

AZURE

JEAN NOUVEL'S SUPERHIGHWAY
MAIRA KALMAN'S ILLUSTRATED LIFE
THE ENERGY-EFFICIENT KITCHEN
PLAYING WITH RAPID PROTOTYPING
NEW FORMS FOR CREMATORIUMS

DESIGN
ARCHITECTURE
ART

TRENDSPOTTING
TOP 5 GLOBAL
DIRECTIONS

ILLUMINATING
THE CITYSCAPE

VITO ACCONCI'S
RADICAL STRUCTURES

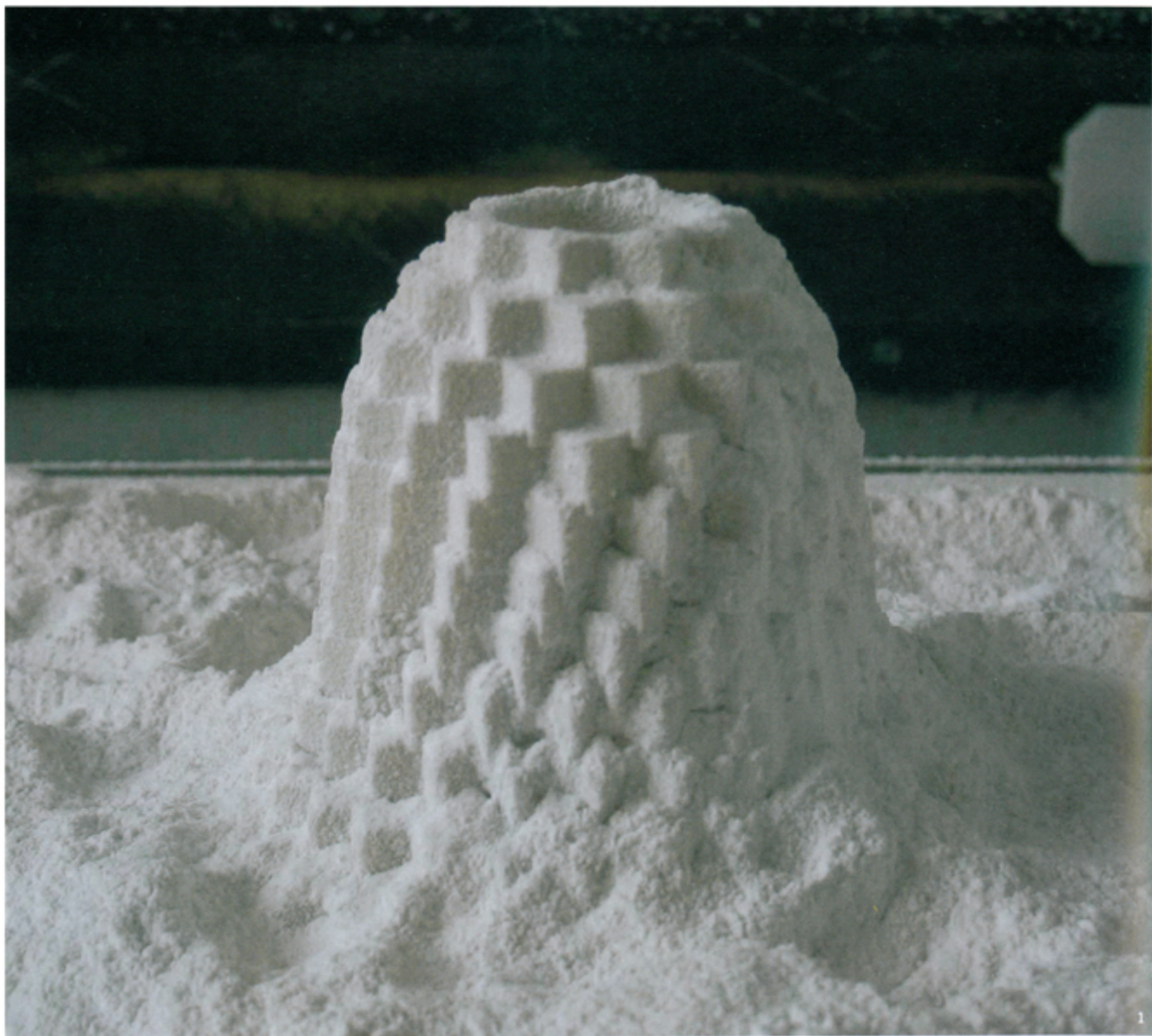
CREATIVE
LIVING
A
STUDIO
HOME
IN
L.A.

CAN/US \$7.95
WWW.AZUREMAGAZINE.COM



0 56698 28441 3

RM40048073 R09064



FROM DUST TO MUST

Industreal – the research arm of the Milan-based rapid prototyping bureau OneOff – has been bringing together a collective of young international designers to explore digital production methods. Its latest experiments move directly from prototype to product

By Laura Traldi



It is based in Milan, but its members live all over the world. It ignores marketing principles, yet it already has an e-shop. Its products have a unique handcrafted look, even though they originate from computer files. It is difficult to define Industreal: designer hub, workshop, manufacturer, brand. Any of these would be accurate, yet none alone would suffice. When creativity feeds on experimentation in technology and design, the result is an evolving concept too complex and multi-dimensional to be framed by an existing label. And such is Industreal.

Industreal was created in 2005 by mechanical engineer Costanza Calvetti, architect Maurizio Meroni and British designer George J. Sowden. But the story starts before then.

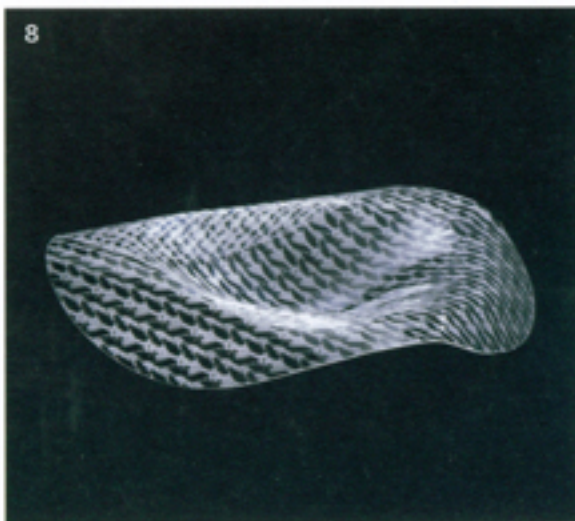
In 2003, Calvetti and Meroni were selected by the city of Milan to establish their business in the Fabbrica del Vapore, a former industrial site that was once a locomotive factory. The area was restored by the municipality and turned over to a cluster of creative companies. Calvetti and Meroni's business concept was called OneOff, a studio geared to provide rapid prototyping services to designers and architects. An alternative to traditional prototyping workshops, where drawings are developed into 3-D models by technicians using manual methods, OneOff offered a new, digital approach. Computer-controlled machines turned 3-D computer files into actual prototypes. The technologies ranged from 3-D printing to laser sintering, from stereo lithography to computer-numerically controlled (CNC) milling and laser cutting. Although not always less expensive than traditional methods, rapid prototyping has proven faster and more accurate, resulting in cost savings on the production end.

Soon enough, the OneOff atelier became an intriguing place for creative minds to hang out. "Many young designers working in large studios would come here to oversee the development of mock-ups and props," explains Calvetti. "They were clearly fascinated by the way the machines were able to make ideas real in a short span of time." Eventually, the talented visitors' curiosity and passion spurred the OneOff founders to explore the potential of rapid prototyping technologies.

1 A prototype of Lamp 72DPI, designed by Guillaume Delvigne.

2 3 4 Views of the space and work processes in the luminous OneOff studio. The rapid prototyping bureau was one of the creative businesses selected by the city of Milan to occupy the restored Fabbrica del Vapore. The studio attracted designers interested in the possibilities of rapid prototyping technology, and the collective Industreal was formed to explore its potential.

5 Prototypes from Industreal's In Dust We Trust collection, including 72DPI, 144 DPI and 300 DPI lamps by Guillaume Delvigne, and the chainlike White Satellite necklace by Dunya Weber.



6 For the First Cut exhibition, mounted in the OneOff courtyard in April 2007, more than 30 designers experimented with laser cutting. All the objects were produced in transparent polymethyl methacrylate (PMMA) and hung from invisible strings, creating an ethereal effect.

7 First Blood Letter Openers take the First Cut theme literally. Apostolos Porsanidis describes them as "letter openers for a concrete jungle."

8 The Bent platter, by Enrico Bosa and Isabella Lovero, integrates rigidity and softness.

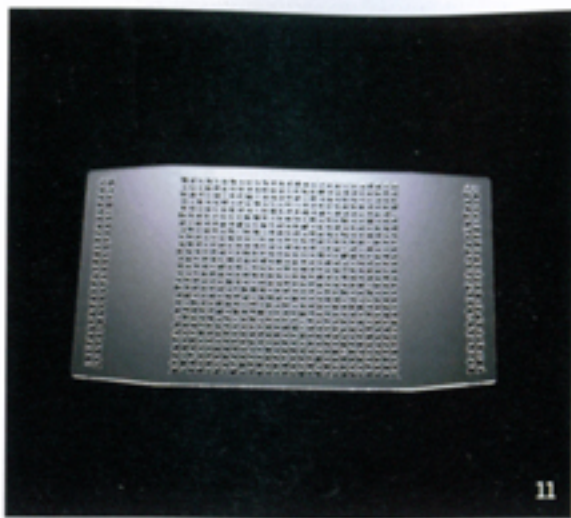
9 Pierre Foulonneau proposes to lighten things up with his Freaks lampshade.

10 For Agua Viva, designer Carlo Romagnolo quotes Joyce's *Ulysses*: "She will drown me with her eyes and hair. Lank coils of seaweed hair around me, my heart, my soul. Salt green death."

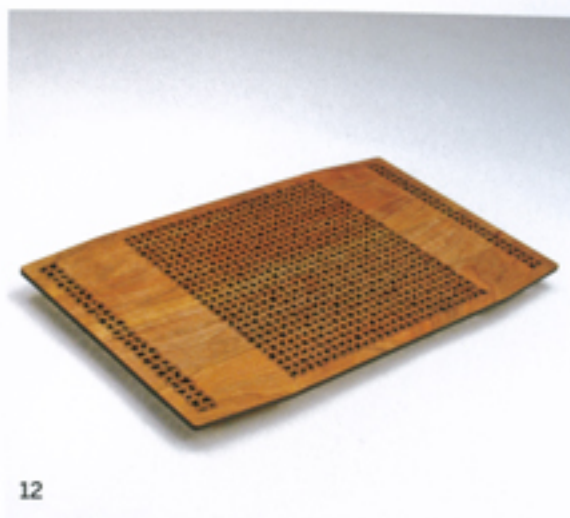
In fall 2003, working closely with three designers from Sowden's studio (Argentine Tomàs Ortiz Ferrer, Brit Christopher Coombes and Frenchman Guillaume Delvigne), Calvetti and Meroni assembled an international team of 30 young talents working in Milan. They asked them to design one-off objects that explored the possibilities of one particular rapid prototyping technology, 3-D printing. In this user-friendly method, the 3-D file is read by a computer connected to an inkjet printing system. Following the cross-sections of the 3-D files, the printer sprays layers of a fine plaster powder and a synthetic resin and bonds them with a water-based adhesive, also sprayed from the print head. Layer by layer, the computer file comes to life, translated into a dainty three-dimensional object with an opaque, sandy off-white finish.

The technology was not brand new; nor was the idea of using rapid prototyping to create one-off products (Materialise of Belgium had already exhibited its first collection of similarly conceived objects in Milan in 2003). Yet there was something fresh in how the first OneOff exhibition (*In Dust We Trust*, 2004) promoted the "alternative" beauty of prototyping materials.

With no production or marketing constraints and no design superstars involved, the first exhibit had the feeling of a collective's almost militant anthem to creative freedom (an impression reinforced by the photography and copywriting in the communication material); it shook up the glossy ambience of Milan Design Week. The pieces were exhibited in porcelain, with the RP mock-ups in plaster and resin shown alongside. The focus on porcelain provided a link to a poetic, handmade world, clearly in contrast to the high-tech nature of the prototyping process. The designers as a group selected the objects that finally went into the exhibit, based on their ability to communicate an idea. "The designers met often and discussed their concepts together," says Calvetti. "There was no competition, no secret – just a shared willingness to explore the methodology and its potential."



11



12



13

Michele De Lucchi
Alessandro Mendini
Ettore Sottsass
George J. Sowden



14

In 2005, Calvetti, Meroni and Sowden decided to give a name to their research methodology and founded Industreal, a company obviously closely linked to the OneOff service centre but also officially independent from it, and solely dedicated to design research in rapid prototyping.

The first Industreal effort was the creation of another show, illustrating the role of 3-D printing and CNC milling in giving tangible form to the original idea. "There were more designers than in the previous year, and they were not all located in Italy," says designer Monica Favara, who also heads up communications for Industreal. "It was no longer possible to physically sit together to discuss the projects. The communicative power of the 3-D files became fundamental to the project's value."

Model Ideas, presented in Milan in April 2005, was another hit – such a hit, in fact, that while working on a third exhibition (Dream, launched in 2006) Industreal decided to put into production some of its most successful designs – and thus it evolved into a brand.

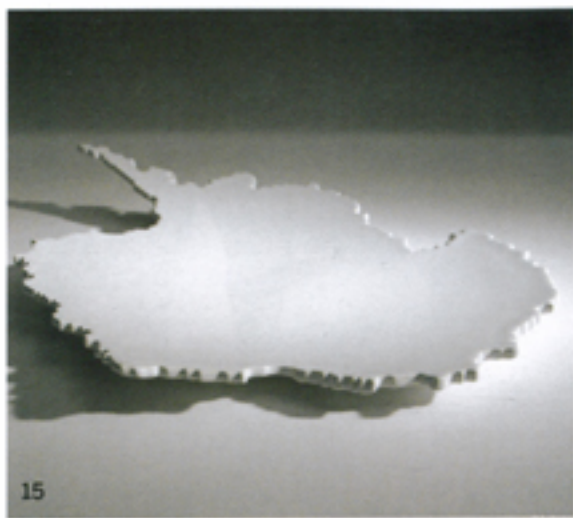
"We focused on porcelain because we had the know-how," explains Calvetti. "Most of our products are manufactured externally in small batches, but thanks to the particular methodologies we have provided to our suppliers we are able to contain costs while still obtaining the complex shapes conceived by our designers." No marketing logic was used in the selection of prototypes that would become production pieces, sold through a small retail network and, since last June, an e-shop. "We trusted our gut feeling," says Calvetti.

During this year's Design Week, Industreal presented two exhibitions. Technology returned to the spotlight with First Cut, an exhibit that showcased designers experimenting with laser cutting. All prototypes were realized using polymethyl methacrylate (PMMA). The transparent plastic material provided an overall uniformity, helping viewers understand the various design choices in terms of laser cutting, but it also created a stunning visual effect. All the concepts were exhibited in the Industreal garden, hung

11 12 The Nina tray, by Maurizio Meroni, was produced as a prototype in PMMA for the First Cut exhibition. It also became a product in wood, leading the way for other First Cut prototypes to be produced in their final materials.

13 OneOff founders Costanza Calvetti and Maurizio Meroni at the opening of the Industreal Variations exhibition, showcasing a new porcelain collection by maestros Michele De Lucchi, Alessandro Mendini, Ettore Sottsass and George J. Sowden.

14 In the foreground, Evesham by George J. Sowden, followed by Faccette by Alessandro Mendini, Burano by Michele De Lucchi, and Orbita by Ettore Sottsass, all from the Industreal Variations porcelain collection. Displayed on shelving in the background are objects from the Industreal production line.



15



17



16



18



19



20

from invisible strings, apparently floating in the air and vibrating in the light wind. Alongside First Cut was a series of porcelain objects, created by four maestros of Italian design (Ettore Sottsass, Alessandro Mendini, Michele De Lucchi and George J. Sowden), that had immediately been put into production.

The project's coherence, the passion for materials and experimentation – but also the well-defined communications message – that characterize Industreal's work indicate it knows exactly where it is heading for the future. "We need to understand how to structure our commercial activities, but we are also looking into expanding our knowledge of other materials, such as wood or glass," says Calvetti. One of the First Cut prototypes, for instance, the Nina tray by Maurizio Meroni, was immediately turned into an actual product in wood. "It was perfect for communicating the amazing esthetic potentials of laser cutting," says Calvetti. The tray features a complex pattern of irregular holes and incisions. The whole wooden surface is basically perforated, apart from some thin lines of material that run in between the holes. "The difficulty consists in being able to cut the wood according to the design without compromising the structure's solidity," explains Favara. The Nina tray is the first of a series of First Cut prototypes to be realized in their final material, with others debuting in Paris, at the September Maison et Objet fair. "Looking ahead, we will continue with our research projects," says Calvetti, "but we also want to make sure many good ideas that emerged over the course of earlier projects actually see the light. After all, research takes on a different meaning and depth when the result is a real product."

Considering the quality of the concept and of the work itself, it is not difficult to imagine Industreal as a growing presence on the design scene. The challenge will be to maintain the techno-poetic, militant-creative soul that contributed so much to its initial success. "We want to remain an ideas workshop, where creativity and research meet to produce objects that say something about ourselves and our time," concludes Calvetti. Apparently, Industreal is ready to meet this challenge, too. **AZ**

Selections from the production collection, available through a small retail network and the Industreal e-shop, www.industreal.it

15 A recent addition, the Antarctica centrepiece – designed by Jim Hannon-Tan for In Dust We Trust, 2004 – is produced in white glazed stoneware.

16 Another new item is the Alpha vase, also in white glazed stoneware, designed by Laurent Bloedt for the Model Ideas exhibition in 2005.

17 A Moth to a Flame, a centrepiece by Todd Bracher, Efe Buluc and Mark Goetz of To22, comes in red and white glazed stoneware.

18 The Last One ashtray, by Nadia Biavsch and Alessandro Camilli, derives from the Dream collection. It comes with or without decal, in white glazed porcelain.

19 Café Pelé, by Julie Pfligersdorffer, also hails from the Dream collection and is made of glazed porcelain.

20 Panier Percé, by Ionna Vautrin and Guillaume Delvigne, invites the owner to stitch his or her own decorative pattern. It comes in white glazed porcelain with the wool kit.