www.BerkeleyPrize.org
The International Berkeley Undergraduate Prize for Architectural Design Excellence

1997 - 2014
FOUNDED BY:

RAYMOND LIFCHEZ
Professor of Architecture and City & Regional Planning
University of California, Berkeley
U.S.A.

DEDICATED TO HIS WIFE:

Judith Lee Stronach
May 25, 1943 - November 29, 2002
Poet, Journalist, Teacher, Philanthropist
COORDINATOR AND WEBSITE EDITOR:

Benjamin Clavan, Ph.D., AIA

TEAM MEMBERS:

Thea Chroman, Administrator
Jessie Canon, Internet Technology
BERKELEY PRIZE COMMITTEE

64 Current Members

Educators
Design Professionals
Allied Professionals
Social Scientists
PURPOSE OF THE BERKELEY PRIZE

To promote the investigation and teaching of the *Social Art of Architecture*…

At the heart of which is the shift from object-centered to people-centered design.
Universal design =
Inclusive Design =
Design for People =

The Social Art of Architecture
STUDENT COMPETITIONS

Essay Prize
1997 - 2014

Travel Fellowships
2004 - 2014

Student-run Architectural Design
2008 - 2012
Number of Student Participants
1870

Countries Represented
62

Prizes Awarded
106 – Students
8 - Faculty
YEARNLY THEMES

THE ARCHITECT MEETS THE NURSING HOME
VALUING THE SACRED
SUSTAINABLE ARCHITECTURE/TRADITIONAL WISDOM
THE ARCHITECT CONFRONTS POVERTY

......

2014
THE ARCHITECT AND THE ACCESSIBLE CITY
ESSAY QUESTION

THE ARCHITECT AND THE ACCESSIBLE CITY

PROVIDE US WITH AN OVERVIEW OF WHAT IS BEING DONE IN YOUR CITY TO MAKE IT ACCESSIBLE TO PEOPLE WHO HAVE PHYSICAL DISABILITIES. IN YOUR OPINION AS AN ARCHITECT, WHAT MORE CAN BE DONE?

BERKELEY PRIZE 2013 is dedicated to the United Nations Convention on the Rights of Persons with Disabilities and the World Health Organization which is helping to promote and implement the Convention.

BEFORE ADDRESSING THE ESSAY QUESTION:
FACULTY COMPETITIONS

Teaching Fellowships
2013-2014

2013
TEACHING THE SOCIAL ART OF ARCHITECTURE: UNIVERSAL DESIGN
Dedicated to and Coordinated by

MS. ELAINE OSTROFF, HONORARY AIA

Co-founder of Adaptive Environments
(now, Institute for Human Centered Design – IHCD)

Creator of the term “User/expert”
FIVE TEACHING FELLOWSHIPS WERE AWARDED

ONE ASSOCIATE TEACHING FELLOWSHIP WAS AWARDED
THE 2013 TEACHING FELLOWSHIP COMPETITION

Visit the 2013 Teaching Fellowship Competition

Teaching Fellowship Competition

Starting last year, a new BERKELEY PRIZE Teaching Fellowship is offered to undergraduate architecture studio design faculty from around the world. The primary goal of this Fellowship is to support innovative thinking by faculty as they work to focus their students' attention on the social, behavioral, and physical characteristics of the users of the buildings and spaces being designed. The 2014 Teaching Fellowship proposals, based on this year's PRIZE topic, Healthy Architecture, are due on May 31, 2014. Students, be sure to let your teachers about this opportunity.

2013
Ahmed El-Reai, Ph.D.
Wakeman University
Kampala, Uganda
read proposal

2013
Jan A. Deelman, Ph.D.
University of Arizona
Tucson, USA
read proposal

2013
Ajay Khare, Ph.D.
School of Planning and Architecture, India
read proposal

2013
Alana MacLaren, RIBA
Edinburgh School of Architecture
read proposal

2013
Josh Seltke, Associate, MLA
Massachusetts College of Art and Design, USA
read proposal
Mr. Allan K. Birabi, Ph.D.
Senior Lecturer
MAKERERE UNIVERSITY
Department of Architecture and Physical Planning
Kampala, Uganda
Ms. Eve A. Edelstein, Ph.D., Associate AIA
Associate Professor
UNIVERSITY OF ARIZONA
College of Architecture, Planning and Landscape
Tucson, Arizona, USA

(Now, at the NewSchool of Architecture And Design, San Diego, California, U.S.A)
Mr. Ajay Khare, Ph.D.
Founder-Director
SCHOOL OF PLANNING AND ARCHITECTURE
Bhopal, India
Ms. Alex MacLaren
Design Tutor
EDINBURGH SCHOOL OF ARCHITECTURE
AND LANDSCAPE ARCHITECTURE
(ESALA)

Edinburgh, Scotland
United Kingdom
Mr. Josh Safdie, Associate AIA
Adjunct Faculty Member
MASSACHUSETTS COLLEGE OF ART AND DESIGN (MassArt)

Boston, Massachusetts
U.S.A.
Mr. Faiq Mari
Teaching and Research Assistant
Department of Architecture
Faculty of Engineering
BIRZEIT UNIVERSITY
Palestine
AREAS OF AGREEMENT

(Not Just) Accessibility
(Not Just) Universal Design
(Not Just) Inclusive Design

Human-Centered Architecture
Mr. Allan K. Birabi, Ph.D.

Summary presented by Benjamin Clavan

Full paper available in the Proceedings
Ms. Eve Edelstein, Ph.D.

Summary presented by Benjamin Clavan

Full paper available in the Proceedings
Neuro-Universal Design

Eve A. Edelstein
M.Arch., Ph.D. (neurosci), F-AAA
neuroarchitecture@gmail.com

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~200 Students B.Arch + M.Arch
5 Disability & Rehab Faculty
5 Universities: UCB, UA, NSAD, SDSU
1 Neuro-Architecture Faculty
6 Design Faculty

Acknowledgements

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Input: Environment & Context

Response: Brain & Body

Outcome: Universal Design

Approach: Neuro-Universal Design

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We already teach accessible design.

“We don’t have time to teach about human responses.”

“Just give us a list of the brain’s response to design.”

“Limit your lecture to 1 hour.”

Challenge: Faculty Take on More
Peer-to-peer learning with user/experts in all teams: faculty, professionals & students.

Repeated conversations & real-world interactions in studio and on-site.

Essential:
peer-peer user/expert interaction
### Student Work: Design Inquiry Framework

#### INPUT
- Physical:
  - Layout
  - Material
  - Adjacency
  - Temperature
  - Sound
  - Dimension
  - Humidity
  - Light

- Neural:
  - Sensory
  - Movement
  - Emotional
  - Cognitive

#### RESPONSE
- Seating Spaces
  - Focusing Concrete to Create Different Options for Seating
- Permeable Shading System
  - Different Layers of Shade that Provide Unique Experiences with Diffuse Light
- Smooth Hardscape
  - Different Materials Used in the Ground to Indicate Different Provisions

#### OUTCOMES
- Universal Design Uses:
  1. Equitable Use
  2. Flexibility in Use
  3. Simple & Intuitive
  4. Perceptible Information
  5. Tolerance for Error
  6. Low Physical Effort
  7. Size and Space to Use

#### Additional Notes
- 2 // Individual seating pads in groups
- Emotional, Movement
  - Build community through social groupings, Size and space for use // Low physical effort

#### Additional Diagrams
- Variation in paving
- Movement & balance
- Visual perception
- Controls heat without high contrast shadows that cause irritations.
**Results: Integrated Thinking**

©Edelstein 2014
The use of wood is meant to absorb the sound coming from the street,

Visual changes on the roof mark the different uses of the spaces below.

Results: Student Work
90% strongly agreed or agreed
“This experiences made me think about designing for people with a broad range of abilities.

80% strongly agreed or agreed
“These experiences influenced the design of my studio projects.”

90% strongly agreed or agreed
“These experiences will influence how I design in the future.”

Follow-up Survey: Students
“Involving user/experts is invaluable.”

“…this content is not just an add-on”.

“…needs commitment beyond the superficial...”

Follow-up Survey: Faculty
Professional adoption of a ‘neuro-universal’ approach must change the ‘design process’ rather than ‘persuading individuals’ to change.

“… it is not people who change, but the innovations themselves.”

Outcome: Change

(Robinson, 2009)
“I can assure you that you have had a great impact on the way the students think.”

Berkeley Prize student & wheelchair user
Please accept my apologies for not being able to join you in person at this important conference.

Thank you.
Mr. Ajay Khare, Ph.D. with Ms. Rachna Khare

Summary presented by Mr. Sushil Kumar Solanki, Architect Assistant Professor and Member of the Teaching Fellowship faculty at the School of Planning and Architecture, Bhopal

Full paper available in the Proceedings
“GLOCALIZING UNIVERSAL DESIGN EDUCATION FOR CULTURAL INTERFACE IN INDIA”

Dr. Ajay Khare, Dr. Rachna Khare, Sushil Kumar Solanki, Architect
School of Planning and Architecture, Bhopal, India
(S.P.A, Bhopal)
India:
- Seventh largest country in world by area.
- Population with over 1.2 billion and most populous democracy in the world.
- 387 Architectural institutions to provide architectural education.
- The Council of Architecture (COA) by the Govt. Of India under the provisions of the Architects Act, 1972.
- The Act provides:
  - Registration of Architects.
  - Standards of education.
  - Recognized qualifications and standards of practice by the Architects.
According to 2005 parliamentary amendment: Accessibility is compulsory in Indian architecture education.
Objective:

to develop body of knowledge for students of architecture to learn universal design.
Teaching Fellowship – 2013-14

Design studio

Semester - 1
Six month

Semester - 2
Six month

One year
1. Problem Identification/ Data Collection/ Standards and Context

2. Analysis (design criteria)

3. Design idea

4. Design Development

5. Final Design

Regular architecture design process

1. Problem Identification/Data Collection/Standards and Context

2. Analysis (design criteria)

3. Design idea

4. Design Development

5. Final Design

User as subject

User as partner

User feedback

fuzzy front end

USER-CENTERED APPROACH IN DESIGN PROCESS

STUDIO EXERCISE: Proposed site

UJJAIN is known all over as an ancient city that has its origins as a sacred landscape in the remotest historical past of India.

600 BC – 600 AD: Pre Mauryan-Mauryan Period
- Great rulers like Vikramaditya, Chandragupta, Ashoka ruled the city.
- The ruins of Stupas can be seen around the Mahakal Temple.
- Commencement of 'Vikram Samvat', 2061 years ago, the oldest calendar in the world.
- Mahakal temple belongs to this period.

600 AD - 1200 AD: Paramar Period
- Till 1010 AD, Ujjain was the capital for Parmar Kings.
- Bharthrihari caves belong to this period.
- Artistically printed cloth of Ujjain was being exported to Rome and China during this time.

1200 AD - 1700 AD: Muslim And Mughal Period
- Bhuruch king of slave dynasty destroyed many temples including the Mahakal temple in 1235 A.D.
- Khiljis constructed Bina Neev ki Masjid during this period.
- During the period of Akbar in 1562 the city regained its importance.
- Khila de palace belongs to this era.

1700 AD - 1947 AD: Maratha And Pre Independence Period
- Maharaja Jai Sing, the governor of Ujjain built the Jiwaji observatory in 1733.
- Under the Maratha rule, many temples were renovated.
- Bathing Ghats like Ram Ghat and Narsingh Ghat were constructed.
- Scindias shifted the capital from Ujjain to Gwalior in 1810.

Post Independence Period (1947- Till Date)
- Vikram University, Ujjain Engineering college built.
- Ujjain Improvement Trust in 1956.
- Ujjain Development Plan in 1976.

ASTRONOMICAL AND ASTROLOGICAL HISTORY:
- Jiwaji observatory was built in 1795 A.D.
- Restored by the Marathas and repaired by the Government of India.
- Useful for various calculation for preparing the Panchang.
- The Hindu astronomers reckoned their first meridian of longitude from Ujjayini.
- Ptolemy fixed the position of Ujjain at 77°23 from where the horizon starts.
- All Hindu astronomical calculations were focused on this place.

RELIGIOUS HISTORY:
HINDUISM
- Avanti is mentioned in the Kishkandha Kand of the Ramayana and Ujjayini in Mahabharatha.
- Sandipani ashram situated in Ujjain is where sage Sandipani gave instructions to Krishna and Balaram.
BUDDHISM
- During the time of Buddha itself Avanti became an center of Buddhism.
- Mahakacayanaya, born here, learnt from Buddha himself and worked for the spread of His words among his countrymen.
- Residents of Ujjain made donations for building the Stupas at Sanchi.

JAINISM
- Old texts mention that Mahavira performed some of his penances of Jainism in Ujjain.
- The jains relate the city with division between digambara and Shvetambara sects.

BOHRA
- Bohras migrated to Ujjain from Gujarat during the late Mughal period and brought with them their unique customs.
- With their invaluable wooden architecture, Bohras have greatly contributed to the built architecture of Ujjain.

ARCHAEOLOGICAL FACTS:
- Excavations at Bharthrihari caves yielded coins from the pre-Mauryan period.
- Also coinage from the Mughal empire have been discovered.
- Mud mouldings from 700 B.C. have also been discovered.
- Most of the 84 temples have been built on the ruins and debris of destroyed temples during the Altitriam's period.
- Parmara remains can be seen around almost all the temples and it can be presumed that the temples belong to the 10th century.
STUDIO EXERCISE:
DESIGNING OF TEMPORARY SHELTERS FOR VISITORS
How user centered approach used in the studio?

**USER-CENTERED APPROACH DESIGN STUDIO**

- **User as subject**
- **User as partner**
- **User Feed-back**

**Primary Sources** (Field Survey)
- Observation of Users’
- Observation of behavioral’ Traces
- Interviews of Users’

**Secondary Sources**
- Existing Literature
- Existing Case-studies

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Inputs from user experts and Ujjain experts during studio
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Inputs for the design correction
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USER AS A SUBJECT
1. OBSERVING ENVIRONMENTAL BEHAVIOR

Who, what, whom, relationship context where

Doing With In what relationship
In what And context
And where
USER AS A SUBJECT
2. USER INTERVIEWS

Questions
How would you ask the Question?

Answers
Main Issues Identified/
Categories of issues.

How it connects to your design
**USER INTERVIEWS**

**NAME:** Pushpa Pandey  
**Age:** 45  
**Occupation:** House Maker  
**Non-Localite:** Banaras  
**Suffering From Arthritis**

**Purpose of Visit**  
Charghan at Mahakaleshwar Temple visits the temple in every two years.

**Other Interpretation Centers in Ujjain. How to Gather Relevant Information?**  
There is one information booth near the Mahakali Temple but no officer. No person to guide. All information about the temple is gathered from shopkeepers and local vendors.

**Difficulties During the Stay**  
Stay was comfortable but no information about places to visit. The city has a historical and religious background but it does not depict its real soul.

**There should be dedicated souvenir and artfact shop to bring out the authenticity of the place.**  
Light and sound show, storytelling museum, crafts and heritage museum and art galleries to bring out the essence of the city.

**Parking and Circulation**  
Travelled by a local auto. Walked from Harshidhiti Temple square to reach Mahakaleshwar. Suffering from arthritis. It was difficult to walk long stretches all together. Some sitting spots in between could have been a help. Younger people jumping over barricades in the waiting queue made her frustrated. She had to stand longer.

**Provision of resting spots within few metres comfortable setting for old and elderly to ease their visit.**

**Wide circulation spaces with proper management.**

**Name:** Rajesh Meena  
**Age:** 45  
**Occupation:** Farmer  
**Ability:** Illiterate  
**Social Status:** Poor  
**Non Localite:** Haryana (Was there with his wife and parents)

**Purpose of Visit**  
To take blessings of Mahakali.

**Journey till Mahakali**  
Travelled in an auto. Was fooled by the driver.

**Government Subsidised Auto Centres and Bus Stands. Rate Chart must be mentioned. Meter Method must be applied.**
**USER INTERVIEWS**

**1. Chandor Pal Parihar (Gate Keeper, at Mahakal Temple), Age: 56, Gender: Male**

- **Number of Wheelchairs Available with the Administration? Are They**
  - There are about 4-5 wheelchairs, and mostly, are enough as:
    - Not many people who need wheelchair come to such busy place.
    - Even the ones who come mostly bring their own wheelchairs.
    - The wheelchairs belonging to the temple are mostly used by

- **Number of People Needing the Wheelchairs in a Day:**
  - About 20-30 people need the wheelchairs in one day.
  - So the number ‘4-5’ seems enough.

**2. Family**

- **Observation:**
  - The father had asthma as he started panting while talking to us because he got excited about telling us the mythical history of the temple.

**Problems While Climbing the Stairs.**

- No climbing a few stairs for God isn’t a big deal.

**Do you think a ramp would be better??**

- It may be.
- It may ruin the front façade.
- It may be made at the backside and well hidden.

**Number of Senior Citizens Using the VIP Entry Daily?**

- About 1000 elderly belonging to the age

**The Provision of Wheelchair Should Be Done Mainly For**

- Elderly
- Temporarily mobility-impaired people

- As most of the people in permanent need of it bring it on their own.

**Ujjain User Study**

**There are a lot of sentiments attached to changes.**

- May hurt the religious feelings of people. Very cautious measures need to be taken while building the interpretation centre.

- Like not challenging the visual importance of the temple through the structure built.
1. Simulation exercises to sensitize students to respond to the problem area, users and issues
USER AS A PARTNER

2. Full scale model simulation
Assembly of information:

Pre-final design

FIELD SURVEY → USER AS A SUBJECT → USER AS A PARTNER
Final design feedback from the users.
STUDENTS WORK:
STUDENTS WORK:
1. Problem Identification/ Data Collection/ Standards and Context

2. Analysis (design criteria)

3. Design idea

4. Design Development

5. Final Design

Universal design by user-centered approach

DESIGN PROCESS

1. People in the community
2. Design to fit need of people
Lessons:

3. Use of user-centered approach to improve lives of all
‘Real education consists in drawing the best out of yourself. What better book can there be than the book of humanity?’
(Mahatma Gandhi)
Ms. Alex MacLaren

Summary presented by Benjamin Clavan

Full report available at BerkeleyPrize.org
Mr. Josh Safdie

Summary presented by Benjamin Clavan

Full report available at BerkeleyPrize.org
Mr. Faiq Mari

Summary presented by the author

Full paper available in the Proceedings
BACKGROUND
Palestine faces ongoing ethnic cleansing
ca. 1989, Jerusalem, Palestine — Sabrina, a 12-year-old amputee wounded by a bullet during the Intifada, waits for her physical therapist in Makassed Hospital in Jerusalem. — Image by Ricki Rosen/CORBIS SABA
How could architectural education help alleviate such conditions and bring justice to people?
GOAL: Lead the Architecture Dept. to adopt Universal Design as a steering principle.
Approach

Incremental Growth:

- In introducing the concept to the Faculty and Administration.
- In teaching.
1. INTRODUCING THE CONCEPT TO THE DEPARTMENT:

- Discuss plan with fellow teachers.
- Start with one course only.
- Try to achieve good results.
- Convince other faculty based on results.
2. TEACHING:

- Ice-breaking discussions and sketch problem
- Talks by user/experts
- Introductory readings
- User/experts involvement and Design applications
Ice-breaking discussion
User/expert session
First Semester
Visit to SPA Bhopal, India

Special representative to the National Student Design Competition competition held by School of Planning and Architecture, Bhopal.
Life-sized teaching model
Second Semester
- Approach UD as a wider concept of social inclusion.
- Involve more user groups in the design process.
Student Work
Year Results
Students showed:

- Conviction and interest in UD.
- Desire to pursue UD in future courses.
- Minor frustration with course outcomes.
Faculty showed:

- Increased interest in UD.
- More openness towards future application.
- Varying enthusiasm.
Administration responded:

Head of department decided to adopt UD in the new curriculum currently being formulated.
Challenges Faced

- Bureaucratic hindrances
- Difficulty in organization and communication with fellow teachers
- Slow/limited adoption by fellow teachers
- Thus, limited application of ideas sought
Lessons Learned

- UD has the potential to engage students and faculty.
- Gradual application proved to be a successful approach.
- Focus more on the concept of UD than on wording. (Pragmatism)
Long-term Proposals

- Workshops with faculty to study and develop UD pedagogy suitable to context.
- Maintain specific UD-related goals and objectives at each course throughout the curriculum.
- Continuously check and develop teaching approach and techniques with faculty and students.
Closing words ...
I hope that this endeavor proves successful on the long term, and a Universal Design curriculum is fully enacted and implemented in Palestine.
At the end, a war can destroy universally designed buildings or adapted roads and sidewalks. Yet, a war cannot unteach designers their awareness and respect for all people they serve.
Thank You!
PRELIMINARY CONCLUSIONS FROM THE BERKELEY PRIZE TEACHING FELLOWSHIPS

1. The emphasis must be on place, not studio
2. User/experts must become an integral part of the learning environment;
3. Different standards must be adopted for course outcomes; and
4. Social scientists must be (re-)integrated into the design process.
TEACHING EMPATHY
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