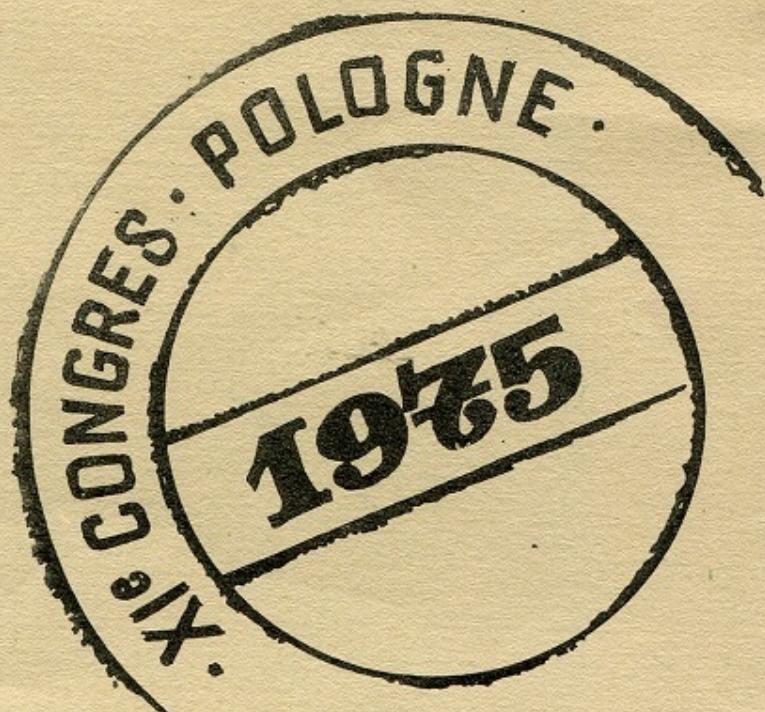


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V I S U A L P O L L U T I O N

VISUAL SPACE

Visual perception does not reflect a phisical shape of reality; - however, it institutes a set of instinctive reflexes, - serving to adaptation of man to his environment./W. Starkiewicz/.

The aesthetical does not denote the visual - but visual objectives stipulate the aesthetical.

A. N A T U R A L A N D U R B A N E N V I -
R O N M E N T

1. ELEMENTS AND THEIR DISPOSITIONS

N a t u r a l - heterogeneous elements non organized disposition /vegetation/.

N a t u r a l a n d c u l t u r a l - heterogeneous elements organized disposition /cultivation/.

D e v a s t a t e d - homogeneous elements lack of disposition /anarchy of suburbs/.

U r b a n - homogeneous elements /monoculture of prefabricated forms/, homogeneous disposition /rule of linear perspective, scheme of light orientation of buildings/.

2. ELEMENTS OF NATURAL ENVIRONMENT

Process of photosyntesis and factors of sun-lighting /geographical latitude/ - determine the position of elements of the organism .

The shape of object is not reiterated, it represents a bequest of total information about the forme and as the record of history of object.

The shapes of Nature are governed by laws of geometry. In reality - in Nature - do not exist - a regular, plain and monochromatic surface /cristals/.

Optical stimulus from natural environment are heterogeneous - they are composed and mutable, on the contrary, artificial forms are not complete, therefore they attack only certain sides of organ of sight.

3. ELEMENT OF URBAN ENVIRONMENT
MONOCULTURE OF ARTIFICIAL FORMS

Parallelogram - rectangle cube - forms the urban landscape of today /townscape/.

Typization of prefabricated elements of buildings, their equipment, media of visual communication.

The image of cube is ambiguous, it can be seen as a flat image of lines, or a modifiable image of the cube. The image of spatial disposition of homogeneous elements is ambiguous also.

Homogeneous elements need their distinction

differences of size and position, graphic signs, vehement media of artificial light and colour.

4. INVASION OF SIGNS

Amount of typical elements of architecture, as well as the growth of media of visual information induce the "invasion of signs - producing total topographic disorientation /man feels lost/ - then they attack the organ of sight - violating the threshold of the adaptation of man.

5. IMAGE OF THE TOWNSCAPE
DETERMINED BY CONVENTIONS OF PERSPECTIVE

Linear perspective, its discovery and practice were conditioned by consciousness of the epoch.

Renaissance practice of classic perspective was the medium of articulation and disposition of the homogeneous elements of architecture /individual features of buildings in this period, categories of their significance, tendency to situate the towns on the topographically differentiated terrain/.

Linear perspective gives the ambiguity of image of the solid, and also of the topography of the ground. The conventions of the method of expression of depth on the plane has been so far a basic rule of architectural practice /method of projection/.

6. IMAGE OF TOWNSCAPE DETERMINED BY RULES OF LIGHT
ORIENTATION /Charter of Athens/

The basic problem of objectives of the geometry of the sun - differentiated according the geographical latitude and climate is really important as the assential factor of forme - it is neglected in contemporary architectural practice.

Constant growth of the intensity of lighting /lux/
and the stability in time of the intensity and color
of artificial light - attack the organ of sight.
Natural light is always mutable and dynamic in constant
change of intensity and color.

OPEN DOUBTFUL POINTS

Monoculture - homogenouity of elements of architectural
forms and their disposition?

Growth of number of signs and invasion of media of
visual information?

Uniformed, perspectival, non articulated image of
the town of today /man feels lost/?

Stability of intensity of artificial light?

Rise of three dimensioned buildings demand new method
of design?

B. Z O N E S O F V I S U A L P E R C E P T I O N

7. POINTS OF FIXATION OF SIGHT

Research on the trajectory of points of fixation of sight - reveals the phenomena of their constant and dynamic movements - perpendicularly on the plane and horizontally along the line of sight /accomodation and convergence of the eyes/.

As mentioned earlier - in the world of nature there is no regular, smooth and monochromatic surface. Artificial, flat plain without any focal points in the field of vision favours the tangle of points of fixation.

Uncertainty of the space, closed by this screen induce the phenomena of "claustrofobia".

8. PICTURE AND COLOR IN ARCHITECTURE

Any pictural trace on the surface of architectural wall /screen/ forms the focal point of fixation acting as a field for dynamic, visual play - being an equivalent of natural space-sight.

The color is additional factor of identification of the object. "Known" object preserve his identify of color, independently of change of color of light.

Surfacial and artificial color /coat/ covering the solid lose the effectiveness of his activity /shadows on the solid/, deforms solid, masking the proper material. Contrarily - the color receives his full significance treated surfacially, forming anthonomic significative sign. History of painting and of architecture give the evidences of constant controversy between architectural and pictorial elements.

In reality, there is no harmony or unity of the factors of architecture and painting.

On the contrary - every trace of picture opens the wall and destroys the static of architecture.

The picture as an image is, in reality "a window" on the surface of a wall.

For this reason - the media of architecture and painting are antagonistic between them; from their controversy of values is formed the true Synthesis of the Arts /pictures of caves Crete, Pompei, Ravenna.../

Color in architecture consist in the play of the proper color of materials with the changing light.

Practice of today forget the process of the patina as the real factor of color. Artificial color covering the surfaces and the solids of building stirs the spatial relations of forms /make-up/.

High-rise buildings

In the past high-rise buildings were planned to play the symbolique role in the categories of significance, also as the dominant points of topographic orientation. Today the necessities of density of agglomerations, uniformity of towering rise of the buildings demand a new approach; visual categories of design were based on the forms of past /low buildings/ - are not sufficient today.

9. SILHUETTE PERCEPTION

In natural environment, the silhouette of horizon forms the contrast of luminance between the sky and the ground. This contrast is diminished by phenomena of aerial perspective, crumbled into forms and limited by shining - through of covers /leafy-tree/.

In a townscape of today, the silhouettes are hard, regularly geometric. Elevated buildings form screens, which increase the contrast abolishing the free play of the open space.

Design practice opens the problems of searching for more sophisticated silhouettes of high-rise buildings and of materials of the wall covers /brightness, mirror-like surfaces/.

10. INDICATORS OF DEPTH

Superposition of forms, linear perspective and gradients have been so far the basic instruments in the town-planning practice of today.

Disposition of light-shadow and factors of human scale are neglected in practice of today.

11. HUMAN SCALE - "KNOWN OBJECT" AND GEOMETRIC DISPOSITION OF PROPORTION

The law of constancy of vision of the known object concerns its recognition of greatness, color and significance of its position and distance /of course in the limits of sight/. The chair is recognized as chair, color of orange is always orange - even in differentiated color of light.

In architectural practice, geometrical division of parts of building /modular/ determined by dimensions of man, in his amount, are completely not recognizable. Being homogeneous and multitudinous /sky-scrapers/ they are deprived of any significance to the human scale.

12. GROUND FLOOR FIELD OF VISION

The classic perspectival "cone of vision" consists in a position of eye - perpendicular to the horizon. In reality, normal bow of head has an angle of 8 degrees. The line of sight is situated below the optical line of

the eye, making an angle of 5 degrees. Upper radius of light perception makes an angle of 55 degrees. Lower radius of light perception makes an angle of 75 degrees. The position of the eye in the skull and the upper eyelid serve to protect the eye against the luminance /glare/ of firmament of the sun light.

The silhouette of the objects above the line of horizon forms a contrast of luminance.

Consequently, as we see, the mentioned phenomena favour the preference of vision below the line of horizon, forming the GROUND-FLOOR FIELD OF FUNCTIONAL VISION.

The objects situated above this field are perceived in the peripheral field of vision /of course conforming to the distance of object from the eye/.

It is a zone of pedestrian - mutable spatial forms, zone of information and publicity, zone of art /painting - sculpture/.

13. ZONES OF VISUAL PERCEPTION?

An analysis of the process of vision of depth permits to differentiate three zones of perception:
ERGONOMIC, STEREOMETRIC AND PLANAR.

14. ERGONOMIC ZONE OF PERCEPTION

Ergonomic - denoting the reach of arm, its radius is ca. 1 meter of distance from the eye.

The ergonomic zone favours the visual perception of texture and features of material.

Properly, it concerns not only the visual but also the thermal, tactile and olfactory impressions.

In design practice the problems of material, their texture and differentiation of ground surface are extremely important.

There are many mistakes in the evaluation of big-scale urbanistic projects - by small-scale models.

15. STEREOMETRIC ZONE OF VISUAL PERCEPTION

The process of the convergence of sight /two-eyes vision/ cause the phenomena of stereometric perception.

Stereometric vision disappears gradually between 6 meters to 30 meters approximately.

Furthermore, stereometric passes in planar perception

/standing observer/. In this zone - recognition of objects as solids, their identification as the object - safe, secure, dangerous or useful.

Choice of the way between the objects situated on the ground /position and significance of the objects/.

Zone of solid spatial forms - sculpture.

16. PLANAR ZONE OF VISUAL PERCEPTION

Everything in this field of vision is seen as the relations of surfaces and planes.

This zone begins with 30 to 40 meters approximately of the distance from observers eye.

Recognition of objects as the solids in this zone of seeing - is based on the experience /"known object/ or on the indicators of the position of solid and the disposition of light-shadow of the object.

It is a zone of topographic orientation with reference to silhouette of dominant visual points.

In contemporary image of the town, in its density and uniformity of forms - the lack of dominant and characteristic accents for orientation can be observed /to move from - to .../.

This statement is not based on the nostalgia of the past. The industrial methods of construction, problems of infrastructures, economy of housing, density of agglomerations are evident today.

The growth of the world of monoculture of forms, deprived from any articulation and significance pose the essential questions.

No to conquer nature, nor to oppose the artificial to the natural, the technology to the art.

The man has enormous possibilities of adaptation even to the new townscape, but we should not forget, that the organ of sight has evolved in condition of natural environment.

Neglected visual investigation and their practice testing?

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Warszawa 1975

