Added Qualities of New Interventions within the Historic Built Environment

Lana KUDUMOVIC*, İnanç Işıl YILDIRIM

Abstract: Contemporary architecture, within the historic urban settings, is acquired as the contribution of the current time to a particular existing ambience, whereas new interventions are expected to be significant authorship achievements. This paper discusses the new qualities within the historic urban fabric produced by the contemporary interventions, in particular, those of balanced contrast. Such new spatial contributions may be applied on different levels (ambience (urban), object and detail), while each of them is expected to produce added qualities. Built on different theories about space qualities and characteristics, this paper evaluates selected examples by distinguishing three major groups of produced qualities (physical, economic and socio-cultural). This paper also suggests balanced contrast applied to new interventions within the valuable historic ambience as an acceptable approach. Finally, the correlation of all comprising elements of the newly design objects with the surroundings is emphasised to be important in producing new values.

Keywords: balanced contrast; contemporary upgrades; historic environment; new architecture; space qualities

1 INTRODUCTION

Contemporary architecture as an expression of our time in general reflects the ideas to produce new spaces of the desired shapes using possibilities of advanced technologies. Architecture was always acquired as an outcome of specific circumstances aroused under certain space and time, and the task of architects reached new techno-technological level. Often, contemporary architecture emerges as isolated unit, without space and time limits, in line with the needs of the contemporary lifestyle.

While contemporary architecture teaches us about opportunities of the current time, there is always a question of how it fits the existing built or natural environments, and especially within the historic ambiance. This has always been a challenging topic and learning from the past did not always bring satisfying results. Furthermore, cities have always been a stage on which many changes were imposed; sometimes due to the requirements of the new time or with changing trends or else after the destruction that resulted from natural or man maid disasters. Thus, examples of post WWs periods of reconstruction brought big urban modifications during which some of urban areas were entirely changed.

Over the time, especially during 19th and 20th century, the clashes between modern city and historic city were constantly present. Finally, toward the first half of 20th century historic city was defined as a new heritage category [1]. It is important to mention valuable contribution of recognising importance and preserving historic towns given by Camillo Site, Hegemann, Geddes and others [1]. Thus, architect Geddes was among most innovative ones toward directing the interdisciplinary nature of town planning and putting architecture in context, defined by history of place, social aspects of the place-people and their culture and tradition-spatial form to social processes [2], while Gustavo Giovanoni defined technical approach to urban conservation practice [1].

During the post war period, Modern movement in architecture and planning had influenced changes of some of the historic areas. The Charted' Athènes of CIAM (Congress Internationaux d' Architecture Moderne) from 1933, proposed to solve problems of the cities by setting four functions, in particular dwelling, recreation, work and transportation [2]. Examples of modernism in architecture showed that despite the new ideas some of them have been considered failures [3], in particular the ones in relation to the historic settings and anticipation of large-scale reconstruction.

The following period will bring forward questions on intermingling, the two directions, one focused on new architecture and development and the other one on the conservation, protection and enhancement. In addition to shifts in the method of building construction, new architecture and urban development has also helped to change the very understanding of architectural and urban heritage preservation. All this together sought to be important to establish new discipline of urban conservation in the second half of 20th century as an important subject [1].

Therefore, learning from the past, will impel the birth of various international charts and recommendations on this challenging matter of urban conservation[1] and of integrating new architecture in old historic buildings or settings, giving clear instructions on the use, definition and protection of heritage. It is evident that the role of architectural heritage within the urban areas has been changed over time, but clearly accompanied with education and new criteria on economic values, technology application and alike. However, this attitude towards heritage remains a problem for developing countries, which must find a way and method of heritage protection in order to adapt to the new developments. Urban conservation is also understood as an activity which may strengthen socio cultural identity of the place by bringing new life [4]. This also requires new interventions.

Further on, end of 20th century onward was marked by star architecture and some of the famous works that marked the new period in which all the possibilities of the current time were embraced. Some of them became iconic by idea (eg. Fred and Ginger dancing house by Gerri), or by its

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[1]It is possible to follow issues of urban conservation, and in particular urban settings as the subject of conservation, already since the Venice Charter from 1964. (eg. Venice Charter mentioned urban or rural settings; in 1972 UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention) of 1972 mentioned monuments, groups of buildings and sites;

The Declaration of Amsterdam - 1975 of the Congress On The European Architectural Heritage stated that the architectural heritage includes also all areas of towns or villages of historic or cultural interest; 1985 Council of Europe's Convention for the Protection of the Architectural Heritage of Europe, Granada included also matters of urban conservation; etc.)

expression (eg. Bilbao effect). However, there is a question on why some works of architecture are better accepted than others, especially when they are in close relation to the historic ambience.

Present day question of great importance is how to balance between further developments and preservation, when dealing with the historic cities, areas or urban landscapes. Therefore, an open inquiry is how we should value new architecture set within historic frames.

Over the time, importance of historic ambience and its values was comprehensively understood beyond its significance embedded not only in the single structure but also in everything what defines one historic ambience, such as urban pattern, forms, relation of elements and relation with natural environment, social structure etc. Thus, preserving of historic settings allowed further development and involved newly created spaces or structures that were in line with understanding such ambience.

At the same time, on a larger scale, new architecture inevitably affected historic tissue due to its effect on the surrounding changes of silhouettes and vistas. Almost every metropolitan area was affected by this trend and this was also a breaking moment for directing new development without compromising historic settings.

So far, in dealing with the historic environment new interventions have been welcomed as long as they do not endanger authenticity of those areas. It is defined that interventions vary from the scale of regeneration toward small interventions in rehabilitating historic structures with minimum of changes applied. However, full expression of the contemporary form in valuable tissues is visible in the correlation of details, whole objects and surroundings. It is possible to observe a detail in relation to an object, an object in relation to the ambience, but also a detail in relation to the ambience. All these interactions give a result, positive or negative.

The task of the architect is to carefully examine, valorise and analyse present relationships of constitutive elements within the historic environment, such as the open spaces, streets, squares, structures etc., as well as spirit of the place and to carefully synthesize these studies in the new intervention that will be a reflection of the age in which it originates.

Analysing such interrelationships will guide the architects, and the result may vary from contemporary form, within the valuable entities, that will be welcomed or rejected by the users (communities, visitors etc) or it can even degrade the entire historical environment.

The new infill can be interpolated as a range of expressions from pure facsimile to contrast which may be acquired by materials, forms, scale, volumes, colours etc. It is important to point out that the architect should avoid simply applying traditional elements to a new building, paying attention to the given situation in all aspects, when designing a new building, from its position in a given environment, to the idea of form, materialisation etc.

Vienna memorandum states that the new design in old setting should ensure that the contemporary architecture does not compromise historic nature of the city [5].

There are many positive examples that have been done with the right measure. In architecture as a spatial-temporal dimension, the new design responds to the demands and needs of a current space and time. The boundary between the new building and the historical ambience should be set, not roughly, but so that the ambience that usually displays

historical layering gets another layer, which will be considered as added value.

In any case new additions to the historic ambience are considered as a contrast and this paper will consider different level of interventions which are not imposed to be added value only by appearance. This is defined as a "balanced contrast" which requires additional sensibility of architects who need to understand the values of the given environment which will be emphasised and appreciated rather than diminished. On one hand, there are contrasts produced by new forms that do not disturb the fabric on the urban level, but their volume, shape, scale or materialisation cause tensions and provocation and in final misbalance.

Methodology of this paper is based on the idea of showing examples in which balanced contrast of new additions has been achieved. The analyses started with defining balanced contrast of contemporary upgrades within the historic environments which, due to different scale in which they occur, are distinguished as those of urban level, building level, major extensions and details. Further on, building on the theoretical background about space values and the response of the new design to the historic environment, the three main factors are extracted as a general criterion for evaluating success of the new interventions within the historic tissues. In particular these are physical attributes (form characteristics and qualities), economic values and associated socio-cultural features. According to this attitude the selected examples will be elaborated afterwards.

2 THE THEORETICAL BACKGROUND

Space that surrounds us is generally understood to be realm in which three dimensional objects are located in a certain time. Moreover, in the inhabited areas the relations of object, relation with the surroundings (built or natural-un-built) are important in producing variety of built-up forms, whether urban or rural.

Rapaport states that the environment is a structure that engages a series of relationships of elements and people producing specific pattern. It reflects and facilitates these relations and transactions which are primarily spatial since the objects and people are related through separation in and by space [6].

Furthermore, habitations also bear another level of the relation among people and people with the surroundings, that affects their way of life, behaviour, acting, etc.; this is accountable for formation of certain cultures and thus of distinct local traditions. As a result, there is a variety of characteristic, distinctive spaces with associated values together defining authentic spirit of the place.

Space values in general are defined to be grouped as the one related to the physical appearance or form or else to the socio-cultural context. Historic places are even more distinctive as they carry a range of values and possibly a dose of symbolism and may be related to the identity, and therefore they symbolize cultural continuity. They are very often in relation to some events from the past.

This can be reflected in a single historic building or open spaces where the past events took place or even in an urban fabric and pattern that is outcome of understanding space arrangement in a specific time and under particular socio-cultural setting.

The specific character of a place is also in close relation to the presence of people, their traditional

behavioural patterns, habits, customs, attitudes that are associated with particular activities connected to the place itself contributing to the space identity. Schulz stated that one's identity is founded in relation to the integrity of existential space [7].

Different authors (Lynch, Jacobs, Gehl, Adams and Tiesdell, Montgomery etc.) have elaborated on space qualities in general finding them to be dependent on functions, activities, physical attributes (form), social cultural and psychological dimensions and image [8-13].

Further on, values of historic environment are understood to be related to the authenticity and significance. The question of authenticity is a key assignment in dealing with historic environments and its components, concerning its values, as suggested by Nara Document on Authenticity [14].

By definition, heritage values could be differently distinguished but generally vary from those related to historical, socio cultural aspects or else to the economy, and by different authors they are differently defined. Together in their interrelation, they are giving the meaning or significance of the historic assets and spaces and they affect experience of the space and the way spaces are perceived.

Awareness of necessity of constant changes of urban environment and its adjustment to the new life standards inevitably affects historic areas and valuable structures set within them. Nevertheless, primarily the general evaluation of specific space/place is important and how will new interventions add value.

Macmillan [15] defines values created in the built environment as exchange value, use value, social value, environmental value, image value, cultural value. Rapaport considers organisation of space, time, communication and meaning to be engaged in environment design. "*Design can hence be seen as an attempt to give form of expression to some image of an ideal environment, to make actual and ideal environments congruent*" [6].

Moughtin et al. explained one aspect of urban design: the role, function and form of ornament and decoration in the city assuming that all "*development should be an attempt to decorate the city*" [16]. Thus, the aesthetic experience and visual appeal of decoration depends upon four factors which include setting, physical form and the pattern, circumstances and perceptual framework of the observer.

In response to the historic environment new designs are challenged on how they would blend new with the existing urban pattern. Thus, Adams and Tiesdell [11] give examples of new iconic buildings that are helpful in emphasising distinctiveness of places by integrating them into existing urban tissues being placemaking instead of being element of place signifying. Bloszies [17] mentions possibilities in achieving contrast of new design in historic context as extreme, restrained or referential. While extreme contrast and restrained contrast both are equally clear, contrast achieved by being referential to the rhythm of the old is more subtle in expression but also effective design quality.

Further on, one of the important aspects to be consulted and considered when dealing with the historic environments is internationally accepted doctrine for the heritage preservation, which is supported by the international charts. Among important documents dealing

with the relation of contemporary time and historic areas is Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas which emphasizes that historic areas and their surroundings should be protected against damages caused by damages including "*unsuitable use, unnecessary additions and misguided or insensitive changes*" [18]. Also, it is mentioned that the modern urbanization is "*a real danger that can ruin the environment and character of adjoining historic areas. Architects and town-planners should be careful to ensure that views from and to monuments and historic areas are not to be spoilt and should be integrated harmoniously into contemporary life...*" [18].

In 1987 Charter for the Conservation of Historic Towns and Urban Areas was adopted in Washington. It states that among methods of urban conservation there are also new functions and activities and construction of new buildings or adopting existing ones during which there should be payed attention on character of the historic town or urban area and new interventions should be compatible with, while adopted to the contemporary life requirements, and new structures should be built to respect existing layouts (in scale and lot size) [19]. It is also important to mention that, to some extent, new contemporary elements were welcomed stating that "*the introduction of contemporary elements in harmony with the surroundings should not be discouraged since such features can contribute to the enrichment of an area*" [19].

The Vienna Memorandum on World Heritage and Contemporary Architecture - Managing the Historic Urban Landscape from 2005 underlines the awareness and activities on inevitable changes which are challenging our built environment daily, including historic one. The meaning of the historic environment was enlarged to the urban landscape, beyond traditional terms of "historic centres", "ensembles" or "surroundings", to include the broader territorial and landscape context [5].

Even though it refers to the sites of UNESCO World Heritage List, the Memorandum gave more details on contemporary architecture principles and guidelines for urban development. Contemporary architecture was introduced to refer to different scale interventions such as "*planned and designed interventions in the built historic environment, including open spaces, new constructions, additions to or extensions of historic buildings and sites, and conversions*" [5].

Also, proposed Principles suggest that contemporary architecture should respond to the development demands and to ease socio-economic changes without compromising authenticity and integrity of historic environment respecting the inherited setting [5].

Further on, in 2011 Recommendation on the Historic Urban Landscape defined historic urban landscape as an approach "aimed at preserving the quality of the human environment, enhancing the productive and sustainable use of urban spaces, while recognizing their dynamic character, and promoting social and functional diversity" [20]. This is also considering contemporary intervention that is anticipated to be harmoniously integrated in a historic setting.

Above mentioned will be the base for selecting criteria for evaluation of success of the new interventions within the historic tissues.

3 CONTEMPORARY UPGRADES WITHIN HISTORIC ENVIRONMENTS

Intervention in spaces of recognizable identity, established architectural language and visual codes require an understanding of these values created through different timeframe during its development.

In order to manifest a phenomenon, and thus the appearance of contemporary architectural forms in the historical environment, firstly needed is an idea as a creative stimulus, inspiration. Further on, the idea develops and manifests itself through form, function, materialization in particular through design. Gregory [21] considers design as a process of applying science and technology to gain desired result that would serve a purpose.

Final design led by the idea of the architect, or designer, is the production of space that responds to the task in order to utilise new function while also responding to the existing physical conditions of the site (physical context) which include terrain morphology, climate, urban fabric pattern and the socio cultural context. In final, some ideas are better accepted than others, which are to be properly evaluated before implementation to gain best possible result (physical, cultural, economic...). Lynch stated that the "*Environmental images are the result of a two-way process between the observer and his environment. The environment suggests distinctions and relations, and the observer - with great adaptability and in the light of his own purposes - selects, organizes, and endows with meaning what he sees*" [9].

In a historical context the new design must have sensitivity toward the existing values, which are embedded into existing built structures without undermining associated values and intangible heritage reflected into specific character or spirit of the place.

Khalaf [22] states that the understanding of the heritage values is important for the establishment of a compatible relationship between an intervention and its surroundings.

The new design within the historic built environment ranges from the open spaces design, new infill design (entire new building), major extensions of historic buildings up to the level of details (small interventions). The image of the place is expected to be enhanced by these upgrades (on three distinguishable levels of interventions: urban, building level and detail), while the inner space arrangement and design has no direct influence on changing exiting urban patterns.

However, the interiors are important as they are directly related to the function and thus economic values. Further on, activities which are taking place are significant as they can trigger the liveability of an area. Norberg Schulz explained that there are limited possibilities for each form to receive content, as they are mutually conditioned and interdependent factors of the same overall experience [7].

Further on, the existing forms of historic buildings are very often under challenges of adaptive reuse. It is in line with the requests of our time to provide sustainable structures, which can be difficult to read in a way we expect from new designed buildings. On the other hand, the economic or socio-cultural aspects are also in question and may be fully reached by accommodating new functions.

By applying adaptive reuse, new and old will blend. Even with the constraints of old buildings there are many positive examples. The adaptive reuse may engage mostly interior oriented interventions or else engage major historic building extensions and additions to fulfil lack of spaces for new functions. Wong defines types of host building as entity, shell, semi-ruin, fragmented, relic, and groups stating that "*all host structures are in many ways found objects, whole existing structures that have lost their relevance and are unused or underused*" [23].

Most common principle of design intervention within the historic environment, at any level is the principle of contrast. Generally, contrast is an acceptable method applied for the contemporary interventions within the historic tissues. However, there is always a challenge how to make a balanced or acceptable contrast as a new dialog while being respectful toward the existing environment.

There is a range of contrast from more extreme toward smoother similar to the existing environment. New interventions seek for new design and approaches, however more challenge is perceived in balanced contrast produced by "good measure". As Moughtin et al. explained, the contrast in architecture, urban design and ornamentation may be applied over many fields and whatever the forms of contrast are used there should be produced a unified effect and the difficulty faced is in seeking the right degree of contrast [16].

Some of the basic principles to produce balanced contrast of new interventions within the historic environments include: similar or fitting scale to the surroundings, forms which are not drastically different from settings nor causing extreme surprise or heavy tensions, materials different from the rest of the settings while single material is noticeable as predominant, they are responding to the setting as a logical feedback with no emphasised element. These may also serve as good parameters to define interventions as balanced contrast within the historic environments.

On the other hand, even if it makes tension or provocation toward existing surroundings it still may be well accepted. However, there is thin line between successful and unsuccessful design achieved by a contrast. The new design is expected to be beyond solely an application of new materials with no intention to become quasi historic intervention nor should it compete and produce dissonance, divergence and conflict in the historic environment.

3.1 Values of New Design within the Historic Environment

Drawing on Macmillan's definition of built environment values, it can be defined that the newly designed forms in the historic built environment bring new values and qualities to the existing surroundings which are determined by three main factors: physical attributes (form characteristics and qualities), economic values and associated socio-cultural features.

a) Physical attributes - form characteristics and qualities

Any new interventions to the exiting space are characterized by the form which by its character obtains physical qualities or tangible values. They are important for the visual image of the spaces as visual references.

Oktay stressed that the "*visual forms strongly affect how we make use of the city, and relate to the following qualities: the form, proportions and style of the buildings and their relationship with other buildings and urban spaces (morphology), their colour, materials and texture,*

landmarks, vistas, meeting places, street furniture, signs and ground surface" [24].

New forms may be created by applying range of principles such as unity, balance, rhythm, dominance, contrast etc. However, interactional correlation of scale and proportion, volume or form, and materialization are the aspects important for the physical qualities of the new design which as final product represent contrasting form toward the existing urban setting.

There are, however, a variety of possibilities, which are applied in defining new forms. Some of them are volumes that are created by unity and completeness of the elements, order and meaningful relation; else there might be dominating element, or repetitive elements that create recognisable rhythm of applied elements etc. Further on, form is always set within the spatial frame. Therefore, it is important how we set the form, establishing visual order of applied elements in relation to the single structure and to the surroundings within the fabric and how will it affect surroundings observed from outside. Proportions are important for the final production of space along with the scale. Depending on the environment, this may vary from more monumental (such as old temples, religious buildings, etc) or human scale, adapted to the man and their daily needs (eg. vernacular houses). Materials are also important aspects of giving visual qualities of different texture and colours to the new buildings.

b) Economic values

Overall success of the design is important for the economic values and sustainability of the building and surroundings. The better image produced by the new design will give more visibility and incensement of user interest, as good design is important for how the users of the space are feeling in newly created environment, no matter whether it is open or close space. Also, a well-established design that is responsive to the surrounding will increase economic value. Yet, economic value of new interventions is dependent on the future function.
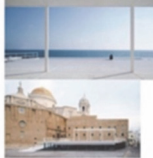
c) Socio-cultural features of new design

Already existing built spaces are determined with socio-cultural context. New design may affect existing built environment by changing its social structure on different level. It may affect living standards and thus provoke people to leave area, or to increase population density; it may cause area to be used or inhabited by specific age group, educational level, income, etc. In historic built environments, important aspect of authenticity is local culture, tradition, habits, events since they are assuring spirit of the place. The new design thus should enhance exiting socio-cultural values, by providing them more space for performing or assuring new functions which will be in line with their values. Socio cultural context is also in close relation with collective memory and events from the past, so they should not be endangered by the new design.

3.2 Evaluation of the Contemporary Upgrades in a Form of Balanced Contrast Built within the Historic Environments

As mentioned before, all new interventions of the contemporary upgrades may be categorized at different occurrence levels, while also producing new qualities. Accordingly, for better interpretation several examples will be analysed in Tab. 1.

Table 1 Examples of contemporary upgrades in a form of balanced contrast and their values

Level of intervention		Urban level	New infills		Major extensions		Detail
Example		**Between Cathedrals, Cadiz, Spain, 2009, by Alberto Campo Baeza**	**City Hall, Murcia, Spain, 1998, by Rafael Moneo**	**Odunpazari Museum, Eskisehir, Turkey, 2019, by Kengo Kuma**	**Kolumba Museum, Cologne, Germany, 2007 by Peter Zumthor**	**City Museum Ljubljana, Slovenia, 2004 by Ofis Architects**	**Albertina Museum Vienna, Austria, 2001, by Hans Hollein**
Physical qualities	Shape / Form	Straight lines, Light structure	Simple form; Rectangular front facade where rhythm of opening was created by arbitrary used pilasters;	Cubic forms; simple volumes emerged into single one; principle of unity emphasised by horizontal façade covering;	Massive but simple shaped new addition; simple selection of material;	Simplicity reached by applied material and shape; Light structure;	Dominant element of the canopy while not surpass surrounding buildings;
	Proportions and scale	Intimate;	Intimate; fabric; Similar to the existing	Oversized; In contrast to the surround	Oversized;	Moderately emphasizes;	Oversized, used to emphasise entry section;
	Materials / Texture	Different from the surrounding smoothly applied;	Similar to the surroundings;	Contrast to the surrounding with reminiscence to the old function of the locality	Newly used bricks in a new manner different from the authentic part;	New materials different from the one of the existing structures;	
	Relation with the environment	In balance by scale and neutral texture	In balance by scale and texture;	In contrast by the scale; dominant structure;	In contrast to the surrounding by the scale and form/shape; Dominant structure;	In contrast by the texture and form /shape;	In contrast by the scale; Emphasis of the location;
Image value		New attraction Visual enhancement of the open public space	Visual improvement of plaza; Contribution to the completeness of the urban grain;	New attraction; prominent structure; New focal point;	More prominent and enhanced appearance Contribution to the completeness of the structure;		New emphasis of the historic building;
Socio cultural features		Meeting place,	Both plaza and city hall got more space for enhanced social interaction;	Cultural interactions; contribution to the preserving cultural assets; Education, Socialization, meeting place;	Cultural interactions; contribution to the preserving cultural assets; education;		Cultural function, meeting place, more cultural interactions etc.
Economic contribution		More attention to the the site	Contributing to the economic sustainability of the area		The new addition provided space needed for better functioning;	Enhanced museum functioning, encouraged more visits;	Enhanced function of the museum;
Function and Use values		Open public space and archaeological site; view spot providing vista	Public function of City hall;	Public function Museum;		Public function museum (entry section) Added new detail to the existing built up area	
Photos[25,26,27,28,29,30]							
Tendency towards		Neutrality	Neutrality	Tension	Tension and provocation		Provcation

Primarily, based on discussed theoretical research and relying on the previously explained principles for the *balanced contrast within the historic environments*, it was possible to define selected cases - interventions to fall within this category. Further on, these examples (Tab. 1.) demonstrate emergence of new qualities at all levels of appearance (urban level, new infills, major extensions and detail), which were then distinguished as physical attributes, economic values and enhanced socio-cultural features. The new produced qualities of the selected examples under each category are defined based on reviewing idea behind the projects, considering major facts about its functioning and analysing architectural features and then summarized in Tab. 1

Finally it is possible to outline interdependence of these values and newly created qualities as shown in Tab. 2.

Table 2 Interdependence of created values and historic built environment

Exchange value	Use value	Social value	Cultural value	Image value	Environmental value
Physical attributes				Physical attributes	
	Economic values and contribution				
	Socio cultural aspect of new design				

4 DISCUSSION

Following the presented examples of contemporary interventions within the historic environments, even though being different in scale, the impact of each is multileveled.

The new designs of urban and building levels are interrelated as they may directly affect the urban fabric, in which relations among spatial elements and their details, and relation with surroundings, confirm the nature of the historically present urban or physical context.

Zivkovic in his paper explained that contemporary urban and architectural design of multifunctional complexes built in the place of old factories improved the quality of life and produced attractive places, while only few have taken into consideration the possibility of utilization of the existing building resources, which is negative phenomenon from the point of sustainability and architectural preservation [31].

Presented cases in this paper of the new interventions are categorised as balanced contrast due to general impact to the historic settings described as smoothly blended rather than being imposed by dominance, heavy tension and alike. As Warren stated new design should allow "inventions and creativity while restricting visual damage and intellectual falsehood" [32].

The categorisation of created values and produced qualities for the presented cases are grouped in three general categories (physical form, economic values and associated socio-cultural features).

Thus, physical attributes are reflected in an applied form that is important to accommodate new function; this is expected to be designed in line with environmental responsiveness and to contribute to the better image of the place.

Vienna memorandum in the Guidelines for urban development states that the high-quality design and implementation are to be careful about cultural-historic context, taking into account given scales, volumes and heights. Also, it suggests that the new development should minimize direct impacts on important historic elements, in particular significant structures or archaeological sites [5].

Physical attributes showed that balance was possible to be reached in overscale volumes by simplified shape and selection of materials (eg. Odunpazar museum, Entrance to the Albertina Museum, Kolumba Museum Cologne). Some of the forms also caused slight misbalance with the surroundings, provocation or tensions while the balanced was archived by scale and applied materials (the extensions of the City Museum in Ljubljana).

All given examples showed importance of the new functions which have direct relation with the enhancing economic values of the particular historic building and the surrounding as well. Economic sustainability of the places, sites and buildings are assured from the better use, image and environmental responsiveness.

And, finally socio cultural aspect of new design is detected to be related to the function, image, culture, social values, which are all interdependent factors as some of them are already existing and should be preserved, encouraged, enhanced while with adding new contribution they are expected to be respectful toward it.

5 CONCLUSIONS

Our cities and towns are living organisms that are fast changing and growing at present time. Throughout the history, urban development has imposed changes on the urban fabric, and this has affected value of historic environment. Even with the developed international approach to the urban conservation and comprehensive and holistic ideas on further directions on the urban heritage, preservation and urban growth, not all the examples of the contemporary interventions have been well established and performed.

Further on, contemporary architecture is a valuable contribution of a current time, which has shown different response to the space and time in which it is built. There are contemporary responses which may emerge in the entirely new areas, independently from the historical tissues, and still embody tradition. In any case, newly built structures are inevitably connected to the surroundings in which they are set, natural (un-built) or built, that should not be endangered.

Dealing with the interventions within the historic environments, it is possible to distinguish four different levels on which they are applied; these are detail, infill, major extensions and urban level. Further on, in valuing new design, besides having defined the level on which the interventions are applied, the cause effect relationship is defined on three levels of qualities: physical attributes, economic values and socio-cultural enhancement.

Presented examples show new qualities and the impact they have on their surroundings. Finally, overall contribution of each may be judged as balanced in terms of space production. In relation to the historic urban environment, it is not always with the same success, as can be seen, that some of them create kind of spatial tensions among elements that make them up.

Generally, new contributions expected in the already defined historical environment can be created by balanced

contrast without causing unsure images of the environment.

Finally, it is especially important to avoid quasi-images in time frames, obtained by facsimile expression. Also, overemphasized contrast could mislead visitors, users and observers into understanding the space, to perceive the new design as a key element or focal point just because of its appearance.

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Contact information:

Lana KUDUMOVIC
(Corresponding author)
Fatih Sultan Mehmet Vakif University,
Istanbul, Turkiye
E-mail: lkudumovic@fsm.edu.tr

İnanç Işıl YILDIRIM
Istanbul Arel University,
Istanbul, Turkiye
E-mail: inancisilyildirim@gmail.com