

# PP: HEALTHY INCLUSIVE ENVIRONMENTS & HEALING ARCHITECTURE

## Influencing Bacharach's quality of life: Inclusive sustainable measures for Bundesgartenschau 2029 integration and enhancement

C. Grieshaber, M. Özay, A. Ritz, D. Sagir, J. Schäfer, M. Willner

**Purpose** The Bundesgartenschau (BUGA) is a national horticultural show held biennially in Germany with the aim of promoting sustainable urban development. In 2029, the BUGA will take place in the Upper Middle Rhine Valley, which covers an area of about 65 km between Koblenz and Rudesheim. The city of Bacharach forms one of the main locations during this event (BUGA 2029, 2019). Although Bacharach's historic town center is a major tourist attraction, there are several accessibility issues concerning public spaces (e.g. town center, parks, sightseeing attractions) and public facilities (e.g. supermarket, town hall, doctor's office). This is particularly the case for elderly, which highlights the problems of the aging population in Bacharach affecting their independence and quality of life. Regarding the demographic change, an event such as the BUGA needs to address these issues with inclusive constructional measures creating safe environments. As a transdisciplinary team of students (architecture, computer science, social work), we developed concepts to address these issues aiming at enhancing orientation in the city and mobility for pedestrians while having quality of life and accessibility as a guiding theme. **Method** An examination of the site's accessibility revealed significant deficiencies, such as access to buildings or cobblestone paths. This underlined the need to improve accessibility in Bacharach. We carried out a survey addressing the citizens and tourists of Bacharach (Team BUGA 2029, 2023). The goal of the survey was to increase the participation of citizens and visitors and to capture individual perceptions of the city. The survey allowed for a demand-oriented planning of concepts which can improve Bacharach's quality of life. This approach highlights the importance of citizen participation for sustainable and inclusive urban development in the context of major events such as the BUGA 2029. **Results and Discussion** Based on the identified accessibility issues and the results of the survey, we have developed 11 concepts designed to help tourists and residents navigate and improve access to existing points of interests (Figure 1). The concepts include a guidance system (physical accessible information and smartphone app), the main station, the BUGA entrance, a sports area, a playground, the beach, a campsite as well as the city center and monuments such as the Werner Chapel and Stahleck castle. They include design elements (following the two-senses principle) such as accessible information desks, elements regarding orientation, fully accessible urban space furniture and securely designed pedestrian areas in the city area. The concepts were constrained by the hillside location of Bacharach and by historic preservation. These represent recommendations for cities with similar issues that want to improve accessibility in public spaces in accordance with the DIN 18040 and the applicable law.

### References

Bundesgartenschau Oberes Mittelrheintal 2029 GmbH (BUGA 2029) (2019). Die große Chance für das Obere Mittelrheintal. BUGA 2029. Bundesgartenschau 2029 Welterbe Oberes Mittelrheintal. Ergebnisse der Machbarkeitsstudie. <https://www.bacharach.de/leben/buga-2029/machbarkeitsstudie-buga-2029>.

Team BUGA 2029 (2023, November 29). Bacharach barrierefrei? Studierende starten Umfrage. buga2029.blog. <https://buga2029.blog/2023/11/29/bacharach-barrierefrei-studierende-starten-umfrage/>.

**Keywords:** Bundesgartenschau, accessibility, architectural concepts, guidance system

**Affiliation:** Faculty 2 (M.Sc. Inclusive Design), Frankfurt University of Applied Sciences, Germany

**Email:** [carolin.grieshaber@gmail.com](mailto:carolin.grieshaber@gmail.com); **ORCID iDs:** C. Grieshaber (0009-0001-7317-1818); M. Özay (0009-0006-1545-8139); A. Ritz (0009-0003-0102-5787); D. Sagir (0009-0001-1893-6670); J. Schäfer (0009-0005-6381-6976); M. Willner (0009-0002-0127-1155)

**Acknowledgement:** This research was supported by the Frankfurt University of Applied Sciences, Deutsche Bundesgartenschau-Gesellschaft mbH and the city of Bacharach.



Figure 1. Overview of the concepts