

selam ሥ**ላም bauhaus**

COLLABORATIVE PROJECTS IN ARCHITECTURE AND URBANISM

Emerging City Lab Addis Ababa

Bauhaus-Universität Weimar EiABC Addis Ababa University

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υλም bauhaus COLLABORATIVE PROJECTS IN ARCHITECTURE AND URBANISM Emerging City Lab Addis Ababa

This booklet presents research and educational projects from a decade of collaboration between the two partnering institutions Bauhaus-Universität Weimar, Germany, and the Ethiopian Institute of Architecture, Building Construction and City Development (EiABC) at Addis Ababa University in Ethiopia.

The achievements of that fruitful cooperation were displayed in the exhibition "**whg**" bauhaus", meaning "Selam Bauhaus" in Amharic or "Hello Bauhaus". For the celebrations of the 100th anniversary of the historic "Bauhaus" and the 65 years of the EiABC in 2019, the exhibition took place at two locations: in Weimar, the Bauhaus place of origin, and Addis Ababa, in July and October 2019 respectively.

Fostering cross-cultural and academic experience in the realm of architecture, urban planning and design, the participants in the projects were enabled not only to take another step in their professional career but to get into touch across continental boundaries and learn from each other as persons.

With this publication we would like to thank all initiators, participants and supporters who are contributing or have contributed to many exciting projects in the past, present, and the future. Dedicated to Dirk Donath, we remember his devotion and passion for this cooperation. This all was made possible through the constant support of the German Academic Exchange Asociation DAAD, the German Ministry for Education and Research BMBF, the EU-Mobility Programme Erasmus+, Flintstone PLC in Addis Ababa and many other partners or facilitators, such as both countries' embassies.

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RE	WORDS
	ECL-AA ecl-aa emerging city lab – addis ababa
	eiabc ethiopian institute of architecture, building construction and city development
	bauhaus.ifex bauhaus institute for experimental architecture
	ATION
	education international cooperation in higher education
	concept-test-realization 'design and build ' projects for practice based learning
	secu sustainable emerging city unit
	sicu sustainable incremental city unit
	macu mobile automated construction unit
	aqua nostra shower house and water treatment in wurer ber, rural ethiopia
	school & community center design proposals for rural ethiopia
	awash 500 a water- and wastewater- based housing scheme
	vertical addis concepts for high-rise housing in addis ababa
	syncity parametric masterplanning for emerging cities
	rural urban metabolism metabolism-based planning strategies
	otp online training platform
	maen master of architectural engineering
	exchange international student and staff exchange

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forewords

Her Excellency Mulu Solomon Bezuneh Ambassador of Ethiopia in Germany

Selam is a word with a multiple meanings in Ethiopia's official language, Amharic. In simple terms it means "hello" and goes to a larger and more basic meaning which is *Peace*, an important condition for every human being. The relations between Ethiopia and Germany have been growing



in width and depth. Accordingly, we have signed a Memorandum of Understanding in 2019, which established a joint bilateral commission at the ministerial level that coordinates and oversees overall relations between the two countries. In this regard, I think that higher education intuitions like EiABC at Addis Ababa University and Bauhaus University Weimar, which exhibit excellent relations, could diversify their cooperation and be exemplary in other spheres too.

Ethiopia has established many higher education institutions over the past two decades. The government has helped in many fields like Technical and Vocational Education and Training (TVET), Enterprises Capacity Building, and through university cooperations like EiABC's different projects and by sending professors, especially remembering Prof. Dirk Donath's exceptional contribution to both institutions and projects presented in this book. A number of Ethiopian students have been beneficiaries of German educational schemes through DAAD scholarships and other programs. And we know that, as a result of this, we have a number of professionals and high-level government officials who did their studies in Germany.

In fact Ethiopia has also drawn lessons from Germany's federal system architecture – apart from the building architectural work at EiABC, a social architecture that is essential for living together in our diverse communities.

Prof. Dr. Winfried Speitkamp President of the Bauhaus-University Weimar

This exhibition is dedicated to the cooperation between Weimar and Addis Ababa, between the Bauhaus Universität Weimar and the Ethiopian Institute of Architecture, Building Construction and City Development in Addis Ababa, Ethiopia. I am very glad that this exhibition takes place on the



occasion of the centenary of the historical Bauhaus. The State Bauhaus of 1919 was initiated by the architect Walter Gropius in a time of scarcity, crisis and despair. It brought together a considerable number of highly interesting persons, artists, painters and craftsmen. It also attracted several renowned artists and designers from abroad. Its idea was to create a "Gesamtkunstwerk", a total work of art. It wanted to merge the crafts with the arts, modern architecture and modern technology.

The State Bauhaus is still one source of inspiration for our work, research, designing, teaching and living in Weimar. But our intention is to interpret the ideas of 1919 in a modern way, to adopt them for the challenges and the tasks of today. In this context, international cooperation is a fundamental goal of our university. The mobility of students, teachers, and even ideas is the basis of our inspiration, research and innovation. In the face of climate change, migration, urbanisation and increasing social frictions, the task of overcoming the difficulties of urban planning demands new solutions, and new tools, including digital tools.

The cooperation between Weimar and Addis Ababa mirrors the advantages and chances of international exchange. It is based on the readiness to learn from each other, to take part in a transfer of ideas and to face the problems of sustainability and social cohesion in a global context. The projects shown in this book are important because it shows the great benefits and achievements of our international cooperation.

(Extract from the opening speech, Selam Bauhaus Exhibition in Weimar July 5, 2019)

the ecl-aa

ecl-aa | emerging city lab – addis ababa

eiabc | ethiopian institute of architecture, building construction and city development

ifex | bauhaus institute for experimental architecture



emerging city LAB - ADDIS ABABA

JOINT LABORATORY OF BAUHAUS-UNIVERSITÄT WEIMAR AND THE EIABC AT ADDIS ABABA UNIVERSITY

Funding: German Academic Exchange Service (DAAD) German Federal Ministry of Education and Research (BMBF) Flintstone PLC

The ECL-AA is a research center, real-life laboratory, and exchange platform. It was jointly established in 2015 by the bauhaus.ifex at Bauhaus-Universität Weimar and the Ethiopian Institute of Architecture, Building Construction and City Development (EiABC) of Addis Ababa University. The pillars of the Lab are the qualification and exchange of scientific staff (capacity building), the training and exchange of masters and doctoral students, interdisciplinary and practice-oriented teaching, as well as academic research and experimentation. The research and teaching teams tightly cooperate with industry partners and international partner institutions. The ECL-AA has a broad thematic orientation that revolves around the built environment in Sub-Saharan Africa: urban, social, structural, infrastructural, and capacity aspects are equally integrated into teaching and research. The Lab is mainly committed to urbanisation processes in rural Ethiopia, tackling different scales of existing as well as future cities, small and medium-sized towns. These "emerging cities" gave the Lab its name. At the same time, the Lab transfers insights into the resilience and resource-saving urbanity from Africa to the European context. The ECL-AA - as a platform for cooperation - offers a productive, eye-level learning and teaching environment for both Ethiopian and international members. The ECL-AA is headed by a steering committee, which is equally composed of administrative and teaching staff from both partner

institutes.







Fig. 1 Opening of the ECL-AA office building April, 26th, 2017

Fig. 2 Window to the Meeting Room

Fig. 3 Inside the Meeting Room



The phenomenon of urbanisation is of an unprecedented nature in Ethiopia. More than five million people migrate from rural areas to cities each year. At the same time, existing cities are unable to cope with the high numbers of new arrivals, not to mention the need for housing and infrastructure. In order to meet the demands, the Ethiopian government is pushing industrialisation by expanding infrastructure and providing extensive investment incentives. This made Ethiopia one of the fastest-growing economies in the world. But it also faces high debts and unequal conditions which need to be addressed along urbanisation.

These challenges require multiple strategies and instruments if future development should be supported through well-informed and adequate decisions. The Emerging City Lab Addis Ababa (ECL-AA) has been established for that purpose: bringing scholars and practitioners together to develop such responses. What are the visions for new cities in Ethiopia? How can rapid urbanisation respond to the demands of society and the environment? How, in times of globalization, digitalisation, and climate change, can urbanisation be managed in new but also with existing communities?

This booklet presents an array of projects that try to tackle these questions. Elaborated as experimental, praxis-based or interdisciplinary solutions, they are also the result of an intercultural experience that students, teachers and researchers of both universities, Bauhaus-University and EiABC shared through their joint lab, the ECL-AA.