

ArchNet 



ISSN - International (Online) 1994-6961
ISSN - United States (Online) 1938-7806

OCLC & World Cat # 145980807
Library of Congress Catalogue # 2007212183

International Journal of Architectural Research

Volume (1) - Issue (2) - July 2007

Architecture Planning Built Environment Studies

An International Fully Refereed Journal
Published three times a year

In this issue:

Crosbie, M. J.; D'Souza, N.; Hakim, B. S.; Hasanin, A. A.;
Maatouk, K.; Mandour, M. A.; Ochieng, C. C.; Salama, A. M.;
Salingaros, N. A.; Seifert, J.

Copyright © 2007 Archnet-IJAR, Archnet, MIT- Massachusetts Institute of Technology

Archnet-IJAR is edited by Ashraf M. Salama and is published and archived by ARCHNET, the most comprehensive online community for architects, planners, urban designers, interior designers, landscape architects, and scholars working in these fields, developed at the MIT School of Architecture and Planning in close cooperation with, and with the full support of The Aga Khan Trust for Culture, an agency of the Aga Khan Development Network.

 ArchNet  JAR

ISSN - International (Online) 1994-6961
ISSN - Unites States (Online) 1938-7806

OCLC & World Cat # 145980807
Library of Congress Catalogue # 2007212183

International Journal of Architectural Research

Chief Editor

Ashraf M. Salama

Advisory Board

Attilio Petruccioli
Besim S. Hakim
Hashim Sarkis
Henry Sanoff
Jamel Akbar
Michael J. Crosbie
Mohamad Al-Asad
Nasser Rabbat
Nicholas Wilkinson
Nikos A. Salingaros
Peter Rowe
Suha Ozkan
William Mitchell

Editorial Board

Akhtar Chauhan
Aleya Abel-Hadi
Ali Cengizkan
Amer Moustafa
Anne Beamish
Budi Sukada
Dalila Al-Kerdani
Donatella Mazzoleni
Eman El-Nachar
Fuad Mallick
Hulya Turgut
Ihab Elzeyadi
M. Alaa Mandour
Malika Bose
Magda Sibley
Mashary Al-Naim
Peter Kellett
Rabee Reffat
Yasser El-Shehstawy
Yasser Mahgoub

Architecture Planning Built Environment Studies

An International Fully Refereed Journal

Published three times a year

Volume (1) - Issue (2) - July 2007

Copyright © 2007 Archnet-IJAR, MIT- Massachusetts Institute of Technology

All contributors granted Massachusetts Institute of Technology ("MIT") worldwide rights and permission to reproduce, distribute, publicly display, and publicly perform the following Work in electronic format on the ArchNet Internet web site at URL <http://archnet.org>.

Views, opinions, and research results are the responsibility of the contributors. Images and figures are provided by the contributors.

Archnet-IJAR is edited by Ashraf M. Salama and is published and archived by ARCHNET, the most comprehensive online community for architects, planners, urban designers, interior designers, landscape architects, and scholars working in these fields, developed at the MIT School of Architecture and Planning in close cooperation with, and with the full support of The Aga Khan Trust for Culture, an agency of the Aga Khan Development Network.

International Journal of Architectural Research

Archnet- IJAR

ArchNet International Journal of Architectural Research – Archnet-IJAR is the first of its kind; an interdisciplinary comprehensive scholarly journal of architecture, planning, and built environment studies, that is blind reviewed and published on the World Wide Web three times a year.

Objectives

Archnet-IJAR objective is to establish a bridge between theory and practice in the fields of architectural and design research, and urban planning and built environment studies. It reports on the latest research findings and innovative approaches for creating responsive environments, with special focus on architecture and planning in developing countries.

Archnet-IJAR is truly international and aims at strengthening ties between scholars from different parts of the world with contributors and readers reaching across geography, boundaries, and cultures.

Archnet-IJAR articles come from architects, interior designers, planners, and landscape architects, and from those working in these fields in academic institutions, universities, research centers, government agencies, and private practice.

Reader

Archnet-IJAR addresses academics, practitioners, and students of architecture, planning and interior design. It addresses those who are

interested in developing their understanding and enhancing their knowledge about how environments are designed, created, and used in physical, social, cultural, economic, and aesthetic terms. Archnet-IJAR content keeps readers up-to-date on the latest ideas, designs, and developments in built environment related fields.

Archnet-IJAR publishes research studies, criticisms and evaluation studies, and critical analyses about the creation, use, and evaluation of different types of environments at the macro and micro scales. The journal includes original empirical research papers, analytical case studies, and high quality position papers. Three major areas are covered by Archnet-IJAR:

Architectural and Design Research:

Topics include –but not limited to: architectural pedagogy and design studio teaching practices; architectural technology and sustainable design; design methods and architectural theories; design and project programming; environment-behavior studies; information technology; Islamic architecture; computer applications and virtual environments; post occupancy and facility performance evaluation; and social and cultural factors in design.

Urban and Built Environment Studies:

Topics include --but not limited to: administrative and political factors contributing to the shaping of communities, cities and urban regions, community planning; sustainable urban conservation; environmental planning and eco

development; housing policy, planning, and design; new urbanism; sustainable development; space syntax and GIS applications; and way-finding and signage systems.

Critical Essays on Architectural and Planning Projects:

Essays that cover the above topics; critically discussing projects in use; after they have been designed, built and occupied. Articles are preferred to utilize the case study approach as a critical method in built environment research.

Advisory and Editorial Boards

The Chief Editor is in charge of developing journal issues, seeking out resources and articles, establishing publishing strategies, coordinating the review process, and posting each issue and its articles online. Archnet-IJAR has two boards; advisory and editorial. The range of expertise of the boards that include the panel of referees –academics and professionals- ensures high quality scholarly papers and allows for a comprehensive academic review of contributions that span wide spectrum of issues, methods, theoretical approaches, and professional practice.

Submission Process

Unlike other printed Journals where contributors wait for periods that reach two or three years for their work to get published, the value of Archnet-IJAR as an online journal is that it eliminates the large lead time needed for publication. However, submission, referee, and publishing processes are strict and adhere to the following procedures:

Interested contributors contact the chief editor expressing interest, and submitting a summary of their paper. One page will do.

The chief editor consults with the advisory and editorial board members according to their relevant expertise.

Soon after receiving feedback from the referees, author(s) are contacted to submit their full papers.

When full papers are received, they will be forwarded to two editorial board members for blind review, according to the referee form.

The chief editor contacts the author(s) with the referee form filled by the reviewers. While papers will be blind reviewed, in exceptional cases author(s) will be asked to communicate directly with the reviewers.

Author(s) revise their papers as noted by the reviewers and re-submit their work to the chief editor.

Author(s) should make sure that their submissions should be free of jargon, clear, simple and to the point.

Papers will be published in the next issue according to the following schedule:

March 30th (publishing date): December 15th (deadline to receive papers after reviews)

July 30th (publishing date): April 15th (deadline to receive papers after reviews)

November 30th (publishing date): August 15th (deadline to receive papers after reviews)

Interested reviewers and members of the advisory board may submit their work for publication in Archnet-IJAR. Their work will go

through the same blind review process and will follow the preceding procedures.

Notes to Contributors

1. Submission of Manuscripts

The language of the journal is English. All submissions will be online. One copy of the manuscript (in word document format) together with original figures and tables must be submitted to the editor: Ashraf Salama ijar@mit.edu

The name, mailing address, position, affiliation, telephone, fax, and email of each author must be supplied in a cover letter attached to an email. All papers will be blind reviewed and assessed by at least two referees.

2. Preparation of Manuscripts Layout

Manuscripts should be typed in double spacing on one side of A4 (21x29.7 cm) paper with reasonable margins (2.5 cm). All pages should be numbered consecutively.

Title page (page 1)

The first page of the manuscript must contain a concise and informative title; names, affiliations and addresses (including e-mail) of all authors, and identify the corresponding author (who will be responsible for correspondence and reviewing proofs). An abbreviated title of less than 50 characters (including letters and spaces) should also be suggested.

Title of paper, abstract and keywords (page 2)

Title of the paper should be written at the top of abstract without authors' name. A concise and informative abstract must not exceed 300 words in length, should summarize the objective, methods and major findings of the paper. Keywords must be carefully selected to facilitate

the readers' search on Archnet Website, and should not exceed 5 key words.

Articles

Articles should not exceed 6000 words, including references.

Notes

Avoid the use of footnotes and endnotes, if unavoidable, label as (1), (2) and list all together at the end of the paper.

References

References in the text should give the surname of the author and the year of publication in brackets, for example, Rowe (1985) or (Rowe, 1985), followed by a, b, .when two or more references to work by one author are given for the same year. Page numbers should be given for quotes (Mitchell, 2003:33). At the end of the text the references should be listed in alphabetical order of authors' names and in chronological order for each author. Initial and final page numbers of articles and papers should be given. The names of books and periodicals should be given in full, and the publisher and the city of publication should be given for books, conference proceedings, etc. Details of availability should be given for unpublished conference papers. Full references should also be given for legal judgments, bylaws and regulations, and government publications, etc. Examples of reference citation are given below.

Dutton, T.A. (Ed.). (1991). *Voices in Architectural Education: Cultural Politics and Pedagogy*, Bergin & Garvey, New York, NY, USA.

Hegvold, L. (1999). "Seeking an Effective Cross-Cultural Design Pedagogy." In William O'Reilly (Ed.), *Architectural Knowledge and Cultural Diversity*,

Comportments, Lausanne, Switzerland, pp. 93-100.

Salama, A. (1998). "Integrating Environment-Behavior Studies into Architectural Education Teaching Practices," In J. Teklenburg, J. Van Andel, J. Smeets, & A. Seidel (Eds.), *Shifting Balances: Changing Roles in Policy, Research, and Design*, EIRSS Publishers, Eindhoven, Netherlands, pp.128-139.

Salama, A. (2006). "Learning from the Environment: Evaluation Research and Experience Based Architectural Pedagogy," *Transactions, CEBE-Center for Education in the Built Environment*, Cardiff, UK, 3 (1), pp. 64-83.

Salama, A., O'Reilly, W. & Nochis, K. (Eds.). (2002). *Architectural Education Today: Cross Cultural Perspectives*, Comportments, Lausanne, Switzerland.

Sanoff, H. (1992). *Integrating Programming, Evaluation, and Participation in Design*, Avery, London, UK.

Tables

Each table must be typed, and con-secutively numbered. They should have a brief informative title placed as a heading. Tables should be understand-able without reference to the text, but they should be referred to in the text. Explanatory captions should be brief and placed beneath the table.

Figures

Figures should be numbered consecutively throughout the paper and identified with the authors' name and the figure number outside the reproduction area. Figures should be referred to in the text and should be placed within the body of the paper. However, all figures should be supplied in separate files as JPEG file format. Figure dimensions should not exceed 21x30 cm. Photographs should be used with restraint and must be of high quality. Explanatory captions should be brief, placed beneath the figure.

3. Submission Process, Copyright, and Originality of Work

Proofs will be sent to the corresponding author for checking. Proofs should be returned within one week of receipt. Authors should correct typesetting errors only; they should not add any new material to the paper at proof stage.

Please read the submission process and procedures, and copyright notes under the general outline of the ARCHNET-IJAR.

All correspondence should be addressed to the chief editor.

Ashraf Salama
IJAR@MIT.EDU

International Journal of Architectural Research

Archnet- IJAR

Volume (1) - Issue (2) - July 2007

Contents

Editorial: The Debate Continues <i>Ashraf M. Salama</i>	11/14
Design Intelligences: A Case for Multiple Intelligences in Architectural Design <i>Newton D'Souza</i>	15/34
Affordability of Low Income Housing in Pumwani, Nairobi, Kenya <i>Crispino C. Ochieng</i>	35/44
386 Forgotten Ideas: Architecture and the Eradication of Poverty - A Retrospective Account <i>Jörg Seifert</i>	45/56
Navigating Housing Affordability Between Trans-Disciplinarity and Life Style Theories: The Case of the Gulf States <i>Ashraf M. Salama</i>	57/76
Mixed Reality: The Deconstruction of Time -The Restructure of The Future <i>M. Alaa Mandour</i>	77/91
Airflow Patterns and Stack Pressure Simulation in a High Rise Residential Building Located in Seoul <i>Khoukhi Maatouk</i>	92/99
Reviews and Trigger Articles	100
	Contents
	Next Page

International Journal of Architectural Research

Archnet- IJAR

Volume (1) - Issue (2) - July 2007

Reviews and Trigger Articles

Hakim's Work on Traditional Islamic and Mediterranean Urbanism <i>Besim S. Hakim</i>	100/105
Book Review: Design Studio Pedagogy: Horizons for the Future By: Ashraf M. Salama and Nicholas Wilkinson, editors (The Urban International Press, 2007) Assessing Architectural Education's 'Crown Jewel' <i>Michael J. Crosbie</i>	106/108
Book Review: Spaces Speak, Are You Listening: Experiencing Aural Architecture By: Barry Blesser and Linda-Ruth Salter (MIT Press, 2007) <i>Abeer A. Hasanin</i>	109/113
Nikos A. Salingaros: A New Vitruvius for 21st-Century Architecture and Urbanism? <i>Ashraf M. Salama</i>	114/131
Comments on Ashraf Salama's Article: "... A New Vitruvius....?" <i>Nikos A. Salingaros</i>	132/134
Conference Announcement: 10th Intl. Conference on Humane Habitat - IAHH 2008 Competition Announcement: 6th IAHH International Student Design Competition <i>Akhtar Chauhan</i>	135/140

International Journal of Architectural Research

Archnet- IJAR

Volume (1) - Issue (2) - July 2007

Contributors - listed according to name appearance in this issue

Ashraf M. Salama

Ashraf Salama holds B.Sc., M.Sc. and Ph.D. degrees in Architecture. He is Professor of Architecture currently teaching at Qatar University, taught at KFUPM (2004-06), and was the Director of Consulting at Adams Group Architects in Charlotte, North Carolina, USA (2001-04). He is licensed architect in Egypt received his training at Al Azhar University in Egypt and North Carolina State University, Raleigh, USA. Salama chaired the Department of Architecture, Misr International University in Cairo (1996-01). He has published numerous papers in international conferences and archival journals and magazines. He authored and co-edited four books on Architectural Education: Designing the Design Studio (USA), Human Factors in Environmental Design (Egypt), Architectural Education Today (Switzerland), and Architecture as Language of Peace (Italy). Salama was the recipient of the first award of the International Architecture Design Studio, University of Montreal, Canada, 1990, and in 1998 he won the UIA Paul Chemetove Prize, France. He is member of scientific boards of several intl. journals. and the Chief Editor of "Archnet-IJAR." He can be reached by email at asalama@gmail.com or ijar@mit.edu.

Newton D'Souza

Newton D'souza is an Assistant Professor of architectural studies program at the University of Missouri-Comubia where he teaches design studio and environment behavior research. He received his PhD from the School of Architecture and Urban Planning, University of Wisconsin-Milwaukee and a Masters degree from the School of Design and Environment, National University of Singapore. He has an academic and practice background as an architect and design researcher in US, Singapore and India and a recipient of the Margaret W. Mangel Fund, UMC, the UWM graduate dissertation fellowship, the UW graduate research travel award and the UW Chancellor's award. Over the past 10 years, intrigued by his own experience as an architect, he has conducted research in design process, computation, and the use of new media in design education. He is also working on book on multiple intelligences in design to examine and advocate the use of multiple intelligences among architects and design students. he can be reached by email at dsouzan@missouri.edu

Crispino C. Ochieng

Crispino C Ochieng is a chartered and practicing architect in Kenya. He receive his degrees from University of Cape Town (Ph.D.), Catholic University-Leuven, Belgium (M.Arch.), and B.Arch. (Honors) from the University of Nairobi. Currently, Dr. Crispino is a Senior Lecturer, Department of Architecture, Jomo kenyatta University of Agriculture and Technology, Nairobi, Kenya and was the Chairman of the Department (2000-2003). He has a considerable number of publications including refereed journal papers, international conference proceedings. During the 2005 World Exposition in Architecture (Aichi, Japan), he was the architect for the Kenyan Exhibition Stand and won the Silver Medal out of 126 competing countries. He is the corresponding editor for Design-research News, a bulletin of the Environmental Design Research Association, Oklahoma, USA. He can be reached by email at cochieng@hotmail.com

International Journal of Architectural Research

Archnet- IJAR

Volume (1) - Issue (2) - July 2007

Contributors - listed according to name appearance in this issue

Jörg Seifert

Jörg Seifert studied Architecture in Constance and Lyon. He is a freelance author and is currently pursuing a doctoral degree in Media Studies. In collaboration with Tove Wallsten of Sweden, he submitted an entry to the Architecture and the Eradication of Poverty competition in 1998, for which they received an honourable mention. He can be reached by email at: joerg.seifert@uni-konstanz.de

M. Alaa Mandour

M Alaa Mandour is Associate Professor of Architecture at Helwan University studied at MIT with Prof. Reihard Gothert at the department of Planning and Urban Design. He is currently working at Sultan Qaboos University. His field of research is in virtual urban environments and physical interactions and also on the notion of deconstruction of history and reshape of time introducing a new idea for analyzing history and extract precedents for a new language to adapt future. He had a wide global professional experience being MENA technical manager of Ellerbe Becket and as MENA Managing Director for SHELADIA Associates. USA. He can be reached by email at: alaa_mandour2004@yahoo.com

Khoukhi Maatouk

Dr. Khoukhi's expertise is in the area of solar energy, thermal science and, energy conservation in buildings where he has taught undergraduate and graduate courses and conducted and contributed in many research projects for several years. Dr. Khoukhi has published more than 40 papers in internationally recognized Journals and Conference Proceedings. He held several academic positions and visiting researcher appointments in Algeria, France, Australia and Japan. Currently, he is an Assistant Professor at King Fahd University of Petroleum and Minerals (Saudi Arabia). He can be reached by email at kmaatouk@kfupm.edu.sa

Besim S. Hakim

Besim S. Hakim Fellow of the American Institute of Certified Planners, Member of the American Institute of Architects, and a degree in Urban Design from Harvard, has been researching and writing about traditional codes from the Mediterranean region since 1975. His goal is to articulate how those codes shaped the traditional built environment, so as to provide lessons and models for contemporary and future architects, urban designers, city administrators and officials, and lawyers, who are involved in formulating or revising codes. He has practiced architecture and urban design and also taught those disciplines for over two decades. He is currently working as a consultant in urban design and independent scholar. He can be reached by email: arcan@sprynet.com

International Journal of Architectural Research

Archnet- IJAR

Volume (1) - Issue (2) - July 2007

Contributors - listed according to name appearance in this issue

Michael J. Crosbie

Michael J. Crosbie Ph.D., AIA, is associate professor and Chair of the Department of Architecture, University of Hartford, Connecticut, USA. He has been involved in architectural education for more than 20 years, and has lectured at architecture schools across the U.S. and abroad. His major contributions to the profession have been in the field of architectural publication. He has been an editor for a number of national architectural magazines, and is currently the Editor-in-Chief of *Faith & Form*, a journal on religious art and architecture. He is the author of more than a dozen books on architecture and of hundreds of articles on the subject. A licensed architect, Crosbie previously practiced with Centerbrook Architects (a nationally recognized design firm) and continues to practice with Steven Winter Associates, one of the country's leading consulting firms in the field of sustainable architecture. He can be reached by email at faithandform@comcast.net or crosbie@hartford.edu

Abeer A. Hasanin

Abeer A. Hasanin is assistant professor, graphic designer and painter. She graduated from the Faculty of Art Education, Helwan University, Zamalek-Cairo, Egypt in 1989. She holds the degrees of Masters and Doctor of Philosophy from the same University. With a wide variety of interests in teaching, painting, and design she bridges between design in academe and in practice. She holds the assistant professor position in the Faculty of Art Education, Helwan University in Cairo (On leave). She has held an adjunct assistant professor at the Interior Design Department for girls, King Faisal University, Dammam, KSA (2006-2006). Since 1995, she has developed an interest in information design exploring the role of signs and signage systems in achieving environmental graphic design goals. This is based on the belief that good environmental graphics would foster the urban context and would enhance human behavior in that context. Her paintings explore the relationship between the organic and the geometric, depicting themes from the Egyptian culture and nature.

Nikos A. Salingaros

Nikos A. Salingaros M.A., Ph.D., ICTP, ICoH is the author of "Anti-Architecture and Deconstruction" (2004), "Principles of Urban Structure" (2005), and "A Theory of Architecture" (2006), as well as numerous scientific papers. Both an artist and scientist, he is Professor of Mathematics at the University of Texas at San Antonio, and is also on the architecture faculties of universities in Holland, Italy, and Mexico. His work underpins and helps to link new movements in architecture and urbanism, such as New Urbanism, the Network City, Biophilic Design, Self-built Housing, and Sustainable Architecture. Dr. Salingaros collaborated with Christopher Alexander, helping to edit the four-volume "The Nature of Order" during its twenty-five-year gestation. In recognition of his efforts to understand architecture using scientific thinking, he was awarded the first grant ever for research on architecture by the *Alfred P. Sloan Foundation*, in 1997. Dr. Salingaros is a member of the *INTBAU College of Traditional Practitioners*, and is on the *INTBAU Committee of Honor*. He can be reached by email at nikoss@lonestar.utsa.edu

International Journal of Architectural Research

Archnet- IJAR

Volume (1) - Issue (2) - July 2007

Contributors - listed according to name appearance in this issue

Akhtar Chauhan

Prof. Akhtar Chauhan is an architect, planner and educator. Presently, he is the Director, Rizvi College of Architecture. He was the Founding-Principal of the college during 1992-2001. He teaches Architectural Theory, Architectural Design, Urban Design, Urban Planning and guides students for their architectural design theses. He graduated from Dept. of Architecture, Bandra School of Arts, Mumbai in 1970 and did his post graduate studies at the School of Planning, Centre for Environmental Planning and Technology, Ahmedabad in 1975 under Prof. Balkrishna Doshi and Prof. Christopher Benninger. He has lectured at several universities in India and abroad. He was elected member of the Council of Architecture for 1989-93. He was planning consultant and project co-ordinator to Architect Planner Charles Correa for his Ulwe Node project in 1990-92. In 1998 he founded the International Association for Humane Habitat (IAHH) . He is a Fellow of the Indian Institute of Architects and registered with the Council of Architecture. He is a member of UIA Architectural Education Validation Committee for Region IV. He can be reached at akhtarchauhan@hotmail.com