

Exploring the role and evolution of hand drawn rendering in architecture

Abstract

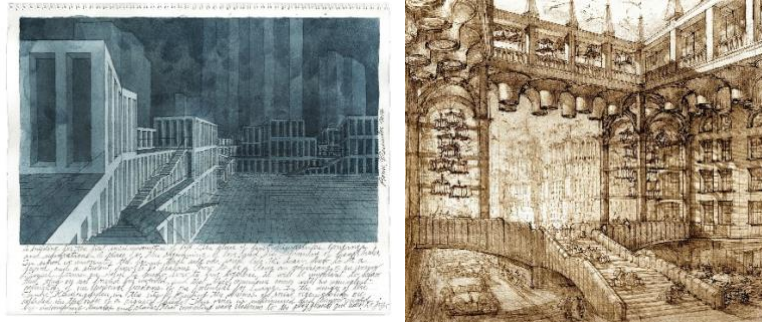
Architecture favors a firm hand. Then the question arise what should be the starting process? The working approach varies from person to person. In the initial phase of an architecture degree students, concentrate more on hand drafting and use a different medium for presentation to stand out differently. At first, this might happen to take inspiration from the architect's work and try to achieve precision like that or incorporate them into our design. Eventually, all these efforts help us to find out our way of drafting methodology. These processes can be break down into individual phases and organized them. Drafting methods change over the period of time with different styles or techniques. Drawing is fundamental in architecture. Do questions come to mind like how drafting works in architecture?

Role of hand drawn rendering in architecture

One of the most common means of presentation is drawing, whose main focus is to show, before building have been built, how they will look after completion. Drawing is a good medium to convey or inspire clients. The drafting becomes in that way a summary of a process of various considerations and handicrafts activities, which jump to the simple and direct explanations. Cultural and techniques in that era mold the drafting style. Hand-drawn presentations allow for creating sets of memories throughout the project. Hand sketching allows creative liberty. Hand sketching helps to reduce constraints of design or made design potential visible. This interrelation should be clarified and utilized of history context. Architectural drafting is a subjective process. There is no specific order to develop form it's just a combination of inspiration and drawing. In the focus of the attention stands the question as to what extent the drafting process can be made better by the development of its method, which would serve the integrative processing of heterogeneous and simultaneous information (staphorst) 2017.

The constructed building is changed over time, or rebuilt while the drawing remains the same in the original form. The concept plays an important role in the original design idea, preserving the original design idea.

Hand drawing made it easy to calculate the potential and constraints of the site going through step by step which are pretty irrational steps focusing on views and daylight ended up with a funky volume. Mostly it was surprising because it kind of looked like something we'd seen before which we never intended to design it just kind of happened it is never inspiration but once we gave it a name it became really easy to also decide on colors and materials



Art it's a word that is associated with a great deal of professions in today's world

One of the traditional means of expression of the draft is the drawing. The upper paleolithic age of the man a time when survival was the primary objective with art serving this very purpose. Cave drawing were used as a way to recount events and the things early man had treasured. Cave drawings for instance dimensionally proportionate like roof, shade, in prehistoric era thoughtless in nature due to the under developed sense of self of prehistoric man.

Neolithic era, human begin to form settlement Architecture, as we define it in the present day, has become leads about a means for survival, and is more of a way of creating and representing cultural values all over the world. The way we think about the role of architecture or physical design evolve with human throughout time.

2200 BC the statue of Gudea ruler of Lagash in Mesopotamia, architect in this time consider as master builder to understand the requirements of structure and workers not as artistic responsibility. Represent the orthogonal projection of a temple or sacral building around a shrine, but nevertheless, it had its symbolic meaning besides its technical completeness.

Vitruvius He originated the idea that all buildings should have three attributes: *firmitas*, *utilitas*, and *venustas* ("strength", "utility", and "beauty") for the renaissance and introduced to design, with its drawing parts, the equivalence between the original architectural idea and its realization. This principles were later widely adopted in Roman architecture. Where the Renaissance stirs into being. One of the most important transitional periods in history.

To be an artist during this period required a great understanding of utilising perspective and form as opposed to the pieces of previous eras, as artwork had fully embraced composition and incorporated what we now know as the general elements of design.

13th century in the gothic period there were significant developments in architectural drawings such as conceptual, working become more accurate. Villard de Honnecourt compiled books of drawings in mediaeval period.

Due to lack of drawing tools or equipment drawing were made as monochrome or working drawings for labors to under the structure but without final out.

17th century in France designers start to apply color to represent the plans. Developing symbols that could read by labors which material to use and for landscape as well. Belgium where water colors were defined plans become more artistic style like photo realistic rendering.

Even though the professors of the Faculty were rather conservative in their architectural taste, the need for new architectural language resulting from the development of new structures and new functional approaches had also changed the educational concepts of the first decades of the 20th century. These shift change the perceptive of a people towards architect to consider them as designers or creators not just technical laborers. These floor paintings creat market for selling these paintings in auction or placed in museum to preserve for future generations. In present day Frank Llyod wright own a piece of the famed architect's history. A schematic of his 1951 design for the Pratt house is currently up for the auction. Today, the house is a mark of the true Usonian form that wright pioneered.

Initial phase to final output

As human beings, we get used to everyday things fast There's a good reason why our brains habituate things. If we didn't, we'd notice every little detail, all the time. It would be exhausting and we'd have no time to learn about new things. but sometime habituation isn't good. It stops us from noticing the problem that is around us, well that's bad and it stops us from noticing and fixing those problems.

Designers, architects, and innovators it's our job to not just notice those things but to go one step further and try to fix them.

In 1902 in New York city Marry Anderson. She was visiting. It was a cold, wet snowy day. She was inside a streetcar and she was going to her destination, she noticed the driver opening the window to clean off the excess snow so he could drive safely.

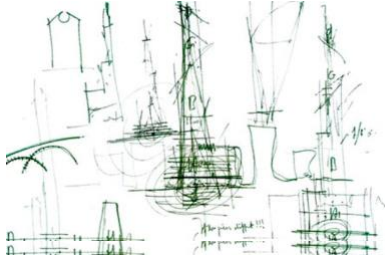
When he opened the window, though, he let all this cold, wet air inside, making all passengers miserable. Marry thought "what if the driver could clean the windshield from the inside so that he could stay safe and drive and passengers could actually stay warm so she picked up her sketchbook right then and there, and began drawing what would become the world's first windshield wiper from these to try to see the world the way it is, not the way we think it is because it's easy to solve a problem that almost everyone sees but it's hard to solve a problem that almost no one sees.

At beginning of architecture career focused more on hand drawing and wanted to make sure that we observe tiny little details to make them faster, easier, and seamless for the client's, etc. It's a very quick-spaced form of solving things on scraps of paper. Starting something getting interrupted. The interruption is great. Hand-sketching is a way to quickly study and make decisions. It is also a way to absorb and retain more information because we take more time to analyse, and sometimes, discover details. This becomes important when it comes to understanding what is around us from a contextual to a detailing standpoint.

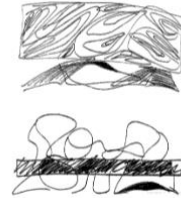
Simplicity and rigorous intentional lines are not characterized, whether they are straight or not, but by their place and function in the whole drawing set. It's about clear communication of the design goals. These hand-sketches were made utilizing just lines to define forms, openings and also shadows to emphasize depth. Some sketches convey a sense of urban space, how busy-like they are and the scale of all their components as part of a message.

Hand drawing allows you to make your style, an individual way of working. There are many such examples of an architect using a different style of sketching to identify the surrounding area's social and cultural values to the building according to all these needs to develop ideas.

Like Rando piano the designer of London's tallest building the Shard who came up with the idea while having dinner and the original sketch of the building back on the napkin. Likewise, famous architect Zaha Hadid designed pheno science center abstract artworks that map spatial conceptualization, and composition. She is liberated by the act of drawing in the initial stages of her design pheno museum



The shard



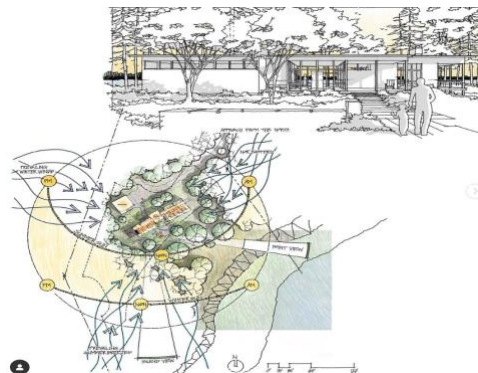
pheno museum



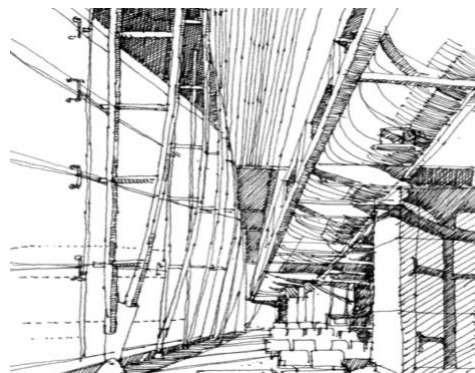
Final output the rendering definitely serves purpose they tell people what their building is going to look like to explain that why building should look like a certain way for that developing a drawing typology using visual language that people should already be familiar with. Building itself is an information center where people can go and educate themselves.

Watercolor done lots of those are in a way perfectly finished little pieces of art they're done after the architectural concept has been conceived. The watercolor and the black and whites they are pretty easy to read and most people should appreciate them but best way to explain an architectural idea is to really talk and draw at the same time people do not have to search for information within a drawing they just need to follow the pen

Client do commission the work and they do pay for that because client want to know what they're building is going to look like.



Ar. Russ Tyson watercolor rendering

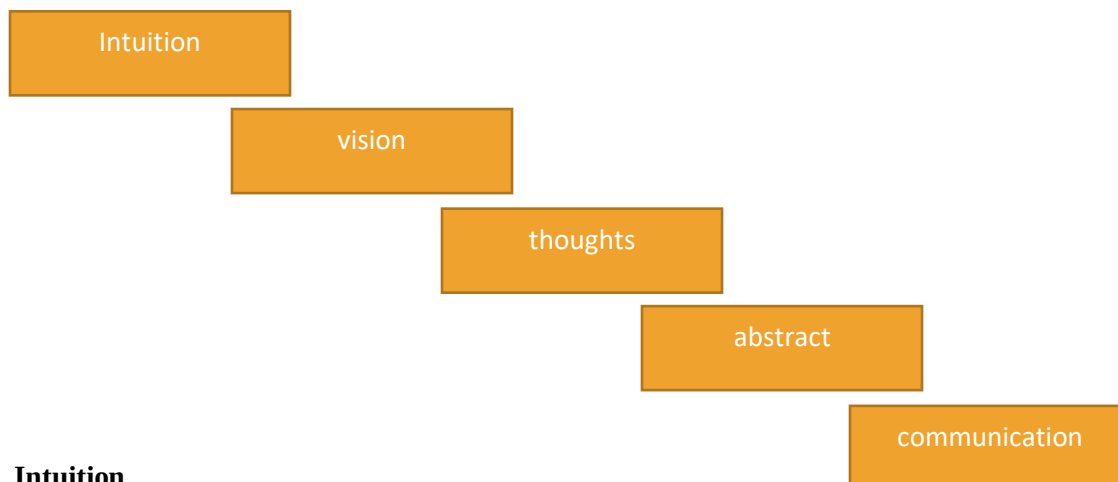


Ar. Carles Almedia ink pen rendering

How drawing can support your visual thinking.

Language is a way to think and get in touch with others well, and so is drawing.

We've put drawing into this dark corner of the art world. But drawing is not only about artistic excellence, drawing is a personal self expression or talent for that matter. Drawing is not about art. It is a way to think pictures like an architect does when he/she tries to imagine a new buildings, not only thinking in words but also thinking in picture. Think visually.



Intuition

When we want to get better at drawing, the first thing we might want to do is to improve the connection between our hands and our eyes. Where we can do little exercises, where we just fill a piece of paper with circle like bubble diagram to gradually fill up the space and exercise like these are physical workouts for our hands. So they might get a little tense now and then, but the stronger our hands become, the better we can control them to draw. Repetitive exercise like these also have a soothing effect on our minds. We have to focus intentionally on our visual sense. Bore them in the best sense of the word. They bore our restless thoughts and worries and make room for a more intuitive visual mindset and in this intuitive mindset, we can see beautiful things.

Vision

Seeing beauty is not that easy. The problem is there are just too many things. We can't see everything so we have to reduce the amount of information that we take in, and we try to see patterns and order or we also see less but for that design principles or element of design lines, volume, point, Harmony, which made easy to identify the attractive features of building. It's much easier just to recognise things around us instead of actually looking. We start observing how many leaves are on a trees or how it's branches are shaped, we start solving problem like walking by so don't run into trees . We actually have to look and discover the world around us. We situate ourselves in the world and try to visualise building in that area or because we pay such intense attention to what is around us, so it's became easy to solve those problems in your visualization. Because we don't find beauty, we make the world beautiful by paying attention.

Thoughts

The way how we see images has been shaped be evolution. Over millions of years, our surroundings have taught us how to perceive the world. Talking about lines like horizontal or landscaper seems to be stable and resting like the ground. Vertical lines or skyscrapers are perpendicular to horizontal line both these lines seems to relatively stable for us. Diagonal lines make us uneasy as it will stand up or tip over where visual foundation plays role. Step by step we build compositions of shapes compositions that means something.

Abstract

The core of creativity are ideas. Ideas as two thoughts or more that we have and that somehow magically combine in our heads and shape something new. First part of creative process where you try to come up

with as many ideas as possible, even the bad ones. Second part, when we narrow things down to find out a viable solutions, apply this way of visual thinking to all sorts of problems.

Communication

In the overall process, however other factors, which are not directly associated with the drafting itself, also play a significant role such as the communication of the architect with the public. In addition, the relationship between the drafting process and ethical issues are being dealt with. Language is important tool to communicate one problem with written words, for instance, is you have to go through them line by line, word by word to know what they say. It is hard for us to anchor words in our mind, these drawings have to be as original as our words. To communicate through drawing.

Potential for future use

Ar. Micheal Graves "architecture cannot divorce itself from drawing, no matter how impressive the technology gets drawing is not just the end product: they are part of the thought process of architectural design.

Hand sketching is more reliable .Hand drew impressed client. People admired it because they just didn't see it anymore. People would be surprised at the process of how the thought and idea get onto the paper.

Hand illustration

Hand drawing is lot more forgiving if you're working with undercooked design or concept that just do not have enough content. Good intuition on design easy to exercise creative judgement to make things believable. Early stage and we're developing ideas or to keep different options for clients which one works best. Doing it by sketches easy to create alternatives and choosing the best one, saving time and cost

Cost	Hand rendering can be cost effective option, as it does not require expensive digital or software.
Speed	Time saving allow me to be in a creative mode much faster because only focus on the storytelling part of the narrative not needing to worry about the technical stuff it hardly takes 5 to 7 hours
Effectiveness	Hand drawn rendering Little bit softer. Hand rendering present unique style to client which is out of ordinary compared to other renders which made them stand out even more.
Tactile	Hand drawing have a physical presence that can be appreciated. The tactile quality of the medium and textures created by hand add to visual interest of the artwork.

There are some limitations to hand sketching as well. Computer software does allow for elements to be placed easier, moved, and deleted in a much easier way than erasing and redrawing.

Difficult to start again	Difficult to modify or change after completion. This can be disadvantage when project requires various changes.
Limited medium	Medium to express the drawing are limited
precision	Difficult to achieve precise and accurate result, not just in terms of artistic sense, but technical also.
Hard to scale	Difficult for large scale or their working drawings.

Hand drawing has its advantages, it also has some disadvantages to be consider. Many architects and designer now use combination of digital and analog approach to overcome some of these limitations.

Machine has replaced hand drawing in the discipline of architectural presentations. Softwares are preferred or are more used over hand rendered drawings. Today, architects have the luxury of options-choosing which medium best expresses their designs. New trends tend to rise regularly which dispel our notion of what should be and pushes us to think outside of the box, like viewing Renaissance paintings with the help of newer technologies.

The transition from hand rendering to the use of softwares wasn't an easy one. The vast difference between the two mediums also possess a social challenge. Architects like Peter Cook or Michael Graves, who were used to the analog method and actually understood architecture through the analog medium, often faced difficulties with newer technologies and softwares. One also needs to have a financial privilege to have access to the digital method. Reasons like this is why the sudden transition wasn't fully effective.

New softwares and technology, though, weren't invented to displace the analog medium. They were introduced so that architecture presentations could get a mixed approach of digital and analog. The best of both worlds. Analog approach promises a unique and personal touch. While the digital approach makes sure of finer details and perfection. Architecture is a discipline where the public is consciously involved. So the need to have a presentation that appeals to the public is equally important as a good design. Integration of both these approaches' assures improved communication to the user.

The notion that the future of hand-rendering or analog approach is bleak is a false one. Humans are always going to want unique things, matters and mediums that catch our eye. And analog promises that. Rare things are always going to be in demand.

Science and art should be used hand in hand throughout the design process for a better end result. Which medium to utilize should be a free choice of the architect, not a compulsion. The belief or notion of 'what is better' only acts as a hindrance and deviates us from the principal objective- to create structures that are sensibly designed for the user and surroundings.

Conclusion

The idea of supporting the spoken word it's simple primitive hand drawing that can be applied to any professional field. So if you want to convey an idea with your word, you can help make it stick with an image or a drawing. Drawing lead other people through your personal expression to connect them and understand your general idea and for that to happen these drawi6have to be as original as our words.

These are just five ways intuition, vision, thoughts, abstract, communication how drawing can be support you thinking, it can ignite our intuition, make our life more beautiful, help us understand, imagine new things and share them with other.

Sketching is also suitable when there is an issue with the software sketching is open and quick to see if it is workable or worth doing on a computer no doubt that matter to get more precise and measured software is important.

The architectural drafting becomes an individual and subjective process of artistic creation. This process does not follow a linear course but represent an interaction between drawing and inspiration.

Architecture drawings result of drafting I.e. creative thinking, impact by different methods used for visualisation. The experimenting different mediums will undoubtedly win. The procedure of solution finding, for example, by means involvement of public strengthen architecture presentation and certainly bring many important change in future.

