

SUMMARY

The critical catalogue for the exhibition is one of the grant project "Irrigations – Rediscovered Heritage, Their Documentation and Popularization" (period of solution 2020-2022, funded by the NAKI II program of the Ministry of Culture of the Czech Republic). The catalogue and concurrent exhibition present the results of research that focused on description of the historical development of this specific water management field as well as part of the industry associated with the implementation of irrigations and the production of irrigation equipment. The project also sought to define an appropriate procedure for identifying irrigation objects and systems in the landscape using modern methods and technical tools. The aim was to explore the given issue from various perspectives and using modern methods and resources that are used within humanities, technical and natural sciences. The following organisations participated in the project solution and preparation of the catalogue: T. G. Masaryk Water Research Institute, Research Institute for Soil and Water Conservation and Masaryk University, Faculty of Arts.

From a thematic point of view, the presented results can be divided into two parts. The first part introduces this segment of water management as a part of cultural and industrial heritage, outlines its position and potential within the system of monument protection and introduces procedures that enable to describe cultural-historical values and help to expand and preserve this heritage. It also includes chapters focused on the history, present and future of irrigation systems, describing the typology of irrigation systems and their technological development. The issue of irrigation is viewed primarily from the position of the Czech lands, but there is also a comparison with foreign examples. The second part presents 13 examples of historical sites with a typologically diverse irrigation objects and systems.

The main objective of the project was to document and popularize the history and highlight the potential of irrigation, which was achieved by a combination of archival research, analyses of historical documentation and plans, field research of selected sites and their monitoring using UAV technology with subsequent data processing and visualisation by means of GIS tools, 3D models and schemes. Based on the data processing, a set of maps of individual irrigation sites was created. The maps detail the tracing and state of preserved and extinct irrigation systems, identify their cultural-historical values and potential for restoration and further use.

The chapters on the modern history of irrigation in the Czech lands – beginning in its modern form during the 19th century – present and future prospects, apart from the

legal-institutional framework, the introduction of actors, visions, positive and negative factors, are intertwined with the role of irrigation not only as a tool for intensification, and in some cases even to enable agricultural production, but also as a means of distributing water to the landscape addressing issues related to its scarcity, which is, especially in the last few decades, a very topical matter.

The heritage of irrigation is further developed in the examples of 13 specific sites. Their selection was based on an effort to present various types of irrigation as well as a wide variety of irrigation systems ranging from small-scale (almost local) to large-scale systems. For each site, the text introduces the concept of the origin and historical development of the given system, often leading to its greater or lesser devastations. Many of them were built as very sophisticated unique and innovative systems. The historical and, above all the current, state of the irrigation systems is documented by a rich visual accompaniment, obtained from archival materials, private collections and field research. In this way, almost defunct systems are presented, of which only torsos of objects remains in the landscape, as well as systems which, despite the decline in use at the end of 20th century, that are still functional. For some of the systems, efforts are underway to restore them.

The collected and processed materials are publicly accessible through the project website on the Hydroecological Information System (HEIS) operated by T. G. Masaryk Water Research Institute, and through a map server of tile drainage systems (ISMS) operated by Research Institute for Soil and Water Conservation. In the context of the current struggle with the impacts of drought as one of the manifestations of climate change, the project and its outcomes, including the exhibition itself, should contribute to increasing awareness of the history of planning, building and maintenance of irrigations in the Czech lands and to highlighting the potential contribution of this heritage to the present.

The exhibition is conceived as a travelling exhibition and visitors will be able to see it in the Veronica Centre in Hostětín, in the premises of the Flower Garden in Kroměříž, in the Fort Science – interactive science centre of Palacký University in Olomouc, in T. G. Masaryk Water Research Institute in Brno and finally in Technical Museum in Brno. Subsequently, the exhibition will be archived and will be available lending to other interested parties such as memory institutions, schools, state offices etc. Further installations are also planned in the coming years with the sustainability period of the project.