Concept of a hybrid contextual model for designing environmental objects

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Abstract. This article is devoted to the hybrid model as a new paradigm for contextual design of an environmental object that has dualistic features within its genius loci. Features of the concept of contextual hybrid are revealed in the article on the basis of experimental design material devoted to problematic environmental objects of cities with unclear differentiation of contextual aspects.

The strategy of building a hybrid contextual design model is described in the article on the example of the territory of "Cherkalikhina Gora" in Ufa. The authors introduce the concept of "urban memory" as an ideological platform for the project model of the territory. Dualistic features of contextual aspects of the environment through the rod of urban memory are impaled on the physical platform of a contextual hybrid model such as "nature", thereby assembling a single hybrid contextual model of environmental object design.

1. Introduction
Aspects of the urban environment are complementary. But they need to be restructured in order for the designer to have reference points for the project model of a new environmental object [1,2].

The methodology of designing environmental objects is based on the concept of binary opposition of compositional and contextual methods of shaping [4].

The compositional design method is considered as a process of borrowing and author's interpretation of cultural forms and prototypes [4].

Cultural prototypes of some particular places may resonate with current trends in environmental shaping. So nomadic ethnicities have no analogues of distinctive settled structures, and they are borrowed prototype forms from European culture. This approach leads to the unification and depersonalization of local environmental objects, giving them the features of an average "quality" architecture [6].

The second element of the considered binary opposition is the contextual approach of environment design [1,4].

The urban organism is the result of the vital activity, cultural and political will of previous generations. Therefore, it does not exclude the products of vital aberrations and, as a result, the appearance of antagonistic features in the deterministic aspects of the environmental context of specific urban locations [3].

Differentiation within the context of individual urban areas can be difficult by the absence of distinct characteristic parts of it. At the same time, the inseparability and dual essence of the context of these locations are elements of the self-identity of the entire city.
The structure of the environment object context can be conditionally divided into two mutually complementary "horizontal" and "vertical" levels [1].

The horizontal level is humanistic. It defines the process-event nature of the environment, set by the functional and behavioral logic of movement and interaction of people within a specific location.

The vertical level implies a change in the position of a person in the city as in space as in time. The behavioral logic of a person here goes to the mental, phenomenological level. The city becomes a field of meanings and spatial images for people.

2. Materials and methods
Using the horizontal and vertical levels of context, the authors propose the concept of "Contextual hybrid" as a way to form a contextual project model obtained by "interbreeding" various antagonistic environmental aspects [3].

The antagonism of environmental aspects is shown in the following. Figurative emanations of the functionality of neighboring objects are antipodes to each other. The historical building is mentally indistinguishable from the name of its owner who has no public sympathy. There may also be contradictions in the need for changes to the urban place related to the possibility of exploitation for people and at the same time in the preservation of an authentic silhouette outline of a natural or urban landscape of the same place.

The dualism of oppositional pairs reveals features that meet the value criteria in the field of spiritual and cultural, positive mental and imaginative, and functionally justified for the interested parties of the projected space [5,7].

Each aspect does not carry the potential to implement a strategy based on it for creating a memorable image of the space [5]. However, strengthened by the mutual influence of the hybrid context, they create a new contextual reality, which already claims to build on its basis the identity of the entire projected space.

3. Application of the concept of a hybrid contextual design model.
The territory of Cherkalikhina Gora in Ufa became an experimental platform for testing the concept of contextual hybrid. This area is densely built up and has a polar functional composition.

The territory also has a "hidden" historical and cultural potential. Historical buildings in this location are not rated as architectural monuments. The local population does not perceive the semiotics of these buildings as historical codes of past epochs [7]. The public marks them as traces of life's perturbations.

These objects have a fixed mental image of the "old", "not functioning", which leads the citizen to a spiritual dilemma – "leave as a memory" - "remove as evidence of decrepitude and backwardness".

The Muslim cemetery of this territory has ambivalent features of a mentally shaped component. It is both a spiritually intimate territory and socially significant as a burial place for iconic personalities of Ufa. There is both a religious and sacred site centered in the mosque "Gafran" and everyday life processes of the local population. It has the imagery of mourning mysticism and optimism of spiritual revival as a place of Sunday school at the mosque and a summer children's camp.

The idea of "urban memory" became the basis for a positive perception of ambivalent images of cemetery and historical buildings with weakly expressed features as cultural objects and historical monuments [7]. Perceiving an object on a mental level, a person understands that it represents both the past, present and future of the territory. History objects become "assets" of the context, carrying the potential as starting semantic interpretations for new objects in the environment [2].

Thus, the water tower of the early twentieth century and candy and gingerbread factory of D. P. Brenstein, built in the late nineteenth century, become "pillars of memory". They mark benchmarks and reference points for growth and development on the "body of urban organism" [7].

The idea platform "urban memory" for the model of contextual hybrid for the projected new environmental object begins to generate positive features of the surrounding dualistic context. The new object is an environmental connective tissue between the existing objects of the territory. So the new environmental object is a single historical and cultural complex that absorbs all the objects of the existing
environment, equalizing and not contrasting them with each other, but alternately demonstrating and activating as a person moves within the new space.

The unique natural landscape of the place with viewpoints on the Belaya river on the cliff of Cherkalikhina mountain, a special pedigreed variety of plants with characteristic endemics of this place – all this is a special natural context of the territory. Nature becomes a contextual platform for assembling the physical aspect of a new hybrid context. As common places of all contextual aspects of the territory, the chosen contextual platform connects the urbanized territories of the center of Ufa (built according to the plan of V. Geste’s quarter grid) with nature with its naturalistic geoplastics, biodiversity and panoramic views.

![Figure 1. Hybrid contextual model of "Cherkalikhina Gora".](image_url)

In this way, the metaphysical aspects of the environment through the ideological platform of urban memory are immersed in the physical aspect of the hybrid model. The physical platform of the hybrid model is the method of merging the natural component of the environment with the orthogonal grid of the existing development of the city center. The city merges with nature. Straight streets are extended in one plane and acquire the softness and outline of natural terrain in another plane. Breaking off a mountain "Cherkalikha" the streets become viewing platforms. Moving along the streets from the city center to the sites that open magnificent panorama of nature and distant objects of the urban environment, a person understands the metaphysics of the urban organism growing from the depths of centuries and looking to the future [5].
4. Conclusion

All the different aspects of the completely perceived context of the environment are united by the condition of temporary formation and relate to the results of the past and history.

Historical objects that do not have such valuable characteristics can enter as part of a single new architectural environment object, becoming the architecture of the narrative, giving an impulse and a clear vector to the future.

The designer, using the ideological platform of "urban memory", offers an environmental dialogue, immersing the visitor in an articulated plot, and changes the passive interaction with space to an immersive one [2,7].

The model being formed by the concept of contextual hybrid is aimed at identifying the list of requirements and restrictions. They are focused on achieving the harmonious integrity of the future.

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**Figure 2.** Design model of the historical and cultural complex "Cherkalikhina Gora".

**Figure 3.** Impacting criteria for the project area.
environmental object as a space of image and form [1,5], where all the material components of the existing environment become resultant "characters" of the spatial mise en scene.

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