

Strategy, Planning and Large-scale Design Challenges of Linear River Greenway Trails

Frederico Meireles Rodrigues¹; Ângela Silva^{1,2}; Catarina Silva¹; Sara Terroso²; Carlos Ribeiro²

¹LOCUS . Lab of Green Space, Health and Inclusion of the Universidade de Trás-os-Montes e Alto Douro (UTAD)
²LdP . Landscape Laboratory of Guimarães



Fig. 1 - Natural bend of river Ave. Showing one of the pre-existing pathways (right side of the image).

Introduction

The river greenways are landscape corridors of high ecological, aesthetical and social value, which have been the target of a variety of planning strategies and design approaches. Design projects such as linear or riverside parks, river landscapes reclamation, naturalization and rewilding, cycling and walking ways are amongst the most common. Many are large-scale designs, which cover

discuss the case study of a greenway trail design, through the blue infrastructure of Guimarães, in Portugal. With approximately 60Km the network of trails is an alternative to the typical urban

Design process

The design process started with extensive data collection, the landscape character assessment, creating a geographic information system and preparing field work; Field maps were used to register and analyse the most relevant issues and critical path of design decisions; Next was the synthesis of the design programme, with large-scale layout and classification into 4 levels of intervention (from most to least intrusive); Stakeholders and public consultation took place, according to a cocreation approach; Last stage was specifications design, presented across scales, reviewed several times, taking into account the different inputs.

Ave greenway 32,4 km 578,0 ha

Selho greenway 24,7 km 310,2 ha

scenery, a channel to walk through the city, the repository of rural ethnography, and a linear approach to meandrization, connectivity and access to green space. Therefore, the design objectives were set to value blue and green infra-structure, river landscapes and heritage; and to promote access to nature, learning about biodiversity, and a salutogenic lifestyle.

Fig. 2 - The river landscape - fieldwork

substantial areas of river system, and provide extensive access to these landscapes. This poster emphasises why cities invest in large-scale greenway parks and what are the resulting design challenges. Furthermore, the authors present and

Vizela greenway 6,8 km 50,2 ha



Fig. 3 - Rural character of river Selho. The river is used to move the mills and to irrigate the neighbouring fields.



Fig. 4 - Example of one of the 34 general plan sections of the river Ave Greenway

Lessons learned

The most important challenges were related with managing ecosystems' impacts, establishing links to the urban settings and the existing cultural heritage, managing public opinion, balancing the intervention across parishes and construction cost control.

Fig. 5 - Construction of the new pathway, along river Ave.

