

RECONSTRUCTION OF LANDSCAPE

Action aimed at identifying anthropogenic factors influencing the landscape and the restoration of the past landscape, which currently does not exist as a result of its degradation or transformation.

Landscape reconstruction is carried out on the basis of: 1) analysis of historical sources - written sources, iconography, maps and plans; 2) results of specialised geological, geomorphological, ecological, botanical, zoological, biological, chemical, biochemical or archaeological studies; 3) observation of the contemporary landscape - terrain, presence of watercourses, rock material, contemporary human interference in the environment (Kasprowska-Nowak). There are two types of landscape reconstruction: 1) selective, in which only one component of the environment is reconstructed; 2) comprehensive, whose aim is to reconstruct all the elements that make up the landscape (Papińska).

An example of landscape reconstruction are full-size reconstructions of urban centres with their adjacent areas, and often also typical fauna and flora or virtual reconstructions of natural environments and cultural landscapes. The main tools for recreating past landscapes are: 1) GIS (Geographic Information System) systems allowing for the collection of two types of data: spatial (geodetic measurements) and descriptive (maps, plans, aerial and terrestrial photographs, satellite images or three-dimensional aerial scans) (Zapłata, Borowski); 2) geomorphological studies which make it possible to reconstruct the original form of the landscape; 3) archaeobotanical and archaeozoological studies which make it possible to reconstruct the local flora and fauna; 4) three-dimensional scanning and photogrammetry which enable visual presentation of past sites and spaces.

Landscape reconstruction is not the same as "restoring natural elements to their proper state". (e.g. river restoration) – the latter is a term derived from the dictionary of nature protection and means one of the active ways of environmental protection.

Landscape reconstructions are presented in the form of maps, models, mock-ups or interactive animations. At present, the latter is the most popular way of presenting landscape reconstruction. Simulations and digital visualisations are mainly used by museums, but also by institutions popularising the local heritage. Examples of virtual reconstructions in Poland are visualisations created for the Museum in Biskupin, which present the history of the settlement, its construction and location in a natural environment in an understandable way. Another example can be the projects implemented at 3dScanLab UW, including a virtual reconstruction of the urban layout of the town of Zabrost based on cartographic data, iconographic materials – photographs and drawings, as well as a three-dimensional scan of the street.

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Literature:

Kasprowska-Nowak, Katarzyna. „Rekonstrukcja krajobrazu Doliny Wodącej w starszej epoce kamienia (Wyżyna Krakowsko-Wieluńska)”. *Prace Komisji Krajobrazu Kulturowego* 29 (2015): 79-91.

Papińska, Elżbieta. „Przegląd metod stosowanych w rekonstrukcji antropogenicznych przemian krajobrazu”. *Acta Universitatis Lodzianae. Folia Geographica Phisica* 1 (1997): 155-174.

Zapłata, Rafał, Borowski, Michał. „GIS w archeologii – przykład prospekcji i inwentaryzacji dziedzictwa archeologiczno-przemysłowego”. *Rocznik Geomatyki* 11/4 (2013): 103-114.

