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# INTEGRATIVE URBAN DESIGN GAME: A METHOD FOR SUSTAINABLE REGENERATION OF BUILT CULTURAL HERITAGE

## ABSTRACT

Urban regeneration is challenged by the contradictory impact of globalization. This double-sided process can enrich local communities or leave them at the margins of global society. In the wake of globalization, most authorities claim that urban planning and design are in a paradigm crisis. This crisis is a forewarning for the need for a paradigm shift in contemporary theoretical and conceptual frameworks, the common elements of which are: 'soft and hard infrastructure', 'agencies and structures', 'power to', 'new rationality', 'common sense', 'communicative action' and 'integrative development'. This research will examine the extended role of urban design to also become an integrating instrument in urban regeneration processes and provide a holistic development of the areas involved. Understood as a process of space creation, urban design with its different process dimensions, from subjective-expressive, multi-disciplinary to socio-collaborative, can offer creative solutions in the regeneration process and globalization challenges using innovative methods like Integrative urban design.

## 1 INTRODUCTION

The sustainable development of protected urban areas defines the framework for their regeneration, while including them responsibly into contemporary socio-economic trends. Integrated development as an equivalent of sustainability implies both preserving of non-renewable resources, such as urban cultural heritage sites, and enabling its development with positive external impacts on other development sectors. *"Integrative urban planning wants to stop the fragmentation of our landscapes and our lives by using activist design solutions. Strongly refusing to idealize the past or to cowardly avoid the present, Integrative urban planning attempts to resist the divisions in urban*

*and social structures, pointing to contemporary challenges and formulating inspirational alternatives for a wealthier tomorrow.*" (Elin, 2004).

The complexity of the globalization process introduces the story of identity as the pillar of socio-economic development, therefore changing the focus on the urban planning and design relationship in the context of urban regeneration. In a global society, the power of local identity is becoming very strong in the global market race. Castells defines several areas of urban objectives that encourage the preservation and development of local identity: "... *urban demands on living conditions and collective consumption; the affirmation of local cultural identity; and the conquest of local political autonomy and citizen participation.*" (Castells, 2002). Urban design as the advocate of multi-dimensional factors in the quality of place (Madanipour, 1996) represents a framework in the regeneration and creation of integrative space. Its artistic dimension qualifies it for the re-examination of its role as the dominant discipline in the urban regeneration process. Understood as a decision-making process, it can create a framework for the regeneration and integration of the sustainability dimension, through the creation of a global identity and space. This also justifies one of the research opinions, which will be discussed in this paper.

On a broader philosophical level, the problem lies in the process of achieving rationality and creating an issue of its universal existence. In that sense, relativizing values raises questions regarding the subject of the regeneration as an affirmation of the existing and the creation of new ambient values. On a theoretical level, this paper will discuss the advantages and disadvantages of the two most common paradigms in urban decision-making - rational-comprehensive and collaborative - as well as the role of urban design in integrative processes. The problem of the first paradigm is the limited

rationality of stakeholders and experts in perceiving the totality of reality, therefore a lesser possibility of generating integrative solutions in the urban regeneration process. The problem of the second paradigm can be the absence of a strategic approach in generating solutions, responding to temporary problems, as well as the ethical behaviour in the communicative procedure, which is carried out in the process. In relation to different traditions, there is a dilemma regarding the role of urban design on the relation process - product. The determinant factor in this dilemma is the rationality procedure carried out in the social context, thereby the favoured urban paradigm as well. Viewed as a product, urban design treats space as a realization of rationality defined at higher structural levels through the so-called top-down approach, while in process orientation, urban design is often linked to the collaborative paradigm, the bottom-up approach.

This research will focus on the comprehension of urban design and the integrative urban design game method as a creative, participative and collaborative process, in which it is possible to create solutions in a holistic relation of multi-dimensional qualities of place in the regeneration procedure. In perceiving urban design as a creative, socio-spatial process, I would like to point out several interdependent dimensions in which it is created. Firstly, it can be observed as a space of imagination and creation of urban designers, architects, and then it is termed as a subjective-expressive process. Secondly, within the context of the collaborative paradigm, it represents a socially communicative process, where new relationships are established and spatial values are defined in dialogue relations. Understood as a technical process, it is linked with the expertise of urban designers and relies more on the rational approach to solution formation.

Its third dimension takes place in an interdisciplinary communicative process as a field for analysis and communication of different professional views (Madanipour, 1996). The above-mentioned process dimensions are intertwined and form a network, making urban design an important factor in integration and communication of different presentations, interests and needs in the regeneration process. *“Seen as a process of place creation, urban design integrates different dimensions of space production.”* (Mrdenović, 2011a)

## 2 SUSTAINABLE REGENERATION OF CULTURAL HERITAGE

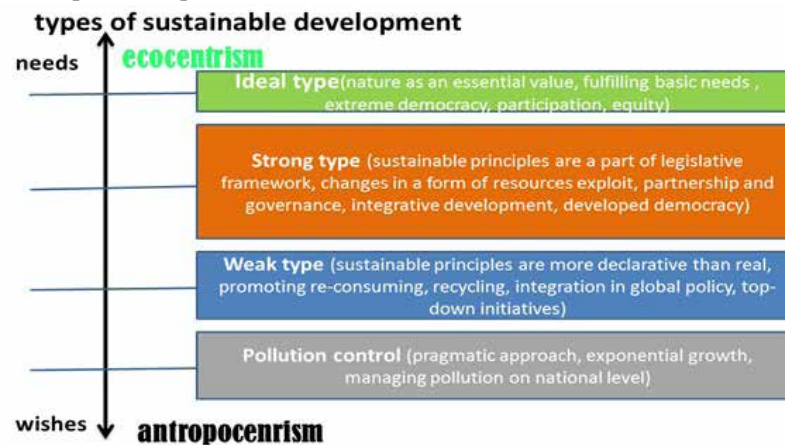
The saga of sustainable development has been with us ever since the study on Limits of Growth in 1972. It assumes pessimistic and optimistic estimation models in the use of renewable and non-renewable resources. As a solution, the pessimistic model stresses a systematic management of resources and the necessity of integrating and coordinating development activities, whilst following the impacts of such activities on the environment. The optimistic one relies on technological development as a means for overcoming the negative impacts of human behaviour on the natural environment (Tietenberg & Collins, 1992). Clearly, both of these solutions are based on the rational and scientific approach to the use of renewable and non-renewable resources.

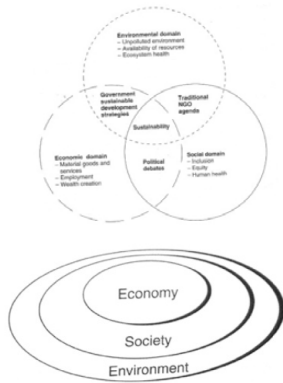
The study has launched a line of activities at the international level, which have been formulated in numerous international documents by the UN and EU. Therefore, in the Brundtland definition, sustainable development is defined as development that is responsible for future generations (WCED, 1987). The definition has developed further, and today, sustainable development is understood as the “3E” concept, including the development models from the

study ‘Limits of Growth’ to achieve integration on the three pillars of development: economy, environment, and equity (society). Equity is achieved by participation; economic development is the field that takes into consideration the impact on the environment and social progress. Such a concept primarily promotes diversity, consensus, partnership, collaboration and coordination at the local, as well as at the regional and global levels. The emphasis is on integration of the three pillars of development, in terms of content, as well as in terms of coordination of activities.

The principles of sustainability, depending on the different local contexts, can be applied differently. Every community should apply the principles of sustainable development according to their own local circumstances. In that sense, sustainability as a concept is applied through different types depending on the underlying philosophical approach, closer to anthropocentrism or ecocentrism. Thus, Baker defines four types of sustainability: the ideal (in the extreme ecocentric position, best described by the Nesting diagram); the strong (between ecocentrism and anthropocentrism); the weak type and pollution control (in the extreme anthropocentric position) (Baker, 2006).

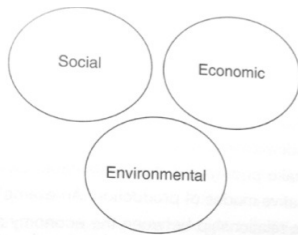
1. Types of sustainability according to the philosophical approach  
source: Baker, 2006





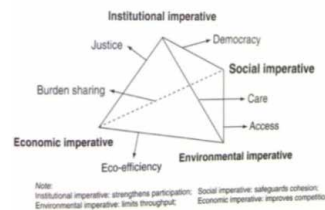
**2. Venn diagram of Sustainable and Nesting Development**

source: Reeves, 2005



**3. Mercury model of Sustainable development**

source: Reeves, 2005



**4. Swedish prism model of Sustainable development**

source: Reeves, 2005

According to Venn's diagram (Figure 2), sustainable development is in the intersection of all three sets or sectors of development, where the development in one sector implies improvement or at least an absence of negative effects on the other two sets, i.e., sectors of development. In the other type, the Nesting diagram (Figure 4), the environment represents the base for the development of the other two sectors. The third, Mercury, separates the three sectors of development into independent fields, showing that sustainability of the different sectors can be achieved independently of the other two (Figure 3). The fourth model, known as the Swedish prism (Figure 4), underlines the significance of management and other organizations in achieving sustainable

The first and fourth types are recognized by critics as those that correspond the most with the principles of sustainable development, because they integrate in the best way all four sectors of development.

The integral holistic relationship towards development refers to cultural heritage with certain particularities as well. Thus, the International Council on Monuments and Sites (ICOMOS) defines the development of protected urban areas as a holistic relation between the past, present and future, where these areas represent an important part of economic and social development. Such a relationship towards development encourages the introduction of modern life and architecture into these areas, as a future trace of the past to be enjoyed and developed further by future generations. (ICOMOS, 1972).

In that sense, heritage should be integrated into modern life as defined in the European Urban Charter: "Care must be taken to ensure that the town does not become an open-air museum. Restoration must ensure that buildings have a valid contemporary life." (EU, 1992). When

taking into consideration that cultural heritage is a non-renewable resource that presents a potential of socio-economic development, it is especially important to determine the limitations and measures of protection that will prevent the negative effects of including these areas into development processes. Using cultural heritage as a resource must be an integral part of the planning process of sustainable development, including the limitations regarding the use of non-renewable resources. (EU, 2005)

In sustainable development, our responsibility is to preserve historical values and pass them on to future generations in a holistic way, by creating the conditions and frameworks for including these areas into contemporary life. Being responsible for future generations means treating urban development in such a way that its values and superstructure will be preserved for future generations in a continuous period of development. The holistic attitude towards heritage and its integral treatment by way of establishing a balanced relationship between economy, society and environment, emphasizes the design of policies and strategies that define in an inclusive way the development alternatives, goals, activities and measures, by taking the responsibility for their implementation.

In Agenda 21, the design of innovative urban development strategies is emphasized, which include environmental and social topics, thereby improving the quality of life through participation of the public, private and civil sectors (UN, 1992). Innovation and creation through the inclusion of the local community can become the source for establishing a balance between different development sectors in sustainable development. One could say that in globalization processes, the integral development of cultural heritage and protected areas becomes one of the development frameworks, affirming the potentials that globalization

carries with itself and overcoming the risks of standardization and cultural homogenization. Integral development defines the framework for the regeneration of these areas, as fields in which it is possible to achieve different forms of balanced relationships. In that sense, the regeneration of protected urban areas is part of the broader term of urban regeneration.

Urban regeneration is understood differently in different disciplinary fields, giving advantage to specific values that an urban space generates or carries as a potential. That is how certain economic values can be given an advantage as primary goals of regeneration; social values opposed to gentrification, historical, cultural, architectural, aesthetic and visual values by preserving past traditions or integrating them with the aesthetics of the present time. I would say that improvement is the common denominator of urban regeneration in different disciplinary fields and values. Improvement in sustainable development implies maintaining and creating an integral space, establishing connections between the socio-economic and spatial-physical aspects. In fact, we return to the original meaning of regeneration denoted as a new generation of things, which is understood differently in relation to the chosen values and receives different names and terms.

The term urban regeneration is different according to the presence of inherited ambient values of a certain urban space. In that sense, a difference can be made between urban regeneration that respects inherited ambient values, and regeneration that values the current urban tissue as worthless in the sense of ambience and cultural-historical values. Since the subject of this paper is protected urban areas, the process of sustainable regeneration can be observed from the viewpoint of creating an integral space and place, whose main advocates are the protected cultural and historical values.

In addition, I would like to stress the type of integrative processes that is adequate in the sustainable regeneration of protected urban areas. As they represent a non-renewable resource, they must represent the central point in the processes of sustainable regeneration. This further poses the question of the adequate type of sustainable development, applicable to protected urban areas. Regardless of the type of integration, sustainable integration has its dimensions that are given different advantages in concrete cases.

Sustainability in urban regeneration creates a balance between the protection and development of local identities, including them responsibly into global trends as the pillars of socio-economic development. The simultaneous need for the protection of inherited values, and the development of new ones, stresses the importance of an integrative approach. At the same time, it implies the preservation of non-renewable resources, such as urban cultural heritage, as well as facilitation in the development of new ambient values. Such an approach combines the concepts of space with different development paradigms (economic, social, physical, divided space) and promotes a multi-dimensional 'glocal' site<sup>1</sup>. In that way, a glocal site (space) becomes a subject of regeneration, and focuses on the problem of global and local identities. The significance of research lies in its analysis of the role of urban design in securing integrative methods for a holistic development of ambient values in the processes of harmonizing horizontal and vertical relationships, according to the dynamics of globalization and relatively static local traditions. Also, there is a dilemma about the main discipline for this kind of integration that enables both preservation and development including integrative protection.

### 3.0 ACHIEVING INTEGRATION: URBAN DESIGN VS. PLANNING

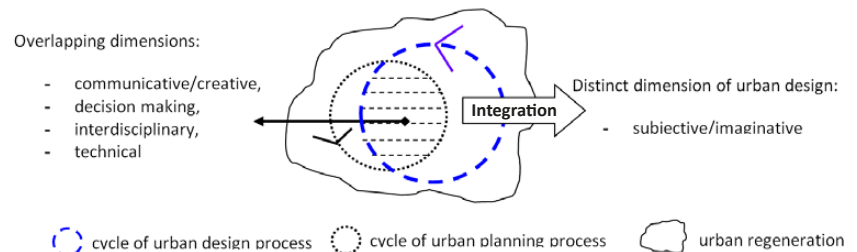
The interaction between urban design and urban planning for the sustainable regeneration of the built cultural heritage in protected areas is related to a favoured urban paradigm in a specific socio-economic context. Therefore, both disciplines can be practiced as blueprints, achieving expected results in a top-down instructive process of policy decision-making. This paradigm is usually seen as a rational-positivistic one where hierarchical planning system is deterministic and strict. On the other hand, the disciplines could be thought as iterative and integrative processes of achieving mutual consensus among relevant stakeholders. These processes are practiced in a collaborative and sustainable paradigm. Sustainability evaluates urban design and planning solutions by the quality of their processes, with regard to the level and type of participation. These antipode positions of urban design and urban planning in different paradigms mostly make assumption and opinion that urban planning and urban design have strict boundaries. I believe that these boundaries are more ostentatious than they are solid.

I take the point of view that urban design should be seen as multidimensional process of subjective-imaginative, communicative-creative, interdisciplinary and technical activities (Madanipour, 1996). Also, urban planning, considered as a process rather than blue-print planning, has its communicative-creative, interdisciplinary and technical dimension (Healey, 1997). The subjective-imaginative and creative dimension of urban design is a powerful integrative force in different ways. As it is presented, the most of the process of urban design and urban planning overlap. Therefore, urban design is also seen as a decision-making process that goes through the phases of strategic

planning. This dimension equates the discipline with urban planning. Therefore the question arises: what is the difference between urban design and urban planning? I would answer the imagination of urban designers, crucial for making quality of places.

Furthermore, I would say that urban design and urban planning overlap in all dimensions except the subjective-imaginative (Fig. 5). This dimension is essential for the process of quality place-making in sustainable regeneration. According to the principles of New Urbanism these qualities are: “...neighbourhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice...” (CNU, 1996).

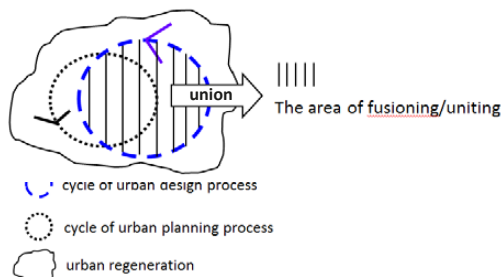
5. Overlapping and distinct dimension of urban design and urban planning in the process of urban regeneration  
source: author



These qualities are achieved in the overlapping areas, led by the imagination of urban designers. According to Landry, Harvey, Jacobs, Dovey, the imagination of urban designers is crucial for quality place-making, the integration and rationalization of different ideas and creativities in a wide participation process practicing Dovey’s “power-to” rather than “power-over” in the creative milieu for open communication (Landry, 2005; Jacobs, 1992; Dovey, 1999). This integration leads to Harvey’s “making sense

together” for Habermas’s communicative action (Harvey, 2007; Habermas, 1984).

Urban design and urban planning should work together in order to achieve quality of place making in urban regeneration. The integrative dimension lies in urban design, particularly in the imagination of urban designers as artisans. By my opinion all the other dimensions have a “corrective” role in the rationalization of urban designers’ imagination and social creativity. Therefore, urban design seen as a process plays an integrative role in urban regeneration, as well as between two disciplines (Mrđenović, 2011a;2011b;Mrđenović, 2011c). From this point onward I will look at the two disciplines as “fused /united” (Figure 6) regarding achieving the betterment of urban regeneration. Also, I will refer to them as ‘Integrative urban design.’ This will be especially important for the discussion of their role in urban regeneration of protected urban areas. The attribute ‘protected’ will lead to discussion among “fused disciplines” and integrative protection.

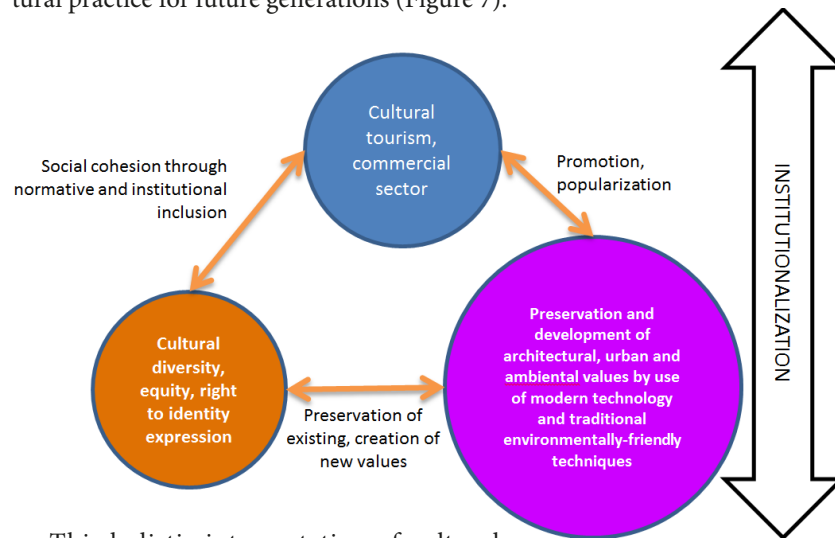


6. The area of “fused/united” disciplines of urban design and urban planning creating the process of Integrative urban design  
source: author

In line with international documents by UN, EU and ICOMOS, Integrative protection is a discipline that seeks to “bring life” into protected urban areas according to the principles of sustainability (UNESCO, 2005; ICOMOS, 1998; ICOMOS, 1994; ICOMOS, 1982; ICOMOS).

This means that integrative protection, also

brings together different sectors of sustainability: economy, society, environment and institutions through encouraging public participation to be active in the promotion of cultural heritage in line with contemporary concept of cultural tourism (Dojčinović 2005). This kind of integration leads to the promotion and protection of cultural-historic heritage as a non-renewable resource. This process also leads to social cohesion among local people, who bring life into the physical structure by carrying social behaviour and knowledge from past times. This is essential for a holistic approach between past, present and future and our responsibility to preserve past and present cultural practice for future generations (Figure 7).



7. The type of sustainable development for the regeneration of protected urban areas

source: Mrđenović, 2011c

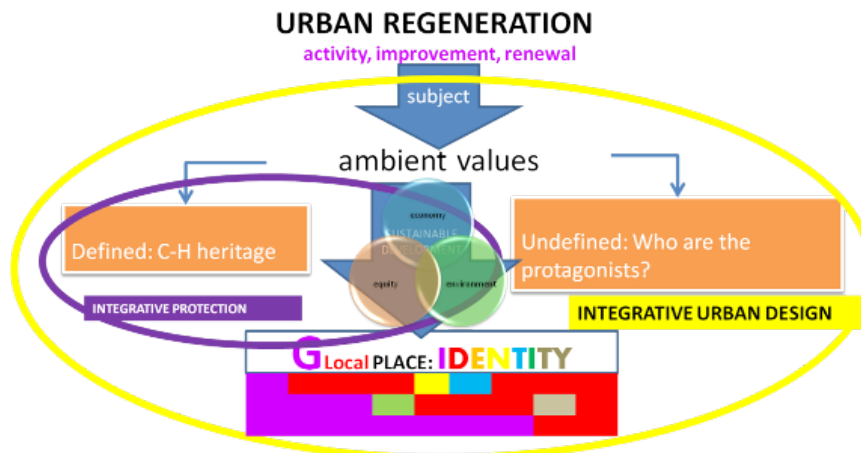
This holistic interpretation of cultural goods is the best described in the Stockholm declaration: “These rights assume the need to recognize, appreciate and maintain heritage, and to improve and respect a framework for action. They assume appropriate development strategies and an equitable partnership between society, the private sector and individuals to harmonize interests affecting cultural heritage, and to reconcile preservation with development.” (ICOMOS,

1998). According to the previously discussions, I raise a question: what is the role of the merged urban planning and urban design - i.e. integrative urban design - in the development of protected urban areas if integrative protection already covers it?

In my opinion, the role is in Lefebvre's "spatial reproduction" (Lefebvre, 1991) of "social and knowledge of past and present times", creating place that brings contemporary life into past structures, interpreting past activities and integrating them into physical space. This "place making thing" is crucial for the pivotal role of "united disciplines" in protected areas, as I claim for "new universality" in "golden unity" for "colourful fragments" (Mrđenović, 2011b). Here, integrative protection has a corrective, rational, role regarding what should or should not happen in a particular place. In line with this, the process of creating that place should be led by integrative urban design. According to the Amsterdam Declaration: "...conservation calls for artists and highly-qualified craftsmen whose talents and know-how have to be kept alive and passed on." (EU, 1975). It seems like integrative protection and integrative urban design are in conflict, both creating liveable places in protected areas. In further discussion, I will make these fuzzy issues more clear with regard to the process. Figure 8 gives more clarity to this fuzziness.

8. The relation among urban regeneration, integrative urban design and integrated protection

source: Mrđenović, 2011c



Urban design is seen by authorities as a discipline that can give urbanism a new chance in a plural and global society. Globalization as a process has its light and its dark sides. On the one hand, it creates wide disparities between 'the strong and the weak'; on the other hand, it provides a chance to local communities to become stronger in the global game by creating a specific 'glocal' identity. This identity makes urban places recognizable on the global map. According to Castells, being out of this global network is like living in a 'local cage' without any opportunity to revel in the richness of any kind that globalization can bring to localities (Castells, 2000).

According to Madanipour, urban design is a multidimensional process: subjective-imaginative, socially communicative, collaborative, interdisciplinary, strategic, and technical (Madanipour, 1996). Its multilevel attributes can overcome the obstacles that come from conflicts regarding barriers in the communication process. The conflicts come from various interests, values, and identities in the process of framing and creating inclusive future urban places. The artistic dimension of urban design gives it a leading position in urban development. According to many authors, such as Forester, Healey, Jacobs, and Gospodini (Forester, 1989; Healey, 1997; Jacobs, 1992; Gospodini, 2002), art and imagination can provide 'common sense' and 'common places' for Castells's 'frustrated identities' in a plural society. This means that local cultures and urban spaces and places can be regenerated, creating Castells's 'project identity' based on past, present, and future images (Castells, 2004).

This fuzziness is also related to the favoured urban paradigm in the urban regeneration process. The need for protection calls for a rational and positivistic approach, when experts fix standards and assure their implementation,



whilst a collaborative approach assures sustainability of protected urban areas, creating “liveable places” that carry past tradition, urban forms, morphology and contemporary ones oriented towards a future development fitting into wider plans and policies. According to Gospodini: “...it can be said that urban space morphology and urban design are gradually becoming significant parameters or resources in urban tourism development.” (Gospodini, 2001). Therefore, I believe that the type of the urban regeneration process (more rational or collaborative) as well as applied methods in the process will make a clearer picture on the discipline that should have a leading role in the specific phase of the urban regeneration process.

#### **4 NEW METHOD: THE INTEGRATIVE URBAN DESIGN GAME**

The discussion in the previous sections leads logically to questions about overcoming the paradigm crisis using the integrative approach in the sustainable urban regeneration process. It has been argued that sustainability integrates different rationalities, values, and interests in an ethical manner using Habermas’s “communicative consensus” for “communicative rationality.” Also, the research leans on Baudrillard’s belief that problems in ethics should be solved in aesthetics. Therefore, art and creativity represent the light that can overcome the urban paradigm crisis building “common sense” in social arenas and Healey’s “soft infrastructure” using integrative urban design. Furthermore, sustainability integrates instrumental and collaborative paradigms, enabling the clarification of different rationalities. Clarification is possible by using various methods and techniques in different social arenas. This section will present the “Integrative urban design game” (Mrdenović, 2010), an innovative teaching and training method innovated and tested several times in

workshops and trainings with students, academics and stakeholders on different aspects of urban regeneration processes.

In the creative process of urban design, I prefer to speak of the opponents and proponents of the process. The proponents are certainly individuals who possess a certain degree of creativity, potentials of imagination, visualization, argumentation and objectification, while the opponents are protagonists who are interested in participating and contributing to the search for sustainable solutions in an integrative way. Additionally, the proponents of urban design are urban designers, who can perceive and unite spaces with different traditions, using creativity with adequate methods, procedures and techniques. In this chapter, I shall introduce the integrative urban design game as an innovative method for the integration of different rationalities (interest, viewpoints, values) in the process of urban design and urban regeneration.

Methods, techniques and tools of the integrative decision-making process in urban design vary in relation to the rationality type, i.e., the degree and type of participation and collaboration in generating the results in a specific decision-making phase. In the context of sustainable and integrative urban design, both types of rationality play a significant role in the formation of an integrative image of fragmented realities. In different phases through the iterative procedure, they contribute to the integration of different perceptions of a complex reality or future. Generally, they differ with regard to the degree of expertise and level of collaboration they support. They can be categorized according to:

- the phase of integrative urban design they support: (P) Preparation A) analysis of the present, (V) Vision, (S) Strategy, (I) Implementation (UN-Habitat & SIRP, 2005), and
- the level of collaboration: (a) Disciplinary, b)

- Interdisciplinary, c) Collaborativeness
- the type of rationality they support, whether: (a) it improves argumentation, b) improves collaboration and trust-building, c) improves the flow of ideas and information, d) develops creativity, e) raises the awareness level, f) develops identity and space character).

Integrative urban design game is an innovative method and integrates different processes of urban design, such as the subjective-expressive, social-creative, social-communicative, technical-rational, and interdisciplinary. The aim of this method is to develop different types of rationality in a community by an adequate regeneration process and to achieve the quality of place through a creative game in the visualization of space. The method is evaluated in the key segments of the process, using argumentative and expert methods. In this way, it creates the future of the place through its spatial visualization, using three-dimensional and two-dimensional presentations, drafts, drawings and text, different expert methods of polling, interviewing, context analyses, morphological analyses, as well as collaborative methods that support argumentation by use of different diagrams such as problem trees and trees of aims and measures. The essence of the urban design integrative game is to establish a relation between different types of rationalities among stakeholders that can be ecological, market, instrumental, political, public, etc., as well as between the phases of the planning process. As a method, it implies a continual procedure in the development of social creativity, as well as its rationalization.

In the light of creating the conditions for communicative action in the regeneration processes and integration of reality fragments, the method integrates the advantages and disadvantages of the two most apparent paradigms

in urban decision-making, the rational-comprehensive and collaborative, thereby changing the role of urban design in the integrative processes. The problem of the first paradigm is the rationality limitation of stakeholders and experts in perceiving the totality of reality; therefore there is a lesser probability for the generation of winning solutions and decisions for different dimensions of regenerative processes. The problem of the second one can be the absence of a strategic approach in the generation of solutions, i.e. responding to current problems, without insight into the possible development programme/spatial solutions in the regeneration processes. (Mrđenović, 2011a)

The method facilitates the practical command of integrating rational-comprehensive and collaborative paradigms in urban decision-making and process oriented urban design, for establishing a relation with sustainable principles of regeneration. The purpose of the method is in establishing the relations between two paradigms. *“The position that I stand for is an optimistic one, based on the assumption that communicative action can integrate positive and overcome negative aspects of each paradigm, using creativity as a means for open communication, flow of ideas and thoughts. Therefore the argumentative approach uses creativity to make linkages in strategy making, cross-cutting both paradigms providing particular identities, interests and needs to be recognized as well as having an ideal picture of development as a coherent whole.”* (Mrđenović, 2011a)

Therefore, the “Integrative urban design game” overcomes barriers of classical game theory using art and Habermas’s communicative consensus in developing “soft infrastructure” in an integrative manner. Classical game theory is a rational, mathematic theory based on a competitive win-lose process and zero sum results (Pavličić, 2010). It favours gaining singular

interests of subjects and organizations. On the other hand, urban regeneration deals with complex public problems that need consensual “added value” to develop partnerships between public, private, and civil sector. In line with this, a sustainable urban paradigm is visionary, strategic, and project-oriented, ensuring Castells’s project identity and development of glocal place. A sustainable regeneration process builds up communicative win-win solutions, and according to Agenda 21, its implementation is dependent on the local context. Sustainability is a paradigmatic concept that is developed through tailor-made processes for each community (Reeves, 2005; UN, 1992).

The “Integrative urban design game” is a teaching and training method that is dynamic, innovative, and sensitive, using art to overcome win-lose solutions in classical game theory. It unites different rationalities, paradigms, methods, and techniques to perform a tailor-made process for urban regeneration. A tailor-made process depends on local characteristics, the presence of ambient values, a stakeholders’ profile, and a level of local capacity. Therefore, the method is interrelated to the urban regeneration strategic path (Figure 1) as well as to chosen singular methods and techniques.

support only some of the sustainable urban regeneration dimensions and its rationalities. The main innovation of the “Integrative urban design game” is to integrate them into a visionary and strategic process according to local specificities. The purpose of this method was (a) to develop and integrate different types of rationality in the community, using a tailor-made regeneration process and (b) to achieve quality place through a creative game (open play). The method is clarified in the key segments of the process, using argumentative and expert methods. In this way, it created the future image of the place through its spatial visualization, using three-dimensional and two-dimensional presentations, drafts, drawings, and text, as well as different expert methods of polling, interviewing, context analyses, morphological analyses, and collaborative methods that support argumentation<sup>2</sup>. The essence of the method was the establishment of “soft infrastructure” and integration between different types of rationality, as well as between the phases of the regeneration process (Figures 10 and 11).

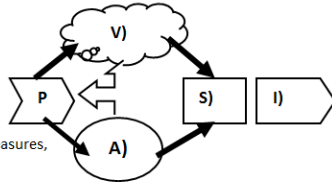
P – Preparation,

V – Visioning,

A – Analysis,

S – Aims, Strategies, Measures,

I – Implementation



#### 9. Phases of the process in integrative space and place making

source: UN-Habitat & SIRP, 2005

Common methods and techniques, such as thematic workshops, analysis of social context, space-syntax, mapping, diagrams, simulation games, cognitive maps, urban morphology, etc.

#### 10. Different methods and techniques of Integrative urban design game, Workshop: Integrative urban design in regeneration of Bač settlement 2011, author Tatjana Mrdenović, with a group of students

source: <http://elearning.rcub.bg.ac.rs/moodle/course/view.php?id=148>



Principles (rules) on which the game should be grounded are as follows:

- Dynamic and iterative approach;
- Using visual, logical, argumentative, technical, creative, collaborative, and instrumental methods and techniques according to specific urban context (Figure 10);
- Creating a framework, such as mimicry models of present and future urban space for encouraging a good spirit, and a positive atmosphere for integrating different rationalities towards common sense and communicative rationality (Figure 11);
- Creating space (creative milieu) for building partnerships and strong clusters among faculties, local communities, and institutions in public, private, and civil sector.

**11. Integrative urban design framework with a mimicry model of glocal space, Workshop: Integrative urban design in the regeneration of the Bač settlement 2011, author Tatjana Mrdenović, with group of students**

source: <http://elearning.rcub.bg.ac.rs/moodle/course/view.php?id=148>



## 5 CONCLUSIONS

Sustainable development, as a process of finding a balance between economy, society and environment, implies, in the contemporary approach to urban regeneration, the integration of the above-mentioned development aspects through the design of integral development policies, strategies and frameworks for action. In the context of sustainable urban regeneration, cultural heritage is recognized as having an economic potential, where states commit to the development of alternative strategies of protecting cultural heritage and making it functional. In sustainable development, cultural heritage is defined as a non-renewable resource that should be responsibly preserved for future generations. Therefore, its regeneration must be an integral part of the policies and strategies of sustainability. As an integrative part of the human environment, cultural heritage should be the focus of the activities of all the actors in the development process related to economic, environmental and institutional sustainability. Non-renewability of cultural heritage and its significance for the development of personal and collective identities places it in the centre of integration.

In that sense, the aspects of sustainability, which according to Venn's diagram are integrated into the intersection of economic, social and environmental dimensions, can represent a danger to the protection of urban areas. The risk of such integration is perceived from the aspect of tourist and commercial capacities of these spaces, as well as the dangers of introducing newer identities into the existing ones, which are under higher protection. It can be said that protected urban areas in the process of regeneration move on the line of sustainability, from the Mercury model to Venn's diagram (I shall not comment on the Nesting model here, because it is clear that it is on the extreme line of ecocentrism), with the introduction of the

dimension of institutional sustainability. That means that the degree of protection determines the equality level of sustainability sectors in the process of their integration (Figure 7)

Urban planning and design, seen as developmental integrative factors/processes in a global network of constant and dynamic changes, are challenged due to their role in the global position of local identities. Traditionally, urban planning is seen as a wider process that frames or determines urban design solutions. In contemporary theory, urban design is seen as a wider process incorporating creativity as a means for “making sense together” (Forester, 1989). This changes the role of urban design and its relation to urban planning. In the contradictory process of globalization, where identity is a crucial factor for positioning in multilevel networks together with plurality, urban design carries potential for “new universality” in line with modernism, integrating modern rationality and postmodern fragments into “golden unity” providing strong lines for “colourful fragments”.

Seen as processes of urban decision making, both disciplines generate phases of strategic decision-making, in line with plurality and equity as a principle of sustainability. These phases should be generated in interdisciplinary, and wider public social arenas, using different methods and techniques that support creativity, argumentation, expert analysis, clarity, social interaction and collaboration. Therefore, integrative urban design plays a crucial role in the sustainable regeneration of cultural heritage, bringing art, creativity and imagination to the process. The main principles of integration of two disciplines are: (1) Using creativity in promoting identity, (2) Integration of a rational and collaborative approach in strategic decision-making, (3) Integrating different dimensions of sustainability into a framework for action, vision, strategic alternatives.

This kind of integration needs innovative

methods for its implementation, such as “Integrative urban design game” is. It represents a new method for sustainable regeneration in order to define its principles for applicability in various contexts. The purpose of the method is to develop soft infrastructure and quality of integrative place through a creative game, using the mimicry model of present and future urban space. The novelties of the method are:

- applying, adopting, and improving available methods in urban design for soft urban regeneration;
- innovating tailor-made methods in the development of soft infrastructure;
- creating a new combination of known methods in the process;
- their integration into mimicry model of future glocal urban place (Figures 10,11).

As a method, it implies a continual and iterative process in the development of social creativity, as well as its rationalization towards a new unity, common sense, and the glocal identity of place towards integrative urban regeneration. It has been shown that the method can develop soft infrastructure towards Habermas’ communicative consensus, new unity and Castells’ project identity. If it follows these principles:

- a dynamic and iterative approach;
- applying visual, logical, argumentative, technical, creative, collaborative and instrumental methods and techniques according to a specific urban context,
- creating a framework, such as mimicry model of present and future urban space for encouraging good spirit and positive atmosphere for integrating different rationalities towards common sense and communicative rationality;
- creating space (creative milieu) for building partnerships and strong clusters among faculties, local communities, and institutions in public, private, and civil sector.

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1. Glocal identity and space imply the ethical integration of local and global identities. In the process of „glocalization“, the risks of homogenization of cultural expressions and the exclusion of local cultures from the „global network“ are reduced.
2. Different diagrams such as a problem tree and a tree of aims and measures.

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