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Study of waterfront linearity on the basis of selected European cities

Summary

The subject matter discussed in this study concerns processes taking place during waterfront revitalization undertaken in urban areas. Contemporary waterfront transformations and the processes related to them constitute a very topical subject and the interest in the matter is on the rise. Apart from economical and technological aspects, contemporary waterfront revitalization projects give prominence to various social functions, which seem to be understood better and better. Therefore, an attempt has been made to analyse the latest riverside transformations and broaden the knowledge regarding shaping public areas in the immediate vicinity of rivers.

The aim of the research study was the analysis of urban areas alongside river banks, which were in the proximity of constant communication routes for pedestrians and cyclists. Another intention of the author was defining the features which influence the vitality of waterfronts. This group of factors has been termed by the author as waterfront linearity.

In order to fulfill the aim of the study, the formulation of the theses and assumptions by the author was necessary. The main thesis assumed that the vitality of waterfront largely depends on factors of waterfront linearity, such as continuity, recreation, accessibility and architectural diversity. The concept of waterfront linearity and revitalization processes connected with it may help in better and more conscious designing of waterfronts.

As the main research method the author has opted for the observation and analysis of selected waterfronts with the main focus given to the influence of linearity factors on the quality of waterfronts. Initially the research study concerned Lisbon waterfront, and was later verified in three French cities – Bordeaux, Rouen and Lyon. Observations were backed by urban models, which served as an element of correlational research.

A significant element in understanding the processes of waterfront revitalization was broadening the state of research with some indispensable literature regarding coastline and riverside transformations, the importance of water in cityscapes and typology related to the broadly understood shaping of public areas.

The analytical part has been divided into four sections, each of which refers to a different city. The sections include descriptions of waterfront transformations and records of research analysing particular linearity factors. The study is complemented with photographic documentation, models and schemes explaining the urban context. All analyses have been completed with summaries in the form of diagrams which show levels of linearity factors and the related impression diagrams illustrating the vitality level of particular waterfront.

Principal conclusions drawn from the undertaken research study prove the validity of the working hypothesis postulated at the beginning of this study. Research undertaken in Lisbon, Bordeaux and Lyon seems to confirm the fact that linearity of river banks influence revitalization processes, the character of waterfronts and the vitality of riverside areas. Elements of linearity may be used for the analysis of the existing water fronts, during the town planning process and for the shaping waterfront areas which may fulfill various social functions.

The subject matter discussed in this work is an attempt at applying a new approach to the analysis of water fronts. The undertaken research studies may be included into the trends leading to creating architectural theories. They constitute both *ex post* and *ex ante* type of research study; they lead to establishing principles responsible for shaping the character of urban waterfronts. They are also a good inspiration for conducting further analyses and searching for solutions helping to enhance the mutual relation between urbanized area and the river, as well as to align the planned revitalization projects with their contemporary and varied social functions.