•TABLE OF CONTENT :

Faculty News :

Poem by Prof. Shahnawaz Zaidi
Sculpture workshop
Miss Amna’s Birthday

Article of the Month
Excerpts from the article “Green Building & Human Experience“
by Chris Pyke1, Sean McMahon, Tom Dietsche

Building of the Month
London City Hall by Fosters and Partners
Architectural Record Magazine (Feb, 2003)

Software of the Month
Autodesk® Ecotect®
POEM:

[Urdu text]

[Image of a staircase with a window and a green header with the word 'POEM']
Sculpture workshop for the Faculty of Architecture and Design:

H.O.D Department of Architecture and Design Prof. Shahnawaz Zaidi was kind enough to organize and supervises a workshop on the “Sculpture Making” for faculty of Architecture and Design. All the Faculty members has warmly participated in the workshop and really enjoyed the assignment given by the H.O.D.

Group Photo of the Faculty with Prof. Shahnawaz Zaidi, H.O.D. Department of Architecture and Design, after the Sculpture Workshop
Miss Amna Jahangir’s Birthday

Keeping the tradition of celebrating birthdays of Faculty at the Department, Miss Amna Jahangir's Birthday is celebrated in the department. All the Faculty members and Students have attended.
Green Building & Human Experience
Testing Green Building Strategies with Volunteered Geographic Information
Chris Pyke1, Sean McMahon, Tom Dietsche
U.S. Green Building Council®
Research Program White Paper

Introduction:
Built environments often define the fabric of our communities and play a central role in physical and psychological health. Today, the majority of empirical data collection in built environments focuses on physical attributes and environmental performance, such as energy or water consumption. We are building increasingly sophisticated systems to collect, analyze, and use information on building energy consumption; information networks that soon will stretch from the power plant to a Smart Meter and, in some cases, to a Smart Phone. This creates unprecedented opportunities to manage energy use and improve energy efficiency. While the volume of information about energy and, to a lesser degree water, is growing rapidly, information about the experience of people in and around built environments lags far behind.

The relevant dimensions of human experience encompass traditional notions of occupant productivity, comfort, and satisfaction, as well as related concepts of walkability, well-being, connectivity, community, and social capital (Dearry 2004). In an attempt to better understand these concepts, and develop a framework for the sustained collection of data on actual human experience within the built environment this paper explores the intersection between three important concepts:

• Human experience;
• Volunteered Geographic Information (VGI); and
• Green building.

Our goal is to explore opportunities to test strategies with practice-based experiments. We believe that this is part of a larger effort to advance the green building community toward “evidence-based practice based on practice-based evidence” (Simons et al. 2003).
Human Experience

Our basis for understanding these aspects of human experience largely remains tied to traditional survey methods. We use paper or web-page forms to ask people what they think and how they feel. With skill and proper experiment design, this approach yields important insights. However, this approach requires substantial investment in each new data point, and it offers few opportunities to create the kind of pervasive, readily scalable types of data we will soon use to understand phenomena such as energy and water use. For example, industry and academic researchers have begun to envision an “energy ecosystem” driven by pervasive information about energy supply and demand (Arnold and Cochrane 2009). Major technology companies are rushing to provide residential and commercial consumers with new types of information systems, many of which provide the foundation of a coming generation of energy savings applications and products (e.g., Microsoft Hohm, Google PowerMeter, and Apple’s Smart Home Energy Management System). A similar vision has yet to emerge for understanding the experience of humans in and around built environments. Asymmetries between our understanding of human experience and issues such as energy are not the result of chance or intrinsic value. They reflect long-standing patterns of attention and investment in research and development. A review of federal research and development funding related to green building for the period 2002-2005 found that energy-related research received 72% of available funding, while indoor environmental quality-related research received only 2% of funding (Baum 2007). This allocation of resources belies the actual drivers of operational costs and business value associated with buildings. Studies repeatedly find that human resources comprise the majority of total expenses associated with office buildings. For example, Romm (1994) found that personnel constitute 92% of operating expenses, while California’s Department of General Services (2002) estimated 89%. A slowly growing body of case studies over the past 20 years illustrates the potential benefits to our human resources (individual and societal, financial and otherwise) from better buildings and communities (e.g. Kaplan 1989, Browning 1994, Milton 2000, Fisk 2000, Kats 2003, Kats 2010, Carnegie Mellon University). Even modest improvements in productivity, absenteeism, and/or employee retention can substantially outweigh the traditionally sought-after efficiency benefits such as energy savings. These are mirrored by significant potential health and wellness benefits, such as reductions in exposure to toxic substances and improvements in physical activity levels. These persistent trends contribute to a situation where information on energy and environmental performance dwarf relevant information about factors related to occupant experience and health outcomes. This imbalance undermines efforts to establish evidence-based feedbacks to improve green building guidelines and, ultimately, advance green building practice. Recognizing this imbalance does not question the critical importance of energy and water; however, it does call for a conscious effort to establish a more balanced foundation of information on building performance that reflects both people and the
environment. The bottom line on human experience is that we are systematically under-investing in the most valuable aspect of buildings, occupant experience. As a result, we know less than we should about human experience in and around built environments. In turn, we have less evidence to demonstrate that green building practices enhance human experience. This feeds a cycle where we under-invest in high-performance projects, because we lack data on the performance of high-performance projects (Nelson 2010).

**Importance of Human Experience**

Human experience is one of the most critical barometers of the success of a built environment. Traditionally, human experience in and around built environments has been evaluated through surveys, interviews, and, in some cases, direct observations. These tried-and-true methods yield important insights, but they are not readily scalable or spatially extensible. Every observation requires substantial investments in time and energy and is difficult to generalize and iterate. We need new, scalable sources of information and systematic feedback processes to help advance consideration for occupant experience as a part of evidence-based green building practice.

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Fewer a building announced to the world that a new day had dawned, Foster and Partners’ new London City Hall does so with a clarity not seen in a city building in this country for quite sometime. The big, shiny, steel-and-glass egg looks as if the dome of Berlin’s Reichstag (which Foster also designed) had spun off, gathered steam, and landed on the banks of the Thames with such force that its tip was buried in the earth. On closer examination, the Greater London Authority (GLA), as the building is also known, is even stranger—curved inward toward the top on one side, stepped out and upward on the other, a bit flat-topped from some perspectives, pointed like the back of a cat’s ear from others. Its shape was devised to minimize the surface area exposed to direct sunlight while still admitting daylight. The southern overhangs allow each floor to shade the one beneath it but make the structure seem a bit tipsy. Inclined peripheral steel columns, which appear straight on each level but bend inside the floor plates, keep it erect. On the north side, transparent triangular panels open the Assembly chamber to the river. On the east, west, and south, where the offices are located, the skin is composed of a banded grid of triple-glazed panels with fritting, solar blinds, and operable vents. Offices are cooled by ceiling-mounted chilled beams fed by the water table 427 feet below London; by winter, that water warms up enough to be used for heating. Together, these features reduce the energy load of the building by 75 percent, compared to similar-size office buildings elsewhere in London.
BUILDING OF THE MONTH:

ENERGY CONSERVATION STRATEGIES

- Spherical form minimizes surface area reducing heat loss and heat gain
- Responsive cladding system: Shading relates to building orientation
- Intergrated energy-circulation system
- Passive cooling with chilled beams
- Chamber can be naturally ventilated
- Perimeter natural ventilation

Minimum surface area faces the summer sun

Building form provides self-shading in summer

Openable windows to perimeter of office areas

Maximum sunlight reaches the river walk

Chamber oriented due north to minimize solar impingement

Fresh air

Exhaust air

Heat exchanger

Borehole cooling

Gray-water tank

UNDERGROUND

GROUND FLOOR

LEVEL TWO
The obviously high-tech building symbolizes a new progressive agenda, and energy savings are an important part of that, though that isn’t immediately apparent: There are no natural materials, stony thermal masses, secondary outer shells, or other staple features of sustainable design. What is obvious is that the glass skin, like that of Berlin’s Reichstag dome, allows government to be quite literally transparent—visible to the citizenry. Most of the skin on the GLA is actually opaque, but that isn’t noticeable since the solid insulated silver aluminum panels that cover three-fourths of its surface are sheathed by plates of shiny glass. The openness is real, though. The citizenry, and even tourists, are welcome. They can walk right in with the governors from a spacious plaza beside the Thames through revolving doors that fold back to accommodate crowds. Once inside, they find a generous circular atrium with a gigantic model of the city to explore. A gently stepped ramp, similar to the one that surrounds the inside of the Reichstag dome (which is the size of this entire building) but more functional, encircles the structure, providing views into the Assembly chamber on one side and government offices on the other. You can really see government at work, at close range. On the north are vistas of the City, London and Tower bridges, and the Tower of London, looking like icons of a different millennium, which they are. The 201,650-square-foot building was constructed for £43 million (about $64 million). It replaces the Greater London Council’s enormous County Hall, designed by Ralph Knott and erected in 1922 at the public’s expense. When the Thatcherites dissolved the leftist Council in 1986, they also sold County Hall; this stone structure with a proud classical facade now
houses a hotel, apartments, galleries, and an aquarium. When Tony Blair came to power, he said his government represented a return to “modernism,” implying a commitment to a social safety net and a forward-looking approach. So he had to create a place for the reborn agencies to operate, and that place had to be a visible symbol of compassionate, enlightened leadership. Since privatization was (and is) still in vogue, the government could not simply build the new facility— instead, it held a developer/architect competition that allowed entrants to propose both the building’s form and location. Extraordinary energy savings were also required. The winners were CIT Group developers, with Foster and Partners architects and Arup engineers. The team chose a 3.6-acre site on the South Bank that had been cleared in the 1980s for what was then called London Bridge City 2 within the Southwark Riverside Masterplan.
BUILDING OF THE MONTH:

SEEKING THE SHAPE OF GREEN
Foster and Partners’ Design
for London City Hall
This area has become vastly more desirable since the Tate Modern and a huge Ferris wheel (known to Londoners as “The Wheel” but officially named The British Airways London Eye, designed by David Marks & Julia Banfield Architects) opened a few years ago. It was ripe for development and accessible by two tube stops. The new team renamed the site More London and planned nine buildings containing a total of 2.4 million square feet, all to be designed by Foster. It’s the biggest commercial development in London in 15 years. Besides City Hall, there will be four office headquarters buildings with shops and restaurants on the ground floors, underground parking, a hotel, a theater, and two major public squares in a privately owned (but ungated) area with walkways and a 1,000-seat amphitheater. Old buildings on a once-shabby adjacent street are being renovated for mixed uses and will be connected with City Hall and its new neighbors, to tie their site to the city grid and London’s past. But City Hall itself speaks to the future in a way American municipal buildings rarely do—or haven’t since Frank Lloyd Wright’s futuristic Marin County Civic Center appeared in northern California in 1962. In London, what you see now is lightness—glass and steel working together dynamically to create a structure that, though unfamiliar and daring, invites exploration and enables interaction. At the top is a space with a terrace overlooking the city, called “London’s Living Room,” which can be used by the public for exhibitions and events. The cafeteria under the atrium is also open to the public. And the lavender-carpeted Assembly chamber on the second level is surrounded by a tiered public gallery. This space has such fine acoustics that speakers don’t need microphones; even softly spoken conversation is audible on the upper levels of the ramp. The 25 members of the Assembly can sink into ergonomic chairs at their gray suede round table and tap on their individual stainless-steel desktops, at which point a flat-screen computer will appear. James Bond, eat your heart out—as the members of the London AIA did when they settled into the seats while on a tour last fall led by Bruce Curtian of Foster and Partners. The architects were so fascinated by City Hall it was difficult to get them to leave at the end. Night fell during the tour, so the building glowed handsomely as a finale. Whether City Hall will be quite as sensational when the area around it is redeveloped remains to be seen. But, for now, it puts government in a favorable and forward-looking light.
Sustainable Building Design Software:
Review by Autodesk

Autodesk® Ecotect® Analysis sustainable design analysis software is a comprehensive concept-to-detail sustainable building design tool. Ecotect Analysis offers a wide range of simulation and building energy analysis functionality that can improve performance of existing buildings and new building designs. Online energy, water, and carbon-emission analysis capabilities integrate with tools that enable you to visualize and simulate a building’s performance within the context of its environment. Whole-building energy analysis—Calculate total energy use and carbon emissions of your building model on an annual, monthly, daily, and hourly basis, using a global database of weather information. Thermal performance—Calculate heating and cooling loads for models and analyze effects of occupancy, internal gains, infiltration, and equipment. Water usage and cost evaluation—Estimate water use inside and outside the building. Solar radiation—Visualize incident solar radiation on windows and surfaces, over any period. Daylighting—Calculate daylight factors and illuminance levels at any point in the model. Shadows and reflections—Display the sun’s position and path relative to the model at any date, time, and location.