

From Person to Place: Communicating the Human Form as a Precursor to Mapping

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With regard to architecture, it is arguably the scale of the human that persists in relevancy. Only with that understanding of scale—and the ability to communicate that understanding--can designers begin to explore the multi-faceted complexities of architecture from the experiential aspects (i.e., spatial, formal, atmospheric), to the construction methods involved (i.e., material proportions, size limitations, sequence). It is crucial that architects and design students continue this intense study that acknowledges and communicates both physical and experiential restrictions and possibilities of space relative to the human condition. This paper looks at introducing and expanding upon notions of the human scale in an effort to cultivate an understanding of what has long been associated with architectural education (the past), while promoting new modes and methods of abstraction and representation relative to mapping in beginning design studios (the present).

In a fundamental, architectural, historical resource, "Ten Books on Architecture," author, Vitruvius, states in Book III Chapter One: "Proportion is a correspondence among the measures of the members of an entire work, and of the whole to a certain part selected as standard." And not unlike Leonardo da Vinci's understanding of this: the Vitruvian Man--where proportion and movement are accounted for, the beginning design students were first tasked with accommodating these challenges in addition to engaging in the representation and abstraction of the five senses in two-dimensional studies. These elements inherent in the human body--that can also include time, speed, stresses, heat, etc., can be applied to a grander scale relative to place, and therefor prove beneficial to study at the novice levels.

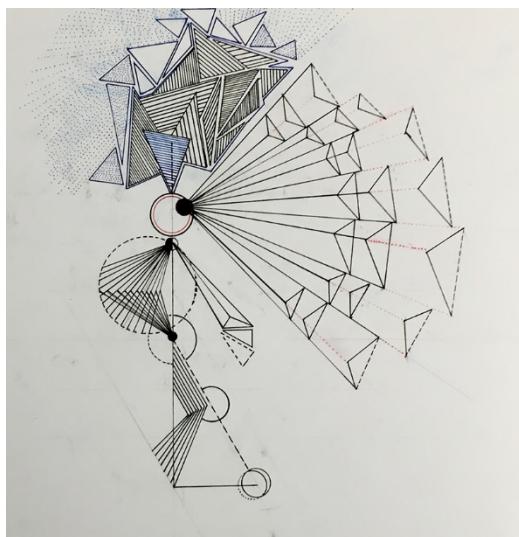


Figure 1. Profile representation of a human walking (Jules Silberberg, 2017).

The assignment was one in which they (the students) were their own subjects, and their highly personal traits were encouraged to be brought forth. Those with glasses or contact lenses or loss of hearing (and

so forth) began to map such effects in their drawings. Personal activities such as playing the piano or tennis were also encouraged as a backdrop in which to pursue the challenging assignment.

The exercise of introducing the senses to the assignment encourages students to grapple with abstracting the human “sphere of influence” in order to further understand the spatial implications of the human body. This understanding posed a design problem, not unlike the mapping of a site in which students are challenged with collapsing, revealing, and often communicating ethereal and intangible information into legible representations.

In Figure 1 (Jules Silberberg, 2017) we see a student editing and analyzing traits related the gate of a human, while also considering sight (forward) and hearing (near the top of the head). Here, the student grapples with how to indicate the fact that we can see and hear well beyond our physical being: questioning *do I draw something that appears three-dimensional (a pyramid) to represent what is both far and semi-spherical (vision)? Do I use dashed lines to indicate an unknowable distance for which are sight might land? And do I use different colors (blue and black) with a rotating line hatch to suggest that which isn't physical and is ever-changing (hearing/sound/noise)?* By allowing students to move through this questioning and decision-making process on a personal and accessible scale, it can provide a foundation for the environmental conditions necessary to consider (and represent) in architectural mapping.

This next image, Figure x2 (Abygail Doud, 2017), depicts a study on the traditional tennis serve. The student chose to separate the upper body from the lower and focus on arm movement (orange) and leg movement (purple). The upper body motion has been simplified to a radial motion acting along only sixty percent of a circle; with power and speed represented through the boldness of color. The student looks at both legs as one block and simplifies their movements to up, down, and forward (right to left), using a gradient to indicate time.

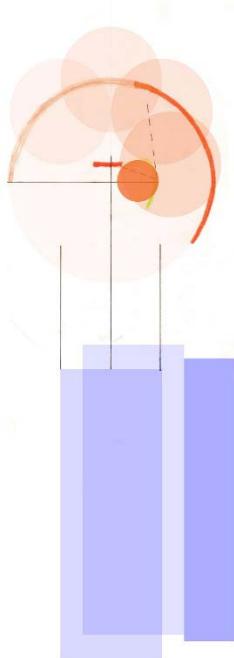


Figure 2. A student simplifies zone to study a tennis serve (Abygail Doud, 2017).

While there is much more animation in the sport's serve, when teaching beginning design students, it is helpful to simplify or "zone" operations to divert the pressures of what might become figure drawings depicting motion. This need for simplification and "zoning" becomes very important in mapping on all scales. At the urban scale, we can understand a relationship to zoning relative to districts, demographics, programs, etc. And at other scales, architectural representations may relay the zoning of mechanical systems, lighting, electrical needs, and so forth

The various two-dimensional drawings done by the students, of the human body, then influenced form-making related to their analysis, where design decisions moved into the three-dimensional realm. Materials and model construction prompted strategies that encouraged mixed media and the inversion of positive and negative spaces--to name a few. Parallels to mapping continue to become evident (albeit spatial) through this progression of studies. Primarily, the introduction of materiality or any abstraction of the two-dimensional drawings forced the students to assign logic or meaning to things both physical and ethereal.

For instance, the pair in Figure 3 (Rebecca Dolgas, 2017) looks at such a jump from two-dimensional analysis to three-dimensional abstraction. The drawing (on the left) demonstrates a person kicking: using light lines to indicate a starting position and dark lines to indicate an ending position; noting proportion and essential joints as nodes that carry hierarchy via size: larger nodes take on more weight and stress when performing this act. It also studies time via a gradient representation, where the absence of color gradually becomes a bold color, thus depicting a start and a finish to the action. When jumping to model, albeit there are iterations that lie in between, the student chose to give physicality to the negative space of the composition (mainly the angle between the two legs), allowing for further abstraction. This recognition of negative space as form still conveys an understanding of human proportion and of parts supporting a larger whole while enabling us to see the given information in a new light.

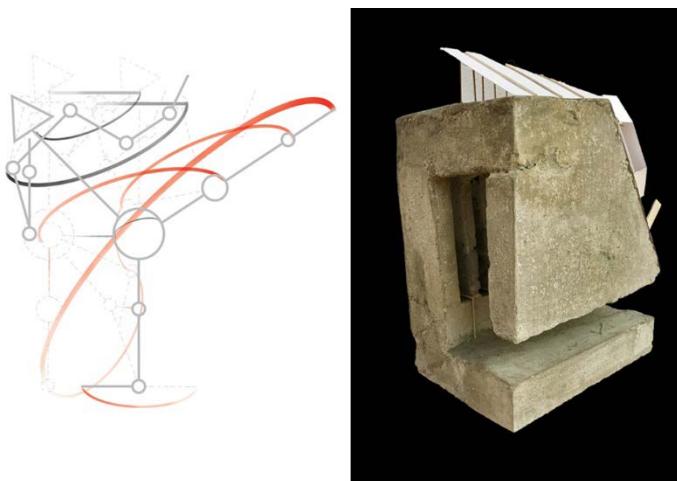


Figure 3. This pair abstracts the study of a kicking motion (Rebecca Dolgas, 2017).

In this next pair, Figure 4 (Jorge Reynoso, 2017) depicts a study of the human form throwing a football. This study captures the limitations in which an arm can both pull back and subsequently release forward and then follow-through. The rectangles of the left drawing, indicate--through varying line-weights--zones of time at key intervals along the execution of this accurate throw. The right figure shows that the student chose to focus solely on the upper body movement of this activity. Here we see a weighted (poured plaster) center and these various zones in a much more spatial conception. The number of

stripes and their angles indicate an understanding of increasing tension and stress on muscles as one executes a throw.

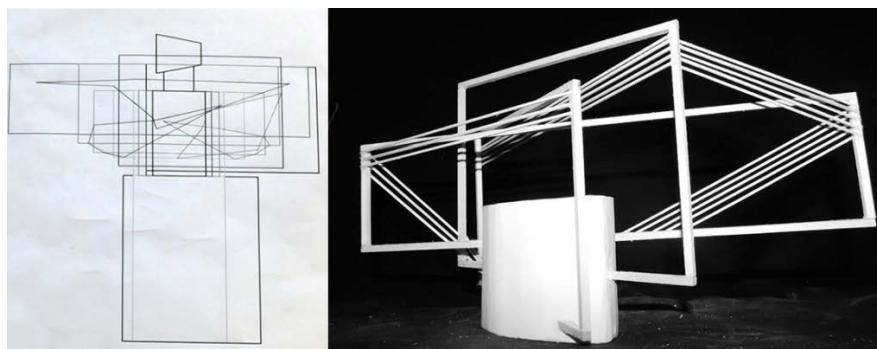


Figure 4. This pair focuses on the arm movements of a body throwing a football (Jorge Reynoso, 2017).

In Conclusion, studying and representing the human form in a variety of modes (with or without contextual information) served as a scale that was readily available and accessible. This exercise can provide a platform for design students to subsequently implement sound communicative ideas at the larger scale of the built environment. Elements such as time, movement, before, and after are crucial to architectural study. By sequencing the complex study of the body as a precursor to the intricate study of the built environment, we afford beginning design students the opportunity to make productive connections that can be more clearly articulated and communicated.

References

1. Amoroso, N., 2012. Creative Mapping. Canadian Architect 57, 39–42.
2. Breaker, J., Jeanine, 2013. The Complexion of Two Bodies. Part One: Nuance Drawn Out. Leonardo 46, 425–431.
3. Dodds, G., Tavernor, R., Rykwert, J. (Eds.), 2002. Body and building: essays on the changing relation of body and architecture. MIT Press, Cambridge, Mass.
4. Gheno, D., 2011. Proportions of the Human Figure. Drawing 24–39.
5. Parks, J.A., 2011. Art & Anatomy: The Value of Anatomical Knowledge for the Figure Painter. American Artist: Painting Workshop with the Masters 8–27.
6. Phillips, A., 2005. The Body As a Unified Organism: The Teachings of Ted Seth Jacobs. American Artist: Drawing 2, 108–115.
7. Rhodes, M., 2012. James Corner Field Operations: For Creating Intimate Green Spaces Out Of Industrial Urban Blight. Fast Company 128–131.
8. Swanson, P., 1985. A classical approach to figure drawing. American Artist 49, 85–89.
9. The Proportions of the human figure (after Vitruvius), c.1492 (pen & ink on paper), 2014. Bridgeman Images: The Bridgeman Art Library.
10. Vitruvius Pollio, 2006. The Ten Books on Architecture. Project Gutenberg Literary Archive Foundation, Salt Lake City.
11. Winslow, V.L., 2009. Classic human anatomy: the artist's guide to form, function, and movement. New York: Watson-Guptill, c2009.