ARCHITECTURE ENTERS THE AGE OF POST-DIGITAL DRAWING

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In horror films it's when you think the thing is dead that it's most likely to return seeking vengeance. As it is for zombie flicks, so it is, it seems, for architectural representation. After decades of absence, drawing has returned to mark a generational sea change in architectural culture.

From the mid-'90s onward, when computers seriously began to replace drawing boards, the act of drawing became increasingly anachronistic. Growing computational power was harnessed to produce rendered images—glossy visions of soon-to-be-built projects, usually blue-skyed, lush-leafed, and populated by groups of groomed and grinning clip-art figures, where buildings appeared with a polished sheen and lens flares proliferated. Postcards from the near future.

At the same time, digital tools have pushed another kind of architectural drawing in a completely different direction. Technical information communicating construction detail has become "building information," drawings obsessed with a different kind of "realism"—this time, not visual but in the way they plug into systems and protocols of the construction industry.

Digital culture, up to now at least, has categorized drawings as either technical or illustrative, as building information or money shot. But in doing so, the drawing's role as an exploratory, inquiring design tool has diminished.

The irony of the vast processing power we now possess on even the most basic desktops is that drawing itself has been subsumed by the tools we've chosen to use. These tools—drawing packages and supersophisticated renderware—have narrowed the scope of architectural drawing even as they have exponentially increased its precision. Just think of how these kinds of applications frame not just the drawing but how we draw. They position us within a predetermined idea of space, an array of pre- programmed presets rather than an ambiguous possibility that can be constructed. In these types of space the act of drawing is a Cartesian given.

Renderings assume the language of photography—so much so that in more advanced rendering packages you even design a digital simulation of the camera—and in doing so present us with an apparently "real" image of the world. Yet it's exactly this fait accompli idea of reality that the return of the drawing seems to challenge.

Contrast this with the grand tradition of archi- tectural drawing in which the space of the page was one that had to be invented by drawing itself. We see this in the work of the so-called paper architects of the 1970s and ’80s: pre-commercial Libeskind, phase one OMA, and most of all, pre- digital Zaha Hadid (and many, many more).

At that time drawings were indivisible from the disciplinary conception of architecture. These were drawings not of architecture but as architecture. They understood graphic space as significant in and of itself. Drawings also tapped into a long lineage—not just groups of the previous generation (Archigram, Superstudio, and Archizoom, et al.) but also through Ledoux, Gandy, Piranesi, and so on into the heart of architecture itself.

One reading of recent architectural history is that as those paper architects began to build, drawing became less and less important. With the rise of technology, drawing as a significant architectural act withered away. And as it did, so too did the connection to drawing as a core disciplinary act rather than an expedient way to communicate architecture.

Yet at the moment that the architectural drawing seemed consigned to the dustbin of history, a different generation found in its very anachronism the possibility of an alternative. Certainly at FAT, the firm I codirected from 1995 to 2014, noted for its contrary positions, we found ourselves drawn to a very different set of digital tools from those that promote extreme three-dimensionality. For us it was Illustrator and Photoshop (or, to be exact, Illustrator’s illustrious and never-equaled predecessor Macromedia Freehand) that presented a different trajectory—not just for drawing but for imagining architecture. For us it was the super-collage possibilities of Photoshop and the extreme flatness of Illustrator that established a different kind of image discourse: one that considered other types of digital space, other forms of graphic quality, and simultaneously a set of alternative architectural propositions.

Photoshop, in the way that it can open and manipulate content, suggests a particular relationship to images that has been fundamentally altered by digital culture, thanks primarily to Google Images. Photoshop allows us to intervene in the image world that surrounds us, to slice into this information and reshape it for other purposes. This might once have been collage, the cutting out and juxtaposing of one thing with another. Within Photoshop, however, we can explore images at a forensic level, slicing, masking, and smoothing the joints between things. And that smoothness means the possibilities of remix and mash-up become infinitely more nuanced. Rather than a thing made up of parts, the parts become an indivisible graphic whole.

Illustrator space, meanwhile, suggests both flatness and layering of that flatness while also emphasizing graphic outline. In this kind of digital space, pieces sit on top of one another like theater flats on a stage. In reality, we move smoothly between these different types of environments by copying, pasting, and placing so that drawings become a collage not only of content but also of technique.

But digital drawings of any real sophistication are generated from multiple sources and combine many different techniques and applications. Modeling, rendering, linework, and fragments of found media are brought together into a single seamless entity. The drawing materializes in the void of the screen: scrolling up and down, zooming in and out, we have to invent both the drawing and the space of the drawing as an alternate universe in that whiteout glow the other side of the glass.

The return of the architectural drawing in the digital age is a reinvigoration of the tradition of drawing, but its techniques, tools, and media make it fundamentally new, too. A screen is not only technically different from a page but conceptually different as well. Laying out a piece of tracing paper on a drawing board meant setting out something separate from the world—taped at each corner, its scroll stretched flat, its surface ready to be inscribed with ink delivered from the metal barrel of a Rapidograph, scraped with razor blades to correct errors.

In contrast, the screen is intimately, vibrantly connected to the world. It's how the world—or much of it—comes to us.

Even as we make digital drawings, we assume the position of the spectator. Even as we draw, we are watching the drawing emerge. We become consumers of the drawing just as we are its creator. The site of drawing is never really empty but connected to network flows, a surface that can leak or erupt, become fugitive and restless, recombinant and promiscuous, where meanings and associations between images are constantly in flux.

Perhaps this proximity of digital drawing to endless references, downloads, and streams is why, in the recent resurrection of drawing, it's not only fragments of other images we see composited; it's also the structure of the drawing. Think of the drawings of Point Supreme or Fala Atelier that evoke painterly references. Or the collage images of Office KGDVS, whose alternating flatness and depths recall structures of Ruscha and Hockney. Or think of the crisp delineations of Dogma, which resonate with rationalist precision.

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The potential of post-digital representation has been one of the key areas of research in a series of studios I have taught at the Architectural Association in London, the Yale School of Architecture, and the University of Illinois at Chicago. My students and I have been working with direct reference to canonical architectural drawings chosen from a wide historical survey. We used references from Piranesi, Boullée, Mies, Stirling, Hejduk, Hadid, and many others, each presenting a particular idea of drawn space as well as suggesting different types of technique and representation. Our aim has been to investigate, break down, and then recompose using digital tools. In doing this we find new ways of hybridizing drawing projections and paper space. At the same time, digital techniques allow us to produce things that are difficult to place—things that are at once digital and hand drawn, rendered and etched, part painting and part assemblage. Ironically, the post-media possibilities of the digital allow an intense investigation into specific graphic qualities and marks.

Our aim has been to develop a post-digital approach to what drawing might mean or do for architecture—to reassert the architectural drawing not as a window onto the world but as a way of making the world, and to reclaim the drawing as a primary site where an architectural idea is staged. These digital reanimations of the architectural drawing have produced Frankenstein assemblages, drawings whose simulations and hybridizations reach beyond media and technique to questions of authorship and space. In other words, in its undead, post-physical, digital form, the architectural drawing has returned richer, stronger, and more provocative than ever.