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**Spatial changes of landscape resulting from land use
at the Warta River Mouth National Park and its vicinity**

The Warta River Mouth National Park, together with the adjacent areas is a unique territory where a significant shift of natural environment occurred as a result of human activity and, subsequently, processes of renaturalization were launched on such a large scale that at the beginning of the XXI century a national park was created. This made the area unique not only on the country scale but also on the European one. Vast, swampy valley of lower Warta which for several centuries constituted a natural barrier, was used as country border and more specifically-borderline zone. Drained and developed throughout the XVIII and XIX centuries, at the end of XX century it was returned in certain aspects to the initial stage. The accession of Poland into the EU and the Schengen zone caused dismantling of borders, creating thus a possibility of activation and change of land management, placing at the same time some new challenges before protection and management of natural resources. Despite its uniqueness-paradoxically-this area is weakly investigated, above all due to its peripheral, borderline since more than 70 years location and distance from all significant research centres (there is a political border separating it with Berlin which has been extremely difficult to be passed for over half a century), which is partly related to a significant dispersion of documentation in libraries, archives. Both the uniqueness and the specificity of situation of the “white spot” convinced the author to choose this particular area as an area of research on the changes of natural environment, land and landscape management.

The research objective of the work was as follows: **reconstruction and explanation of changes of cultural landscapes of the selected area, identification of the turning points in its evolution/changeability**. Upon commencement of the research the author anticipated that the hypotheses concerning spatial diversification of human impact on the environment: a) the earliest and strongest changes occurring due to human impact on the environment were made to terrains at higher altitudes, b) ice-marginal valley bottom was covered by it for a long time to a minor extent while at present it shows a clear capacity for renaturalization, would be confirmed. He expected that the present state of cultural landscape would continue to be possess visible structures shaped by former centuries, above all, due to the activities of knightly orders in the Middle Ages. Simultaneously he assumed that as a result of renaturalisation processes, younger traces of Frederician reforms and subsequent Prussian transformations of human settlements would be preserved to a lesser extent.

The basis for such assumptions was formed by cartographic analysis of a series of maps. Through comparison of statuses presented within them a restoration of landscape changes was performed. The analyses were carried out via retrospective method, starting with modernity, reversing to subsequent former periods (the description contains chronological order). A rich set of maps from XVIII, XIX and XX centuries was gathered which allowed for assigning a temporal scope of research which covered the last 250 years. The analysis was attempted to be performed with maintenance of even time divisions but a thorough delimitation of periods was determined by availability of individual cartographic materials. Evidence-based data were supplemented by archive information as well as being verified in the field. Gathered data was cross checked. Furthermore their comparison with modern geological maps as well as soil, forest, hydrographic maps etc. turned out to be useful. GIS methods were applied within the analysis of changes of placement of flaps and surface measurements. Drawing conclusions based on data gathered in such manner required restoring of region's history, establishing the most critical historical events which affected changes in population, land management, political affiliation of the region. Restoring turbulent history enabled identification of turning points/breakthrough points and explanation of directions of development of cultural landscapes.

The ended effect of the work was quantitative and qualitative analysis of changes in spatial structure of landscape-its composition and configuration within the mouth section of the Warta valley and in the area adjacent to it. Volatility of cultural landscapes of the area was restored, among others, settlement process while certain key turning points were located. Based on the analyses, field research and landscape metrics which were elaborated the fact was confirmed that within the structure of cultural landscape of the area under research "long-lasting" tendencies have been observed. It is featured by a unique depth, whilst it is expressed especially with regards to settlement network, road network and duration of land use (also in size property structure). This concerns both the activity of knightly orders (as it is assumed by the hypothesis accepted within the work) as well as changes in settlement, land use, management etc. introduced by Prussian rulers (the hypothesis assumes that they will be to a much more significant degree effaced). Hypotheses concerning spatial diversification of human impact on environment were thus fully confirmed.

Drastic endurance of cultural continuum in the region was carried along by the Second World War. The result of further changes is the noted regeneration of landscape and environment the effect of which was the launching of the Warta River Mouth National Park.

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