

Autodesk Sponsors First Online Database to Help Designers Learn From Nature

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AskNature.org to Provide Biological Design Information, Enabling More Sustainable Design

SAN RAFAEL, Calif., Nov. 17 /PRNewswire-FirstCall/ -- Autodesk, a leader in design innovation technologies, has announced the sponsorship of AskNature.org, the world's first biomimicry database, featuring biology-inspired design strategies. Architects, designers and engineers can access and harness nature's billions of years of evolution through this free, online public-domain library, filled with some of nature's best strategies, organized by function and explained with illustrations and in language relevant to designers.

For instance, someone trying to solve the challenge of how to glue to surfaces in moist environments would find information about barnacles, geckos and other organisms that have solved this problem in the ecosystem in which they live.

Launching this week, AskNature.org is a project of the Biomimicry Institute, founded by author Janine Benyus. The experts at the Institute describe biomimicry as a science that studies nature's models and then imitates or takes inspiration from these designs and processes to solve human problems. The site - part manifesto, part search engine, part social network - is a place where innovators and biologists can meet, exchange information and design together.

With a user base of 9 million architects, designers and engineers around the world, Autodesk sees biomimicry as a revolutionary design concept that can help influence better design decisions.

"Autodesk provides software that helps simplify sustainable design decisions in each industry we serve--providing our customers with design intelligence that enables smarter design decisions, whether they are designing a building, a train, a shoe or a city," said Lynelle Cameron, Autodesk director of sustainability. "It's for this reason we're proud to be the founding sponsor of AskNature.org."

Customers Using Biomimicry in Workflow

Autodesk customers are already using biomimetic principles for their real-world design workflow. Global architectural firm HOK, for example, specializes in planning, design and delivery of solutions for buildings and communities. The firm has long used the Revit platform for building information modeling for its sustainable design efforts and has used the software to support its work in the growing area of biomimicry.

"Biomimicry is about understanding how nature works and applying it to design," says Mary Ann Lazarus, HOK Sustainable Design Director. "Revit helps us understand the implications of our designs for factors like energy usage, water usage, material usage and shade coefficient. That knowledge will be directly applicable in developing meaningful biomimetic solutions."

HOK is integrating biomimicry into one of its current projects, a hillside community development near Pune, India. Soil stability represents one of the biggest challenges of building in this location because of steep hillsides and extreme weather conditions, which alternate between drought and monsoon. Rather than drilling piers to secure buildings into the soil, the team is exploring a biomimetic approach that uses foundations that mimic a tree's tap roots.

Autodesk Product Teams Supporting Biomimetic Design

Autodesk product teams are investigating where Autodesk software can support biomimicry. One example is the Autodesk Seek web service. Launched in May, Autodesk Seek is a unique, online source for product information that enables architects, designers and engineers to search for products based on specific performance criteria. The refined search capability uses attributes to describe what the user is searching for - such as biomimetic products.

Biomimicry at Greenbuild 2008

The science of biology and the practice of biomimicry will be a central theme at the U.S. Green Building Council's annual Greenbuild International Conference and Expo this year. Janine Benyus, along with renowned Harvard biologist E. O. Wilson, will present the keynote address at the conference on November 21, 11 a.m. - 1 p.m., to announce the launch of AskNature.org. Wilson's Encyclopedia of Life is integrated with the AskNature.org database.

For more information about the Biomimicry Institute, visit www.biomimicryinstitute.org.

For more information about Autodesk's activities at Greenbuild 2008 visit www.autodesk.com/greenbuild08.

About Autodesk

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