R-Types - Development of a typology of recreationists as a base for planning and design of nature-based recreation areas

Dominik Siegrist, HSR Hochschule für Technik Rapperswil, Switzerland, dominik.siegrist@hsr.ch

Lea Ketterer Bonnelame, HSR Hochschule für Technik Rapperswil, Switzerland *Frans Sijtsma*, University of Groningen, the Netherlands

Abstract

Recreation planning is an important aspect of landscape planning. The population of densely populated urban and peri-urban areas relies on the presence of attractive nature-based landscapes close to nature and open spaces. A central aspect in the planning and design of recreation areas is the inclusion of the needs of the population. Against this background, the aim of the project "R-Types" is to assist landscape architects in planning and designing attractive recreational landscapes. First, a visitor survey will be carried out in five selected test areas in Switzerland. In parallel, an online survey will take place. Secondly, a classification of recreational areas in Switzerland is created on a qualitative basis. This enables to assign specific recreation types to each class of recreational areas. Based on this, type-specific measures to protect sensitive natural areas are developed.

Initial position

Recreation planning is an important aspect of landscape planning. The population of densely populated urban and peri-urban areas relies on the presence of attractive nature-based landscapes close to nature and open spaces (Buchecker et al. 2012). A central aspect in the planning and design of recreation areas is the inclusion of the needs of the population. Motives and expectations of recreationists regarding health, exercise, nature experience and relaxation play an important role (Sijtsma 2012). Another important aspect is the prevention of conflicts of recreation seekers among themselves and with flora and fauna in ecologically sensitive areas (Mönnecke et al. 2006). Against this background, the aim of the project "R-Types" is to assist landscape architects in planning and designing attractive recreational landscapes.

Methodology

First, a visitor survey will be carried out in five test areas in the Swiss cantons of Glarus, St Gallen, Zug and Zurich and in the town of Zurich. The key questions relate to visitor frequency, reasons for visiting, preferences, needs and activities of recreationists. By means of a cluster analysis, a typology of recreationists will be developed on this base of data. This survey will take place between May and August 2016.

In parallel, an online survey will take place. For this survey, the platform <greenmapper> is used in collaboration with the University of Groningen. This is a Google Maps-based map application, which is accessible for everyone via internet. The ad-

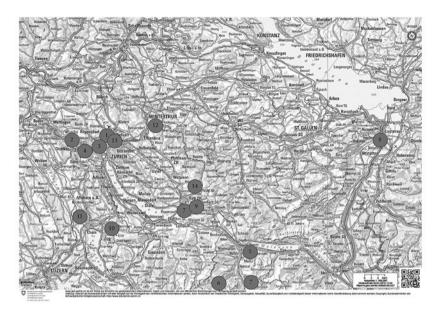


Figure 1. Test areas in Switzerland

Legend: 1 Affoltern-Seebach, 2 Limmatauen, 3 Hönggerberg-Käferberg, 4 Albisrieden-Schlieren, 5 Gäsi, 6 Klöntal, 7 Aeugsten, 8 Rheintal, 9 Jona, 10 Rapperswil, 11 Lorzenebene, 12 Zugerberg, 13 Hardwald, 14 Bachtel

vantage of this tool is that respondents draw their preferred nature-based recreation areas directly on a map and evaluate it by means of a questionnaire. With the combination of geo-referenced data and answers of respondents, a number of spatial analyses can be performed and the results can presented cartographically (Sijtsma 2012).

Secondly, a classification of recreational areas in Switzerland is created on a qualitative basis (see fig 1). The criteria are landscape character, types of protected areas, accessibility, recreation infrastructures and preferred activities by visitors. This enables to assign specific recreation types to each class of recreational areas. Based on this, type-specific measures to protect sensitive natural areas are developed and compiled in a manual for planners.

Expected results

Basic orientations in recreation

From the point of recreation seekers, the need for silence, but also for opportunities for sports and exercise is important. Slow, contemplative activities on one side and quick activities on the other side often face each other.

Some of the recreationists, show interest for information and knowledge (e.g. nature, culture, history), others have the desire to relax and for leisure.

Together with the interest for individualistic (sports) activities, the need for social and communicative meeting places comes along. Recreation areas are important meeting places in public space.

Quality of recreational areas

Nature-based recreation areas should provide for recreation seekers on the one hand the opportunity for contemplation with quietness and wideness, on the other hand space for activities (encounter, sports, children's play, etc.). Of importance is also the security and manageability of the recreation area. It is expected, that key factors for attractive green spaces are usability, accessibility and infrastructural facilities.

In nature-based recreation areas, the local population expects unspoilt nature and a landscape with cultivated areas, but also with natural "wild" elements. Depending on the predominant use in the recreation area the need for (adapted and landscape-sound) infrastructures (such as walking paths / trails, running tracks, cycle paths / bike trails, benches, fireplaces etc.) is gaining importance.

Information possibilities about nature, culture and landscape with themed trails, leaflets, brochures, audio guides, etc. may not be equally important for all recreation seekers. But there is a segment among recreationists, which especially wishes for such information services.

Nature conservation

Potential conflicts between recreational use and fauna / flora should be minimized with good visitor management. In view of the acceptance amongst the local population, soft measures (such as information, products) are preferred to harsh bans. A large proportion of recreation seekers is already quite well aware of the concerns of nature conservation and observes the rules of conduct, where known and realistic.

Many recreational areas include nature conservation objects and are wholly or partly under a statutory protection. This restriction provides so far an opportunity for the planning of recreational areas, in the sense that authorities have an option to handle regulations (e.g. no dogs allowed, defined beach etc.).

Access to the recreation area

From the perspective of those seeking recreation, nature-based recreational areas should be easily accessible, preferably walking and in a relatively short distance from the living place. The quality of the road to the recreation area plays an important role (landscape quality, road crossings etc.).

Well-developed axes for non-motorized traffic are important for recreation seekers, beside footpaths, this applies especially to secure and attractive bicycles routes and other rolling means of transportation (separation from the road, secure road crossings, no stairs etc.).

-∋≬€

- Buchecker, M., Degenhardt, B., Kienast, F. (2012). The interaction between landscape qualities, residents' outdoor recreation, and their well-being. In: Bauer, N., Mondini, M., Bernasconi, A. (eds). Landscape and Health: Effects, Potential and Strategies. Birmensdorf.
- Fingerhuth, C., Hesse, S. Knops, H-G., Schwarze, M. (1973). Arbeitsmethode zur Bewertung der Erholungseignung eines landschaftlichen Angebots für verschiedene Typen von Erholungsuchenden. In: Landschaft und Stadt, 5. Jg., 161-171.

- Mönnecke, M., Schubert, B., Wasem, K., Spiess, H., Kümin, D. (2006). Ansprüche von Naherholungsuchenden und deren Berücksichtigung in verschiedenen Arten von Planungsinstrumenten. Projekt im Rahmen des WSL-Programmes 'Landschaft im Ballungsraum'. Rapperswil, Winterthur.
- Sijtsma, F., Daams, M., Farjon, H., Buijs, A. (2012). Deep feelings around a shallow coast. A spatial analysis of tourism jobs and the attractivity of nature in the Dutch Wadden area. In: Ocean & Coastal Management 68 (2012), 138 -148.