Madeline Seago, Andrew Seago

An Architectural Perspective on Sketching

Una perspectiva arquitectónica del boceto Uma perspetiva arquitetónica sobre o esboço

Abstract | Resumen | Resumo

Architects often rely heavily on hand-sketching to represent their ideas to others, but many have never formally studied what makes a good perspective sketch. Elements of perspective sketching such as medium, subject, and composition are examined along with analysis of the technique's benefits for other aspects of an architect's work. We introduce and briefly address several technical skills which perspective sketching both requires and cultivates, including the treatment of negative space, correct perspectival construction, shade and shadow, tone, color, and entourage. Considering the underrated nature of good sketching, some suggestions for incorporating sketching practice into one's daily regimen are put forth.

Los arquitectos suelen recurrir a los bocetos a mano para presentar sus ideas a los demás, pero muchos de ellos no han estudiado nunca formalmente qué es lo que hace que un boceto en perspectiva sea bueno. En este ensayo se examinan los elementos de un boceto en perspectiva, tales como el soporte, el tema y la composición, y se analizan las ventajas de esta técnica para otros aspectos del trabajo de un arquitecto. Asimismo, se presentan y abordan brevemente varias habilidades técnicas que el boceto en perspectiva exige y cultiva, como el tratamiento del espacio negativo, la correcta construcción de la perspectiva, la sombra, el tono, el color y el entorno. Teniendo en cuenta lo infravalorado que está un buen boceto, se formulan algunas sugerencias para incorporar la práctica del boceto a la rutina diaria.

Os arquitetos recorrem frequentemente ao esboço manual para apresentar as suas ideias aos outros, mas muitos nunca estudaram formalmente o que faz com que um esboço em perspetiva seja de qualidade. Os elementos do esboço em perspetiva, como o meio, o tema e a composição, são examinados juntamente com a análise dos benefícios da técnica para outros aspetos do trabalho de um arquiteto. Introduzimos e abordamos brevemente várias competências técnicas que o esboço em perspetiva, a sombra e o sombreado, o tom, a cor e o contexto. Considerando a natureza subestimada de um bom esboço, são apresentadas algumas sugestões para incorporar a prática do esboço no nosso dia-a-dia.

The art of perspective sketching and the art of architecture have always gone together. Sketching, as distinct from drawing, however, has never received a place in the pantheon of the arts. Though not as glamorous as a mature architectural drawing, a sketch is often the original medium of conception of an architectural idea. Sketching may be the most efficient way to communicate the nature of architectural space to clients or other designers. If there is one exercise that can improve an architect's ability for graphic communication, it is regular sketching. Most architects acquire the fundamentals of the skill over time, but have never formally studied it. But this is well worth doing.

By "sketching" we mean the practice of rapid hand-drawing in perspective, traditionally with pencil or pen on paper. And while one can certainly sketch a floorplan or an elevation, a depiction of an existing scene or design in three dimensions is what we have chiefly in mind. Of course, sketches are often a basis for more refined drawings, but typically they remain in a rough state, and in this state may be presented to others who need to be able to understand them.

Whereas a drawing can be created with slow techniques such as one-, two-, or three-point perspective, or even done by a computer, a hand-sketch is conditioned by the keenness of the sketcher's eye, the expressiveness of the hand, and how much time there is. By nature it is quickly done, and should be efficient. Adding more lines to a good sketch will only detract from it. Close study of a careful



San Carlino alle Quattro Fontane, Rome drawing will reveal a finer level of detail than can be seen at a distance, whereas a close look at an exemplary sketch, as with an impressionist painting, reveals a surprising lack of detail, resolution, or even logic in the pencil strokes. Achieving this effect is challenging because it must be done without time for conscious effort, instead using intuition and a toolbox of mental tricks and muscle memory to capture the subject without merely portraying it. These techniques are well worth the architect's study and practice. While we lack space and qualification to expound on them all, we can point to certain sketching skills which demand special practice and consideration.

A sketch can be a perspective of an existing view, an imagined view of a proposed design, or a hybrid. What we might call observational sketching reinforces the artist's memory of a place and may be for documentation, analysis, artistic expression, or pleasure. Design sketching is generally done in a studio for a proposal, to express ideas. The best practice for such sketching is observation sketching from life or photographs.

While a fine sketch can be made on a napkin, some familiar, good-quality materials help assure good results. HB, 2B, and 2H pencils are good to start with; not all drawings will use more than one weight, but 2H is suitable for light guidelines and HB or 2B are good for shading. Explore different media, such as pen or charcoal, while remembering that pencil tends to produce the most expressive, controlled sketches. A few extra sheets of paper between our sketch and the hard surface underneath will give the top sheet softness, allowing us to make more varied strokes by pressing in, varying the width of lines. And for a fifteen-minute sketch, it is important to limit one's canvas. A four-inch by six-inch piece of paper, or even smaller, is ideal for legibility and compactness.





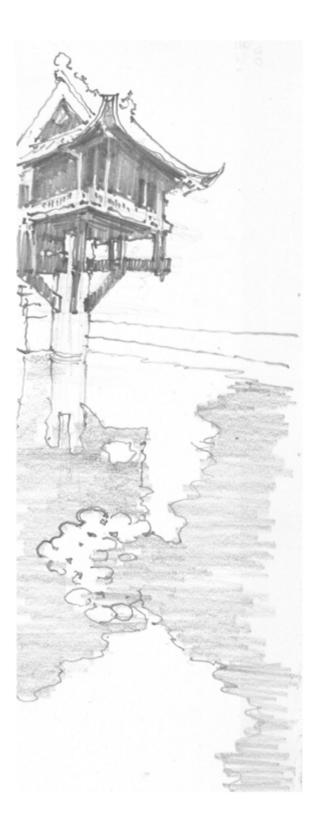
Lavoir washhouse in Burgundy,

Composition

Before starting, we may take a moment to imagine the finished composition. Sketching is not photorealism but rather just teasing out a subject's essential character. Begin by squinting at the scene and taking note of where the dark and heavy masses are relative to one another. Quickly block these main forms onto the paper to ensure that, firstly, they fit and leave space for a pleasing blank border, and secondly, that the final product will be balanced. For all the rules of architectural composition have their corollary in drawing. Make sure the composition does not lean to one side, appear topheavy, sink on the page, or lack a focus. If it seems as if it might, perhaps introduce another element to restore a balance, or attenuate one shadow while emphasizing another. As you draw, consider the level of detail you are giving to the different parts. The eye tends to focus on the points that received most attention from the artist, or on areas of high contrast. Use this to your advantage by devoting less time and care to the frame or context. A sharp pencil will add quick, dark strokes where the focus of the sketch should lie. Observation is important but not every detail can or should be rendered.

Negative Space

It is natural to draw with the idea that the pencil marks are "figure" and the white paper is "background". But a practiced sketcher can flip this relationship and see the negative space as figural, a mental leap that results in richer and more accurate drawings. In the default mindset, every feature of a subject is drawn as an object, no matter how complex the outline, but with this mental switch, the sketcher finds that it is often more effective to draw the space between objects. Omitting all but the necessary lines flatters the eye by allowing one to complete the picture, resulting in a more compelling sketch.



One-pillar pagoda in Hanoi, Vietnam



Street in Brescia, Italy

Perspective

It is important to work within the rules of believable perspective. While it is impractical to construct every scene with vanishing points and a straightedge, it is a good habit to constantly check lines and angles against what is known to be true. There should almost never be sky appearing below the line of the horizon, so it is useful to lightly indicate this line so as to keep from dipping below it. This will also show if the subject is situated too far up or down. Vertical parallel lines in the subject usually appear as parallel in the sketch, unless we are looking up or down pretty steeply. Horizontal parallel

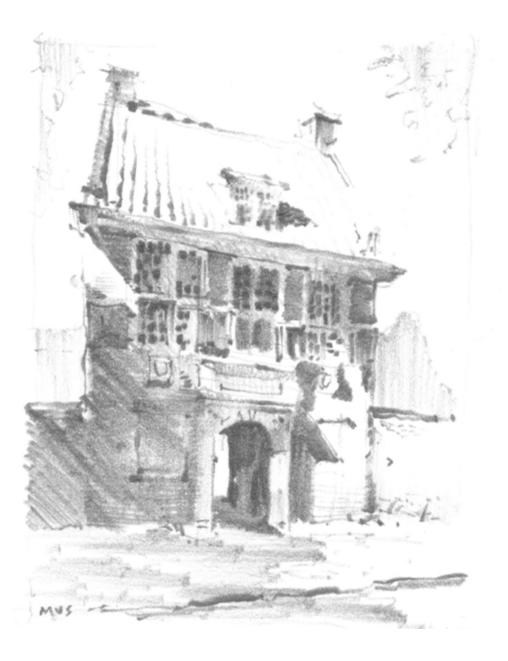




Houses in Lajido, Pico Island, the Azores



Three views of a street in São Roque do Pico, the Azores



House in Delft, Netherlands

lines should vanish and point towards the same place on the page, or else even the layman's eye will see something amiss. We recommend that every architect take the time to learn to construct perspectives accurately the slow and laborious way, for example as described by Francis Ching in *Architectural Graphics*. Merely through knowing how a view would be technically constructed, the architect will draw truer lines and end up with a more believable result.

Shade and Shadow

Generally, after marking out the basic forms of a subject, the sketcher will move on to suggesting shade and shadow. Shadow is the crisp patch of darkness that your arm may cast on a table; shade is the softer, dark tones under your forearm. Notice that shadows are typically darker at their edges, and areas of shadow typically catch the eye before areas of shade, because of this contrast at the edge.



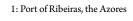
Presidential Palace, New Delhi, India

On a separate sheet, using your softest pencil tilted about 30 degrees, quickly and darkly shade a large patch. This will leave a chisel-shaped tip able to draw large areas of medium shade with the flat side and pick out small areas of dark with the edge. Although it is important to register more subtle details when sketching, certain predictable shadows are encountered often. For example, windows viewed from an oblique angle generally have a dark area at the underside of the head jamb, and a dark line allowing one to judge the building's depth. These two dark areas are typically connected by a triangle formed by the shadow cast by the head of the window. The rest of the side jamb facing the light source is a tone lighter. Similarly, the traditional architect soon learns how a few pencil strokes can abbreviate the shapes of various column capitals. A Doric capital casts droopy angles on the column shaft and an Ionic one casts mitten shapes from the volutes. Shutters cast a little offset rectangle that can be angled at the bottom to suggest they are partly open. Chimneys cast a triangle or a parallelogram onto a sloped roof, which will be wavy if the roof is barrel-tiled. Fencepost shadows quickly disappear into grass. These and other tropes help make a sketch concise and convincing.









2: Windmill in Pico island, the Azores





Hadrian's Arch, Athens

Tone

When first analyzing a subject, notice the various masses of the composition and organize them into layers, squinting if necessary. Blurry vision smooths over tonal nuances and will leave you with three or four basic tones: light, medium, and dark. Once these masses have been delineated, shade them indiscriminately with those tones, starting with the darkest, and at first disregarding the subtleties of the true tones. After a "wash" of tone has been applied, one can go back over and highlight or darken details as desired. This method helps clarify compositions and is an effective way to tackle seemingly complicated subjects. The instinct of a practiced artist will begin to render the subtler gradations and highlights on the first pass and thus produce a more sophisticated sketch. An example of tonal intelligence, albeit in proper drawings rather than sketches, would be the work of Samuel Chamberlain (1895-1975).



House from the film The Holiday

Color

Architects should not hesitate to introduce color if they are confident that color will add clarity. Often, attempting to render colors realistically whether in pencil or watercolor may have the opposite effect by muddying the drawing or obscuring important strokes. Try selecting one or two symbolic colors to apply consistently across the sketch to emphasize a specific material. A common example would be shading all areas of foliage green or all roofs a terracotta color.

Pavilion at Museu do Vinho, Madalena, the Azores





1: Ducks and geese 2: Drawing from an old photo of St. Patrick's Cathedral, New York



Entourage

Most architect-sketchers understandably focus on the architecture of a given scene. Sometimes this results in very accurately drawn buildings with perfectly placed windows in a vacant space. Yet we should also sketch "entourage": the people, animals, plants, vehicles, etc. giving a building context and scale, making a living scene. The focus given to entourage does not need to equal that on the subject, although an architect may be more interested in depicting a spray of bougainvillea than the wall it is on. The thing is to be intentional about entourage. Rather than being distracting it should lend an air of realism. Entourage may be edited into or out of the scene; it can be shifted or ignored to better frame the drawing or balance the composition.

The human figure is often stylized in architectural sketches, perhaps to avoid attempting its complexity. The best way to practice entourage is to draw simple figures from life – start with ducks, geese, or pigeons, and make 20 or more gestural drawings, from 5 seconds to 30 seconds. Draw them small and from various distances, looking briefly at the subject, taking a mental photo of its pose, then sketching quickly for a few seconds. This will train the hand to be efficient with its strokes. Eventually move on to sketching people. Piazzas, stations, markets, parks, etc. abound in subject matter. Start with people who are far away, quickly survey their pose, and just as quickly draw the main shapes of their clothes, bags, hats, etc. Rather than think "arm" as you draw an arm, draw the shape in which the arm happens to be, which may be more rectangular or boxy than the mind expects. People from a distance tend to appear like upside-down triangles with an egg on top, but instead of generalizing this shape, observe and suggest the differences between each figure. Notice that people are usually carrying something.



One-hour drawing done at the Armstrong-Kessler Mansion, Savannah, Georgia

Sketching and Drawing

Sketching is not a replacement for a fine architectural drawing, but constant sketching can improve one's drawing with time, and the other way around. The practice of omission helps sketchers see what is important in a drawing as well, and they learn accordingly what to emphasize and what to leave out. The opposite is also true. Time-consuming architectural drawings, especially when drawn from life, will increase one's intuition and understanding of shadows, details, texture, and form.

Sketching in situ is recommendable, as nothing can simulate the true quality and variety of light, but sketching from a photo can be good practice. An additional benefit is that over weeks and months of sketching the built environment, one develops a catalog of precedent. This is a useful tool to any designer; so if practicing from photos, it is worth choosing interesting subjects. One may start



with black and white photos, with the colors already simplified into relative tones. Fine sketching subjects may be found in books or websites such as the Avery Architectural and Fine Arts Library, RomaSparita.eu, and state historical image archives. The work of great artists is a good reference: a few master sketchers and drawers are Bertram Goodhue, Samuel Chamberlain, John Singer Sargent, Hubert Robert, and Otto Eggers. Original masterpieces are worth examining up close in person, as this reveals quirks of an artist's technique that reproductions cannot. It is worth studying and even tracing the work of old (and newer) masters.

The habit of a quick daily sketch is recommendable if drawing is part of one's professional life. As with any repeated exercise, fifteen minutes a day will eventually bring great improvement. Sketching in a group is also a valuable experience: what is already a mind-engaging way to start the day is enhanced by music, conversation, and camaraderie. Assemble the sketches, take note of good techniques that others are using, and ponder the myriad ways there are of apprehending what we see.

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Perspective drawing of a new plaza, part of a design proposed at the 2022 Rafael Manzano Summer School in the Azores

Biographies | Biografías | Biografias

Andrew Seago

Andrew graduated from the School of Architecture at the University of Notre Dame in 2020 and now works at the architecture and planning firm Historical Concepts in Atlanta, Georgia. Outside of his design role, he oversees "sketchfast", an established morning routine at the office in which staff begin each day with 15 minutes of sketching and conversation. Andrew's thesis project for a new Parliament House in Valletta, Malta was awarded a 2020 Shutze award for student work from the ICAA. He was also recognized alongside his wife for their masterplan for a new quarter in Seville, Spain by the New Urban Guild in 2019.

Madeline Seago

Madeline (née Fairman) Seago graduated from the University of Notre Dame's School of Architecture in 2020. Her thesis proposal for a women's boardinghouse in Manhattan won several awards from Notre Dame, as well as a 2020 Stanford White award from the ICAA. Since graduating, she has worked at Historical Concepts, an architecture and planning firm in Atlanta. Madeline has been a TA at several ICAA programs, including the Winter Intensive and the Savannah and Washington, D.C. Christopher H. Browne Drawing Tours. Alongside her husband, Andrew, Madeline was honored to participate in the 2022 INTBAU Summer School in the Azores and to give a short lecture overview of pencil perspective drawing.



Perspective drawing of a new plaza, part of a design proposed at the 2022 Rafael Manzano Summer School in the Azores