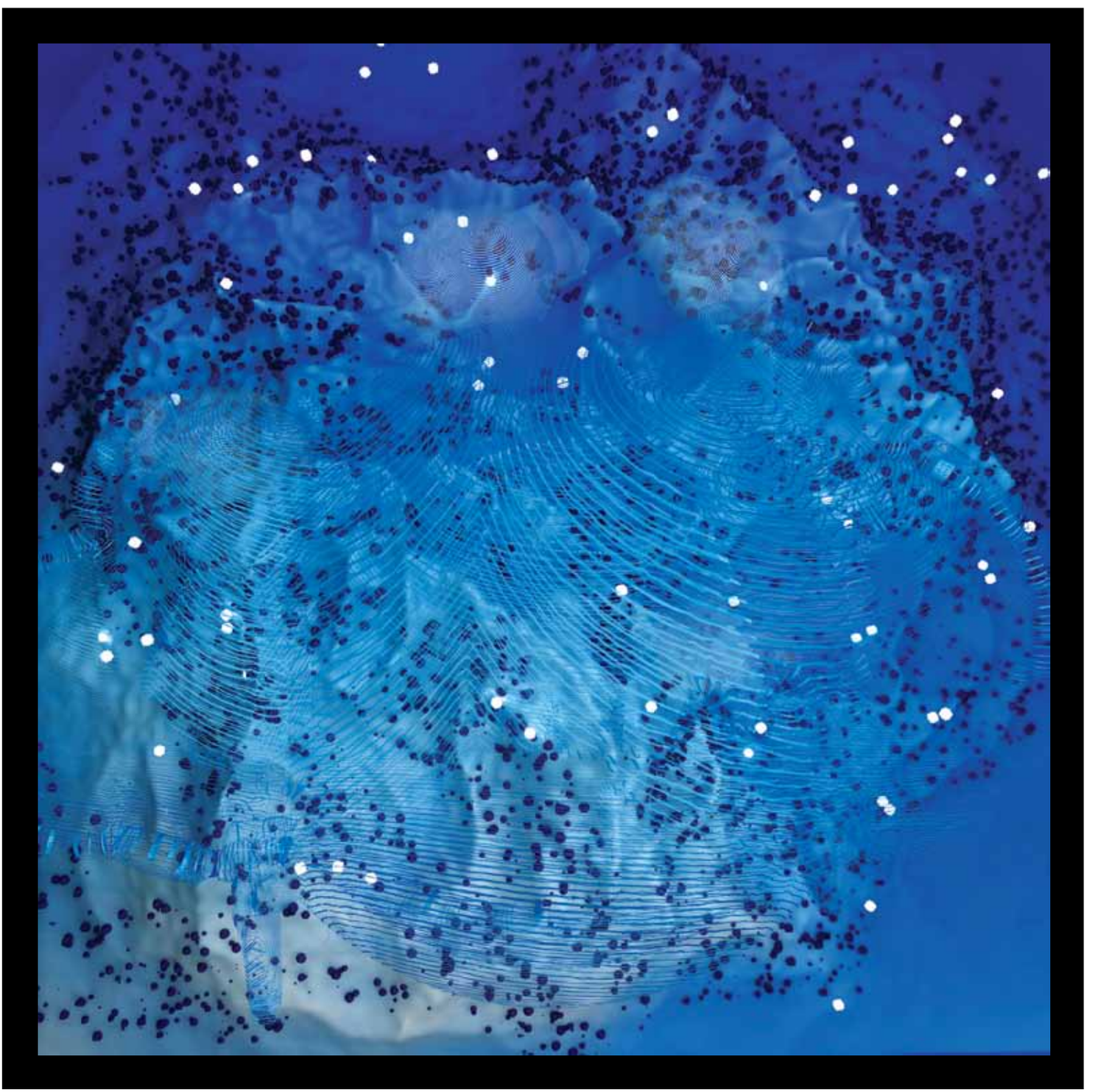
The magazine of **OCAD University**
Volume 24, Issue 1

Summer 2012

IMAGINATION IS EVERYTHING

OCAD U

SKETCH



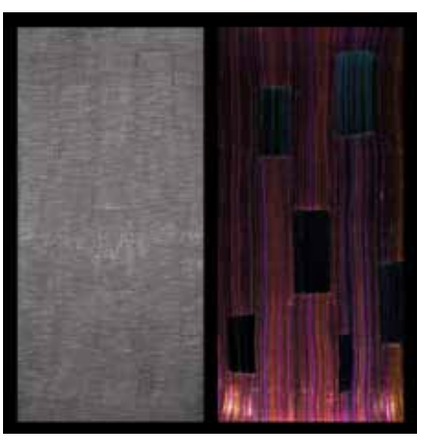
CONTENTS

***Sketch* has a new look!**
Several months ago, we hired Hambly & Woolley — the award-winning Toronto design shop responsible for the look of our magazine for years — to help guide us through a redesign. We wanted to integrate new accessibility standards, and continue the great work carried out by Bruce Mau Design in creating OCAD University’s new visual identity. Like that identity, we needed *Sketch* to be a true reflection of what we experience every day: an inclusive, vibrant and vital institution based on creativity, risk and innovation.

Front cover Alex McLeod, *Cloud Birth 2*, CG, 2012
Opposite Pictured at right is Alexei Golob (BFA, Integrated Media, 2011). Photo by Christina Gapic
Back cover Anda Kubis, *A Rush* (detail), oil on canvas, 2012

Old schools and new tricks: what our traditional 'makers' are making with digital technology

By Charlene K. Lau



Above Anda Kubis, *Boundless*, digital output and oil on canvas, 2012

Right Oldouz Moslemian, *Talk to Me*. This fabric is hand-woven with fibre optics and cotton and is sensitive to ambient sound in the environment. Cotton tape, fibre-optics and electronic components, 145 cm X 75 cm, 2010. Photo by Taimaz Moslemian

What we've become, as a result of our present immersion in digital technology, is hybrids. Our phones, our tablets, the Internet — these aren't just tools for communication; they're extensions of our bodies. But what does digital mean to artists and designers? In the context of learning and making, "digital" refers to methods of production in art, craft and design practice. These new and innovative processes are quickly becoming their own traditions, and institutions such as OCAD University are helping to advance emergent technologies for the future. Traditional disciplines such as painting, jewelry and textiles are being reshaped through digital imaging, 3D modelling, scanning and printing and wearable technology.

Painting is not dead

Anda Kubis, OCAD U Chair of Drawing & Painting, sees new technology as an enabler of older technology, and asks, "Could anyone have predicted there would be a resurgence of craft and handmade culture in an age of global interconnectedness aided by the Internet?" Just as surprising are the relationships that have developed — all of them fuelled by the push and pull between digital and analog.

Painting, considered the most exalted traditional art form for many centuries, is experiencing a shift in the form of digital painting. The term "digital painting" is a hybrid of new technology and traditional medium, but are "digital" and "painting" really opposites? Kubis doesn't think so: "The tradition of painting has created and absorbed scientific discoveries throughout its history. The invention of perspectival space within drawing and painting was a revolutionary 'view' of the world that impacted Western philosophical thought for a long time — and we're not quite done with it yet. Digital space is simply a

new potent platform for this activity." Kubis's current work reflects this in-between of old and new, incorporating several layers of images created using a digital tablet. The final images are then printed onto canvas, and she paints overtop of the canvas in oil to create texture in what she calls a "mixing of synthetic and organic brushstrokes."

In response to the digital redefinition of traditional disciplines, OCAD U will launch a Digital Painting and Expanded Animation specialization (DPXA) in September 2012 for students of Integrated Media and Drawing & Painting. DPXA challenges students to see beyond the traditional limits of the canvas, screen or gallery. "The stream encourages a vision of visual research that discovers painting in various forms: as an object, as a virtual experience, as movement through time and space on various scales and multiple platforms," says Kubis. For her, "the most important aspect of this stream is that it's completely open."

Above David Clarkson, *Painting After Icebergs*. Digital landscape painting from "After Icebergs," the artist's MFA thesis exhibition. Each painting represents a multi-step process that involves digitally manipulated mass-reproduced drawings, photo collages and layers of paint. Acrylic paint and digital ink on canvas, 2012

Above Gregory Phillips, *Homology 2*. Inspired by comparative evolutionary biology's concept of homologous structures, such as a human hand, a bat's wing or a whale's flipper, the intricate forms in this series were derived using several techniques, including terrain analysis and logic list functions. Bracer; selective laser-sintered nylon, synthetic lacquer, 2012

Thinking in 3D

Dr. Barbara Rauch, Director of the Interdisciplinary Master's in Art, Media & Design (IAMD) and a key member of the Digital Futures Initiative, acknowledges the impact digital 3D has had on learning and making: "I have big hopes for a new aesthetic through the use of digital 3D input and output, such as 3D printing technologies for our labs at 205 Richmond St. By using 3D scanning devices, we go beyond what the natural eye can see. We scan the world with a higher resolution than we'll ever be able to perceive it." Developed over the past three decades, 3D printing has only now become accessible due to the affordability of machines. It's a process whereby horizontal "slices" of an object (generated using data from computer-aided design software such as Google SketchUp) are printed in a manner that repeatedly layers a powder or liquid medium. The results are used either as prototype or final product.

Still, it's possible to find loss in these gains. If we often see digital in contrast to analog — where digital represents the new and the future and analog is tradition and the past — has digital replaced analog? The answer from OCAD U's faculty is a unanimous "no." According to Material Art & Design (MAAD) Chair Ken Vickerson, "Our students need to know and understand traditional practice as well as digital technology. Learning a 3D modelling program takes as much skill as learning how to solder or cut a pattern; it's just another tool." The ubiquity of digital is making it necessary, Vickerson says, "for students to be familiar with a wider and wider range of these technologies to compete."

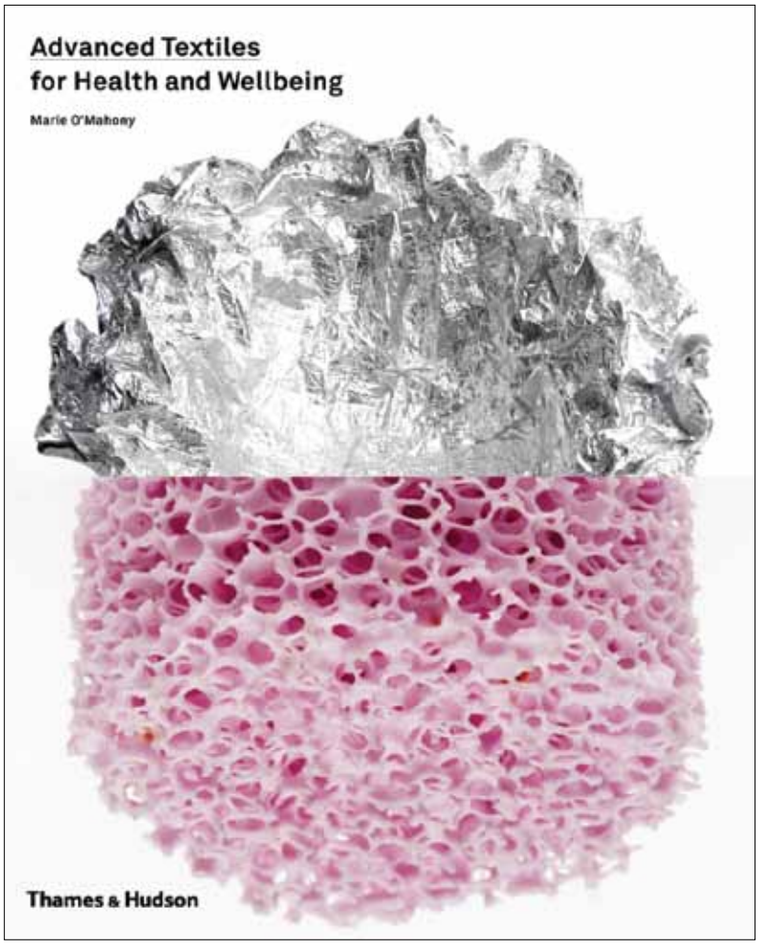
This familiarity alters the landscape. In jewelry-making, Vickerson sees drastic change in the role of the model-maker: "Traditionally the model-maker would meticulously carve the original pattern from wax or fabricate a metal original. This person would have exceptional hand skills and many years of experience. With 3D modelling software our students are able to produce very complex and precise models that would have been out of reach in the past."

The work of MAAD student Gregory Phillips is a case in point. Phillips's series of jewelry-objects are based loosely on natural forms via chaos theory (a branch of mathematics). He uses various 3D modelling programs to create these forms before feeding the data to a 3D printer. The printer produces a laser-sintered (or "cured") nylon or resin piece of jewelry, achieving a higher level of precision than that afforded by traditional model-making methods, and creating a more intricately structured object.

Not your grandmother's chintz

What comes to mind when you think of textiles? Dusty carpets? Musty curtains? Marie O'Mahony, OCAD U's new Professor of Advanced Textiles for Fashion and Design, is helping us see the way textiles are being transformed via new technologies. O'Mahony (who is also a visiting professor at the University of the Arts London) comes to OCAD U from University of Technology, Sydney and has recently published the book *Advanced Textiles for Health and Wellbeing*. Given the book's title, it's no wonder she is enthusiastic about the future of fashion textiles: "We'll see a bringing together of high-quality digital printing and a greater tactility in fabrics — an increasing use of texture and hand-crafted techniques with the digital. Size and fit are becoming hugely important and this is where new technology can really add benefit. A better, more accurate fit adds to the quality, comfort and use of clothing."

"Use" may be the operative word, for as extensions of the body, textiles and fashion can change the way we behave in our environments. MAAD Fibre graduate Oldouz Moslemian (BDes, 2010) is using her time as a resident researcher in OCAD U's Social Body Lab to develop a traditional, hand-woven textile that integrates fibre-optics, sensors and other electronics. Wearers of a garment created from this material will be able to interact with their surroundings, as the garment will project light patterns when in low-light environments, based on the information collected by light sensors embedded in the textile.



A continued history of technology

Until humans built Colossus, the first digital computer introduced during the Second World War, we wrote and recorded our history using simple tools and machines. Today, digital tools, processes and methods are transforming this history, merging tradition and innovation to create a delicate balance between old and new. As time-honoured disciplines such as painting, jewelry-making and textile-production absorb new methods, intriguing hybrids emerge. These hybrids are a little like us — transformed by the technology that now writes history, linking the past, present and future of creation and innovation. □

Charlene K. Lau is a Toronto-based writer whose reviews have been published in Akimblog, *Canadian Art*, *C Magazine*, *Fashion Theory* and PUBLIC. She is a PhD candidate in Art History and Visual Culture at York University.

Top *Advanced Textiles for Health and Wellbeing* is the most recent book by Marie O'Mahony, published in 2011 by Thames & Hudson. It explores fibre and fabric developments as well as applications in fashion, transport, architecture and the environment.

Bottom Loretta Faveri, *Qanun* (front). Loretta Faveri's belly dance costumes integrate the Lily Pad micro-processing platform and wireless transceivers. A dancer's movement triggers samples of traditional instruments that together produce an improvised musical score. Materials used: synthetic fabric, washers, buckram, conductive thread, conductive fabric, grommets, insulated wire, fabric snaps, cotton thread, Lilypad Arduino, XBee radio, lithium polymer battery, 10k resistor, velostat. Dancer pictured is Ioana Timariu. Photo by Amanda Mackay

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