KoningEizenberg with William J. Mitchell and Gehry Technologies

05.1.1 Built Pedagogy

Building pedagogy

The brief for the Faculty of Architecture, Building and Planning (ABP) calls for a responsive design process that provokes discourse about values, expands technical knowledge and delivers an inspiring architectural paradigm for creative academic environments. This team is led by architects Koning Eizenberg and includes William J. Mitchell with Gehry Technologies to address three key knowledge streams to achieve built pedagogy.

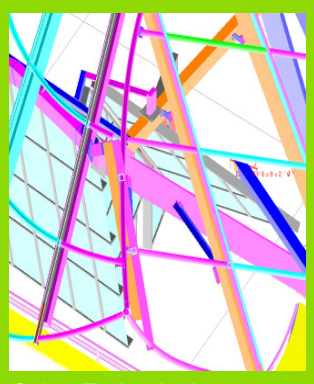
1. Architectural excellence anchored in a humanist, sustainable philosophy.
2. Vanguard thinking on academic environments and technology.
3. Building information modeling (BIM) and emerging technology.

Koning Eizenberg aligns humanist values with inventive architectural form-making and offers a portfolio that highlights sustainable, people-oriented places achieved with economy and ingenuity. The multiple award winning Children's Museum of Pittsburgh is a good example. It demonstrates the ability to work collaboratively with stakeholders to rethink institutional norms, sophisticated integration of historic buildings and a fresh and compelling responsiveness to context.

William J. Mitchell provides unparalled knowledge of the process and delivery of academic environments from the university, departmental and student point of view. Over a ten year period, as advisor to the President of MIT, Professor Mitchell oversaw one of the most innovative and expansive (billion dollar plus) academic building programs in the world. Projects included renovations to the School of Architecture, the Stata Center and the soon to be realized Media Laboratory among others. In *Imagining MIT* Professor Mitchell describes the program and outlines a new model for thinking about and building academic environments.

Gehry Technologies has facilitated cutting edge design, such as the Stata Center and Beijing Olympic Stadium, through BIM modelling. The design and construction of the ABP is an opportunity for an exemplary demonstration of the full potential of BIM technology – not only in design and initial project delivery, but also throughout the building's life. It should provide a way (in conjunction with sensing technology) to create a building that exemplifies principles of sustainability, scientifically demonstrates those principles, and documents its performance in use. This will be a great resource to both faculty and to students and to the Australian architectural community in general.

William J. Mitchell

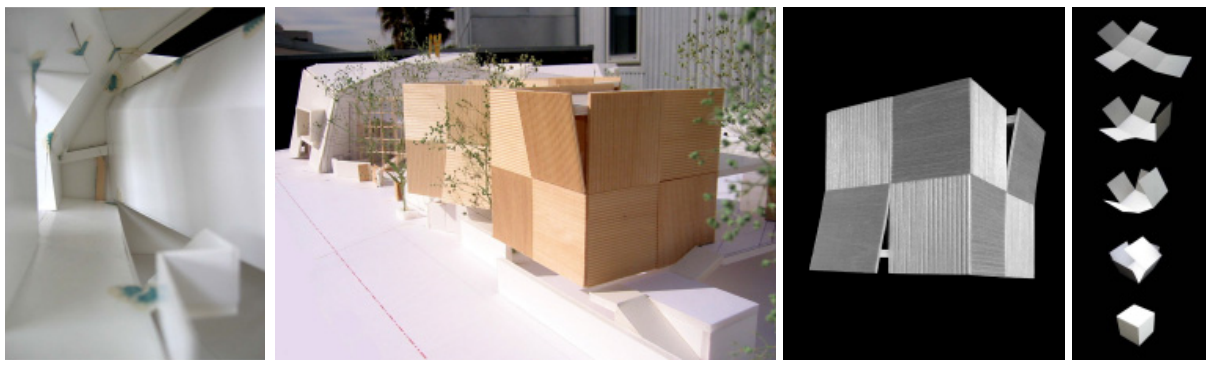

Gehry Technologies

Wind responsive fluttering facade
Children's Museum Pittsburg, PA

05.1.2 **Academic Environment**
+05.1.3 **Design Studio**

Building around people

As we see it the conventional divisions between the academic environment (research space) and design studio are dissolving. At the same time technology is also redefining our fundamental assumptions about what constitutes social space and what constitutes work space. Rather than separating the idea of the academic environment from the design studio space it is productive to think of them both as subsets of a **flexible ecosystem** that supports **creativity**, provides ubiquitous access to **technology** and optimizes **collegiality**.

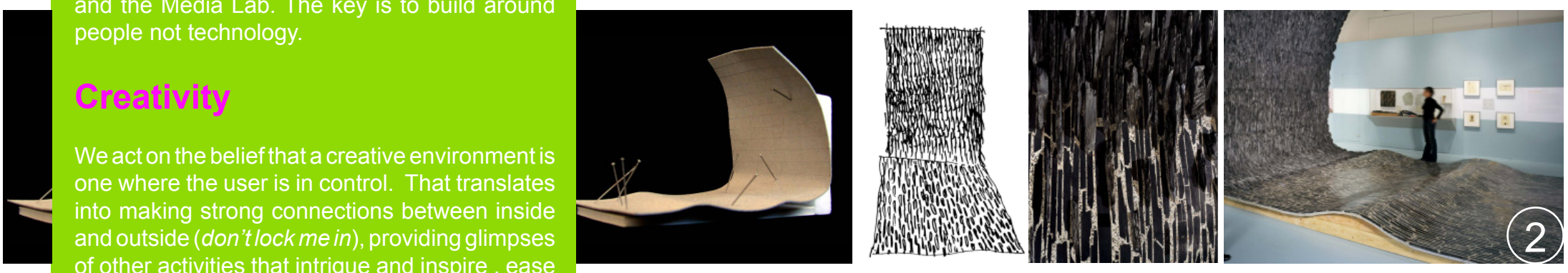


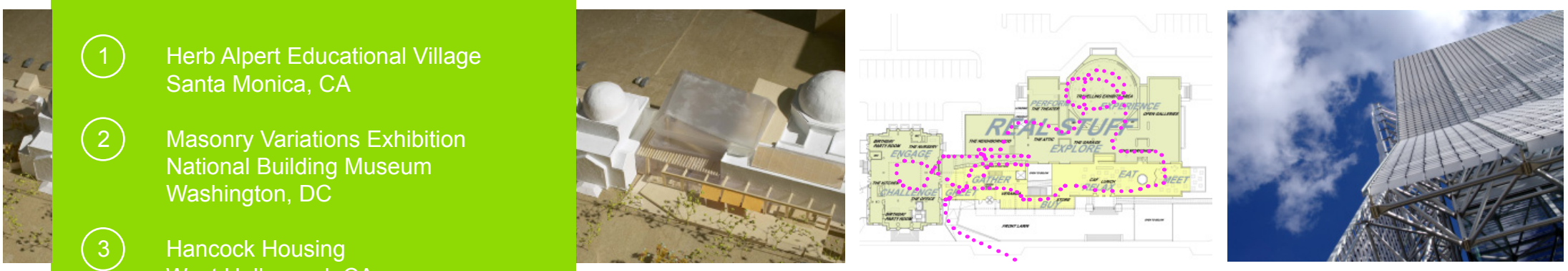
Flexible ecosystem

Professor Mitchell points out in *Imagining MIT* that flexibility is no longer synonymous with generic repetition but should be imagined as an ecosystem comprising a rich array of places that can be adapted for different pursuits over time. This is the model being used at the Stata Center and the Media Lab. The key is to build around people not technology.

Creativity

We act on the belief that a creative environment is one where the user is in control. That translates into making strong connections between inside and outside (*don't lock me in*), providing glimpses of other activities that intrigue and inspire , ease of use (*making is 'messy'*), choice, and an open ended design sensibility rich in allusions to ideas and making. (1) (2) (3) (4)





1. Herb Alpert Educational Village
   Santa Monica, CA
2. Masonry Variations Exhibition
   National Building Museum
   Washington, DC
3. Hancock Housing
   West Hollywood, CA
4. Children's Museum Pittsburg
   Pittsburg, PA

05.1.2 **Academic Environment**
+05.1.3 **Design Studio**

Building around people

Technology

We propose to create a building that is not only functional and livable, embodies sound principles of sustainability, and is socially and culturally appropriate but also functions as a living laboratory. This will be accomplished by providing (with appropriate privacy safeguards) comprehensive, fine-grained electronic sensing and networking, together with associated data analysis capabilities. The resulting data stream will provide a detailed, dynamic picture of the building in use, and of its ongoing technical performance and patterns of use. This is now technologically feasible at reasonable cost. It will provide a sophisticated foundation for managing the building's technical systems, provide the basis for ongoing adjustment and modification of the building over its lifetime and function as a unique research and educational resource.

Collegiality

Building around people is the key and Koning Eizenberg consistently delivers strong social backdrops to support community and collegiality. Such places are informed by observation and would be particularized for the ABP by Professor Mitchell's experience at MIT. Successful informal social interaction strategies found in Koning Eizenberg buildings include:

- the reframed idea of path structured to encourage contact and discovery rather than provide the shortest route from A to B, (1) (4)

- tweaking conventional organization to get synergy, for example flipping parking with program to better activate a street and create positive communal outdoor spaces at multiple levels (3)

- creating outdoor (and indoor) spaces with armatures for un-curated expression (7)

Imagining MIT Stata Center

Imagining MIT Simmons Hall

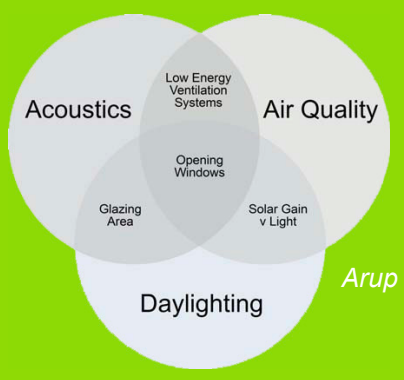
05.1.4 The Living Building

Sustained Sustainability

Buildings must add value to their context and continue to perform well spatially, socially and experientially over the long term. This principle informs our practice and the Koning Eizenberg studio (5) completed in 1999, continues to host ongoing experimentation and monitoring relative to long term durability of green materials, mechanized exterior shading, onsite water management and PV performance. The recent design of a Civic Center for the small desert City of Lake Elsinore, CA (8) exemplifies the same principle at a larger scale – from watershed, to neighborhood to building. The proposed design uses the Civic Center program to revive local commerce, anchor quality outdoor space and improve lake health.

US Green Building Council certified (LEED) projects include the groundbreaking designs for the largest museum in the USA to achieve LEED silver certification, on its completion in 2004 (4) and the first LEED certified park in the country, LEED silver, in 2007 (7) These projects include iconic demonstrably sustainable strategies, like the fluttering sunshade at the Children's Museum (4) while also addressing less immediately visible strategies like durability and underground water collection. Numerous projects, where clients have not sought certification, also highlight sustainable systems and strategies such as, solar chimneys (6) geothermal loops, daylighting and enhanced acoustic performance.

Working toward a living building concept and a 6-star Greenstar rating takes a co-ordinated effort across all disciplines. Arup is this teams selected sustainability and integrated building engineering consultant with international experience in Living Building philosophy and local experience with the Greenstar program. Together with Gehry Technologies the team has the capacity to demonstrably and meaningfully explore cost effective options to achieve sustainability goals. The BIM model will also facilitate in the assessment of various scenarios such as an evaluation between the re-use of the existing building versus building new or creating parameterized solar studies to optimize appearance and performance of passive shading.



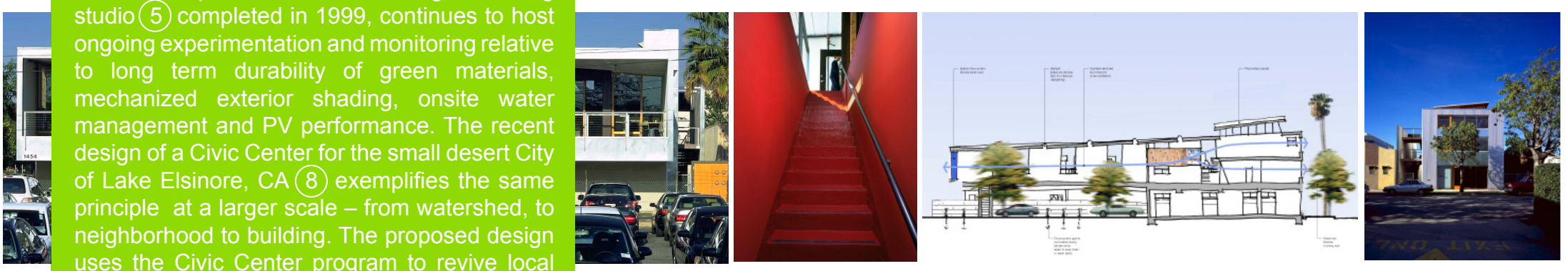
Arup

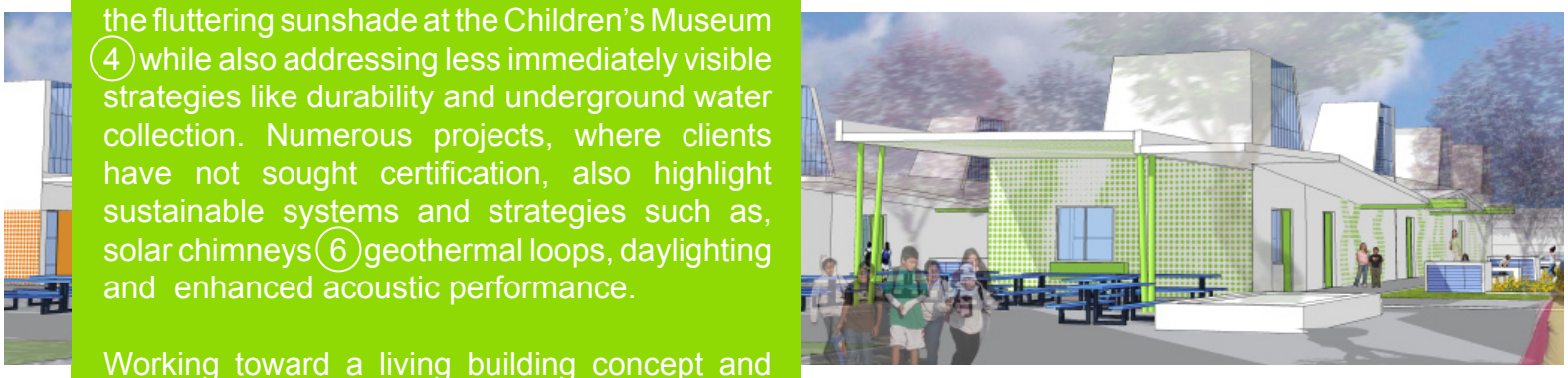
5 25th Street Studio
Santa Monica, CA

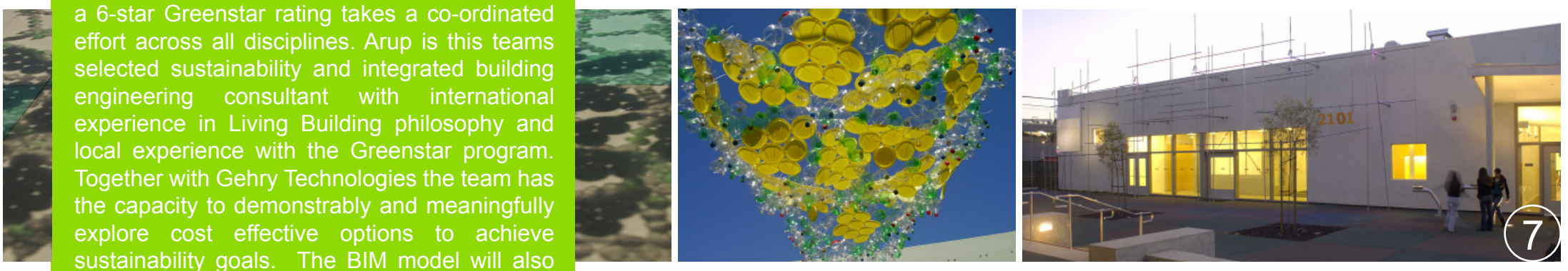
6 John Adams Middle School
Santa Monica, CA

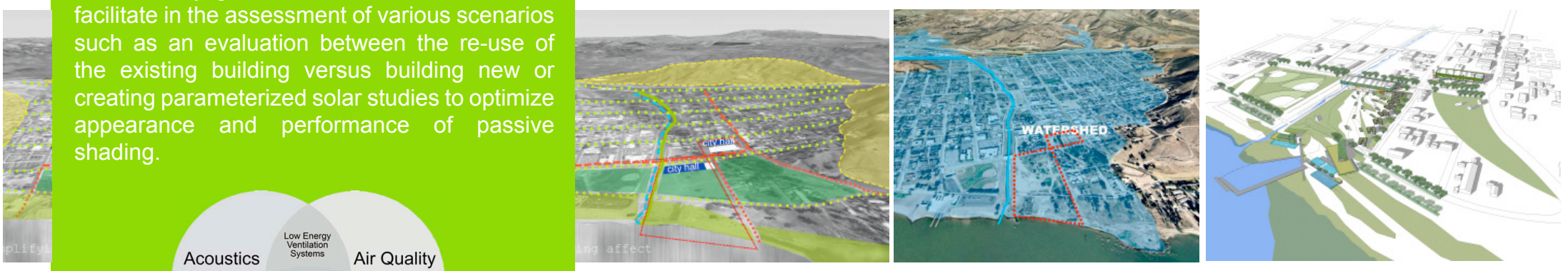
7 Virginia Avenue Park
Santa Monica, CA

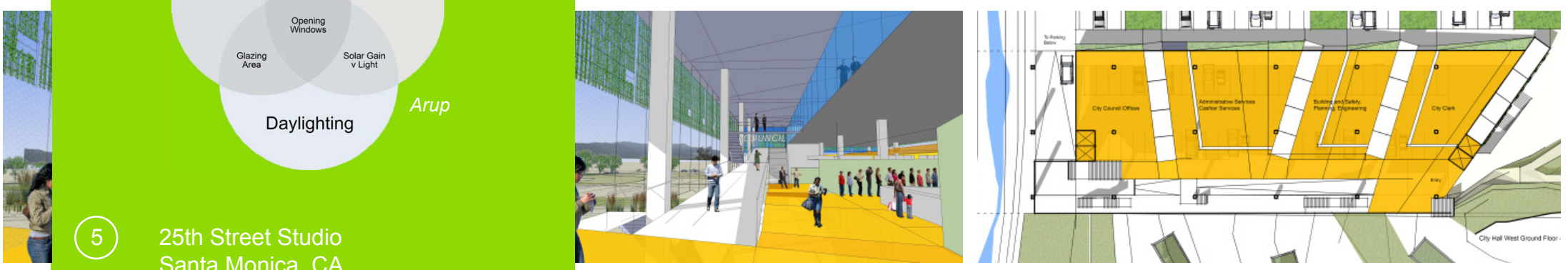
8 Lake Elsinore Civic Center
Lake Elsinore, CA











5.1.5 Capability and Process

Getting it done

Delivery

The collaborative framework (right) is predicated on strong design team leadership with experience leading consensus building. Julie Eizenberg has shepherded timely decision making by many project committees while fielding input from large and divergent interest groups. Probably the most challenging were both for the City of Santa Monica (7)

Koning Eizenberg has assumed the executive/ design architect role on projects of similar complexity- at the small end is the 8,000 sq m Children's Museum of Pittsburgh (4) and at the large end the 25,000 sq m Los Angeles Farmers Market (9) Our methodology relies on principal involvement throughout with Hank Koning addressing scheduling, budget and technical parameters and Julie Eizenberg focusing on consensus building and concept development.

Both Koning Eizenberg Principals are registered in Victoria and intend to contract with a Melbourne firm to provide local Architect of Record services as well as oversee construction.

Team

Executive/Design Architect
Koning Eizenberg with William J Mitchell and Gehry Technologies

Local Architect of Record
Selected at competition kick-off

Integrated building engineering and specialty consulting services
Arup (LA and Melbourne)

Sustainability
Arup (LA and Melbourne)

Local consultant services
As needed but will specifically include landscape, and historical consultants.

References

Children's Museum of Pittsburgh (4)
Jane Werner, Director
jwerner@PittsburghKids.org

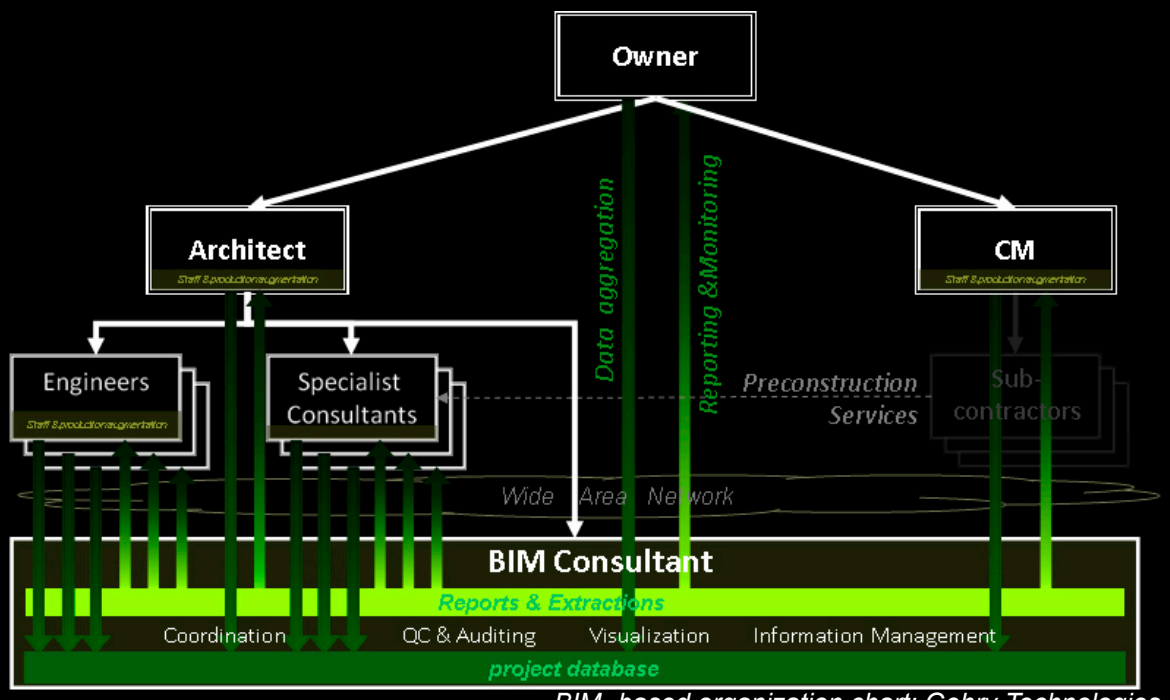
Virginia Avenue Park (7)
Barbara Stinchfield, Director of Community Development City of Santa Monica
barbara.stinchfield@smgov.net

Farmers Market, Los Angeles (9)
Mark Panatier, Vice President,
Gilmore Company
mpanatier@afgilmore.com

On the boards

(10) La Brea Mixed-Use
Los Angeles, CA

(11) WCNY, PBS TV Station
Syracuse, NY



BIM- based organization chart; Gehry Technologies

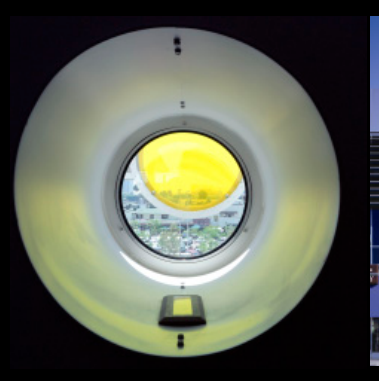
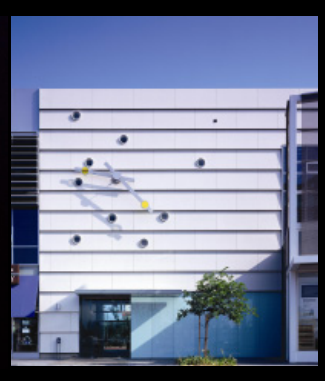
Process

Extensive experience with major university projects demonstrates that engagement between the architects and stakeholders works best if there is a small, attentive client committee that is sufficiently broadly representative to be widely trusted, and that is structured and empowered to act swiftly and decisively. This client committee should keep in close, active communication with the wider community that it represents.

Transparency and full access of all stakeholders to relevant information throughout the design process are essential to the process and can be facilitated by creating and maintaining a comprehensive, well-structured project website. Although much can be accomplished through online communication, regular, face-to-face discussions between the architects and the client committee, and sometimes the broader community, remains essential. These are best structured around models, which are vividly engaging, and are well understood by non-specialists. At the same time linking an understanding of cost, performance, and other tradeoffs is crucial to the success of this type of project. To this end, our presentations will not only show design options, but also make clear – with data and technical analyses as necessary – the different tradeoff points that different options represent.

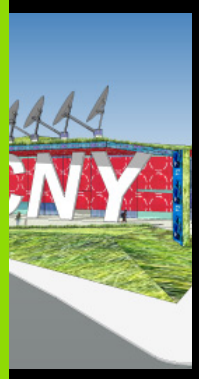
The Gehry Technologies BIM system will facilitate effective communication among all members of the project team, and provide a comprehensive repository of design decisions as the project develops. But there are additional important benefits. It will provide a detailed trace of the process that can be archived for the long term, and will become a valuable historic record. It will also provide the basis for faculty and students to run their own analyses on aspects of the building's performance – making it a valuable research and teaching tool. Over time all university buildings tend to be modified repeatedly. The existence of a comprehensive, well maintained BIM model should provide the foundation for doing this gracefully and economically.

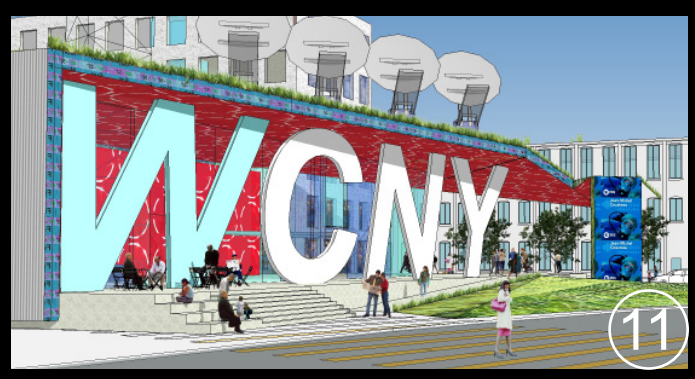






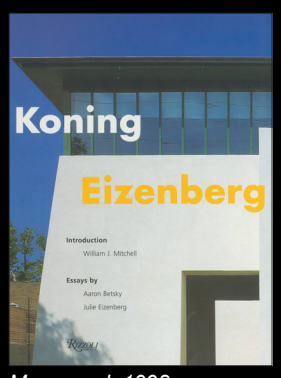
5.1.6 **Merit**

Koning Eizenberg was established in 1981 by Hank Koning FAIA, FRAIA, LEED AP, M Arch II UCLA, BArch U of Melb, and Julie Eizenberg, AIA, M Arch II UCLA, BArch U of Melb. The roots of this practice are in affordable housing and small projects with the discipline of tight budgets and hands-on pragmatism. Projects vary in scale from exhibits and small additions to larger scale projects and include master planning and work across a range of building types. The work appeals to clients and institutions interested in rethinking opportunities rather than accepting the status quo. Today the firm is well known with over 60 design awards and extensive worldwide publication. Both principals lecture and have taught at UCLA, SCI_Arc, Yale, Harvard, MIT and University of Melbourne. The principals leverage this credibility to influence and change the context as well as craft buildings that raise expectations for design in the public realm. KoningEizenberg is the American Institute of Architects California Chapter Firm of the Year for 2009.

William J. Mitchell is the Alexander Dreyfoos Professor of Architecture and Media Arts and Sciences at MIT. He directs the Smart Cities group at the MIT Media Laboratory and the MIT Design Laboratory. Professor Mitchell previously served as Dean of the School of Architecture and Planning, Architectural Advisor to the President of MIT, and has taught at UCLA, Carnegie Mellon, Cambridge, and Harvard. He holds degrees from Melbourne, Yale, and Cambridge Universities. He is a licensed architect in Australia, a Fellow of the Royal Australian Institute of Architects, and a Fellow of the American Academy of Arts and Sciences. His honors and awards include honorary doctorates from the New Jersey Institute of Technology, the University of Melbourne, the Open University of Catalonia, and the University of Sydney, and the Appreciation Prize of the Japan Institute of Architects. His books include *City of Bits, E-topia, Me++, Imagining MIT, Placing Words,* and *World's Greatest Architect*. His latest book, *Reinventing the Automobile*, will be published by the MIT Press in Spring 2010.

Gehry Technologies is a comprehensive BIM consultancy, using technology to catalyze change and introduce new opportunities to building professionals and their organizations. They work directly with project teams to help them design and build better buildings and improve project execution. They provide knowledge and technology for successful application of 3D modeling tools and integrated methodologies to help clients achieve more innovative designs, reductions in project cost and risk, accelerated construction processes, and better building performance.

Arup will provide sustainability, integrated building engineering and specialty consulting services. With global offices including Melbourne and Los Angeles, Arup offers seamless coordination of services from concept though construction. The Los Angeles effort will be led by Erin McConahey who has extensive experience in sustainable university buildings, and in Melbourne by Peter Bowtell, technical director, and Joseph Correnza, project director, with Pippa Connely leading the sustainability effort. Arup's approach brings a full complement of skills and knowledge to bear on any given design problem. They are the creative force behind many of the world's most innovative and sustainable designs. Buildings of relevance include school of Botany and Bio 21 at Melbourne University, MFB Burnley, Victoria College of the Arts.

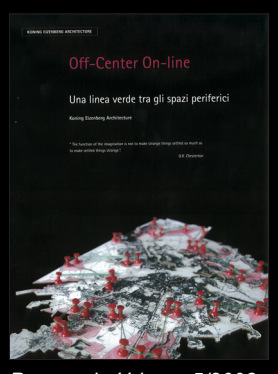


Monograph 1998

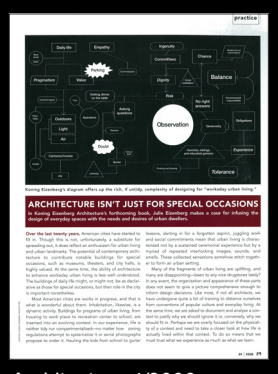
Monograph 2006

Metropolis 4/2005

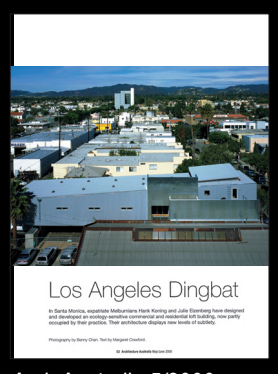

ID Magazine 2008



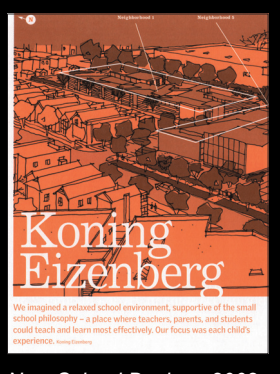
Paessagio Urbano 5/2008



Architecture 4/2006



Arch Australia 5/2000



New School Designs 2002

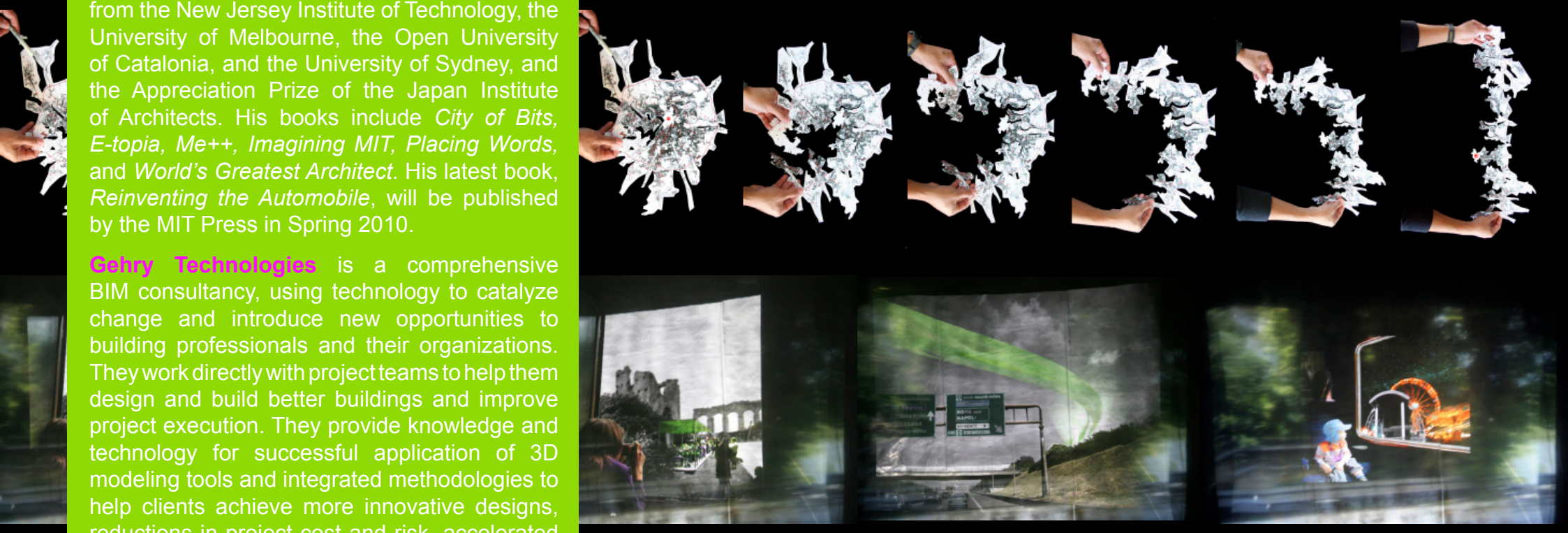
Blueprint 2/2003

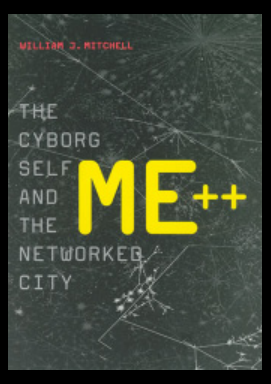
Interior Design 4/2006

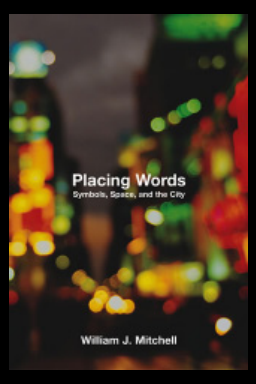
Arch Record 6/2006

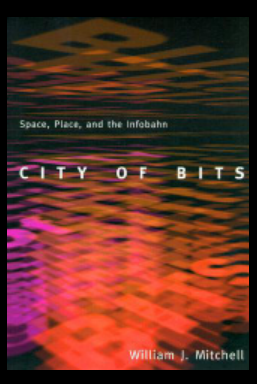
Wallpaper 10/2000

Selected Articles and Publications Koning Eizenberg


Uneternal City, Venice Bienalle 2008 Koning Eizenberg







William J. Mitchell Publications

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