

Drawing Convergence: Becoming

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Abstract

Through my practice-based research and teaching I take an expanded approach to drawing using tangible and digital media, drawing can be both process and product. It is unnecessary to polarise the tangible and digital as they are complementary and reflect a material and digital convergence that has taken place. I will refer to a case study of a research informed teaching project, ‘Chthulucene Hekateris’ (Gould 2022) is used as inspiration for students, in order to draw to observe, imagine, explore and communicate. Here I speculate on human evolution as posthuman subjects in process to imagine what we are becoming (Braidotti R. 2019). Drawing happens in physical and digital space and there is a fluidity and cross over between the two. Free movement between traditional and digital media builds confidence in both formats. Recent developments in Generative AI are not to be feared but rather, seen as a potential tool for enhancement if used appropriately. It has limitations as authorship lies in agency, the user’s ability to make creative choices to impact on the outcome. Through this Green Screen project students use mixed media to create an imagined future world and its inhabitants, human and otherwise.

Key words:

Tangible, Digital Media, Drawing, Convergence, Agency, Generative AI, Posthuman.

Convergence of the Tangible and Digital through Drawing

Through this paper, I will present a case study on my research informed teaching where drawing in material and virtual space converge. Here I ask how digital and tangible media can inform each other as drawing tools to build confidence and to support the development of drawing and digital skills? Through the Green Screen project (a collaboration with Professor Paul Sermon), students are facilitated to explore both digital and tangible media. Using chroma key technology, layers of moving image comprising of sets and characters are composited together live on screen. Green is used as a chroma colour to remove and mix elements of the image revealing the layer below. Students use a range of drawing tools, including software such as Procreate to make the sets and characters. Through my teaching I encourage free movement between different formats using digital and tangible drawing as complimentary tools. Tamarind Norward rejects binary distinctions of the digital and analogue and instead sees the relationship between the mark and the ground as a defining property, whether on glass, lens, screen, or paper.

‘As a set of relationships emerges between the line of the pencil lead, the graphite lines it leaves on the paper, the digitally generated lines, and the split-screen lines, it’s compelling to imagine a parallel set of relationships between the grounds—the worlds or terrains inhabited by each species of line.’ (Norward 2014 n.pag.)

Artist Zach Lieberman is excited by the inherent qualities that the digital line offers for movement. He develops code for drawing using processing and C++ (open programming languages), to create curves and motion which are interactive and respond to the user. He sees interactive drawing as having a magical life-like quality. In his artwork ‘Drawn’, ink

images on paper come to life and the user can interact on screen (Lieberman 2007). In conversation with Jane de Almeida, he remarks that his exploration with code was prompted by software drawing tools which he saw as a poor proximation of real life and therefore as unsatisfactory. He proposes that ‘drawing is an important tool for thinking’ and is a ‘physical manifestation for thought’ (Lieberman 2021 n.pag.).

Through my research, I work with drawing to design, observe, explore ideas, experience, speculate, imagine, and communicate. Drawing has an immediacy enabling communication and capturing thought. Jean Fisher proposes that drawing enables us to speculate and imagine (Fisher 2003: 222). Anna Lovatt emphasises the versatility of drawing and writes of ‘...drawings ability to pivot between particularity and abstraction from the most introspective gesture to the diagramming of immeasurable forces makes it responsive to the volatile temporalities of contemporary life’ (Lovatt 2021: 0.16).

The spontaneity of drawing can help in the planning and conception of ideas for realisation of the final outcome. Through my teaching I use traditional approaches to build confidence and prompt curiosity and playfulness as an incentive for students to overcome barriers in order to learn digital tools. This approach is supported by Diana Anton-Shenker in her keynote address where she identifies curiosity and playfulness as prerequisites to the cultivation of complex skill sets. She proposes that creative pioneers ‘imagine what comes next to navigate [through] unprecedented challenges’ (Anton-Shenker 2023). Through this project students work collaboratively to imagine a world and its inhabitants. They are free to work between analogue and digital methods, using their own bodies as avatars, they perform their character live on screen. This is a one-day workshop which aims to build community as well as foster agency in using a range of tools to realise a collaborative outcome.

I will be referring to my practice-based research which informs my teaching as a case study to explore the relationship between digital and tangible approaches to drawing. ‘Chthulucene Hekateris’ (Gould 2022) is used as inspiration for Visual Communication students to develop digital skills. This provides a supportive structure which offers an analogue access point for students to work with potentially complex digital tools. Starting with tangible media, students can digitise their work and add digital elements so that their experience and confidence is developed incrementally. With scaffolded support they can develop software skills over time. Through collaboration students initially draw a storyboard for a short narrative sequence. They then design and develop a backdrop and characters including costumes using traditional drawing and digital techniques. The sets and characters are combined into an environment on screen using a Green Screen, see Figure 1. Students can then experiment with software tools to further develop their digital literacy. This phased approach to working with digital tools helps to break barriers and build confidence. It also provides a structure so that the students are not limited by their technical know-how and are free to use traditional media. Students are able to engage with Simmons five paradigms through both traditional and digital drawing: as design, seeing, experience, expression, and as a visual language (Simmons 2021).

Preparing and planning through traditional drawing provides immediacy to imagine and create a world. This is a space where ideas can be explored and rejected before time-consuming details are developed. Students are asked initially to mind map ideas, using a combination of drawing and text to make connections and to maximise creative thinking (Buzan 1995). In this way students are imagining and speculating to create another world and scenario to communicate an idea. Anna Lovatt writes of drawings ability to open a portal into another world.

Drawing has a unique ability to carve out worlds in the margin of a page or to distil unimaginable suffering into the curve of a graph. This nimble capacity to shift from the microcosmic to the macrocosmic makes the ancient art of drawing well suited to articulating contemporaneity as a multiplicity of worlds within worlds. (Lovatt 2021: 0.14)

Through this project students undertake research to inform their imagined world, and this is developed from observational drawings in the environment. In this way drawing is an organic process from investigation to experimentation, from observation to invention, and from imagination to realisation.

Drawing Becoming

The Green Screen project requires students to work between two-and-three-dimensional drawing and live action. The characters in physical space are placed over the drawn sets on screen to act out a scene. This gives an illusion of reality to the hand drawn, so that the characters, which can be puppets or live actors or a mixture, can perform within the set of an imagined world. This creates an optical illusion of a 2D/3D reality effect as a live simulation of an imagined alternative world. Jean Fisher extolled the virtues of escapism through drawing.

Enraptured by the miraculous conjuring of images I had early on succumbed to the lure of drawing and that curious abandonment to the power of the infinite that tempts the drawer to withdraw from the world and may herself on to a scenography of a different order. (Fisher 2003: 217)

‘Chthulucene Hekateris’ (Gould 2022) is shown as inspiration for the project, using a combination of digital and tangible drawing techniques, to imagine the Earth in the distant future. I design the avatars using traditional drawing tools then develop the drawing of the avatar using Blender, a 3D software. Through digital and analogue drawing and observation, an intentional line is drawn, utilising hand to eye co-ordination, mapping proportions, and composing the body. The characters are developed through observational drawing of organic form, living and otherwise, imagining fusions and juxtaposing beings to create chimeras.

Through a convergence of digital and traditional drawing techniques, I speculate on the potential development of humans imagining an exchange of characteristics and genetic code with other life forms (see Figure 2). I explore the impacts, synergies and transformations that take place. Through drawing we can speculate on what we cease to be and what we are becoming and on our interrelations with non-human materiality (Braidotti 2019). This convergence of the posthuman is replicated in drawing from the tactile to the digital, where there are multiple connections and interconnections between the digital and material world. Similarly, the drawing process from observation, design, and experimentation is non-linear and multi-nodal.

Through the development of ‘Chthulucene Hakataris’, I work between traditional and digital media with a converged drawing practice. Physical drawing is made in response to onsite observation, objects, or photographs. The physicality of drawing facilitates an imaginative response, and I found that in spending time working through material mark-making, drawings can take an unexpected turn. The gnarly tree trunk originally proposed as a drawing to be

exhibited in the space, came to life as a character through the drawing process, this was unplanned, but may be used to inform the development of an avatar (see figure 3).

The student outcomes similarly explored the concept of digital and tangible convergence. The Green screen Group 1 response celebrated the magic of computer code which is performed through the narrative, using zeros and ones, symbolising code and a magician representing the computer programmer. They developed a backdrop for their video using Google's AI software Deep Dream Generator which uses convolutional neural networks to find patterns in images. In this way they entered into co-production with the computer code and engaged in the conversation on the balance between human and machine authorship and agency. The posthuman convergence of the material and digital is paralleled through our tools, including drawing and the potential of Generative AI. As we become increasingly converged with our machines, it is important that we consider the parameters and synergies between digital interventions and our creativity.

Visual imagery generated through AI, is informed by the input of images or key words, so the algorithm is limited to presenting an aesthetic response rather than developing conceptual ideas. Currently the priority in AI programming is for it to be convincing rather than accurate (Waters 2023) and mistakes are made in comprehension and interpretation. In using AI as part of their design process, Group 1 streamlined their workflow, using the software to generate and experiment with a creative response. AI is adept at sourcing high volumes of images, which can potentially be a tool for the artist or designer to facilitate ideas development and to enhance thinking and creative outputs, co-creating with the machine rather than as a replacement of skills (Kelly 2022). There is currently much debate on the use of AI in Higher Education due to the concerns over authorship and the necessary parameters to avoid academic misconduct. There is also some excitement about its potential. Diana Anton-Shenker welcomes AI development. She proposes that it is important to be open minded, to be curious in order to cultivate new skills sets, as through creativity we can imagine what comes next so that we can make a difference.

'I'm not worried about outsmarting AI we don't need to outsmart technology but humanise it by becoming more human and more humane to creativity. We will be able to enter and embrace interspecies world of human and non-human life, human and non-human intelligence. This is how we reimagine education so that we might spark imagination to invite mind bending and mind-blowing vision.'" (Anton-Shenker 2023 n.pag.)

Generative AI tools could benefit the development of ideas; however, AI offers limited agency for its application. Here I am taking Kristine Stiles and Edward Shanken's definition of agency as freedom to make creative decisions, and impact on the outcomes to make a difference (Stiles and Shanken 2011:32). Artist agency and intention are important in determining the appropriate use and application of digital tools. Using digital tools as an enhancement for creative outcomes, where agency is enacted is potentially a positive step to facilitate communication and amplify the creative process. Generative AI relies in a large part on chance in the form of the algorithmic response to key words. The 'net.art generator' by Cornelia Sollfrank is arguably a precursor to Generative AI. An artwork title was keyed into the computer and using a search engine it generated artworks from images sourced from the internet (Sollfrank 1999). The system relies on a large element of chance based on data stored in the system and on random sampling. This follows a rich tradition of artists using chance as a system to inform their artwork including Marcel Duchamp with his 'Three Standard

Stoppages” (Duchamp 1913-14). Here he dropped three pieces of one-meter-long string on canvas and fixed the curve as it fell by chance on the surface. He cut the curve into wood as drawing tools, there by using chance to create a drawing implement. As well as questioning the concept of the standard measure this was the first step towards his conceptual approach which followed with the ‘Readymade’. Both of these examples use chance to create the work, but the artist agency resides in the intention and the concept of the work.

Similarly, the Green Screen Group 1 employed chance to develop their backdrop by inputting images to the AI software, they relied on the algorithm to create a city landscape. This group’s response to the postmodern world celebrated digital code, through their approach as well as through the narrative. Group 2 worked with the concept of mediation through the screen in their story, which depicts a city where time stops, and alienated construction workers fall through the screen into an alternative reality where they become transfixed by the spectacle (see figure 4). The expressive mark-making and animation suggests an implicit critique of the postmodern age. The hand drawn aesthetic brought a relatable DIY human quality to the story, in opposition to the inherent perfection offered by digital tools. The use of mark-making, and simple animated sequences such as the black and white static background used by group 2, helped to create expression and mood, conveying the narrative through visual language, as there was no spoken word, but only sound effects and music. The convergence of traditional media with high-end digital media gave agency to students to complete a moving image narrative, to explore a range of mark-making. It enabled students to explore storytelling through mixed-reality performance. For many students this was the first time that they had experimented with animation and video. Students fed back that they really enjoyed the project and that this had given them the confidence to experiment further with the technology. Some students went on to produce their own artworks using green screen as well as animation and video as a result.

As well as facilitating exploration of ideas, drawing as a visual language is accessible and immediate so works effectively as a means of communication to promote and enact change. Artists Anthony Dunne and Fiona Raby use drawing to prompt action, changing mindsets, presenting questions rather than answers so that the audience can consider different ways of living. Their project the ‘Foragers’ imagines an over-populated world where foraging becomes necessary for survival. Through drawing they visualise the artifacts and tools needed in this challenged world. Dunne and Raby propose that as an accessible language, design lends itself to challenging preconceptions and promoting change (Dunne and Raby 2009). Drawing is a powerful tool for visual communication, to speculate and consider alternative perspectives, in order to navigate our future. The convergence of traditional and digital tools enabled students to convey a message to audiences through mixed-reality narratives, irrespective of their digital literacy and building confidence for future digital skills development.

Conclusion

Through both the Green Screen project and ‘Chthulucene Hakataris’, drawing offers opportunities for deep contemplation of life in the present to imagine the future. It is appropriate that our tools as well as ourselves reflect the digital and material convergence that has taken place in the post digital age so that drawing happens through material as well as digital encounter. Digital fluencies can be a barrier to accessing tools and the Green Screen project shows that convergence of traditional and digital tools can be an enabler to learning. Agency is key to ensuring intentionality when using both digital and traditional drawing

tools. Drawing provides spontaneity but also the space for contemplation, it enables observation, speculation, thinking, and problem solving to develop solutions to complex future challenges. As an accessible medium drawing can offer opportunity to communicate effectively with audiences as a provocation which can prompt change in collective behaviours for a positive impact on the future of the planet and its inhabitants, human and non-human.

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Charlotte Gould is Associate Dean at the University of Brighton in the School of Art and Media. She has taught all levels of Visual Communication and supervises PhD students. Through her practice she explores the potential for interactive installations in digitally mediated public spaces, promoting public participation through shared experience often using urban screens. She has developed Extended Reality artworks to prompt play and interaction across social and cultural boundaries as well as interactive nonlinear narratives and speculative fiction which explore how we can communicate the threat of ecological crisis, raising public awareness to trigger change in behaviours.

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Figure 3: Gould C. Gnarly Tree Trunk, (2022-3) Charcoal Drawing on Paper, 841x1189mm © C Gould.

Figure 4: Green Screen Video Stills (2023) Group 1 (below) and 2 (above) HD Video. © C Gould, P. Sermon.