

Handmade By Machines

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Integrating Digital And Traditional Technologies

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Integrating Digital And Traditional Technologies

Urgent rethinking is required to
avoid the revolutionary
potential of 3D printing being
lost in a sea of pointless plastic
products.

Rachel Adams, Architectural Review, 2014¹

Integrating Digital And Traditional Technologies



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A singing dragon?

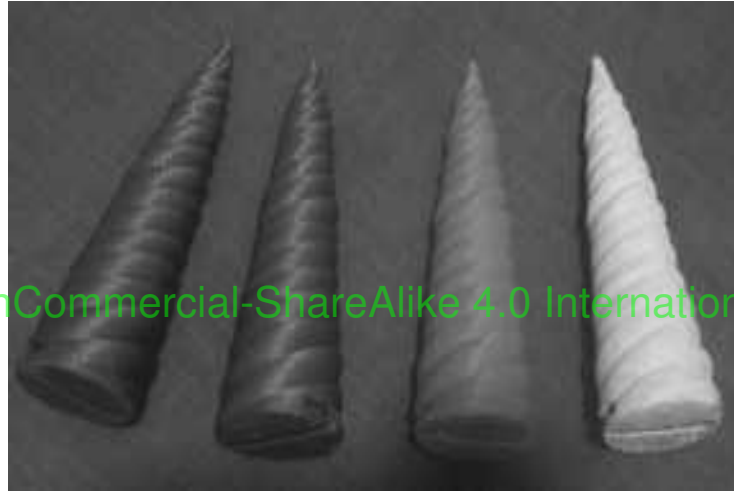
Integrating Digital And Traditional Technologies



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A sad Keanu Reeves?

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A set of unicorn horns for “My Little Pony”?

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Tatty Devine vs. Claire's Accessories²

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SHARE & SHAME

Let Dorothy Perkins know that it's not ok to shamelessly steal from independent designers.

THE ORIGINAL
MYIA BONNER
SEPTEMBER 2012



THE RIP-OFF
DOROTHY PERKINS
SEPTEMBER 2013



SUPPORT INDEPENDENT DESIGNERS

Myia Bonner vs. Dorothy Perkins³

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Integrating Digital And Traditional Technologies

- The issues
 - Validity of product
 - Does the product offer something worthwhile to the end-user or to society generally?

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- The issues
 - Ease of reproduction
 - Is the product something which can be copied easily by digital technologies?

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- The issues
 - Does it “add value”
 - Is the product something which people will value?

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Integrating Digital And Traditional Technologies

- Towards an integrative practice
 - New tools for the workshop
 - Historical precedent

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Integrating Digital And Traditional Technologies

- Towards an integrative practice
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- Towards an integrative practice
 - New tools for the workshop



Integrating Digital And Traditional Technologies

- An integrative practice



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- An integrative practice



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Integrating Digital And Traditional Technologies

- An integrative practice

- Working out designs

- Planning for manufacture

- Creating the elements

- Constructing the piece

- Finishing the piece

Integrating Digital And Traditional Technologies

- Summary

- Digital technologies are making an impact on the manufacture of jewellery
- Contemporary makers **MUST** be alert to the opportunities and challenges of these technologies
- These technologies are not a panacea for all workshop problems
- For most makers, the best use of this technology is as an adjunct to traditional bench skills

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References

(1) <http://www.architectural-review.com/home/products/3d-printing-will-destroy-the-world/8658346.article>

(2) <http://www.dailymail.co.uk/femail/article-2105807/Claire-Accessories-accused-copying-trendy-jeweller-Tatty-Devines-designs.html>

(3) <https://www.facebook.com/photo.php?fbid=629863783724310&set=a.285933991450626.74607.121368967907130&type=1&theater>

(4) <https://www.flickr.com/photos/lavalampmuseum/sets/72157619071382653>

Georgina Ettridge, private communication

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Useful Resources

<http://www.acid.uk.com/> - Anti-copying resources for designers

<http://www.slowfashioned.com/about> – Information about the slow fashion movement

<http://www.slideshare.net/milastr/london-3d-printing-show-intellectual-property-rights> – Ludmila Striukova's talk on Intellectual Property Rights and 3D printing

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Integrating Digital And Traditional Technologies

The Talk

You can download a copy of this talk in PDF format using the following link:



<http://www.justified-sinner.co.uk/Handmade%20By%20MachinesTalk.pdf>

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Integrating Digital And Traditional Technologies

Introduction – Dauvit Alexander, The Justified
Sinner

Talk about the potential pitfalls of digital
technologies and my personal take on how to avoid
them.

Integrating Digital And Traditional Technologies

Urgent rethinking is required to avoid the revolutionary potential of 3D printing being lost in a sea of pointless plastic products.

Rachel Adams, Architectural Review, 2014¹

Much has been made of the potential of new technologies to revolutionise manufacture, largely by the democratisation of the manufacturing processes but little thought seems to have been given to the fact that the majority of people simply have not the skills or understanding necessary to make useful or meaningful products. This is true of all areas of manufacture, not just jewellery.

Throughout this talk, I am going to be discussing the role of digital technologies in **manufacture**, not design, though the two are necessarily linked.

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A singing dragon?

It only takes a few moments with a search engine to discover that the world is already awash with “pointless plastic objects” which, presumably, will join the rest of contemporary consumerism in the morass of landfill, adding to the bulk of meaninglessness already engendered by the “Poundland” culture of consumption as people fill their otherwise empty lives with crass consumables in a vain attempt to make themselves feel better about the trivialities of their everyday existence.

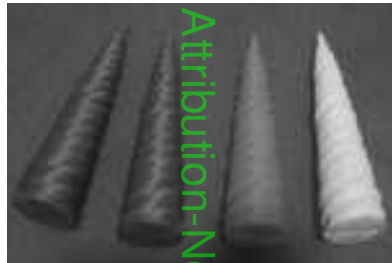
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A sad Keanu Reeves?

One has to hope that as engaged jewellers, we can do better than that, that we can create product which has both meaning and value, product which will endure.

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A set of unicorn horns for "My Little Pony"?

Generating product by democratised digital technology does not only risk the production of pointless objects, but it also raises issues around the risk of intellectual theft: if your product can be created easily in a digital realm, then it can be copied easily in the digital realm.

3d scans; digital copies

It is not my intention to talk about the new challenges for intellectual property rights and legislations, but it is part of my thesis that IP and copyright theft can actually drive innovation and creativity.

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Tatty Devine vs. Claire's Accessories²

Many small makers have already experienced the horror of finding that their product has been copied cheaply in China by large retailers who have the capital to be able to fight and win cases brought against them for infringing the intellectual property rights of the makers. Mya Bonner recently fought Dorothy Perkins for copying her earrings, and Tatty Devine fought Clare's Accessories. It is not just small fly-by-nights who are engaging in this contemptible practice.

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SHARE & SHAME

Let Dorothy Perkins know that it's not ok to shamelessly steal from independent designers.

THE ORIGINAL
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Myia Bonner vs. Dorothy Perkins³

And it is not just costume jewellery which has suffered: fine jewellery in precious metals has been rendered in base metals and metalised plastics, such as these earrings by Myia Bonner. Georgina Ettridge has seen her handmade work copied in precious metals, mass-produced and sold on QVC...

Both Tatty Devine and Myia Bonner succeeded in having the product removed from sale but neither of them received any compensation or any sort of apology from the companies involved. This sort of piracy will only increase in the future as digital replication becomes more accessible.

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- The issues
 - Validity of product
 - Does the product offer something worthwhile to the end-user or to society generally?



The problem is three-fold:

Product must be valid, it must be worthwhile and it must, if we go back to the enlightenment economists, “add value”.

If we view jewellery as akin to the fashion industry, consider the backlash against fast fashion and the rise of the “slow fashion” movement. I would argue that there needs to be a “slow jewellery movement” which has similar aims.

Integrating Digital And Traditional Technologies

- The issues
 - Ease of reproduction
 - Is the product something which can be copied easily by digital technologies?



If your product is easy-to-replicate, you can guarantee that if you have a popular product, you are going to be ripped-off. Digital technology may be making it easier to create fast and fashionable jewellery – such as the work by Tatty Devine – but it is also making it easier to copy. You may have struggled to find time on a laser-cutter and have paid through the nose to use it, but in other countries, there are banks and banks of them, staffed by underpaid drones who are ready and waiting to snap up the best of your ideas and replicate them mercilessly, devaluing your product and effectively stealing your time, custom and intellectual property.

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- The issues
 - Does it “add value”
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I don't necessarily mean that the piece has to have **monetary** value. This fish brooch was designed by Stephen Webster and made in laser-sintered titanium by Claire Denham-Smith. The setting was done in Garrard's workshop. It is, in itself, a covetable object; it is something people would desire to own; it has intrinsic monetary value in terms of the materials; people can write their own narratives into it, creating personal histories around the piece. This brooch may not be something you personally like but it illustrates my main points:

- it is a product which people will desire
- it adds value to the materials
- it is difficult to reproduce rapidly and cheaply

Integrating Digital And Traditional Technologies

- Towards an integrative practice
 - New tools for the workshop
 - Historical precedent



Far from being a panacea which will free the jeweller from the workshop, I view digital technologies as nothing more than an addition to the arsenal of tools already available. Using this technology as the sole method of manufacture almost guarantees that your work will succumb to the pitfalls already outlined.

Lost-wax casting was the last technological advance to shake up the jewellery industry in the same way. It was seized upon by jewellers, craft schools and art schools with enthusiasm, provoking many of the same comments about “revolutions” as we are hearing today.

This is a piece by one of my own personal heroes of the jewellery world, Andrew Grima, a jeweller who made the technology of casting central to his practice of fine jewellery.

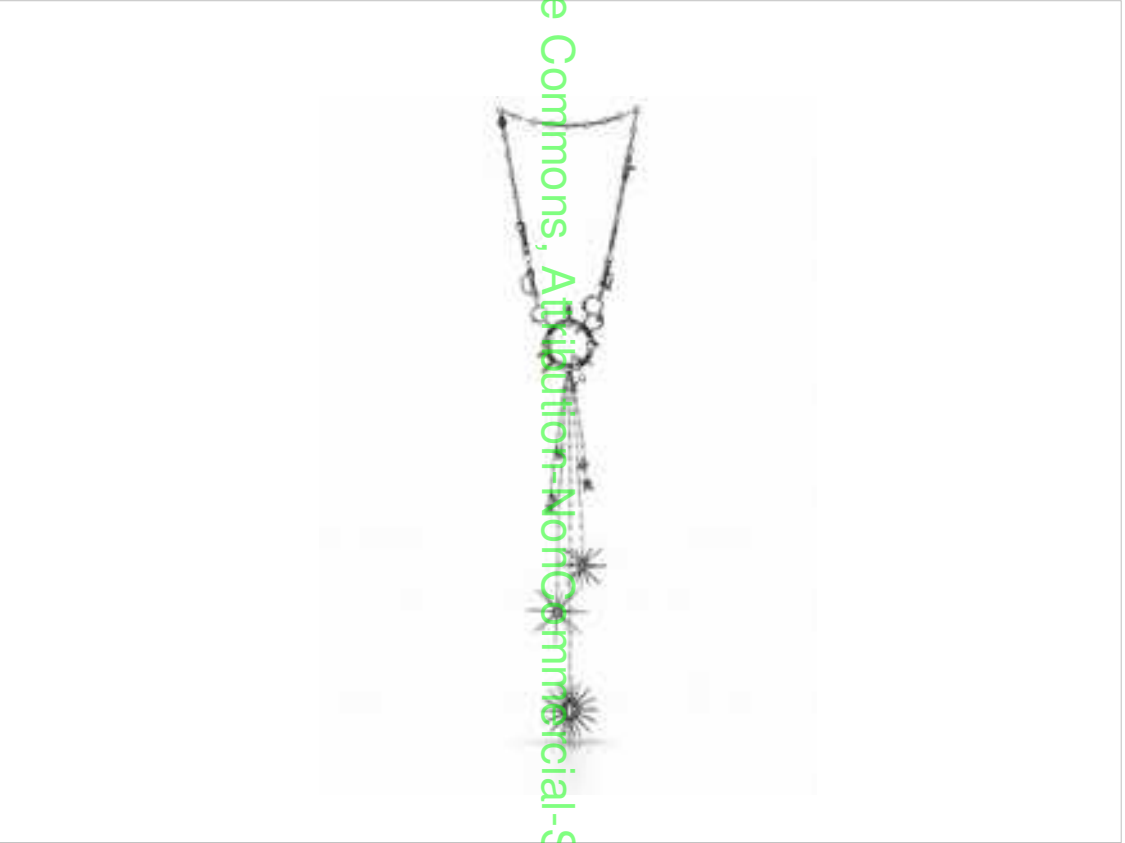
Integrating Digital And Traditional Technologies

- Towards an integrative practice
 - New tools for the workshop



It is interesting that digital technologies such as the Solidscape and the wax-milling machines such as those made by Gemvision and Roland still rely on this casting technology to make them useful: many of the resin printers still require the product to be cast in metal. Of course, that technology has also come on leaps and bounds, making it possible for small makers to cast easily in their own workshops.

This is a milled wax element for one of my own pieces – the “Supercollider” neckpiece which I exhibited here last year...



Supercollider neckpiece

Integrating Digital And Traditional Technologies

- Towards an integrative practice
 - New tools for the workshop



(4)

Ultimately, lost-wax casting did revolutionise the industry but it didn't free the jeweller from the bench; rather, I would argue, it forced the jeweller to raise the bar on his or her own work.

As with digital technologies, it allowed for cheap mass production – which in the case of casting, led to the collapse of Birmingham as a jewellery production centre – and it allowed for the reproduction of the designs of others.

New technology cannot be ignored. It is a Darwinian process of adaptation and survival in the face of new challenges.

Integrating Digital And Traditional Technologies

- An integrative practice



Digital technologies are simply new tools and the skill is in knowing when it is appropriate to use them. In the same way that you cannot solder with a piercing saw, you cannot use a 3d printer to do many of the day-to-day jobs within the workshop. In order to make the most of digital technologies, they have to become a natural part of your workflow and your design process should not be constrained by these tools any more than you would allow yourself to be constrained by your piercing saw.

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- An integrative practice



My own practice starts incorporates digital technologies at every stage. I still start by working out ideas on paper but even at this stage, I may scan my drawings and modify them digitally in a drawing package. Often I will take the digital versions of these drawings, draw over them and re-scan the result, refining the final ideas before any actual manufacture starts. This is an aspect of the digital technology which is often overlooked.

Once the final form is designed, it is a question of working out the best methods for manufacture.

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- An integrative practice
 - Working out designs
 - Planning for manufacture
 - Creating the elements
 - Constructing the piece
 - Finishing the piece

The workflow for creating a piece of jewellery using digital means is exactly the same as the workflow for creating any piece of jewellery and I would argue that the only place where digital tools have any impact are in the working out of the designs and the creation of elements. Those elements still have to be assembled and finished; stoneset and enamelled; engraved and polished... in short, all the skills you would use when making a non-digital, traditional piece of jewellery.

Integrating Digital And Traditional Technologies

- Summary

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Digital technologies give us the ability to design and manufacture things in new ways and using new materials which have never been available to us before; new materials are being added all the time and will soon include biological and nano materials.

It is essential that new makers keep up-to-date with these technologies and investigate their potential for jewellery design and manufacture. The challenges presented by these technologies cannot be ignored, especially those relating to changes in manufacturing practice and intellectual property.

It would be wrong to suggest that new technologies can liberate the maker from the workshop, as wrong as it was in the 1930s to suggest that robots would do all manual labour and as it was to suggest that casting would be the solution to every jeweller's problem.

For most makers – and the number of those for whom this is not true is vanishingly small – the future for these technologies lies in their careful, intelligent and creative incorporation into their traditional bench practice.

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References

- (1) <http://www.architectural-review.com/home/products/3d-printing-will-destroy-the-world/8658346.article>
- (2) <http://www.dailymail.co.uk/femail/article-2105807/Claire-Accused-Copying-Trendy-Jeweller-Tatty-Devines-Designs.html>
- (3) <https://www.facebook.com/photo.php?fbid=629863783724310&set=a.285933991450626.74607.121368967907130&type=1&theater>
- (4) <https://www.flickr.com/photos/lavalampmuseum/sets/72157619071382653>

Georgina Ettridge, private communication

Don't rush to take down the references. The whole talk is available for you to download...

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Useful Resources

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A few resources you might find useful.

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Thank you.