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BRIDGING MZAMBA – PERSPECTIVES ON TRANS-DISCIPLINARY AND CROSS-CULTURAL IMPLEMENTATION PROCESS

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Summary

Paper and presentation address the conference theme Cultivate the Debate through the reflection and examination of the collaborative implementation process of a life-saving suspension bridge in South Africa from multiple perspectives.

The approach is to tell a story that is focused on actors, the process of production, created social space and bridged cultures rather than the built product.

The project bridgingMzamba, located in the global South, serves as an opportunity to enable a collective reflection beyond traditional architectural, engineering or aid practice and representation.

The examination of the trans-disciplinary and cross-cultural implementation process from different perspectives and in diverse media aims at a collective knowledge production and to develop strategies of communication for future exertion of necessary infrastructures when the state, the economy and industry fail.

Keywords: design-build; collaboration; North-South partnership; knowledge-production; infrastructure architecture; impact; collective reflection; communication; representation



Fig.1: Mzamba Bridge in use, Photo: Marlene Wagner

“In our area we are used to not getting anything from government, but in contrast to other places we are not burning cars or riot. We rather reach out and try to find new ways, because we know government is not able to provide service for all. We can meet them half way with new partnerships.” Nonhle Mbuthuma [1]

The community driven project bridgingMZAMBA originated in the urgent need of, and request by, surrounding inhabitants for a safe crossing of the Mzamba River in South Africa and included the design and implementation of a 131-Meter-long suspension bridge in a collaborative manner.

The Austria based NPO buildCollective (Elias Rubin, Marlene Wagner) teamed up with two master students (Florian Anzenberger, Thomas Harlander) of the Carinthia University of Applied Sciences (CUAS) under the guidance of Prof. Dr. Peter Nigst for the design and planning phase.

“Many sketches and research into existing bridge solutions led us into an initially unknown field of work. The more one understands, the more exciting the task becomes. It is more about finding a suitable solution than about inventing solutions.” [2] Thomas Harlander and Florian Anzenberger

A steering committee of 15 members chaired by Nonhle Mbuthuma representing the local community and client, guided the process and carried on negotiations with necessary stakeholders. Support and authorisation could be established in liaison with engineers from South Africa and Switzerland (Dr. Lüchinger+Meyer), environmental experts, the Mbizana Municipality and Eastern Cape Department of Economic Development Environmental Affairs and Tourism to ensure technical accuracy and compliance.

Design and technology was guided by the reduction of environmental impact, available resources, the implementation with lay-people and the hardly accessible construction site.

“Depending on where the longitudinal axis of the potential support structure runs, different geometries of the terrain emerge that would have to be measured anew in each case as well as varying bridge geometries accordingly. Each of these geometries has its own characteristics, as well as physical laws. The preferred ‘softness’ displayed by many Third World examples reinforced the ‘gut feeling’ of proceeding along those lines.” [3] Peter Nigst

Overall project costs of 200,000 Euros were carried solely by sponsors, donations and personal contributions. In several phases of negotiations, fundraising, design and construction since 2012, this extraordinary infrastructure could be realized with October 2015 as a self-build project of community members, students and volunteers.

The Mzamba Bridge is now connecting residents from a catchment area of 30km to necessary infrastructure such as educational facilities, health care, jobs and general food supply. Further it serves as a political landmark and potential attraction to enable socio-economic development through eco-tourism.

The project received a number of international awards including the the Prix Acier 2016, the European Steel Bridge Award 2016 and the AfrisamSAIA Award for Sustainable Architecture.

Design-build projects allow considerations of ideas and requirements, planning and execution and usage and therefore the possibility to set up an overall process of spatial creation. The absence of regulations, aside the established service system of clients, planners and executors, favours the exploration of new partnerships and applied research into alternative ways of practice.

References

- [1] MBUTHUMA N., Chairperson Community Steering Committee, Interview with Marlene Wagner, March 2016.
- [2] ANZENBERGER F. and HARLANDER T., “Pencil and Impact-driver”, bridgingMZAMBA – eine Brücke an der Wild Coast, FH Kärnten, archimappublishers, 2016, pp. 30-33.
- [3] NIGST P., “The Idea as a Mediator between Wishes and Reality”, bridgingMZAMBA – eine Brücke an der Wild Coast, FH Kärnten, archimappublishers, 2016, pp. 8.

Further Reading and media

www.buildcollective.net

<https://www.facebook.com/bridgingmzamba/>