



THE AMERICAN UNIVERSITY IN CAIRO

الجامعة الأمريكية بالقاهرة

*AUC International Conference on Research in African Challenges (ICRAC)*

*Track S: Science contribution to alleviating poverty*

SUB-TRACK S6: ARCHITECTURE OF THE POOR

**Chair: Dr. Khaled Tarabieh**

**Co-chair: Dr. Rasem Badran**

Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050. Projections show that urbanization, the gradual shift in residence of the human population from rural to urban areas, combined with the overall growth of the world's population could add another 2.5 billion people to urban areas by 2050, with close to 90% of this increase taking place in Asia and Africa. The United Nations Population Fund estimates that by two thousand twenty, a billion and a half people will live in slums and will face both global environmental, economic and social challenges. Architecture can solve many problems of these challenges especially as it relates to poverty, inequality and social segregation. Many cases around the world show commitment by leading architects especially in areas of need in Africa, Latin America and Asia with efforts that are extend to decades in the making. Hassan Fathy (1900-1989) was an Egyptian architect who has been credited with tackling this specific issue and by bringing the vernacular architecture of Egypt to a wider audience, putting the neglected traditional building systems to work for the poor. As Egypt transitioned in post-world war II and faced with economic challenges in the 60S, Fathy's career adopted an anti-colonial stance through the rejection of modernism in favor of a culturally specific architecture, focused on reviving the lost identity and to resolve much of the socio-economic challenges during that time. He outlined his approach in his book "Architecture for the Poor" which is considered one of the leading documentaries on the revival of vernacular/ traditional architecture. This session discuss how Architecture can overcome poverty, providing a mitigated strategy towards the present time challenges: Health, Energy and Climate Change.

**Biographies**

**Khaled Aly Tarabieh** is an assistant professor at The American University in Cairo. He is a holder of a Bachelor of Science in architectural engineering from Alexandria University, and both a master's in city planning (MCP) and a PhD in city and regional planning from the University of Pennsylvania, U.S., with a specialization in the planning of energy efficient urban environments, high performance building design, certification and assessment. Prior to joining AUC, he worked as an assistant professor of sustainable design at the Arab Academy for Science and Technology and Maritime Transport, as well as an adjunct professor at Drexel University. He served as the technical adviser for the development of the energy section for the new STAR rating system with AASHE, a co-founder of the Egyptian Green Building Council (EGGBC), and was a member of the T.C. Chan Center for Building Simulation and Energy Studies at the University of Pennsylvania, where he took part in the development of the Qatari Sustainability Assessment System (QSAS) in Qatar.

He is a LEED-accredited professional and initiator of the LEED lab at AUC collaboration with the United States Green Building Council and a QSAS-certified green professional with expertise in green buildings design, construction and assessment using different types of rating systems. He was selected as one of 21 emerging



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leaders from the Delaware Valley Region (PA-NJ-DL) for a prestigious year-long fellowship program, the Environmental Leadership Program, aimed at enhancing the capacity of the environmental movement. In addition to his academic work, he has developed 20 years of experience as a professional architect and project manager in the U.S. and served as the director of project management for real estate services for the University of Pennsylvania, where he managed a portfolio of healthcare, office and residential projects. He offers consultations to several professional firms in Egypt and the Gulf region, and provides professional training and support in the areas of LEED and BREEAM certification, green building design and sustainable urban planning.

At AUC, he teaches the sustainability in the architectural design core studio and advises the thesis I graduation project studio. He is the primary contact and is responsible for the operation of the Building Sciences Lab, and currently conducts research on the thermal performance of building envelope materials for residential buildings in Egypt and the assessment of its ecological impact, an adviser and developer of the University carbon footprint report in collaboration with the sustainability office as well as the chair of Library and Learning Technologies, and is an active member in both the campus wide energy and carbon committees.

**Dr. Rasem Badran** Born in 1945, Dr. Badran graduated with B.Sc. in Architectural Engineering from the Technical University T.H. of Darmstad, Germany in 1970. He received an honorary PhD in Architectural design from the Jordan University of Science and for his achievements in the field of Architectural Design and theory in 2002.

participated with some colleagues in the exhibition 'Elementa 1972,' which enabled them to realize their designs on experimental accommodation units in an area of the city of Bonn; returned to Ramallah later that year; moved to Amman in 1973 and opened his own architectural office 'Dar Al-Umran'; worked as artist, calligrapher and architect since; had architecture exhibitions in Berlin and Stuttgart in 2005; is considered one of the most influential architects in the Arab world; his works include the villas Hand-hal (1975) and Hatahat (1979) in Amman, the Abu Ghueillah housing complex and the King Abdullah Mosque in Amman (1979), the Baghdad State Mosque (1980), the Palace of Justice in Riyadh (1984), a Mosque in Doha (1985), the Beit Al-Kamel Apartment and Office Building in Sana'a (1987), the Madi Commercial Center in Amman (1987), the Great Mosque and the redevelopment of the old city center Qasr Al-Hokm in Riyadh, the National Archeological Museum of Amman in 1991, the Saudi National Museum in Riyadh in 1994 and the Qatar Islamic Arts Museum in Doha in 1997; currently works on the Damascus University Central Library and the Jabal Omar Housing Compound in Mecca; is permanent member of the Academic Council for the International Academy of Architecture in Sofia since 1990; received many awards and prizes, incl. the Arab Architecture Award in Marokko in 1990; the Aga Khan Architecture Award in 1995, the Palestinian Architecture Prize in 1997 and the first Prize of the Arab Architects awarded by the Arab League in 1997; Professor of Architecture; James Steele published a book about his style and work, entitled The Architecture of Rasem Badran - Narratives of Peoples and Places (Thames & Hudson, 2005).