About the artists

Phillip David Stearns, Born 1982 Austin, Tx; Lives in Brooklyn, NY; MFA Music Cal Arts 2007. Artist and designer working primarily with electronic technologies and media. His practice spans several disciplines ranging from experimental music performance to interactive light installation, digital art, textile art, expanded media, and post-digital photography. Physics, biology, computer science, acoustics, information theory, media archeology, and philosophy come together in his works through playful experimentation with materials and concepts.

Peter Wilkins is a multimedia artist based in Clarke's Beach, Newfoundland. Wilkins's various bodies of work have been exhibited in public and private galleries across Canada and abroad, including The Rooms Provincial Art Gallery (St. John's, NL), Confederation Centre Art Gallery (Charlottetown, PEI), the Art Gallery of Greater Victoria (Victoria, BC), and Canada House (London, England). His portrait and landscape artworks are held in public and private collections in Canada, the United Kingdom, the United States, Germany and France. In 2009, he was the inaugural artist-in-residence at Memorial University (St. John's, NL). In 2011, he had a featured exhibition at the Scotiabank Contact Photography Festival (Toronto, ON). In 2013, Wilkins exhibited at the 55th Venice Biennale in the Collateral Event, About Turn: Newfoundland in Venice and in 2015 he had a solo exhibition on Great British Music at the Old Truman Brewerv in London, UK.

PARALLAX IS PRACTICAL

Perceiving the Digital Textile

an essay by Zach Pearl Artistic Director of Subtle Technologies

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Picks Per Minute

Phillip David Stearns
Peter Wilkins







In 1784, Edmund Cartwright designed the world's first fully realized power loom. Driven by hydraulics, the loom could reach 60 picks per minute, or the number of times the harness raises the warp so the shuttle can pass through and create the weft. Human weavers could rarely achieve this speed with consistency, and Cartwright hoped his invention would push the textiles industry to the peak of technological achievement. However, Cartwright's loom still required a human worker to monitor the machine for broken "picks" and size the warp while the gears were in motion. Accordingly, the machine failed to garner commercial success. Collectives of highly skilled hand loom weavers also rebelled against the notion of automating their craft, going so far as to allegedly burn down an entire factory outfitted with Cartwright looms in 1790.²

The irony of this revolt was not that handloom weavers would eventually be laid off in masses anyway—47 years later when Kenworthy and Bullough's fully automated loom hit the market. Rather, in the face of fervid opposition to semi-automated labour, the irony is that textiles have always been essentially cybernetic and posthuman.³ If one accepts that textiles are a) technology, b)

ancient, and c) definitively cybernetic in the way they augment our bodies and mediate our interactions, then it follows that textiles are perhaps the preeminent posthuman artifacts. Eighteenth century handloom workers could have been the veritable mascots of a posthuman revolution. Instead, their rebuff was another benchmark in a longstanding tradition of modern society to mythologize realities of progress and ignore the implications of its own inventions.

Fast forward to the Digital Age. Textiles are now the product of fully automated machines, computerized designs, biometric devices and wireless transactions. As virtual fashion collectives and wearable tech start-ups seem to double by the day, it is difficult to fathom that the ancestors of such craft and commerce were resistant to living as cyborgs. Still, contemporary culture is not without blind spots. While many fibre artists and software developers are quick to point out how the loom and its binary code of warp and weft is a predecessor to the computer, one would be hard-pressed to find members of either camp professing the prospects of digital textiles.⁴

As technology advances, what constitutes a surface or a material is increasingly mallea-

ble. Yet little to no discourse thrives about the evolution of textiles, which already depend on principles of code, pattern and scale, into non-physical formats that would place this data-driven infrastructure at the forefront of the medium.

Picks Per Minute: The Language of Digital Textiles features two contemporary artists, Phillip David Stearns and Peter Wilkins, whose work necessitates this discourse—challenging what currently defines a textile and making explicit the gap between our conventional understanding of the artifact versus its conceptual underpinnings. Works in the show range from tapestry to installation to video, but an aesthetic dialogue of surface, repetition and geometry blurs the formal differences between such categories.

The work of Phillip David Stearns derives splendor from error and situates information as a material equitable to needle and thread. His mesmerizing and frenetic 'glitch textiles' use raw data from computer software to create non-traditional patterns for weaving on a Jacquard loom. Series like Vestigial Data (2015) which are sourced from found, crashed hard drives manifest as 5 by 6-foot fabrics of noisy stripes, punctuated in black and white with pixel-fringes of greens, blues and pinks. While not immediately discernable as the product of digital to analog translation or programmatic failure, Stearns' textiles capture the liminal beauty of flux. Culled from the refuse of highly engineered software, then re-processed through a different kind of computation (the loom), each glitch textile exists as a kind of reincarnate digital artifact—an object that could never have become a physical reality without a virtual equivalent.

Stearns's installation, *A Consequence of Infinitely Discursive Technologies* (2014) is a more immediate example of a digital textile in its hybrid composition. A contemporary

meditation on landscape art, Stearns employs projected colour-fields and strips of neon light to create a collage of digital imagery and electrical luminescence. Intersecting like patches of a technicolor quilt, this version of Stearns's textiles is mostly intangible but still far from immaterial. The historic reference to depictions of landscape conjures notions of location and temporality that are essential to how we interpret physical space while the scalability of the piece from miniature to mural-like sizes invokes the sublime.

Peter Wilkins's series of video works are 'built environments' that demand the viewer's attention through subtle movement and calculative detail. Constructed from footage taken during visits to public sites in Toronto, Wilkins mirrors and clones individual frames to assemble seemingly infinite bands of moving imagery. In Walking Stripes (2016) Wilkins captures the complexity of human bodies in transit as they navigate the subterranean tunnels of the PATH system. Amongst an ivory lattice of scrolling architecture, bustling pedestrians ebb and flow into one another, evincing the density of the urban landscape while alluding to the invisible social matrix that sustains it. And though the screen lacks the tactility of fabric, the pendulous motions of Wilkins's patterns embody the ability of textiles to modulate a given surface and extend our own bodily sensations. Similarly, the kaleidoscopic Toronto-Subway (2016) transports the viewer to the centre of a subway platform between forever arriving and departing trains. Multiple vertical bands of this scene play at different intervals and scale up and down in tandem, as if breathing in and out, expelling and swallowing passengers like particles. In watching this piece, spellbound by the tension of its organic precision, one's own breathing comes to the fore and seems suddenly vital to understanding its logic.

Through their respective processes,

Stearns and Wilkins weave their creations with algorithms of light and numbers. Yet, like Cartwright's loom, each makes space for a cybernetic relationship where the viewer must deem the work as-textile through human perception and association. In a time when the concept of the network is so key to navigating the world, Picks Per Minute points toward this other, pervasive human invention as the real isomorph between digital information and textile production. To elevate the notion of networks in our understanding of textiles means engaging with interstitial spaces and the axiom of tenuous but flexible connections. The exhibition as a whole then propositions this strategic straddling of physical and virtual realities as integral to the definition of a digital textile, or, at the least, demands new vocabulary for a more hybrid materiality in which parallax is practical.

Notes

- 1 "Warp and woof." Wikipedia.org. Accessed Apr 2, 2016. https://en.wikipedia.org/wiki/Warp and woof?
- 2 Guest, Richard. "Modern History Sourcebook: The Steam Loom, 1823". 1997. Fordham.edu. Accessed Apr 2, 2016. http://legacy.ford-ham.edu/halsall/mod/1823cotton.asp
- 3 Posthumanism is a philosophical movement that redefines our conventional understanding of subjectivity and embodiment—ideas that have largely gone unchallenged since the Renaissance. Posthumanism allows for the potential of hybrid states of being that go beyond human faculties such as human-machine, human-animal, human-object, etc. For an excellent introduction to the topic see N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics.* University of Chicago Press. 1999.
- 4 By "digital textile" I mean a radical conception of a textile that has no physicality; not to be confused with the conventional use of the term that describes fabrics designed and printed digitally—an industry that is quite prolific in its own right.

About the author

Zach Pearl is an American-born, Toronto-based curator, designer and educator. He currently works as Artistic Director of the Subtle Technologies Festival and as a sessional instructor at OCAD University in Integrated Media and Graphic Design. Zach is also Co-Founder and Managing Editor of KAPSULA, a digital publication for alternative art criticism. He holds a BFA in Graphic Design & Illustration from the Minneapolis College of Art & Design and an MFA in Curatorial Practice from OCAD U. Specializing in new media curation, his Master's thesis focused on experimental strategies for exhibiting online art. Since relocating to Canada, Zach has helped to produce events and publications for the Art Gallery of Ontario, Textile Museum of Canada, Vtape, Gallery 44 and Eastern Edge, among others.