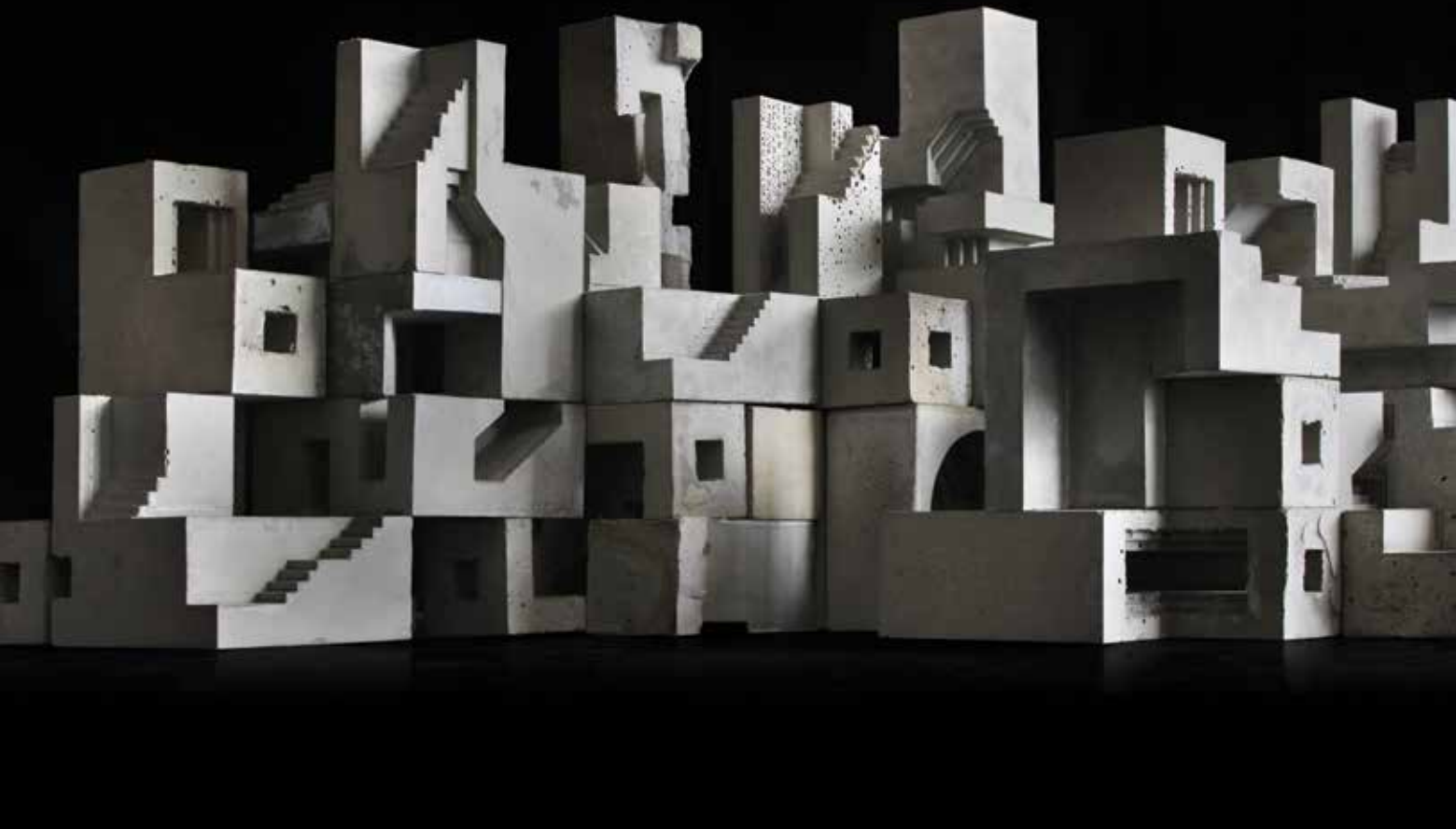




Concrete Fabricated into *Finessed Artwork*

A question-and-answer session with concrete artist
David Umemoto



Creating a fusion of architecture and sculpture, David Umemoto uses concrete as his medium for his evocative artwork. He transforms 50 lb (23 kg) commercial bags of dry-mix concrete into works of custom art that simulate intricate infrastructures, landscapes, and monuments. Each of his pieces of artwork are created through a multi-phase process that becomes part of a larger setting. Over the past few years his collective artwork evolved into a slow transformational process. Each piece of artwork produced was an additive to the process of the previously completed art.

After noticing this unique artwork through the Pinterest website, *Concrete International* staff had the opportunity to have a question-and-answer session with the artist. Umemoto, who is based in Montréal, QC, Canada, described his inspirations and design process.

- Many of your pieces are quite architectural. Is your work inspired by specific architect(s)?

You are right, my background is in architecture. I received my degree in architecture and have worked all my life as an architect...and for and with other architects. And especially in the last year, in my work, I am really trying to get back toward architecture. That's not to say I am doing architecture but I definitely try to create objects or interior spaces that are evocations of some kind of architecture.

As for references, I think Le Corbusier would be my major influence, and I could certainly cite several others, such as

Carlo Scarpa, the Italian architect; his Brion Cemetery would definitely be my favorite project. Swiss architect Peter Zumthor has designed many great projects, but the one that touched me the most is very modest—the Bruder Klaus Field Chapel. Frank Lloyd Wright is another influence, especially his interiors, furniture, architectural details, and “decorations”—stained glass, doors, and the like.

I am just fascinated by Italian artist Giorgio de Chirico. His work is minimalist but very evocative. It is modern and classic at the same time. Giovanni Piranesi is an Italian artist renowned for his artwork of “imaginary prisons.” The “serial” music of Philip Glass, American composer, really creates an environment in which my brain is very comfortable to create.

- What attracted you to use concrete as your medium?

It started as an accident. About 4 or 5 years ago, I was making plaster molds for ceramics and for some reason—which I do not remember—one day I bought a bag of dry concrete mix. I was instantly conquered after my first casting!

Now, I like concrete mainly because of its plastic quality. It really catches light in a unique way and creates great shadow effects. I like its rawness and its imperfections. I like that it is a very modest and humble material. It is also very precise and has negligible shrinkage compared to molten metal and ceramics. This is very important when working with modular pieces in a very precise grid system. It is also durable and can be used outside.

- Could you describe your process? For example, do you sketch the textures and shapes of the intended object, and then produce engineering drawings (with dimensions and shapes) for the mold pieces?

It is a multi-phase process. First, I sketch ideas, forms, shapes, and textures. I transpose the sketches on grid paper to make sure all the lines connect. I decompose the designs in interconnecting modular three-dimensional (3-D) pieces. Then I build the 3-D forms. I make negative shapes, usually in foamcore, then I fill them with liquid silicone.

These pieces become like “puzzle pieces” that I assemble in modular boxes. I also use polystyrene foam in formwork for larger pieces. Sometimes, I premeditate and know ahead how the pieces are supposed to be assembled. Sometimes, I play with the pieces and improvise new structures.

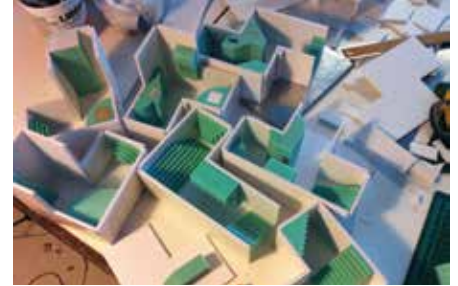
Then, I use these structures or blocks to create larger and more complex environments, like the “cities,” which are usually meant to be used in photo projects rather than “sculptures” per se or as permanent installations.

My process is very iterative. If you could put all the pieces I have produced in the last couple years one after the other in a chronological order, you would see the very slow evolution. It is like a sketching process, where instead of erasing a line when I am not satisfied, I just make another piece with a slight modification...over and over again.

- Alternatively, do you produce 3-D models of the piece and mold components using modeling software?

When I create complex pieces, I use a 3-D software to visualize the piece. Then, I also draw the shape of the mold in 3-D. However, I never use 3-D printing.





- Do you experiment with the concrete mixtures to vary the color, flowability, or ability to reproduce details on the mold?

I did many experimentations at the beginning. My main issue was obviously getting a fluid but strong mixture. I had a lot of problems with cracking and crazing occurring during curing but I managed to find a good compromise mixture. I did a few tests with pigments, but I am still debating if I want to further pursue that course.

- Do you use a dry prepackaged mixture?

Yes. I use off-the-shelf commercial bags, mostly mixtures similarly used for making countertops.

- Do you use a single type of mixture (a consistent ratio of cement, water, and aggregate), or do you use diverse types for different pieces?

I use the same mixture for everything.

- What type of mixer do you use?
A bucket and a drill.

- Is the batch size (or weight of the piece) the most important factor that dictates the size of your pieces?

It is a very important factor. I try to limit the size (weight) of each piece to one 50 lb bag of dry concrete mix.

- Do you use any chemical admixtures to improve the workability or setting time?
No.

- How long do you leave your pieces in the molds?

I probably shouldn't, but I take them out as soon as I can. So in summer, when

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it is warm and humid, anywhere from 18 to 24 hours. In winter, usually 2 days unless I provide extra heat.

- Do you cure the pieces in a normal room environment or do you use a high humidity and/or warm environment (a mist room) to cure the concrete?
Just normal room conditions.
- Do you apply a release agent (for example, a lightweight oil) to your molds before casting?
I used to apply a release agent made for urethane molds but I did not find it made much of a difference, so I stopped using it.
- What is the maximum number of pieces you have made using a given mold?
My molds are modular. I have hundreds of small urethane rubber pieces that I assemble differently depending on the sculpture I am working on. I also often incorporate waste materials, such as polystyrene or cardboard, that are destroyed while unmolding the pieces. So it is difficult to say, but for the most popular pieces, I probably use them about 50 times.
- Many of your works appear to be public plazas in miniature. Have any of your clients expressed interest in scaling up your works?
Yes, but I'm not sure yet if I'm ready to scale up. I like the miniature aspect of my work. I guess I would be willing to try it if the project and the context were right.
- Do you have any installations or shows planned for the near future?
I have a few events in Europe for the fall that I am currently discussing, but the details are not finalized yet.

For more information, visit www.davidumemoto.com, Instagram @david_umemoto, and Facebook @David Umemoto Art.

