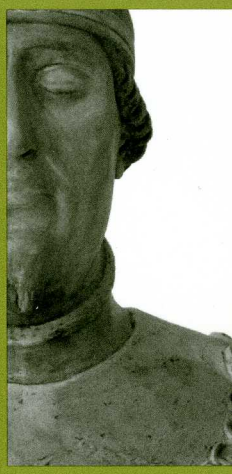
Drawing from Casts

THE PLASTER CAST COLLECTION AT THE UNIVERSITY OF MIAMI SCHOOL OF ARCHITECTURE



Drawing from Plaster Casts

By Rocco Ceo and José F. Grave de Peralta

> This winter I intend to draw a great deal. If only I could manage to draw figures from memory, I should always have something to do. But if you take the cleverest figure done by all the artists who sketch on the spur of the moment, Hokusai, Daumier, in my opinion that figure will never come up to the figure painted from the model by those same masters, or other portrait painters.
>
> And in the end, if models, especially intelligent models, are doomed to fail us too often, we must not despair for this reason or grow weary in the struggle.
>
> —Vincent van Gogh, letter to Theo van Gogh, Arles, September 1888

A tale often told in art history circles describes Vincent van Gogh (1853-1890) on a rampage, smashing to bits the plaster-cast busts and figures he was made to draw while attending an art academy in Antwerp in the late 1880s.

In fact, van Gogh did not report having "smashed" anything in the numerous letters written to his brother Theo at the time. Instead, he questioned the value of the academic training he was receiving as opposed to drawing directly from "real" life. He argued that it is outdoors that "all kinds of things happen," and that a painter like Jean-François Millet (1814-1875) from the Barbizon school learned to draw figures of peasants in their full dimension not from academic exercises, but from direct observation. While acknowledging that the "learned drawing" of the academy is essential for correctly drawing proportions and anatomy, van Gogh insisted that the "almost *arbitrary*...often [academically] quite wrong" structures drawn and painted by his much-admired Millet, Honoré Daumier (1808-1879), and even Michelangelo (1475-1564) somehow made their works "more true than the literal truth." These artists, van Gogh argued, drew the human figure in action, capturing its real, harmonious essence and movement. Working from plaster casts in the academy, according to the Dutch painter, was valuable in that students could learn the proper proportions and "contour" of forms, but without actually living among peasants, for example, or accompanying a seamstress through her daily chores, an artist's depiction of those characters would never capture the feelings of their subjects, but would express only rarefied, ethereal qualities.[1]

The drawing or painting of a peasant pulling carrots in the snow, said van Gogh, must show the figure really pulling those carrots. "There is not a single academy," he wrote to Theo, "where one learns to draw and paint a digger, a sower, a woman setting the kettle over the fire, or a seamstress. But in every city of some importance there is an academy with a choice of models for historical, Arabic, Louis XV, in one word *all really nonexistent figures*."[2]

At the time van Gogh was writing, educators felt that exposure to classical busts or column capitals allowed students to glean what schools considered the "good taste" contained in the ideal proportions of such replicas. In many academies, figures of the Apollo Belvedere or the Venus de Milo were thought not only to be morally edifying for art and architecture students but preferable to "life models" for teaching students important design principles related to composition, proportion, and light and shadow, given the casts' immobile position and correspondence with the original subjects they replicated.[3]

In architecture, as in art, a turn to the vernacular and away from the pedagogy of drawing from plaster casts in school curricula was beginning to take place at the time van Gogh was writing, reflecting the prevailing climate of the late nineteenth century. Moved by a zealous spirit not unlike that of eighth century Byzantine emperor Leo III (c. 680-741; ruled 717-741),

[1] Vincent van Gogh to Theo van Gogh, Nuenen, July 1885, *The Letters of Vincent Van Gogh*, ed. Mark Roskill (New York: Simon & Schuster, Touchstone Books, 1997), 230-39.
[2] Ibid., 234.
[3] John F. Harbeson, *The Study of Architectural Design* (New York: The Pencil Points Press, Inc., 1927), 91.

who condemned the use of holy images in Christian churches and private devotion as "idolatrous,"[4] much of the modern movement in architecture, which had its roots as early as the mid-1800s, arguably issued from a new sort of intellectual iconoclasm, producing an architecture of transparency and bare-wall minimalism, with none of the classical vocabulary of the past.

A wave of hyperbolic simplification and non-figural subject matter swept over the painting world at the turn of the twentieth century, as seen in the work of Henri Matisse (1869-1954), Pablo Picasso (1881-1973), and Kazimir Malevich (1878-1935), among others. Architecture scions Le Corbusier (1887-1965) and Walter Gropius (1883-1969) were echoing the sentiments in van Gogh's passionate letters, encouraging young architects to avoid slavishly recopying the antique past and to return to the world around them for real-life inspiration. Further, they argued, the modern spirit was best expressed in a minimalist, machine-age aesthetic.

A return to precedents

Today, after decades in which plaster casts have been out of favor as instructional tools in architecture schools, here at the University of Miami we have turned back to this abandoned tradition. In 2005 the University of Miami School of Architecture joined a small, select group of schools to receive a collection of plaster casts from the Metropolitan Museum of Art in New York. Nineteen plaster casts consisting of busts, architectural fragments, and low-relief panels were selected by Professor Rocco Ceo from a soot-filled warehouse in New York City and tagged. After arranging for their safe passage to Miami, the casts underwent a summer-long restoration process in which students worked under the direction of faculty member José F. Grave de Peralta, who not only researched and executed their conservation but also began to explore their unique histories. The casts were then placed on view in an exhibition at the School of Architecture in fall 2006, titled *Plaster Cast Collection: A Legacy of Dukes and Sultans from the Twelfth to the Sixteenth Centuries*. Following the exhibition, the casts were permanently set up in a specially designed drawing studio outfitted with drawing benches, easels, pedestals, and lights so that the casts could become part of the School of

School of Architecture students in the drawing studio, spring 2007.

Architecture's drawing curriculum. Beginning in spring 2007, freshmen architecture students have experienced firsthand what it was like to sketch from plaster replicas of antique statuary, as so many of those studying architecture and art did before the onset of modernism, prior to the time of van Gogh's ardent letters to his brother.

This reinstatement of past architectural instruction is cause for some reflection because it is not just drawing from plaster casts that has been abandoned, but the traditional methods of teaching drawing as a whole, which has implications for the profession. Beginning in the late 1980s, many architecture schools all but banned mechanical and freehand drawing as stand-alone courses. Today, replaced by computer drawing, the teaching of mechanical and freehand drawing has been relegated to and, at best, absorbed into the early design classes where students begin to learn the rudiments of their course of study. The compression or outright loss of these traditional drawing classes is taking its toll on the practice of architecture, where buildings often appear divorced from their sites and display meaningless detail or articulation that is flat, repetitive, and without character.

In schools, the lightning-flash efficiency of the digital age, which allows students to use little to no imagination or analysis in their formulaic selection of fonts, templates, and stock details for their building designs, is producing a population of graduates who cannot draw by hand yet are increasingly aware that the architecture profession paradoxically continues to ask for interns proficient in both computing and

[4] For a description of this incident, see Fred Kleiner, Christin Mamiya, and Richard Tansey, "Rome in the East: The Art of Byzantium," chapter 12 in *Gardner's Art Through the Ages*, 11th ed. (London: Thomson Wadsworth, 2001), 325-357.

freehand drawing. This last point has been one of the reasons for revisiting how we teach drawing in architecture schools and what we may learn from returning to the techniques of the past.

Drawing the casts

Drawing, as taught to first-year architecture students at the University of Miami, involves much more than simply copying forms or imagining fantastic subjects. It is a process of grounded analysis and thought that looks beyond the subjects' surfaces. Indeed, most of the school's first-year drawing lessons and assignments are designed to develop students' awareness of the essential link between drawing and design, between the outside appearance and inner essence of subjects. Instruction often includes references to historical precedents such as Roman architect Vitruvius (first century BC), Leonardo da Vinci (1452-1519), and Le Corbusier, to mention but a few.

The nineteen pieces in the University of Miami Plaster Cast Collection—evidencing the high level of artistry that produced such plaster cast statuary and architectural fragments—allow students to contemplate the artwork firsthand. The level of personification and historical significance of the busts makes drawing a very individual and intellectually engaging activity. For example, students can closely study the features of Giangaleazzo Visconti or King François I. Even where the plaster cast might be a floral or geometric fragment from Islamic Spain or Cairo, awareness of the time period and context of the original can only awaken students' curiosity and establish a feeling of connection with a living past.

On a more formal or plastic level, the lessons in contour drawing, proportion, and composition afforded by the plaster cast of an Islamic capital is not a rejection of the ideals of Le Corbusier, who stressed the importance in modern architecture of bare-wall minimalism and transparency, as well as the casting off of ornament. On the contrary, if a professor wishes to emphasize the modern aesthetic, the casts can offer valuable lessons in arrangement or relative sizes and weights of compositional elements that can be applied to questions of ornament today. Seeing the architectural fragments of oak-festooned brackets not only calls into question how surfaces make a transition to a roof, they are lasting tokens of what has been lost by removing precedent from design. The School's cast collection reminds us that the architecture of the past continues to instruct us best in three dimensions and at full scale.

Aristotle with a Bust of Homer, 1653. Rembrandt (Rembrandt Harmensz. van Rijn). (Dutch, 1606-1669). Oil on canvas; 56 1/2 x 53 3/4 inches. © The Metropolitan Museum of Art.

The presence of statues

While drawing these casts offers many valuable lessons, simply being in proximity to them is educational. An interesting example of the edifying presence of statues in everyday life is evident in the 1653 painting *Aristotle with a Bust of Homer* by Rembrandt, depicting the ancient Greek philosopher Aristotle as he contemplates the bust of the poet Homer.

Dressed not in the robes of ancient Athens but in the rich garb of Rembrandt's own seventeenth-century Amsterdam, the philosopher could represent any contemporary person encountering a sculptural representation of some personage from the past. The mixing of the present with the past represented by Rembrandt's dressing of Aristotle in the fashion of his time suggests a continuum with the past, facilitated by the statue's presence. In the painting, the act of contemplation is evident in the philosopher's gaze toward the statue that connects the outward appearance of his subject with his inner thoughts.

Portraiture and the "character" of a building

> Buildings serve many different purposes, are built with many different materials, and by men of different minds. But, nevertheless, structures of a class have come to have some things in common with other buildings of that class, so much so that we now feel the need of definite "Character" in all buildings. A church should create an atmosphere of reverence: a domestic building—intimacy: a fortress—strength:—and this aside from the actual fulfillment of all of the conditions stipulated in the program.
>
> —John F. Harbeson,
> *The Study of Architectural Design*, 1927

Portraiture is typically not taught in architecture curriculums, since it is often considered to be more the purview of painting or sculpture. In fact, the busts in the University of Miami Plaster Cast Collection are in many ways the subjects most removed from the study of architecture. However, there are important lessons to be learned by architecture students from drawing a highly ornate bust. A carefully drawn portrait demonstrates a student's ability to make sense of amorphous shapes and relationships of a face or gesture and present them as something that not only portrays the correct physiognomy and geometry of the subject studied but also its more unique qualities, such as its character.

In studying the features of a bust or head, students are studying principles that are applicable to all bust or head subjects, and they are also studying the inner character of these precise examples found in the subject. In other words, what makes the bust of this figure different than that of another?

Part of what students learn from drawing a bust or figure is which elements in a face or head follow fixed, canonical proportions and where surface variations or subtle changes in shape or line create individuality of character. Character may first identify the differences in gender, then in style. In a reciprocal way, all windows have similar properties that may distinguish them from doors but in details such as materials, hardware, proportion, scale, and transparency they begin to reveal their differences in character. This can be extended to the role windows then play through their similarity or variance from each other in defining the unique character of a façade. As John Harbeson commented, "Study so inspired will cultivate the imagination and form the habit of allowing one impression to suggest another; and if one can at the same time stimulate the memory to retain these impressions it is possible to develop a working 'vocabulary' of architectural forms and decorative motives."[5]

The study of these historic portraits in plaster can be a valuable exercise in "reading" the character of a building. The parallels drawn between architecture and the body are well documented and time honored. During the Renaissance, artists such as Cesariano (1483-1543), Durer (1471-1528), and Michelangelo (1475-1564) studied the figure to divine its proportional relationships as a way of humanizing architecture, giving their buildings proportions in line with mathematical harmonies found in the universe.[6] This mostly drawn research made the elements of architecture analogous to the body. Column capitals, windows, stairs, floors, walls, and roofs were compared to the human head, eyes, skin, and general proportions of the body.

Lessons in shade and shadow: a study in form, mass, and proportion

A clear command of light and shadow is a fundamental skill in the design of architecture, and another lesson to be gleaned from drawing plaster casts. Architecture students should be taught to render light through a balanced rendering of material in space to make architecture beautiful and meaningful. The study of shade and shadow in casts allows students to see just how much form can articulate light in architecture.

In a drawing or painting, shadows are not immaterial, nor do they represent the "absence of light." Instead, they can indicate the time of day or describe surrounding landscape conditions. Shadows are made of form, mass, and proportion and occupy space. Just as students need to know the forms that make shadows, they need to know the types of shadows made by these forms. For example, students can learn that an architecture molding such as a scotia makes a deep gradual shadow from light to a hard dark edge or that the convex form of an ovolo creates a graded shadow that goes light to dark and then back to light again. The reflected light within shadows and the gradation of light across many surfaces allow the eye to absorb and render light without the blinding effects of glare.

[5] Harbeson, *The Study of Architectural Design*, 94.
[6] James S. Ackerman, *The Architecture of Michelangelo* (Chicago: University of Chicago Press, 1986), 42.

This knowledge of how modeled surfaces can render light expands the students' vocabulary of form, allowing them to see architecture not as passively receiving light, but as a way of rendering light itself. When students do not closely observe and hand-draw the classical orders, they do not gain the knowledge of the different types of light and shadow made by these forms. The plaster casts provide the means to attain this knowledge of shadow types, and through successive shade and shadow exercises, students learn to model light to greater effect. The result of these exercises enriches the visual experience of the students' subsequent designs.

Charcoal on paper

In our drawing course, the media for study of the casts is vine charcoal on newsprint paper, which are initially surprisingly uncooperative drawing instruments. The choice of the charcoal and newsprint medium for drawing from casts opens the students up to new dimensions of hand-eye coordination, especially in depicting tonality and modeling form on paper, while connecting to traditional means of artistic study.

Vine charcoal is, in essence, burnt wood reduced to a thin stick of carbon that allows the user to make dark lines easily and quickly. The sticks are soft, brittle, and therefore sensitive to varying pressure and different movements of the human hand. Unlike pencil or pen, the use of charcoal allows the student to cover a sheet of paper with tone rapidly. The fluid qualities of the medium are at first liberating, but the student quickly finds that mistakes also happen with greater speed, often producing drawings that can become too dark and out of proportion with the subject. Here again the casts offer a challenge.

Being mostly off-white in color and tone, the casts require the students to have a lighter hand and work on the drawings slowly in order to build depth of form and correctly render light and shadow. The highly tactile dimension of the drawing exercise and the speed with which it can be produced require students to spend more time looking in order to effect a better coordination of hand and eye. Students also discover that the materials' soft qualities allow them to use their hands to rub, smudge, and even partially erase a line in the process of its correction and development. The tactile act of drawing puts the students in direct sensory connection with the object studied. In fact, in order to effect that transition to two dimensions, students must analyze the subject visually to break down the form into its elemental components and relationships.

Working with the charcoal on paper is more than a liberation from the computer; it teaches that the course and pressure of the charcoal across the surface creates a broad range of lines that together are as unique as handwriting. With the computer, students are constantly using only their fingers to click the mouse or punch a key from a predetermined menu of options. The clicking of the mouse and punching of keys reinforce the notion that design and the resulting construction are purely a matter of a restricted range of choices from a predetermined menu of options on a computer. This distanced practice unfortunately promotes a similar attitude to construction, where rather than designing unique elements, choices are made from off-the-shelf building materials and components.

Working with the charcoal reinforces the idea that the assemblage of a drawing, like the assemblage of a building, is made by hand with varying pressure and direction—what one might even call "craft." The making of a drawing with charcoal reminds students both that a building is crafted and that they need to develop a sense of "touch" in order to effect its careful execution. Judging from the painting mentioned earlier, perhaps Rembrandt himself read the passages in Aristotle's *On the Soul* (De Anima), where the Greek philosopher called touch the most indispensable of all the senses. He also argued that man falls short of all animals in his sense of smell, sight, hearing, and taste but that he exceeds all animals in the sharpness or acuity of his sense of touch. The degree of man's prudence, said Aristotle, his ability to make prudent judgments, is connected to his keen sense of touch.[7]

Casts and digital images

Given the lessons that can be culled from working with casts, at the University of Miami we are now exploring how this form of pedagogy can work with the current trend in architecture of learning and working through digital means.

The profession of architecture has without a doubt changed as a result of computer use. Today most

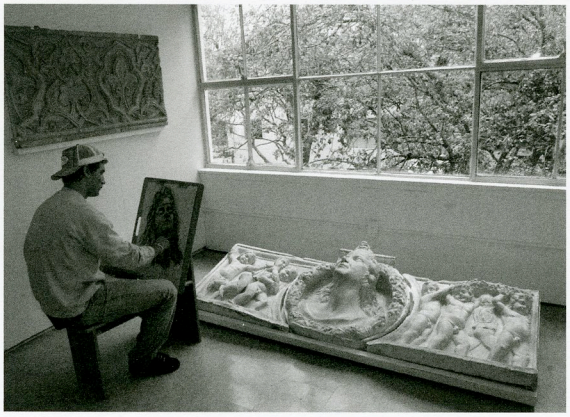
[7] Richard McKeon, *The Basic Works of Aristotle* (New York: Random House, 1968).

students graduate with an array of technical skills in computing, ensuring their place in a growing technology-based profession that demands and effectively markets these skills. It is, however, the ability to have a broad range of skills, including both hand drawing and digital drawing, that provides the greatest opportunity for graduates. In terms of visual literacy, there is even greater value assigned to an individual who can both master the digital arts of computing and sit down and quickly sketch ideas in a public forum or over coffee with a client.

As freehand courses disappear from the curriculum and students work increasingly in computing, we are effectively putting our graduates at a disadvantage. The computer has afforded offices increased productivity and profitability in terms of architectural production—consider its ability for quick revision, data storage, and its ability to interface with other disciplines in related fields. However, with speed and repetition come a greater responsibility for innovative research and the need to stay connected to the tactile realm of architecture.

Initiating drawing courses that emphasize drawing by hand sensitize students to a range of concerns that the profession cannot effectively teach or even foster, given its primary focus on the production of buildings. As a built art, architecture participates in a multiplicity of real-life situations and dramas not unlike those encountered by van Gogh in his contemplation and drawing of his subjects. Architects are charged with connecting the real with the ideal; they observe nature and then perfect, adjust, and adapt it to the needs of the work. Van Gogh's stated preference for drawing from life developed after he had learned the lessons plaster casts had to impart; his championing of drawing from life can be interpreted as a graduation of sorts from the school of plaster casts, one that occurred after he had studied the lessons of proportion and contour that the plaster casts taught so well. In learning to draw, there are benefits to both drawing from plaster casts and drawing from life; one does not preclude the other. What has become increasingly clear, however, is that it is detrimental to students to learn neither—in the name of progress, we are in danger of losing our foundation.

The rediscovery of the benefits of drawing from plaster casts at the University of Miami has reconnected students to the lessons of the past in a way



School of Architecture student in the drawing studio, spring 2007.

that will undoubtedly serve the future profession of architecture through buildings that will once again reflect the importance of their tactile qualities and definitive character, and will demonstrate beautiful rendering of light and shadow.

Rocco Ceo is a professor at the University of Miami School of Architecture, where he teaches courses in design and drawing. Professor Ceo's research includes work on documenting Florida's historic landscapes, and the study of how different drawing types and techniques affect design thinking.

José F. Grave de Peralta is an artist and drawing instructor at the University of Miami School of Architecture. A graduate of St. John's College in Annapolis, Maryland and the University of Delaware, he works in most traditional painting mediums. His subjects include classical mythology, seascapes, and portraiture.