

deformability characteristic;  $\varepsilon_{np}$  – maximum value of structure precipitation.

To solve this problem we use the variational Bubnov-Galerkin method. The calculation is performed on small time intervals. Length of the shell  $l = 5$  m, the wall thickness  $h = 0,4$  m, shell radius  $r = 3$  m, Poisson's ratio  $\nu = 0,35$ . Taking into account nonlinear properties significantly affects the results of the numerical calculation; also obtained that the stabilization of draft occurs within two years.

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## **MODEL TRENDS IN THE USE OF MEDIA-FACADES IN ART-CENTERS**

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Usually, architecture surrounding us is static and buildings must be reconstructed for changes. Generation of architects and engineers dreamed of buildings and other urban structures that are able to react and adapt quickly to different circumstances changing their shape, spatial and functional configuration, light level, appearance.

Media - facade is seamlessly integrated into the architectural image of the building or the display screen of any size and shape on the surface (with the possibility of broadcast media - data - text messages, graphics, animation and video), which is installed to the internal or external (for transparent facades) of the building. Display Media - facade, usually gathered from the light - diode modules of different shapes and sizes.

The feature of the concept of media - facade design is a combination of the building with a bright interactive lighting. This means a new approach to the interaction of buildings and structures

with the environment. Media - the facade gives the building an unusual way, and also carries a powerful informative loading [1].

Media facades are used for informative and artistic purposes:

- a tool of designer lighting of buildings and facilities;
- a tool for providing a unique architectural project;
- a tool for a variety of architectural spaces in the city;
- a tool of data communication (broadcast television - or video);
- a tool of interaction with various cities, settlements, buildings,

etc.;

- a tool of external electronic advertising (digital outdoor).

LED can be assumed as a primary unit of media facades - a semiconductor device that converts electricity directly into light of various colors. Compared to other electric light sources (fluorescent lamp or incandescent lamp) LED has several advantages:

- pure color that is especially appreciated by designers;
- a wide variety of colors and direction of radiation;
- high reliability and durability (shock and vibration resistance);
- increased efficiency;
- long service life (up to 100 thousand hours);
- low power consumption;
- high level of electro - and fire safety due to lack of high voltage and heat emitters;
- environmentally friendly product (no toxic components).

The main disadvantage of the use of media facades can be considered as limited functionality - it is most effective only during the dark time. In daylight its appeal falls, and therefore less influential information transmitted to the viewer.

Another disadvantage is the high cost - the cost of 1 m<sup>2</sup> facade is 3,000 - \$ 20,000.

And technical drawbacks: the problem of thermal control (only hot countries), reduced efficiency at higher power and temperature.

At the present stage of development the disadvantages described above are solved in most of the major companies involved in LED media screen and (Daktronics, Barco, EKTA, Traxon).

Media facades wake up many emotions, both positive and negative; it all depends on the ability of properly use of the building architect integration capabilities with media facades features of the

building. Now architecture seeks to use the media facades for more stylistic and design purposes. If earlier media facades were installed after construction of the building and did not originally exist in the project, now media facades - is part of the process of designing a building, a part of the design and engineering solutions. This approach enables the most effective place such systems and allows a new look at the architecture of the city.

Development is achieved by combining the efforts of architects and designers specializing in revitalizing the urban landscape and urban lighting design.

Trends:

- promising integration of digital moving images into the urban landscape;
- modify the perception of architecture and public space in the digital Epoch;
- interactive design and its relation to other tools for communication with citizens;
- models to ensure a balance between commercial, social and cultural interests.

Using this type of facades in art schools allows combining the processes occurring inside the building with the environment. The most striking examples of the use of media - this facade Art Museum in Graz (Austria) and reconstruction of the art - the center of Kimball, located in Park City (Utah, NL).



Fig. 1 Museum of Art in Graz (Austria)

The facade of the museum is a special alloy of architecture and new media technologies, for which he received the title BIX. BIX - an acronym formed by the words "big" and "pixel" that best expresses the subtleties of the technical side of the design. 900 square meters of surface formed by a giant amoeba acrylic glass plates under them there are circular fluorescent lamp power 93 000 W. Voltage to each lamp can be supplied in the range of 0 to 100 %, which allows to show simple texts and graphics on the surface of the building. Electrical installation is controlled by the computer [2].

Interactive facade «BIX Light and Media Façade» Art Museum in Graz, Austria has made this cultural institution for world-class landmark. Prototype installation created by the brothers Jan and Tim Edler, became exhibit of the Museum of Modern Art MOMA.

BIX - it is a visual and interactive installation area of 900 square meters, is stretched like a cocoon on the museum building. It allows you to use the facade of the museum as a monitor and implement projection, create animated objects or leave message to the city and the world. This functionality is performed by means of thousands of lighting elements, pixels constituting the big screen, but instead of thin LEDs used here annular fluorescent lamp. In fact, BIX asked a fundamentally new standard mixing and interpenetration of architecture, art and media.

Enabling to the registry the objects in the MOMA exhibition shows that seven years after the realization of the project has not lost its originality and conceptual novelty. Founders Bureau realities: united brothers Elder comments on this fact: "We first treated the project as a kind of a creative laboratory and experimented without regard to possible financial constraints. The subject of our research was the dynamic architecture of the new time and its place in the urban environment. BIX - it is rather a form of dialogue than architectural finished product. "



Fig. 2 Expansion and reconstruction of art - the center of Kimball (Utah, USA).

Architectural bureau Brooks + Scarpa presented to the public their concept expansion and reconstruction of art - center Kimball, located in Park City (Utah, USA).

Four-storey annex area of about 2 square meters in the upper part glazed and covered with transparent membrane made from polycarbonate. Volumetric pleated element irregular shape resembles a frozen cloud sky, it promises to become a local landmark, landmark - Brand Park City. Facades of buildings are, in fact, media panels: it is assumed that they will be used as the wide screens for showing films.

As a result, today's building is a universal volume, whose appearance - media facade, the dynamics of which creates the basis for unprecedented visual integrity, emotional openness and high cultural significance of contemporary architectural object.

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## **SECTION 12. Social sciences**

### **GENDER, MASCULINITY AND FEMININITY**

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*Masculinity and femininity* in the broadest sense are a set of attitudes, roles, norms of behavior, hierarchy of values typical of the male and female sex in each specific society. A more detailed interpretation of masculinity and femininity can be given in terms of the gender theory. Here the possibility of the masculinity and femininity typologization opens, that arises due to gender as the basis of the study methodology.

#### ***A glimpse of gender***

In the scientific language the term "gender" is used in the narrow and broad sense: its narrow sense is used in the analysis of female subordination, and the broad sense is used to describe social sex characteristics as distinguished from the biological ones. The interpretation of the gender concept depends on the study paradigm, within which male-female relations are studied. We share the point of view of those researchers, who study gender in the context of the social constructivism paradigm.

According to the theory of the social construction of gender, gender is not a biological sex, not a combination of personal traits, not a role. *Gender* is a specific set of cultural characteristics that determine the social behavior of females and males and their interrelations [1, P.71]. Gender does not simply applies to males and females, but to their interrelations and to the way of the social construction of these