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7th World Congress on Design and Health

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TAKE-AWAYS

The 7th World Congress on Design and Health, hosted in Boston, Mass. July 6 – 10, 2011 by the International Academy for Design & Health and the AIA Academy of Architecture for Health, brought together an international group of elite practitioners, scholars, and policy-makers in the fields of medicine, public health, and design to discuss today's rapidly changing landscape. Profound health challenges, from chronic disease and obesity to the delivery and affordability of care—face our communities and our nations.

Once perceived as incidental to the realm of health, designers must now collaboratively engage in structuring a built environment conducive to well-being. This new involvement will be measured in terms of five key points: evidence-based design, expanded scope, sustainability, economics and design.

As such, the conference carried two parallel and interwoven themes; the realm of health design and the realm of health*care* design. Although much of the research and advances have been made within the Health*care* design community, the application of that research is more universal. *Health design* exists at every scale of the built environment. It is oblivious to square footages, building type, or means and methods. Both Health design and Health*care* design must be realized across a spectrum of professions and project types.

EVIDENCE-BASED DESIGN

a) ***Research:*** Emerging research-based case studies and post-occupancy evaluations highlight the increasing obligation of designers and researchers to document the health effects of design decisions. Data points – both targeted POEs and more generalize broader literary case studies – will be critical to developing knowledge and establishing value propositions for owners. Techniques will include patient and staff surveys, process mapping, eye-movement studies, awareness studies, brain scans, and more.

b) ***Metrics:*** Success in the arena of evidence-based design will be contingent on the development of, and testing against, specific performance metrics. Designers must become more diligent about synthesizing research to generate and evaluate design solutions. Although there will continue to be a place for observational/intuitive design decisions, their success will need to be measured

against broad performance standards including but not limited to economy, function and time (as in nursing station design), patient recovery times, broader health improvements, etc in order to convey the value of well-being as a design product.

c) ***Accountability:*** Metrics afford the architectural profession, and the discussion surrounding well-being, validity through accountability: design affects health. Demonstrating an ability to set, work toward, and achieve quantifiable performance goals and improved health outcomes underscores the value proposition of design and its inextricable role in shaping societal values and habits. Furthermore, accountability underscores designers' authority when initiating conversations with clients about healthful design, akin to sustainability.

EXPANDED SCOPE

a) ***Issue-driven policy:*** Described as "concrete policy," the built environment is as much bound to policy-driven responses as healthcare. To achieve meaningful change, both must look beyond their historic parameters toward the other and toward myriad other knowledge sources. Design must balance economic, social and environmental goals to create healthful communities. So too must health practice. Through these methods, broad, "issue-driven" decisions will transform the landscape into a plane for collaboration and cross-discipline development.

b) ***Ownership:*** Health does not belong to practitioners, nor design to designers. Both belong to the client/patient. It is the task of the designer/practitioner to inform and challenge owners to think critically about health in design and practice; to consider what the built environment can do at a macro level. This is particularly true for designers who must first establish their profession as a social service in the same vein as medical practitioners.

c) ***Business/Patient/Designer:*** The conversation extends beyond dyadic relationships. A space designed for healthfulness is immediately in service of two clients: the general public and the service provider. Without meaningful, sustained support and management, however, even the best-designed facility will fail to realize its potential. Conversations about facility management and operations should be established in early design dialogues.

SUSTAINABILITY

a) ***Environmental:*** Substantial shifts in the last two decades have catapulted sustainability to the forefront of design, policy and health discussions. Provided current research and cultural familiarity with sustainability's most basic tenets, sustainability provides an avenue to discuss design for health. Global temperature changes affect current thermal comfort models, straining existing HVAC systems and energy use plans; similarly, rises in global temperature correlate to an increase in moisture, in turn negatively affecting interior air quality. Establishing design as the connection between these two social issues—

sustainability and health—perhaps best lays groundwork to promote design as a social issue.

b) ***Health:*** Contemporary financial investment in healthcare is unsustainable. Beyond disproportionate fiscal investment, the heavily centralized structure of healthcare prevents substantial internal change from happening. Without the input of external forces – like design – the medical profession will be saddled with continuously escalating costs associated with care. In order to sustain health, salutogenic design decisions will be invested in outside the traditionally constructed realm of healthcare; healthcare will encompass the integrated city, workplaces, homes and recreational centers.

ECONOMICS

a) ***Medical care v. health care:*** Medical care and healthcare are often misconstrued as synonymous. They aren't. Medical care represents 10% of the global economy; the already huge number rises annually. Daily US expenditures on design-preventable issues are astronomical: $273 million spent daily treating diabetes, $320M toward fighting obesity, and more than half a billion dollars spent every day on heart disease. These numbers are not indicative of "health-care", but instead represent what Dick Jackson, M.D., deems "sick-care." Rather than supporting a health continuum, the current healthcare model directs money to responsively treating illness. A shift to a salutogenic health model, one which establishes "health is a social expectation," begins to challenge these numbers. Rather than combating illness, a salutogenic approach designs health through collaborative efforts beyond the current scope of healthcare.

Salutogenic Design *refers to proactive approach to health promotion and prevention. Visually, it could be conceived as a continuous line between health and illness.*

Pathogenic Design *refers to cause-effect approach to health, which treats specific pathogens on individuals as they emerge.*

b) ***Initial cost:*** These aforementioned numbers reflect the treatment-driven paradigm of global healthcare. Investing even a fraction of that money in upfront design decisions that promote health could have a serious impact in steadying, if not lowering, those numbers in the future. Prioritizing one flight of stairs over elevators daily has the potential to counter a minimum of one pound per year. Providing access to nature lowers stress rates, balances depression and engenders faster recovery. These are two basic, low-cost, high-return design decisions that directly affect health. More complex investigations, including building systems, material selection and urban networks have similarly remarkable opportunity. Explored in the Fable 2.0 hospital model, and subsequent research studies, the return on initial design-incurred expenses recoups cost in performance and user satisfaction. Designing health is an economic responsibility.

DESIGN

a) ***Value:*** Economics are a strong driver for healthcare projects, but design is ultimately more important. Designers, equipped with vision and research, can illustrate to owners how to reduce costs, improve quality and enhance performance. Simple solutions, well-applied, have the potential to holistically

effect both patient *and* employee, owner *and* occupant. Both design and health (abstractly) behave along a continuum with which all people are constantly involved. Conversely, pathogenic healthcare treatments are intermittent instances along these planes. Design supports health directly, and designers must continue to advocate for that in all capacities of design—inside and outside of healthcare's traditional scope.

b) ***Strategies:*** Health design trends can be identified by reflecting on intuitive practice, case studies and research. Largely vetted in healthcare design, these strategies provide a framework for designing health in all market sectors. Incorporating views, if not access to, nature is a particularly encourage strategy. Meaningfully, the relationship between nature and health has been scientifically studied since the oft-referenced 1984 Richard Ulrich study, "View Through a Window May Influence Recovery from Surgery." Other themes include: art, communal spaces, communication, color and texture, comprehensibility, dignified environments, flexibility, indoor-outdoor environments, manageability, meaningfulness, natural light, recreational space, stair design, technology, nature, variety and way-finding.

FINAL QUESTIONS

The following questions use the 7th World Congress on Design and Health presentations as a springboard to facilitate continued discussions regarding health design.

1. ***How can research advance design?***
2. ***What are appropriate metrics for designing health?***
3. ***How does multi-disciplinary practice sustain salutogenic practice?***
4. ***What responsibility do designers have in shifting owner dialogues toward health practices?***
5. ***How do designers convey the power of a dollar for design versus a dollar for treatment?***
6. ***What makes people healthy?***
7. ***How can design improve people's health?***
8. ***How does design become a social issue?***
9. ***How can design influence policy?***