

# CONCEPT TEST REALIZATION

1:∞ 1:10 1:1

Concept-Test-Realization (CTR) is a collaborative academic and research project aimed at strengthening the praxis orientation and interdisciplinary composition of architecture education in Africa



3 phases

Each of the three project years follows the same academic structure: (Concept - Test - Realization):

The project of realization (to build) starts with a semester-long theoretical course (1:∞), and parallel to the main course, a second practical course, in which the participants' task consists in creating a physical model by applying design and planning technology, ending with a scaled (1:10) prototype. This is followed by a second semester practical course terminating in the construction of a 1:1 scale model building.

Through the process of prototyping, students get a deeper and wider understanding of the impact and potential of their previously conceived design, they can simulate, evaluate and update the design results BEFORE they bring it to realization.

The construction of an actual full-scale (1:1) model building takes place in a final, four week long, workshop.

Through the project, the involved students and staff members reflect on the theory and explore the reality with the related needs, constraints and limitations.

The online learning platform allows teachers to share relevant reference materials and to start discussions locally or internationally about topics related to each project phase. Throughout the project, the different activities are coordinated by teachers and documented by the participants themselves as semester course tasks.

The icehubs network (Innovation - Collaboration - Entrepreneurship) including the innovation hubs icebauhaus and iceaddis functions as a communication platform both by internationally connecting the partners and locally by connecting academia with private sector partners.

3 partners

## Bauhaus University Weimar

The Bauhaus University Weimar (BUW) has developed a broad teaching and research profile, with a focus around the disciplines of engineering and architecture. The education is very much project-oriented and interdisciplinary. Students work on real problems that require expertise in different fields: Art, technology, building-engineering, design and humanities. Through this approach, the Bauhaus University educates future architects as mediators and coordinators between the disciplines. Through the CTR project, the BUW will achieve a better understanding of the African context and will equip itself with relevant research tools and methodologies, intercultural competencies and a well-functioning network.

## EiABC

Ethiopian Institute of Architecture, Building Construction & City Development (EiABC) is an autonomous Institute of Technology under the umbrella of Addis Ababa University since 2010. EiABC offers teaching programs on Bachelor, Master and PhD level, all related to the built environment and designed in close consultation with the building industry in Ethiopia. EiABC is East Africa's leading research and educational institute with regard to use of local resources, alternative construction materials and energy efficiency in African architecture. Through partnering in the CTR project, it aims to strengthen the praxis orientation in teaching and interdisciplinary research competencies.

## University of Juba

University of Juba (UJ) is a cornerstone for the development of the world's youngest nation, South Sudan. Following the attainment of independence by South Sudan in July 2011, the university has relocated back from the exile in Khartoum to Juba, where it had been founded in 1977. Currently, the University of Juba has eleven colleges and five centers. There are around 15.000 students and 800 academic staff. In the coming years the university needs to increase its quality of teaching and research competencies in order to meet the challenge of increasing urban and rural populations. Knowledge of low cost and sustainable construction technologies, as well as the skills and methods to teach them are factors of acute relevance that the University aims to gain by its participation in the CTR project.

Year	Operating unit	Observing unit	Revising and preparing unit
1st: House 1 in Addis Ababa	EiABC	UJ	BUW
2nd: House 2 in Ethiopia	EiABC	UJ	BUW
3rd: House 3 in Juba	UJ	EiABC	BUW

Learn more at:

eiabc.edu.et | infar.architektur.uni-weimar.de | icebauhaus.com



3 buildings

1. year



### SECU Sustainable Emerging City Unit.

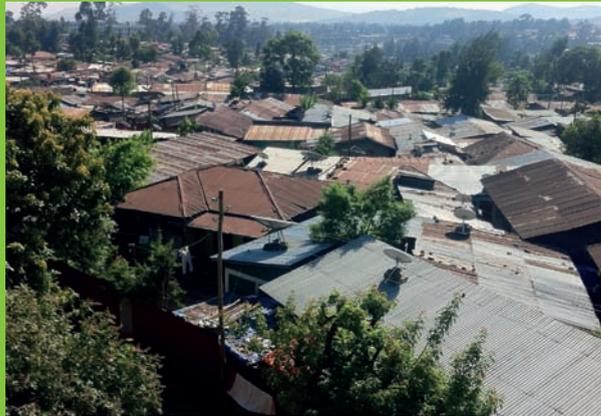
SECU is a two-story experimental prototype house, built in 2012 on the campus of EIABC in Addis Ababa.

Its aim is to present a provocative and innovative design for housing for emerging settlements, as well as inspiring the construction industry and the government and decision makers at large.

The research discusses the potentials of innovative building materials for fast growing housing solutions in Ethiopia. The building was realized entirely out of panels of compressed straw.



2. year



### SICU Sustainable Incremental City Unit.

SICU is a building process oriented project that foresees the design and construction of a fast and simple prefabricated incremental housing system through participatory design.

The SICU prototype will be built in 2013 on an 8 x 8 square meter plot situated in a traditional "Slum" neighborhood in Addis Ababa, involving teachers and students from the three partner-institutions, as well as neighborhood stake holders and the local community in the planning and construction process.

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Bauhaus-Universität  
Weimar

3. year



### Construction in South Sudan

In 2014, South Sudan becomes to site of implementation. This third prototype will focus on building systems taking into account factors of the local context, such as cultural and aesthetic issues, societal structures and resource management.

Research and planning have are already started, with first work-shops on-site in 2012.



**EIABC** Ethiopian Institute of Architecture,  
Building Construction and City Development  
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Addis Ababa University  
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University of Juba, South Sudan

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