The Role of Sketching in Design Process

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Abstract - Sketch is a quick impression of what we see and put down on paper. Sketches are primarily thought of as works of art; let us say documenting the process from idea to realization. In architectural design for architects, it is the integral part of their design. For designer the necessary tool helps to externalize concepts, explore the ideas and problem solving. This paper we can see that how pencil sketch is important for architect in design process.

*Key Words***:** Sketches, Digital Sketching tool, Architecture

1. INTRODUCTION

1.1 A Brief History of Drawing

Throughout human history, art and architecture have had a strong relationship. Art, like architecture, involves the construction of tangible forms to be experienced and appreciated by others. In Stone Age era, drawings made in caves and rock shelters. Where sharp stones used for prehistoric engraving.

Overall, the transition from ancient to modern times in art and architecture reflects broader cultural and social changes as well as the evolving beliefs and values of artists and architects.

2. STAGES IN ARCHITECTURAL DESIGN PROCESS-

2.1 .Preliminary Studies and Conceptual Sketches-

In architecture design, basic concept of the any project or a building is the important thing. In addition, for this architect have to draw several conceptual sketches. It is the initial thought process of the design, which is started in his mind. In addition, he put those conceptual thought of design on paper via sketch. Likewise, there are so many other drawings he have to make for completing the project. For example Sydeny Opera House project Ar. jorn ultzon makes some intial coneptual sketches for client. His concept while desingning is inspired by nature that is how the design from orange peel to 'shell' roof evolved. And he makes conceptual drawings of that
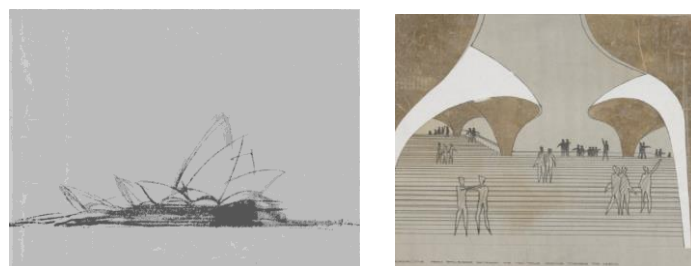

Fig -1: Figure
(Source- Utzon's initial sketch for the Sydney Opera House, published in the Red Book. From The Utzon Archives, Aalborg University Library, Denmark)

2.2 Working drawing –

After completing the basic concept, the architect should make working drawing of the project. It is the complete set of scale drawing, Electrical Drawings plumbing, etc. it consists all the drawing which builder needed to execution of the project. In early ages, it is the conventional method with the help of ink pens and papers. If the project is bigger in size these drawings are hand drafted which required time and in that case hand drafted working drawings are not a good option. It is in the twentieth century Experienced a shift from drawing on tracing paper to using printers and plotters on various

media. Architectural Drawings for making so many drawings architects use digital tools for this process.

The development of computers had a major impact on the methods used for technical design and manufacturing Drawings, making manual drawing almost obsolete and opening up new possibilities of form using organic shapes and complex geometry. Most drawings today are created using CAD Software.

3. BENEFITS OF SKETCHING-

Sketching is at the core of architectural design process. Architects use sketching as a way to explore multiple design options quickly and efficiently and identify those ideas that work, and as importantly, those that do not. The great thing about sketching is the freedom it affords. Because it is such a fluid medium, it allows us to reach deep into the well of creativity and explore possibilities without feeling constrained to any particular outcome. We can sketch fast as to study multiple options of designs.

Cognitive and Personal Benefits-

1. 1.Enhances Imagination and creativity
2. 2.Develops critical thinking and problem solving skills
3. Boosts memory and recall
4. Develops Hand – eye coordination and fine motor skills
5. .Builds confidence and self-esteem.

Design Benefits-

1. Quick exploration of ideas and concepts
2. Helps convey complex ideas simply
3. Enhances client's engagement and understanding.
4. Effective communication of design intent.

4. DIGITAL SKETCHING TOOL-

Nowadays, Architects were used Digital sketching tools for drafting and presentation like Auto – CAD for drafting and planning, Rhino, Revit and sketch up for 3D presentation.

These tools have some advantages as if it is cost effective as no material cost and no space required, we could use unlimited drafting options for drafting.

This tool have some limitations also like Dependency in technology, Lack of Physical touch and feel, Eye Strain etc.

5. DRAWING AND COMPUTER-

Digital visualization techniques play an important role in design - in access.

In professional practice, students are judged on their skills with these tools rather than their creativity or Ability to solve problems. This unfortunately fosters a misunderstanding of design as an aesthetic Gestures rather than intellectual, creative thought processes that help solve and drive problems Novelty Many people say that there is no difference between drawing with pencil and stick on paper in the sand, or using a finger on a digital surface. This paper is intended as a tool for underscore sketching (among other forms of prototyping).Systematic exploration that can support creative thinking processes

CONCLUSIONS-

The reason why we have to study the sketch is that it is better to use it. In today's increasing developed computer, digital technology the traditional style is gradually overwhelmed. Complex computing, which can be accomplished by sophisticated graphics computers, has no doubt its advantages.

But under no circumstances will the architectural sketch be replaced by digital technology. Therefore, some people say that professionals still need to look at the sketch. It is very reasonable and creative.

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