education'**, aims to test whether the use of visual images does foster creativity in the first year of design education. Participants - 52 students of the City and Regional Planning Department - were asked to design eight compositions to convey the expression of eight design concepts. For half of the basic design principles (harmony, contrast, unity and variety), no visual clues were given, for the other half (emphasis and cluster, and radial balance and asymmetrical balance), visual clues were given. Findings showed affirmative effects of visual analogy on creativity. Students achieved a higher creativity score when visual clues were present than when they are absent. Results have implications in basic design education.

In the article titled '**Creativity, creative cities, created architecture'**, **Görgülü** emphasizes that the century we are living in is the century of

knowledge, technology and communication. Goods and services as well as information are highly accessible in this special time zone. According to Gorgülü, creativity is an important input in every aspect of our lives; from ways of thinking to marketing products and from urbanization policies to challenging construction designs. Creative urban concept has been suggested especially in the last two decades in order to achieve sustainability of the cities and so to generate creative policies in cities. This idea has gained importance on the global level. Creative urban policy processes fed with ideas such as brand city and thematic city has brought about positive results. According to Görgülü, the new global city images produced by multi-national companies are the symbols of economic power. Since architecture is the focal point of all of these transformation and renovation processes, architecture is expected to make an absolute, creative contribution to the city. In this article, creative urban policies and the architectural interaction in global cities and the new architectural terminology and forms that these interactions have led to from the creativity concept point of view have been discussed.

The change and transformation that cities are going through have added new dimensions to the city-creativity relations. Cities began to contribute and direct the development of a knowledge economy depending on their openness to change, they bring possibilities and opportunities for sharing ideas, as well as for being an attraction for a well-qualified labor force and consumers. The paper titled '**Creative City, Creative University: Creative discourses and activities at Istanbul Technical University'** written by **Özsoy et al**. is aimed at exploring the creative city and creative university relations by focusing on Istanbul Technical University as a case. The creative city/region supports innovative and dynamic types of industries through general and specialized infrastructure systems. The creative city, with its environment and infrastructure, offers several layers, by creating opportunities for people to develop new ideas, establish relations and realize innovative projects. As an independent and active component, a knowledge-based infrastructure is comprised of a well-organized system of education and research taking place within higher education institutes and research centers. In such a system, universities and research centers as knowledge-intensive institutions and organizations have strategic importance and potential for accelerating the city creatively.

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