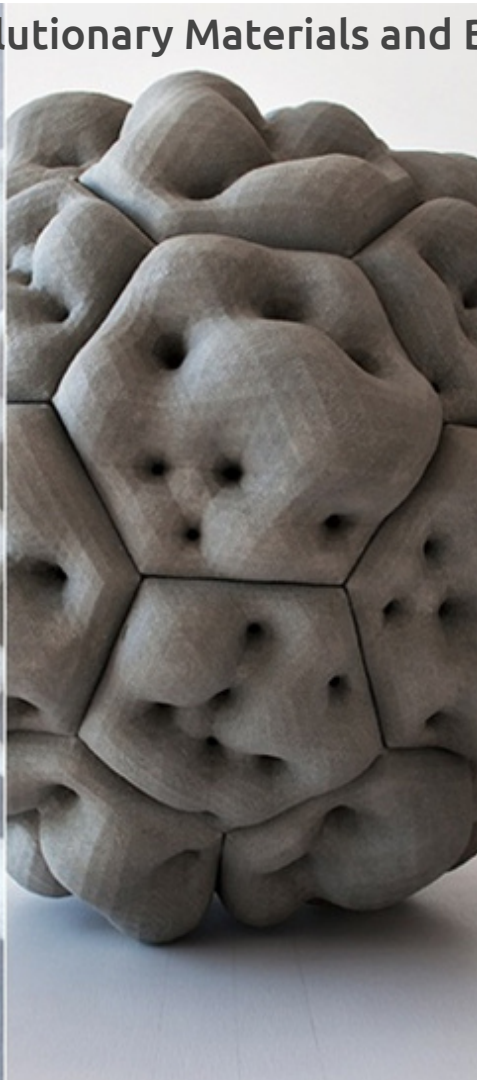
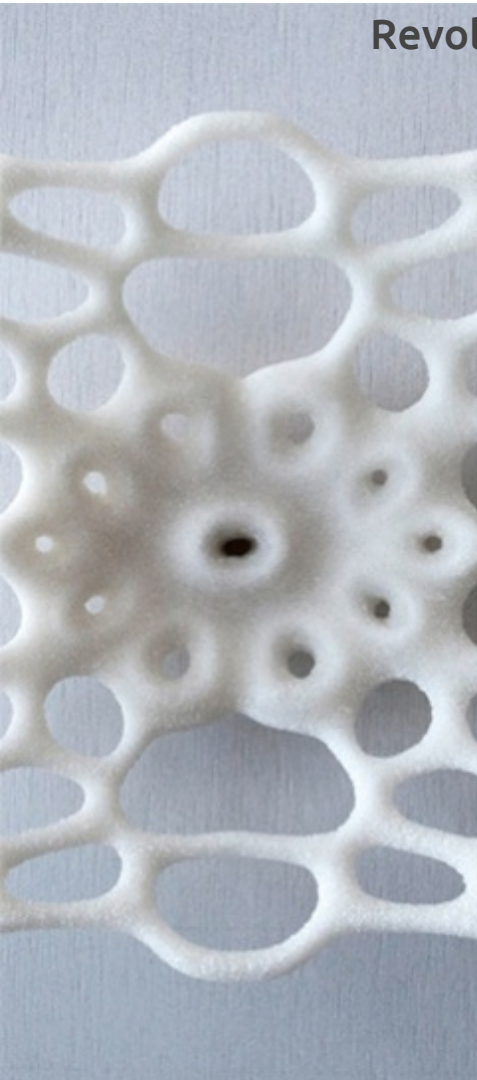


emerging objects

Revolutionary Materials and Building Blocks for 3D Printing



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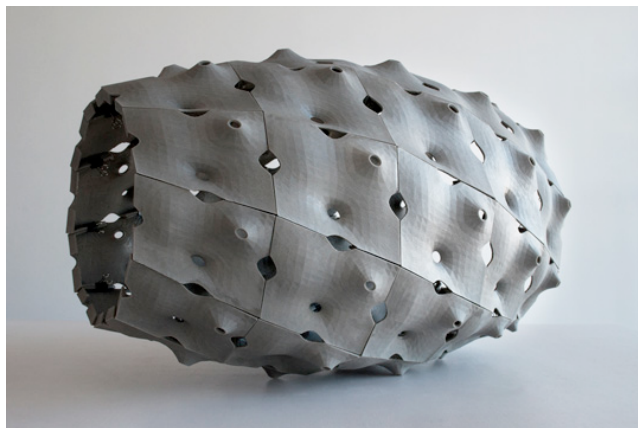
Revolutionizing Cement

- Cement has been in use for 5,000 years
- Cement is the most pervasive building material in the world
- Cement materials and methods need to transform for 3D printing









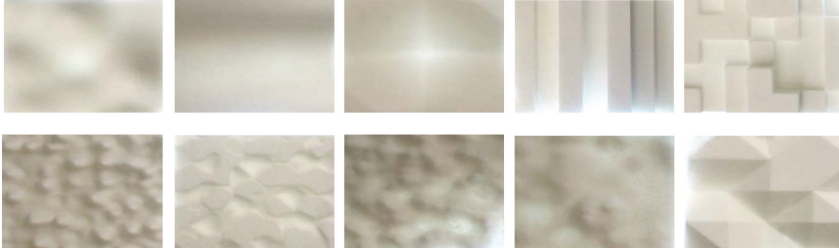





3D Printing with Cement Polymer

- 3D printing expands cement's capabilities, as no formwork is required
- 3D printing enables custom on-demand large-scale "building block" fabrication
- Cement polymer created for direct productization through 3D printing process



Emerging Objects' Current Materials

- Developed cement polymer specifically for 3D printing
- Other unique 3D printable materials have emerged from this R&D
- Proprietary formula has many material and cost advantages

	<p>cement no formwork stronger than concrete translucent</p>				
	<p>salt renewable resource inexpensive structural</p>				
	<p>wood industrial by-product material richness lightweight</p>				

Comparative Material Cost

- Comparable ZCorp Powder Materials: 100 lbs = \$2,800
- **Emerging Objects Fiber-reinforced Cement Polymer: 100 lbs = \$102**

- Zcorp Binder: 1 liter = \$152
- **Emerging Objects Binder: 1 liter = \$5.50**

- ZCorp Post Processing Materials: \$9.37/oz.
- **Emerging Objects Post Processing Materials: \$0.37/oz**



Superior Strength Qualities

- Strength exceeds typical concrete in compression tests
- Typical Concrete: 3,000 psi
- **Emerging Objects Fiber-reinforced Cement Polymer: 4,700 psi**

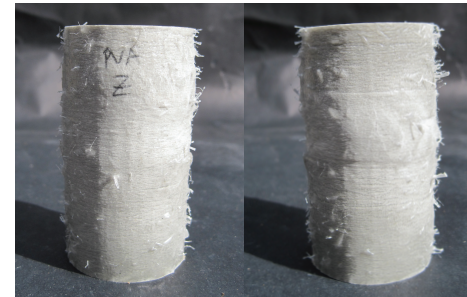
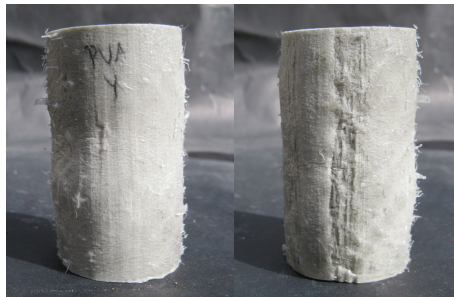
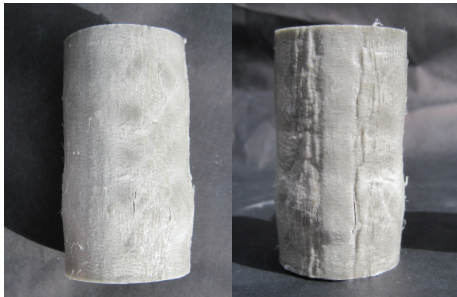
X



Y



Z



Emerging Objects' Value Proposition

- Revolutionary material that enables large 3D printed building components
- Web-service solution to enhance component design process and assembly
- Customizable "EO Blocks" for infinite construction application possibilities

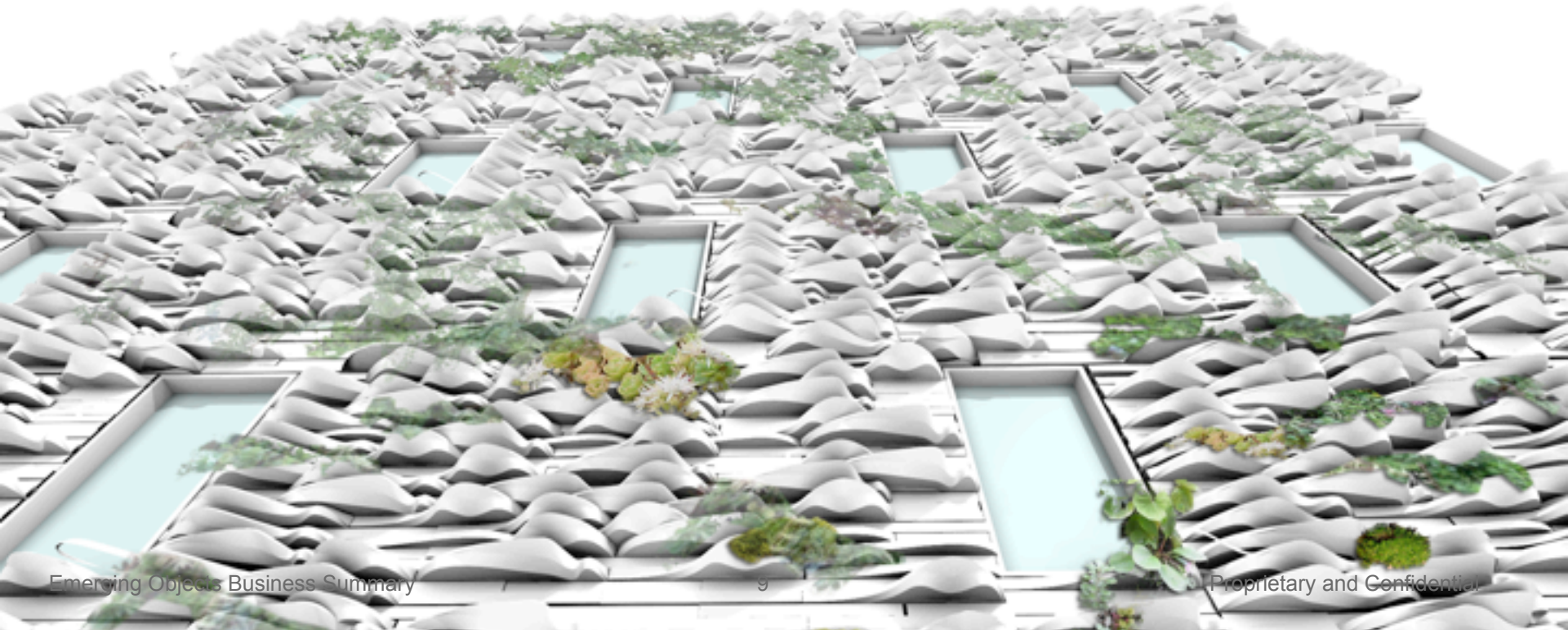
Use Case Scenario

- Build a full-scale 3D printed dwelling using proprietary materials: cement, salt, wood
- Demonstrate structural potential of proprietary materials
- Integrate building systems into a design
- Show the possibility of printing at unprecedented sizes
- Demonstrate material capabilities: translucency, strength, finishes



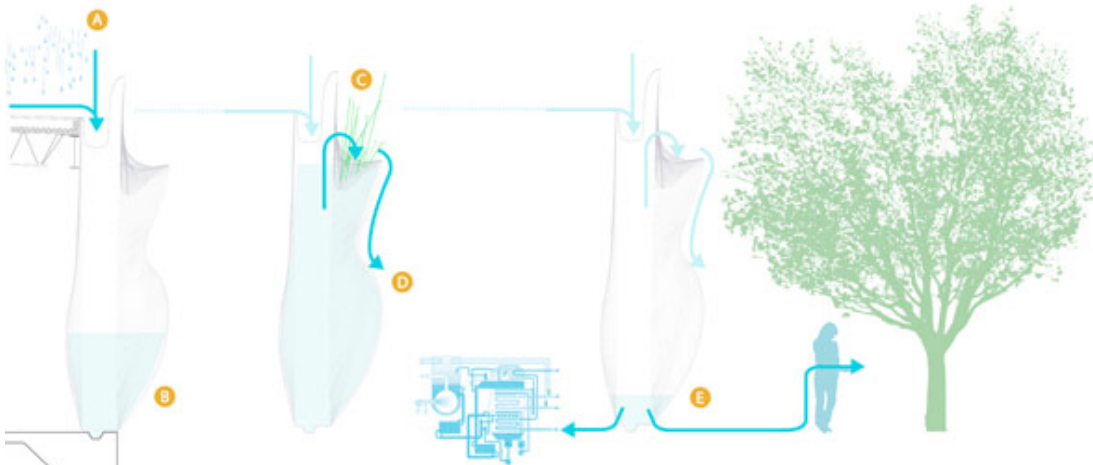
Use Case Advantages

- Materials are stronger and lighter than typical concrete in compression
- Zero waste, each building block is unique without need of formwork
- 3D printed designs can respond to specific environmental factors
- Wiring and sensors can be integrated into 3D printed parts
- Raw materials for remote construction can be sourced onsite



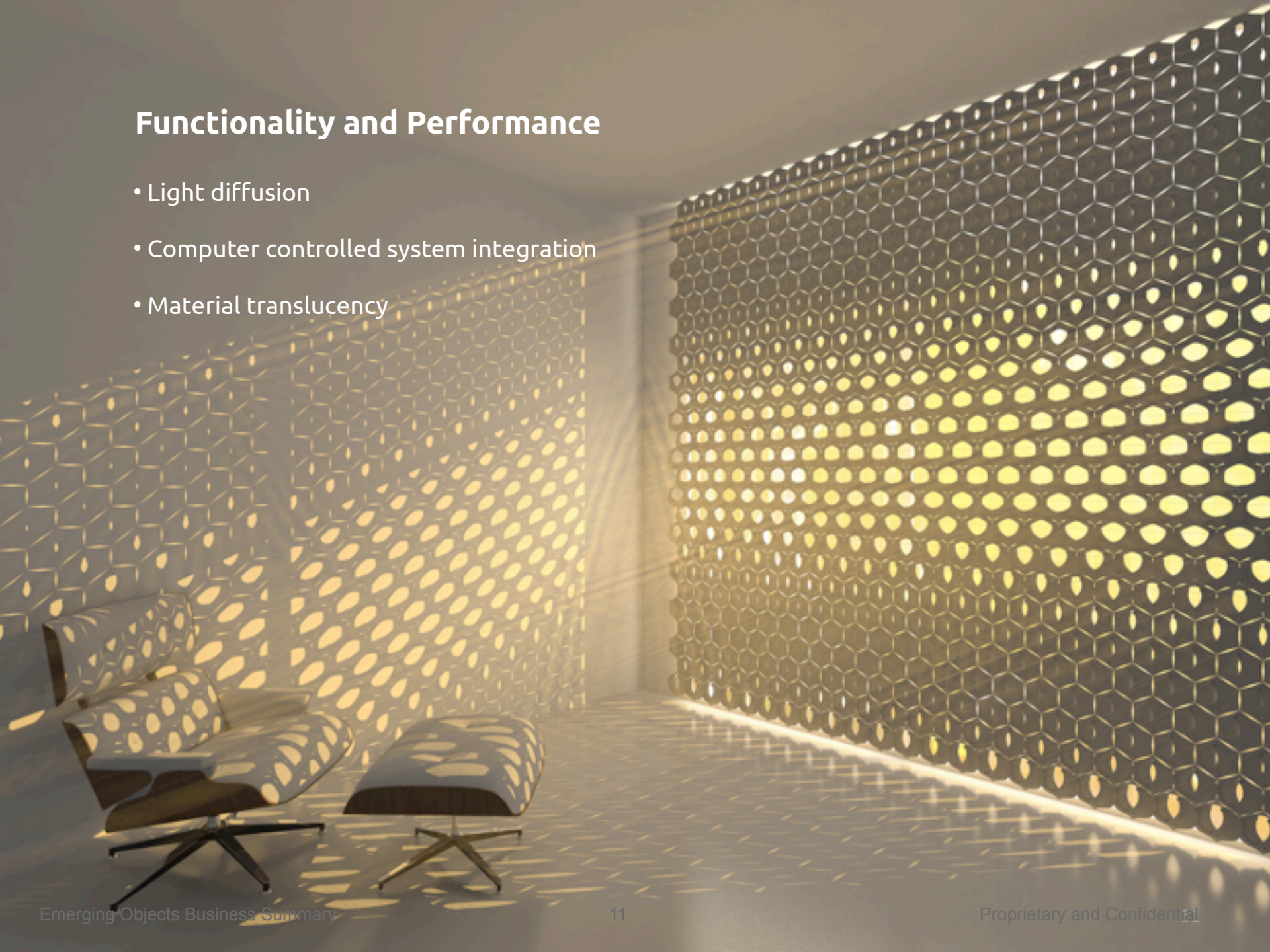
Functionality and Performance

- Water collection
- Heat island effect remediation
- Smart building components



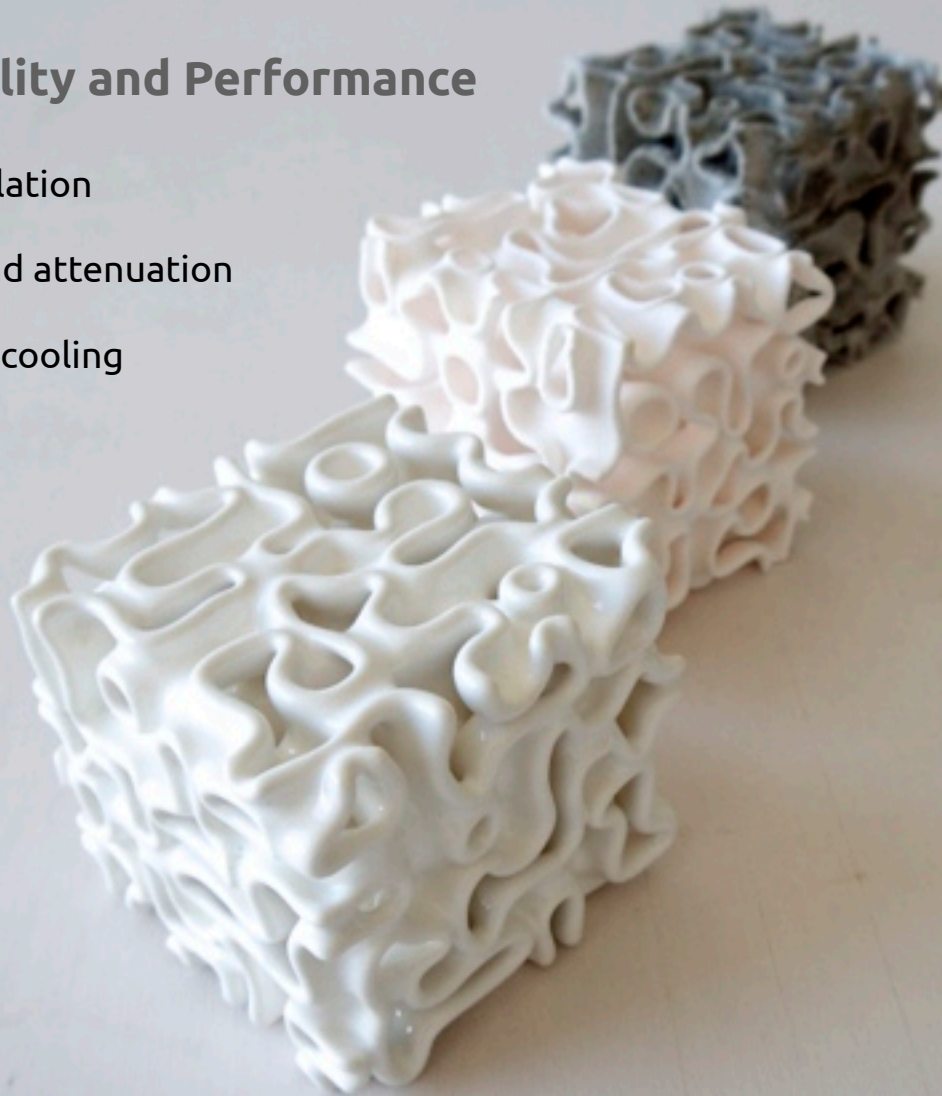
Functionality and Performance

- Light diffusion
- Computer controlled system integration
- Material translucency



Functionality and Performance

- Printed insulation
- Built-in sound attenuation
- Evaporative cooling

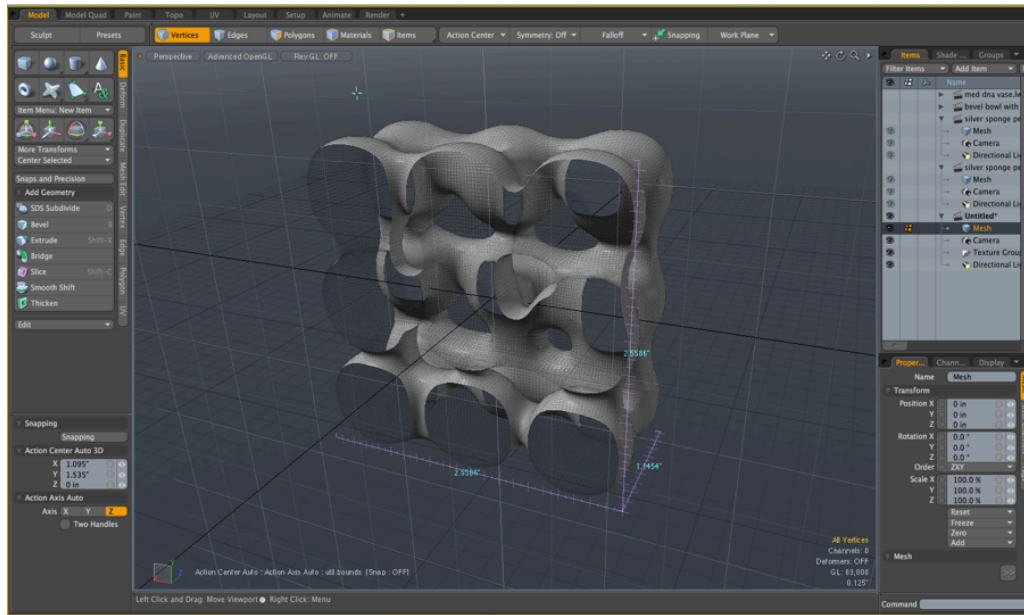


Functionality and Performance

- Structure and enclosure
- Construction precision
- Form is function

Web-Service Design Suite

- Web application for converting large-scale objects into 3D printable building blocks
- Service for designing large-scale objects and associated building blocks
- On-demand 3D printing service of user designed objects and building blocks
- Host community that shares user created objects and building blocks



Immediate Business Objectives

- Fine tune material formula for commercial use
- Create line of customizable 3D printable objects and building block designs
- Provide architectural services specializing in proprietary building blocks
- Develop web-based tools to construct custom objects out of building blocks
- Select strategic partner for commercial scaling
- Establish state of the art 3D printing lab and small production facility



Advanced R&D Lab

- Leverage University professorships and resources to further R&D
- Incubate post graduate research in 3D printing material science
- Build software frameworks for online custom user experience



Competitive Market Advantages

- Exclusive use of patented UC Berkeley cement polymer
- Deep understanding of architecture, materials, and 3D printing
- Expensive material science R&D presents competitive barrier of entry
- Integrated end-to-end market strategy and product roadmap
- First to market leadership position, leading to market dominance



Strategic Research and Development Partners

- Research collaborators at major national and international universities
- Commercial pathway for academic 3D printing and materials research
- Allied technology partnerships



SAN JOSÉ STATE
UNIVERSITY



Series A Capital Use

- Test, certify and commercialize cement polymer
- Rent office space and acquire R&D equipment
- Hire material scientists and technical team
- Establish online presence and channel partnerships
- Initiate concept development projects that validate business model



Founding Team – Creative

Ronald Rael – R&D Lead and Materials Visionary

- Tenure Professor at University of California at Berkeley, Departments of Architecture and Art Practice
- Co-director of Clemson University’s Center for Building Research and Urban Studies in Genova, Italy
- Faculty positions at:

Southern California Institute of Architecture in Los Angeles
University of Arizona
University of Colorado at Boulder

- Author of the book, Earth Architecture – a history of building with earth materials in the modern era
- Exhibited at international museums worldwide and recipient of numerous awards and frequently published
- M.Arch from Columbia University and recipient of the William Kinne Memorial Fellowship

Virginia San Fratello – Professional Services Lead and Product Visionary

- Licensed practicing architect
- Assistant Professor at San Jose State University, Department of Design
- Faculty positions at:

University of California at Berkeley
California College of the Arts
Clemson University: Co-director of the Center for Building Research and Urban Studies
Southern California Institute of Architecture in Los Angeles

- Research in convergence of digital, ecological, and building component design in architecture
- Recipient of numerous design awards and published in many design and architectural magazines
- M.Arch from Columbia University

Founding Team – Business

Stephan Adams – Business Executive Lead and Software Visionary

- Launched Artiful.net, a 3D printing home décor and novelty content library
- Leading development efforts hand gesture authoring software for virtual object modeling to 3D print
- CEO and Executive Chairman of Adamation, an award winning software and digital media company
- Raised \$12 million in venture capital for Adamation and negotiated global strategic partnerships
- Led commercialization of numerous consumer and enterprise software solutions
- Executive consultant to KANA CEO in turn around and subsequent privatization of public company
- Identified and led successful acquisition of professional service company for KANA
- BS in Sociology from University of California at Berkeley

Robert Geshlider – Product and Services Commercialization Lead and Customer Advocate

- Regional Sales Manager, Peak Solutions, sold 3D printers and scanners to government, academia, and industry
- Medical Device, R&D Engineer and product design consultant
- Specialist in 3D CAD modeling, industrial design, fabrication processes, end customer documentation
- Listed on numerous patents for Sadra Medical, Nellix, Inc. (medical devices) and Eoplex, Inc.
- Construction management for technology incubator in build out of 3D printing R&D lab
- President of company that custom fabricated anatomical models for training and marketing purposes
- Managed a shop with 15 employees in a high-end costume jewelry design and manufacturing company
- BFA in Painting from Pratt Institute