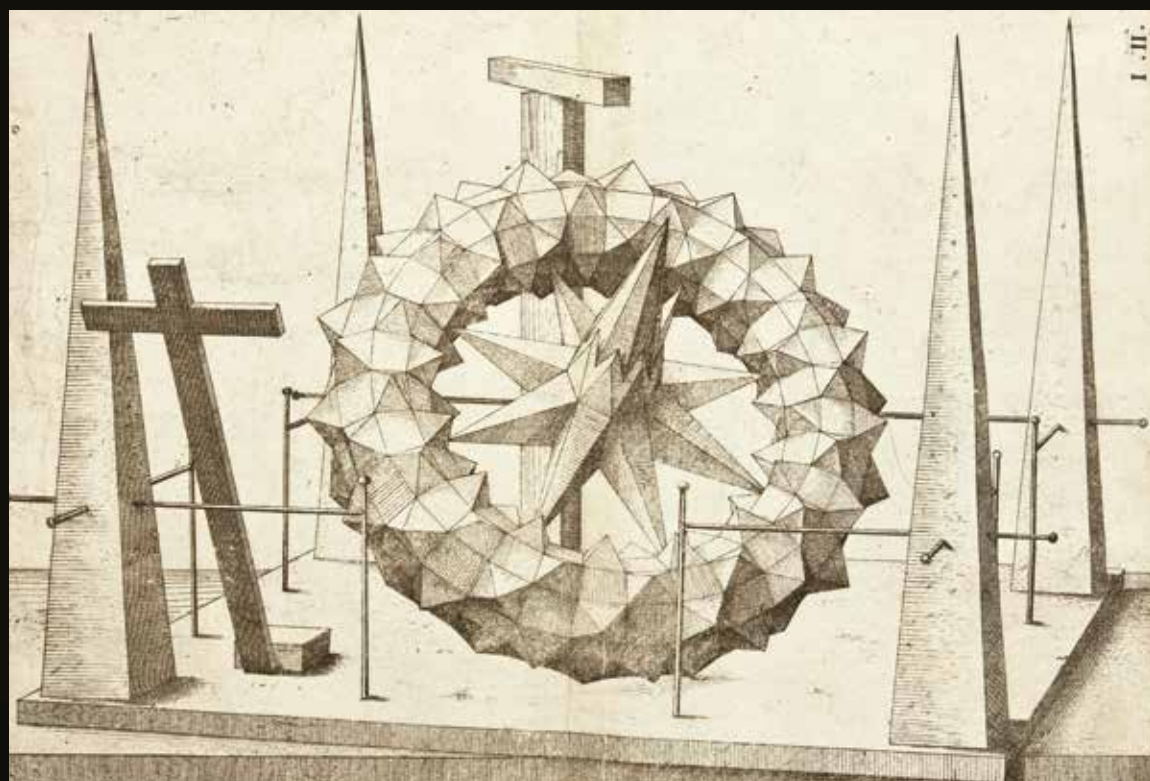


MATTER OF CRAFT

An experimental workshop is facilitating a curious conversation between brand new technology and ancient craft. **Rachel Meek** recounts a visit to Factum Arte in Madrid



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In May this year I was in Madrid leading HALI's Decorative Arts of Iberia Tour, where at short notice we were invited to the workshops of Factum Arte on the city's outskirts. While unexpected, the visit proved to be an undisputed highlight of my fortnight.

Factum Arte was founded in 2001 to use technology to build bridges between ancient crafts and new developments in visual art. Or as the website puts it: 'we will get involved with anything involving a sensitivity to (and practical understanding of) the transformation, mediation and manipulation of information'.

The studio is a thriving hub of people and possibility, home to a team of forty-five artists, conservators and technicians busy problem-solving and masterminding. British director, Adam Lowe, oversees and nurtures all of Factum's operations and personally guided our group around the site, infecting us all with his enthusiasm. His open-mindedness is apparent in all that the studio does, and this has helped to initiate relationships between disciplines, engaging experts in disparate fields in spontaneous conversations and exchanges of ideas.

Lowe explains that there is no such thing as a mistake when using new processes to breach uncharted territory, as is demonstrated by a physical back catalogue of lessons learned, that turn the space into a surreal treasure trove of art. Time-honoured artists' materials such as gesso, marble and resin sit alongside the latest technological innovations: robots sculpt Styrofoam busts to be cast in bronze, geometric models in printed resin based on Wenzel Jamnitzer's 16th century etchings are scattered across benches, and an alabaster relief of the performance artist Marina Abramovic sits quietly on a shelf. Evidence of big name artists' work in the creation stages abound.

The premise of our visit was weaving, so Blanca Nieto, Photoshop and tapestry coordinator at Factum Arte, treated us to a spectacular selection of modern tapestries in the newly acquired warehouse space adjacent to the workshops. The possibilities offered by mechanised weaving are incredible, with the tapestries showing how an application of modern technology can sustain and advance an ancient art form.

Algerian artist Rachid Koraichi's work demonstrated some of the intricate detail that can be achieved on a Jacquard loom, ranging from an elaborate, entangled font to hyper-real sepia portraits of his ancestors. Grayson Perry's lurid narrative tapestries shouted their satirical social commentary from the wall, and Carlos Garaicoa's *Fin de Silencio* floor-based installation contained convincing shadows cast by unseen viewers woven into the surface itself.



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Photo credit: Alicia Guirao



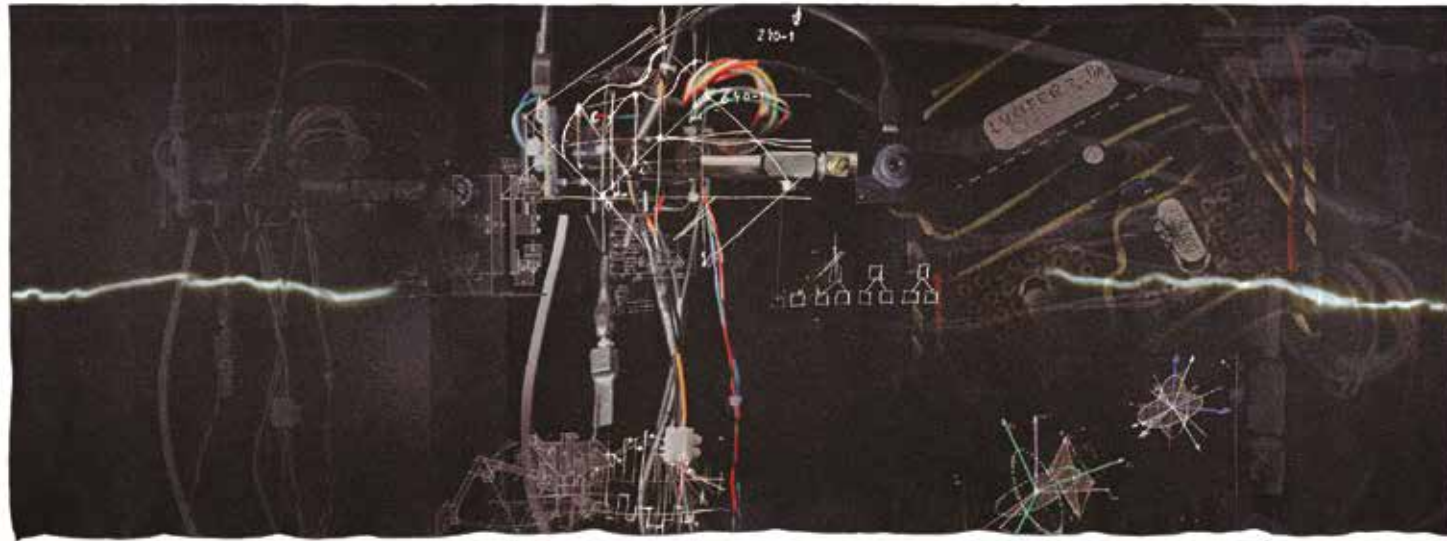
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01 *Polyhedral Monument* by Wenzel Jamnitzer (engraved by Joost Amman), *Perspectiva Corporum Regularium*, Nuremberg, 1568

02 5 polyhedral forms derived from the Platonic solids etchings visualised by Wenzel Jamnitzer, 1568, printed resin

03 Marina Abramovic CNC carved alabaster, 2013. Routed from a photograph. Backlit (top) & front lit (bottom)

04 Installation of the Facsimile of Tutankhamun's tomb in the Valley of the Kings, Luxor, Egypt



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The tapestries are manufactured on Jacquard looms at Flanders Tapestries in Belgium, where intense and varied colour palettes are achieved using just four shades of grey warp and twelve coloured weft yarns, selected in close collaboration with the artists. The optical effects and haptic properties alter depending on the weave structure, and the human eye is an essential tool in achieving the desired tone and texture. The translation from artwork to digital data to tapestry is a prime example of the interconnected processes in use throughout the Madrid workshop.

Reverence towards this technology is evident in Manuel Franquelo's *Palimpsest and Palindrome* tapestry installation, consisting of a double-sided Jacquard weaving, two video projections and text. A masterwork of mechanical capability, it presents an entirely different picture on each side of one tapestry. Its imagery references the Lucida 3D laser scanner that the artist and engineer developed with Factum Arte over a period of fourteen years. Lucida, Photogrammetry and other bespoke software inventions from Factum Arte have produced highly accurate scans of important historic artefacts such as the Hereford Mappa Mundi, a medieval world map on vellum; rock relief cuneiform inscriptions and stele at the UNESCO world heritage site Nahr El Kalb in Lebanon; and the tombs of Seti I and Tutankhamun in the Valley of the Kings in Egypt. Not only has this information been stored so that future generations have a resource of raw data documenting these fragile relics, but astonishing facsimiles have been created with the aid of 3D printers and routers that produce sculptural forms in resin-impregnated plaster or concrete.

When I asked Adam Lowe how weaving fits in with Factum

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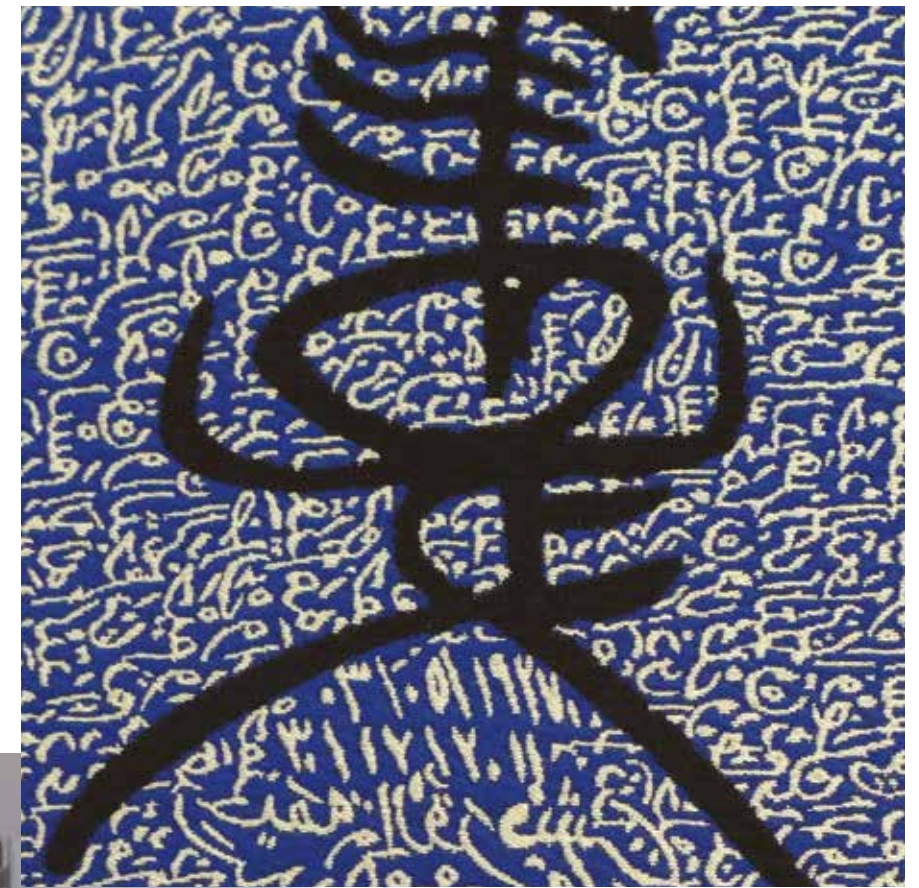


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Arte, it became clear that the technique has always been in the back of his mind. Working with the pioneering mathematician Benoit Mandelbrot (best known for his theory of fractal geometry) in the 1980s provided an understanding of pixels and the translation of scale. The punch cards that drove early 19th century Jacquard looms are the precursors for binary code, and as such, the basis for computers. So although the human drive to produce textiles underpinned the development of modern technology, Lowe was also quick to point out that back in 1888, the French firm J A Henry succeeded in manufacturing the *Livre de Prières*, a triumph of technical weaving virtuosity with monochrome silk pages finer than anything it has so far been possible to achieve on mechanised looms today.

A view of past pinnacles of achievement and a deep respect for historic, visionary genius are pushing an almost alchemic experimentation pairing machinery and human creativity at Factum Arte. The thoughtful combination of tradition and technology is expanding and preserving the boundaries, limitations and definition of craft itself.

www.factum-arte.com



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05 *Palimpsest and Palindrome*, 2011, Manuel Franquelo. Double sided Jacquard weaving, 2.75 x 7.50m. Woven by Flanders Tapestries from files prepared by Blanca Nieto and Marcos Luduena-Segre. Published by Factum Arte in an edition of 3

06 HALI Tour guests view tapestries in the Factum Arte workshops, Madrid, May 2015

07 *Lettre bleue a ma mère* (detail), edition 1/1, 2014, Rachid Koraichi. Tapestry, 3.85 x 2.90m