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July 26, 2007

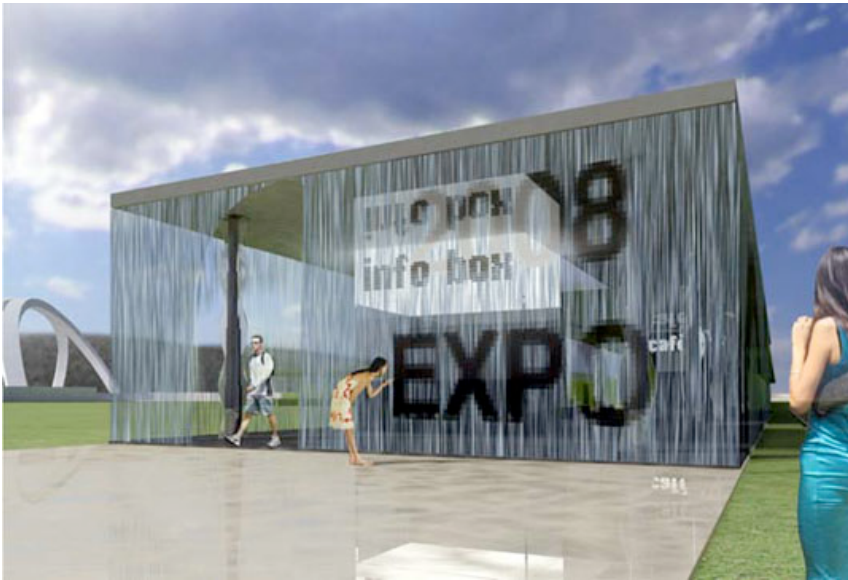
[BUILDING MADE FROM WATER: MIT's Digital Pavillion](#)

by [Evelyn Lee](#)

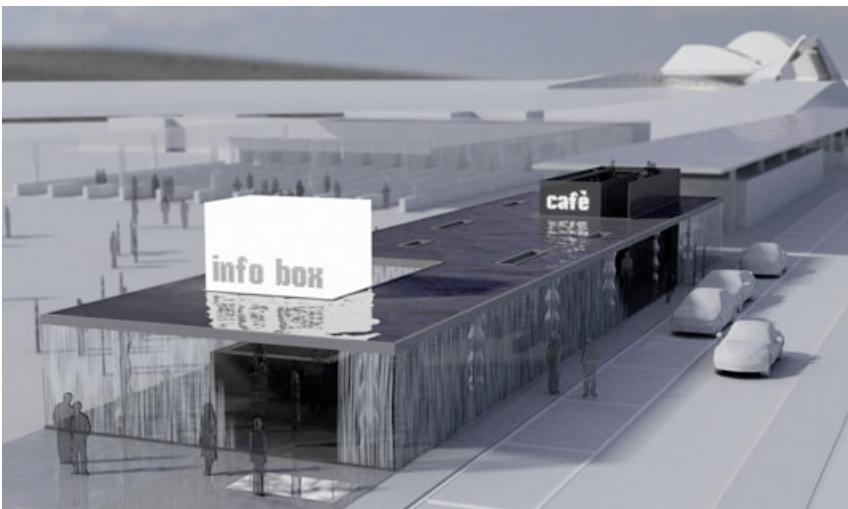


Ever imagine a building could be built from water? Brick, wood and steel are the materials one normally thinks of when it comes to creating buildings - hard substances that don't flow, change or move over time. That's why we are amazed by the creativity and ingenuity of some architects from MIT who designed a building which is composed in large part by water. Water makes up the walls and even the roof of this amazing new ["Water Pavillion" from MIT](#).

Designed by brainacs from [MIT](#) in collaboration with dozens of other partners, the [Digital Water Pavilion](#) will make a huge splash at the [Expo Zaragoza](#) in Spain next year, the theme of the Expo being Water and Sustainable Development. Continuously recycled water cascading from the roof of the pavilion will form the four exterior walls and several interior partitions, while displaying various digital messages and pre-programmed graphics formed by actual breaks in the water. The pavilion itself will house a café, public area, and exhibition space for the water-focused Expo.



The covered roof, which can be lowered in case of too much wind, will be covered by what else, a thin layer of water. At the end of the day, the roof of the structure lowers itself into the ground, making the entire structure of the exhibit disappear. And if you're wondering how to get into the building without getting drenched, not to worry, the MIT engineers have thought of that: the same technology that creates air gaps in the graphics also uses integrated sensors, giving anyone (or thing) that approaches the ability to part water, coming out dry on the other side.



Nicknamed Liquid Pixels, Carlo Ratti, head of MIT's SENSEable City gives his simplistic explanation of the artistic water walls, "To understand the concept of digital water, imagine something like an inkjet printer on a large scale, which controls droplets of falling water." The more technical aspect of the water wall technology explains how a row of closely spaced solenoid valves are opened and closed at high frequencies, controlled by a computer creating gaps at specific locations in the wall.

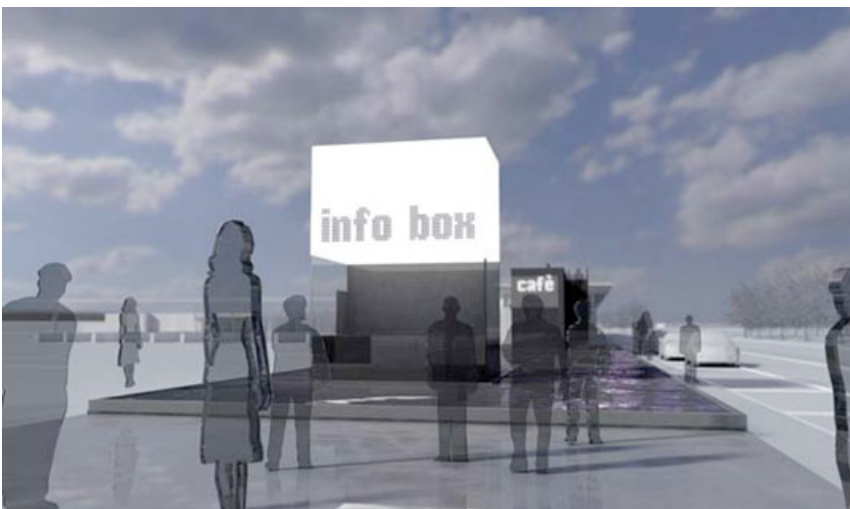


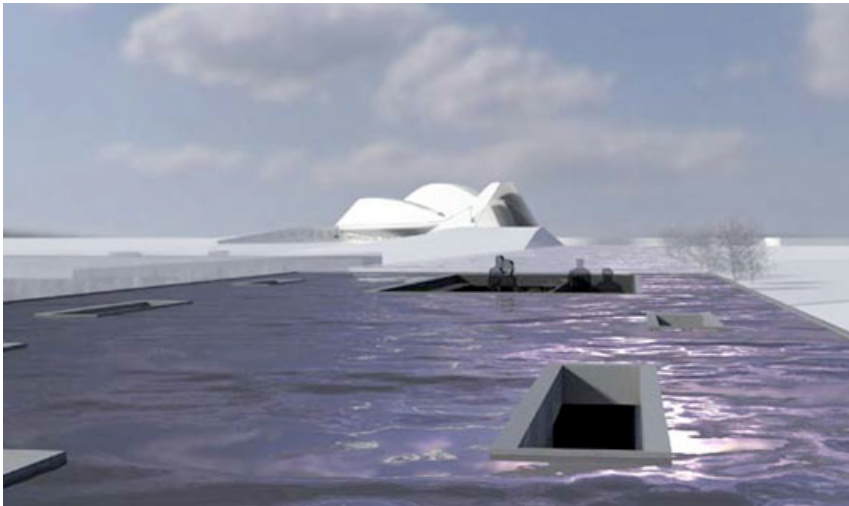
Expo Zaragoza 2008 promises to be a gathering of sustainable minds, all there to discuss issues of Water and Sustainable Development. And what better piece of stunning architecture to bring that theme home than the Digital Water Pavilion.

Whether or not you're more interested in the technology of the [Digital Water Pavilion](#) or just the fact that its so darn cool, one thing's for sure: the [Digital Water Pavilion](#) will leave you thirsting for more.

[+ Digital Water Pavilion](#)

[+ MIT](#)





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28 Responses to “BUILDING MADE FROM WATER: MIT's Digital Pavillion”



Tyler Says:

 +0

[July 26th, 2007 at 7:17 pm](#)

I can't wait to build my house that emerges quietly from the still waters of the Florida Intracoastal Waterway, with an endless labyrinth of water walls. However I would only program certain walls to “open” when people approach, making a journey through my house a hydrological game of Russian Roulette. I love this!



Michael Says:



+0

[July 27th, 2007 at 9:57 am](#)

Simply beautiful.



John Says:



+0

[July 31st, 2007 at 9:51 pm](#)

That looks like an incredibly huge waste of water.



World of Smut Says:



+0

[July 31st, 2007 at 10:02 pm](#)

I can't wait until someone adds bubble-bath solution to the pavilion...



Kate Says:



+0

[July 31st, 2007 at 11:07 pm](#)

Wow!



Gopinath M Says:



+0

[August 1st, 2007 at 12:41 am](#)

Why do we need to build a house with water instead of bricks? Does this make any sense?

Gopinath M
[Tech Thoughts](#)



bob Says:



+0

[August 1st, 2007 at 1:03 am](#)

Burglars everywhere are zipping up their wet suits.



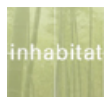
Withheld Says:



+0

[August 1st, 2007 at 2:37 am](#)

These peoples Mekon like brains have failed to consider WIND as a factor in outdoor environments. But then wont we all just love to get soaked drinking our Lattes in the Starbucks of the future :)



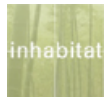
Nick Says:



+0

[August 1st, 2007 at 8:27 am](#)

It's more than probably that the "building" will be inside, as to stay away from the weather conditions, and it's not like they're proposing it as a new method for making houses, as some idiots obviously stated with the lack of security, I think you'd find their main reason to make it is for how cool it is!



Clayfoot Says:



+0

[August 1st, 2007 at 8:30 am](#)

This isn't intended to be a formal building design. The water "walls" are used as a display technology for text, patterns, or simple images. The water jets at the top produce "pixels" of water drops., precisely controlled by sensors and a computer.



keith Says:

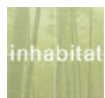


+0

[August 1st, 2007 at 9:38 am](#)

Probably takes more energy for the pumps running 24-7 then it would to put glass up.

Would heating the water provide a comfortable environment in cold weather?



Timothy Long Says:



+0

[August 1st, 2007 at 12:25 pm](#)

amazing concept.



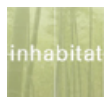
Slick182 Says:



+0

[August 1st, 2007 at 1:13 pm](#)

If I remember correctly it gets pretty cold in Cambridge MA in the winter. Maybe an ice wall would be just as cool :)



plartoo Says:



+0

[August 1st, 2007 at 2:30 pm](#)

come on! stop wasting energy (to pump water) and water itself on building this fantasized, useless thingy.



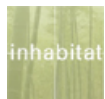
The Roua Art blog » BUILDING MADE FROM WATER Says:



+0

[August 2nd, 2007 at 2:07 am](#)

[...] MIT's Digital Pavillion [...]



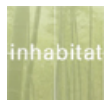
[Jim Schwandt](#) Says:



+0

[August 3rd, 2007 at 10:34 am](#)

Oddly enough, it's this kind of thinking "outside the box" that drives us to new and better ideas. You might say, "without creativity there is no creativity!" (think about it)



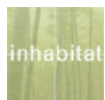
[kelplover](#) Says:



+0

[August 3rd, 2007 at 1:00 pm](#)

This looks cool. It's nice when one can be funded for thinking "outside the box." There seems to be no reasonable practical application for these water walls, other than their visual aspect. It should be rightly referred to as an art installation: a pseudo-structure. I love the comments about burglars and wasting water! LOL



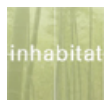
[Carolyn Howard](#) Says:



+0

[August 5th, 2007 at 8:41 pm](#)

Very interesting, but the concept of digitalize waterfall messages is not exactly new. I recall a Kitchen & Bath show many years ago where Kohler (I think) used this method in a two story high waterfall to get their message across. It was exciting to see it for the first time. So, hopefully this will make a splash also!



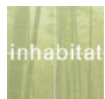
[N. sivabalasubramanian](#) Says:



+0

[August 6th, 2007 at 1:36 am](#)

Just wonderful thinking, I hope the efforts will be well appreciated for the creativity. The best part of the design and technics, keep a check on using unnecessary production of materials and adding too much of waste to environment. The comment of water waste is far better than creating means of other wastes for a display or the similar cause. Shall well come the ideas. The truth is "changes" is the only thing didn't change from the its exisitance.



[mollyballs](#) Says:



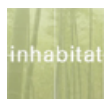
+0

[August 6th, 2007 at 6:00 pm](#)

this is a clearly a creative, interesting idea....but it raises all these questions—

evaporation? wind? how much water will this really use? what if the computer sensors break—will people get drenched? what about leaks in the ceiling? if it's continuously recycled water, is it going to get very dirty and unsanitary for this expo?

hmmm....my vote is still out.



[Rayne](#) Says:



[August 9th, 2007 at 2:57 pm](#)

The Hell with Water...I'd opt for Petron!



[Ruth Jameson](#) Says:



[August 11th, 2007 at 12:26 pm](#)

While the concept of "water walls" is wonderfully exciting, the design of the pavilion is boring and uninspired. To take an idea such as this and execute it without any architectural inventiveness, is an anathema to a positive and exhilarating response.



['Watered-curtain wall' - the coolest shelter under the hot scorching sun - ChemstudioWEB.COM - Tech News, How To, Make Money Online, HTML, Windows Settings, Tips and Tricks, Coolest Gadgets, etc.](#)

Says:



[September 5th, 2007 at 8:46 am](#)

[...] Images via Inhabitat.com [...]



[janie](#) Says:



[November 3rd, 2007 at 12:36 am](#)

looks amazing
it would be fireproof and earth quake safe.
but what if there is storm and flood?

I want a chocolate water building, :)



[oh no](#) Says:



[November 12th, 2007 at 2:08 pm](#)

I think they should change it from time to time... on month use water, another month use koolaid, etc...



[Geoffrey](#) Says:



[January 14th, 2008 at 5:25 am](#)

I had been working on the idea of water house way beyond MIT design. This has evoluted self-supporting structures using nano engineering. Even into ice house that can standard 40 °C temperature using sunlight to cool the ice. BruceGordon Partnership New Zealand R&D.



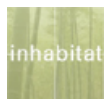
[Kaitlin](#) Says:



[January 17th, 2008 at 9:51 pm](#)

I think the idea is cool, but (as many other people have stated) it would be useless if there is wind or other bad conditions. You would have to have perfect weather everyday for this to work and its also a

huge waste of water.



[Dane](#) Says:



March 15th, 2008 at 7:40 am

Superb!

Not only is it so cool it shows yet another life of water. As if it doesn't already win the prize for most intelligent natural element on earth. Long live water. This creativity can only contribute to more of us seeing water for what it really is, not just using it as a lubricant.

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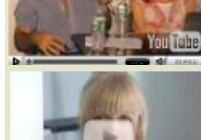
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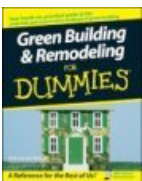
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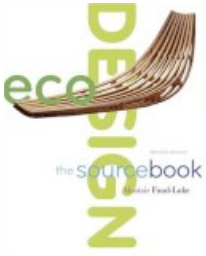
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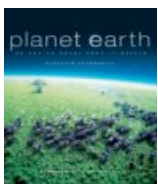
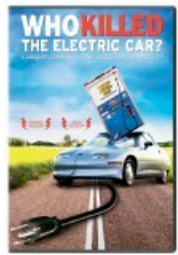


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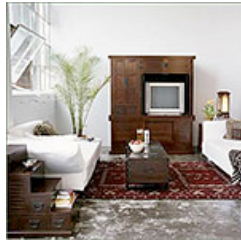


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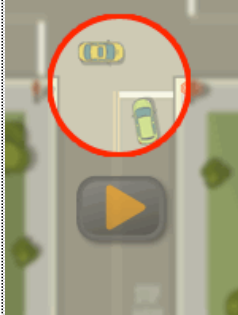


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