

Department of Architecture

Proceedings of the 5th International Conference on Universal Design

UD2021, Espoo Finland, 9.06. – 11.06.2021

Editors:

Ira Verma

Natalia Vladykina

Laura Arpiainen

The logo for the 5th International Conference on Universal Design (UD 2021) is centered on a white square. The letters 'UD' are in a large, bold, sans-serif font, with '2021' in a smaller, bold, sans-serif font below them. The text is enclosed in a pair of large, dark blue, stylized brackets. Below the white square, there are several horizontal, wavy bands of varying shades of blue, creating a water-like effect. The entire graphic is set against a large, solid blue rectangular background that occupies the lower half of the page.

UD
2021

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Theme: “Higher Education”

Universal Design for Accessibility in Higher Education in Tanzania. A Project of a Building for the RUCU Accessibility Centre according to Sustainable Development Goals.

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Introduction

In the context of the research entitled: "The design of spaces in Higher Education and Culture in Italy and abroad in accordance with the principles of Universal Design, Universal Design for Learning and the ICF" running at the University of Brescia (granted by the Tovini Foundation and the Museke Foundation) it has been possible to work out a project with the Ruaha Catholic University (RUCU) in Iringa, Tanzania, to research into the accessibility of university facilities and support for students with disabilities, applying this research to the pilot case of the RUCU.

The main goal of the research (still active) is the setup of an Accessibility Centre, identifiable as a centre of excellence at a national and international level, which is conceived thanks to the creation of a shared method. The concept behind this study is identifiable with the need to actively access and participate in the preservation and dissemination of cultural heritage: the comparison between different traditions, teaching and communication methodologies, historical-anthropological, linguistic and cultural specificities, represents the paradigm for the formulation of design hypotheses and the needs related to architecture and, more generally, to the lived space.

International cooperation and inclusion: the RUCU case

This paper refers to ongoing research that can be considered the result of an experience that deeply affected RUCU. "*Flowers for Maria and Consolata*. A centre to provide accessibility to students with disabilities at RUCU University. [...] This centre will be in memory of Maria and Consolata who have taught us so much about the value of education for each individual and the power of education for the community". Maria and Consolata were conjoined twins who were enrolled at RUCU for a bachelor's degree in arts and education. Maria and Consolata lived at the

university campus and their presence stimulated a series of reflections on the livability of the spaces, the organization of the courses, the possibility of creating an environment that would allow autonomous management of the daily life of these two students. In 2017 the two sisters passed away and their experience has acquired national relevance to push the RUCU to think about a project for the accessibility of the entire university. The deep link created within the university demonstrating that disability can be considered as a moment of growth both from a human and a teaching point of view and this has allowed overcoming the heavy cultural stigma present in this area and, more generally, in many African realities.

In order to carry out the project a Memorandum of Understanding between RUCU and the University of Brescia was signed in 2019 and a research programme was developed such that the topic of accessibility was faced within a cultural framework. Thanks to this synergistic relationship, accessibility was declined according to the precise needs of the place, through modes that deeply belong to the language of a specific area. In this sense, and in a broader and more contemporary vision, accessibility is not only seen as a set of rules to be respected, but it must be interpreted as a cultural factor that refers to a set of local traditions and lifestyles, a political history and a society rooted. The contemporary approach, borrowed from the ways of international cooperation that leads the global reorganization by introducing the south-south question, calls for a new balance in which each interlocutor is the protagonist of its development [1]. The outcome document of the Second China-Africa Conference on Population and Development states that “The vision *Africa We Want* articulated in Agenda 2063 aspires an integrated, people-centred, and prosperous Africa, at peace with itself [2] - leaving no one behind, reflecting particularly on inclusive growth and sustainable development”.

In a reality in which, historically, the presence of foreigners imposed their cultural model as an example to follow slavishly, the approach adopted is based on a tool (Universal Design) to be declined and applied according to the local culture. From a linguistic point of view, it is like trying to translate this method according to Swahili culture so that it can be communicated an inclusive methodology through parameters that can be understood not only at all levels but built directly according to a rooted approach to the place of application. For these reasons, therefore, accessibility must also be interpreted as a technical declination of the concept of inclusion.

The address of the reflections that emerged in the international debate is clearly exposed in some founding documents that indicate the key points of this necessary aspiration [3]. The Culture for Sustainable Urban Development Initiative [4] seeks to demonstrate the link between the implementation of the UNESCO Culture Conventions and the achievement of the UN Agenda for Sustainable Development [5]. Concerning the UN Agenda, SDG 11 on sustainable cities makes it clear that culture plays an essential role in realizing sustainable urban development, particularly through strengthened efforts to protect and safeguard the world’s cultural and natural heritage. This initiative brings together national and local governments, universities and research centres, NGOs and civil society actors from across the globe to promote a culture-based approach. SDG 11 aims at better planning and management to make urban spaces more inclusive, safe, resilient and sustainable, with a particular reference to the right of persons with

disabilities to social integration provided for by Article 15 of the Charter on Fundamental Rights of the European Union [6].

Moreover, SDG 4 addresses the question of the quality of education and the right to study: “Obtaining a quality education is the foundation to creating sustainable development. In addition to improving quality of life, access to inclusive education can help equip locals with the tools required to develop innovative solutions to the world’s greatest problems. [...] Investment is needed in educational scholarships, teacher training workshops, school building and improvement of water and electricity access to schools”. Furthermore, reports and statistics from the Tanzanian Commission for Universities (TCU) indicate an increasing trend in the enrolment of students with disabilities in Higher Learning Institutions. However, this expansion has never matched with the provision of quality services to people with disabilities at this level [7].

Access to Higher Education has a deep social and cultural meaning in Tanzania: the university is not only the forge of knowledge but is also the place where the future African ruling class, the economy and the scholars are formed. Dealing with the theme of Universal Design and Universal Design for Learning here means creating new semantics, new vocabulary to express the concept of inclusion.

In the document, that explains the Project Proposal for the Maria and Consolata Learning Centre for Disabilities, Professor Salvius A. Kumbulu of the RUCU refers directly to “the growing diversity of categories of students with special needs that increasingly exert pressure commitments on quality education for the quality of higher education offered” [8].

Interpretive analysis

In order to respond to the wishes, set out in the project document, it is necessary to consider the environment in which the specific programs, seminars, workshops, the necessary assistance and the provision of the multiple services will be carried out.

“Many and different design approaches can be adopted to make a place accessible. These depend on the site being worked on, the solution being adopted and the functional result to be achieved. With the knowledge that there is not a standard solution, that a case-by-case basis evaluation is necessary and that it can always run into arbitrariness. [...] However, the matter of the usability of the built, is not only achievable, and however not completely satisfactory, with building interventions, but also through intangible equipment to facilitate the understanding (accessibility of the contents) of the property” [9]. Accessibility, in a wider meaning, does not only deal with architectural and perceptual barriers to overcome but also with the intelligibility of the space.

The entire area of the RUCU is then analyzed, trying to bring out the main characters understood as problems and opportunities. The preparatory phase of the design terms was carried out in Italy and, later, it was applied during the three months spent *in situ* (June to September 2019) in which the information necessary for the final hypothesis was collected.

Therefore, the first step for the concept of the project was the production of a series of maps that can summarize this analysis work by creating different *hot spots* starting from the identification of the geographical area, understood as a supranational territorial identity linked to the use of the same language, Swahili [10]. Focusing on the university area it was necessary to identify the different functions and their different "weights" in terms of usage, size and attractiveness to understand the composition of the entire campus and its way of being lived.

During the analysis phase, an additional and fundamental element emerged: green areas and, in particular, trees. Green, understood as a space created by trees, takes on primary importance in the social life of students. In this space, people engage in new social links and actively participate in the creation of a new environment. This indicates a precise choice on the part of the students and this aspect becomes fundamental in the drafting of an inclusive project. This is an aspect directly related to a cultural practice spread throughout Tanzania: this aspect, which would seem secondary, is an element of fundamental recognition and social and cultural sharing borrowed directly from the traditions of the villages. The spontaneous groupings of students show how connection operations are needed to create a fluid and accessible system and paths. Informal spaces, created independently by students, represent a social environment necessary for interaction, inclusion and participation.

Results and formulation of the project

If the ultimate goal is to create a large centre that can accommodate, in the future, large numbers of students and professors, it is perhaps appropriate to reflect on the opportunity represented by the building that housed Maria and Consolata. It can be considered as the physical and moral legacy of this stimulating and unique presence.

Another important consideration concerns the sustainability of the intervention, not only from an economic point of view but also considering the consumption of campus property or the demolition of an existing building that, instead, can find a new function and with more communicative strength. Speaking about cultural sustainability, using an existing, recognizable building, still linked to memory, involves greater sharing. Linking a function to a lived experience, to something that can still be told, involves many aspects typical of the culture of the people who inhabit these places and is therefore a function that will last longer because it belongs to the people who will participate in the activities and initiatives that will be implemented here. By renovating existing environments, integrating them with a large covered and bright central space, it would be possible to create a series of workshops and classrooms in which to host students (of all ages), professors, researchers and tourists. These hypotheses represent the possibility of making the entire university area accessible and inclusive with a series of targeted and contained interventions, also from an economic point of view.

The two main themes are therefore the practicability of the external spaces, allowing access to the different buildings and ensuring their usability, and the formulation of study and training plans for teachers thanks to the interaction of traditional learning techniques and the use of ICT that allow new visual, auditory and heuristic approaches. Constructive technology consists of few elements that compare and aspire to modernity that guarantees health, durability and

quality that in the home architecture widespread in the villages is not guaranteed. The desire for cultural and social emancipation leads to rejecting some purely traditional languages and it is therefore essential to be able to realize a project that can be simultaneously respectful of this contemporary request and traditions shared by all the social components of the surrounding communities [11]. The project tries to borrow from traditional spaces the possibility of creating a community place for meeting and, at the same time, training, study and party. The construction, therefore, looks like a large tree to which people can stop and make communities.

Conclusion

The combination of different know-how involves new theories for the formulation and deepening of the issues related to the physical accessibility of buildings and of the courses, the creation and application of assistive technologies declined in the different study paths, the creation of inclusive and specific didactic methodologies, formulated on the study and identification of the peculiar characteristics of African culture.

The theme of Universal Design for Learning is therefore configured as a common field of application in which the pedagogical specificity of RUCU University and competencies on the accessibility of the University of Brescia find application for the development of a project aimed at creating material and immaterial accessibility intended as an architectural and cultural approach.

The study of a project for a Centre for Accessibility and Inclusion in Culture allows to convey reasoning shared by the two universities: different cultural approaches and specificities grant to create an environment in which international cooperation becomes how the objectives desired by Agenda 2063: *The Africa We Want* can be pursued. In this perspective two aspirations can be achieved: the first (Aspiration 1) calls for a prosperous Africa based on inclusive growth and sustainable development identifying the expansion and improvement of education as the main vehicle for intergenerational social mobility. The second (Aspiration 2) refers directly to “an Africa with a strong cultural identity, common heritage, values and ethics” [12] thanks to the strengthening and implementation of initiatives dedicated to inclusion in cultural heritage.

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