Calibrating Process: Methods, Media and Machines

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“We are what we behold. We shape our tools, and afterwards, they shape us.”

Over fifty years after Marshall McLuhan delivered his famous quote, it still rings true. The tools that we devise to shape our world not only bring change, but—as the late 20th and early 21st centuries have demonstrated—they accelerate changes in the way we see, interact with, and construct our world at an unprecedented rate. Our design foundation students have grown up in the Anthropocene era, knowing nothing different than the breakneck speed of technological, cultural, and ecological changes that present various challenges as well as opportunities for the future of humankind. In order for design to be a catalyst for progressive change, we need to ensure that the ways in which we observe, learn, strategize, and execute design (process) are calibrated to address these challenges of the present and future. Beginning design courses should lay the pedagogical foundations for this attuned alignment between design and our responsibilities as professionals in an ever more complex world. To address these issues in the design foundation courses, our interdisciplinary faculty team scaffolds the learning process with the following values:

First, we wish to instill an ethos of prolific experimentation and production with a variety of tools and media—essentially constructing one’s understanding through the act of drawing and making. This way of working facilitates generative loops between two-dimensional drawing and three-dimensional making—a reflexive process oscillating back and forth between different modes of representation. Put simply, we make what we draw, and then we draw what we make. This constant production of tangible drawings and models, each building on and developing from antecedents while leading to new insights, has led to a culture of fearless creativity and inventiveness—with more focus on critical interrogations of tools, techniques and tectonics. In this way, students become comfortable with the unfamiliar, embracing happy accidents and making discoveries. A visitor to the studios might overhear any number of verbs describing operative processes to shaping media and materials—action verbs such as layer, laminate, cut, stack, sculpt, subtract, form, tether, bend, fold, notch, rotate, just to name a few. Through making, our students begin to understand the meaning of *techne* and we hope that the good-work energy and enthusiasm emanating from our studio becomes contagious.

Our foundation projects also build skills through constant, rigorous, and iterative practice—harvesting the fertile imaginations of our students to build a well-crafted body of work. Semester-end studio exhibits not only critique and celebrate the end results, they also index our students’ abilities and demonstrate the learning curve of wielding design tools with dexterity, care, and intention. The tools that we use in our design professions as well as in academe have been shaped over many years: the Beaux Arts tradition, Fordism and machine age logics via the Bauhaus—all most recently disrupted by
the digital revolution. Working within the current, quickly-evolving ecosystem of digital technologies, we are opportunistic users of both analog and digital tools and techniques, developing a non-exclusive fluency that oscillates back and forth. This open-minded praxis allows students to absorb new technologies into their ever-evolving tool chest, developing their intellectual and professional curiosities, and encouraging adaptability through life-long learning (“learning how to learn”).

Furthermore, we approach design problems with interdisciplinary enthusiasm and mutual respect. In doing so, we hope that students understand that they must work together in order to make meaningful, long-term impacts on our world. The most productive working environments foster curiosity and risk-taking, but also collegiality, communication, and collaboration. Design education is challenging and intensive, but also hands-on, applied, character-building, and hopefully satisfying. We share and we learn from each other. Our work environment is situated in a professional school with three disciplines, nestled within a college full of creatives, and located on the most diverse university campus in the nation and that diversity is our strength—whether we are talking about demographics, ideologies, or disciplines. Design can only truly address the complexities of our world with the kind of divergent thinking generated from a diverse pool of viewpoints, life experiences, and complimentary expertises.

Finally, we embrace the mantra, fail early, fail often. Successes and failures are both inevitable outcomes of learning—and especially outcomes of design training that aspires for excellence. By embracing failure, we still hold ourselves to the highest expectations and standards, while acknowledging that temporary learning curves, set-backs, and dead-ends are simply learning opportunities that develop habits of critical reflection and rigorous persistence. We try to instill a comfort-level with the unknown or unfamiliar, and those feedback loops are the generative threads to an iterative process of discovery. We try to lead our studio with a spirit that together we can do anything, but with no illusions that the journey to do so will be easy or that we can take shortcuts.

“Now that we can do anything, what will we do?”
—Bruce Mau, Massive Change, 2004

Indeed, what will we do? The professional designers of the future have many concerns and problems (some being existential in nature) on their plate. Inequality, urbanization, automation, and a whole raft of potential disasters from climate change are just a few of the many urgent challenges of the twenty-first century that simply cannot be adequately addressed without our design professions. Shaping our world in equitable, sustainable, and delightful ways amid constant changes and crises is the new design project—one which requires careful and nuanced calibration to work with and connect between various cultural, political, ecological, and technological systems. In the design foundation sequence, we aim to lay the groundwork to help our students develop into professionals committed to this project of design with the curiosity to question and experiment, the audacity to dream, the work ethic to persist, and the agency to act.

Notes
Top Right - AAD 180 students (Patrick Whennen II, Greg Sample and Edward Oakes) preparing for their project review.
Bottom Right - CNC Mill giving shape to island topographies designed by AAD 282 students.