

Design Process & Design Thinking

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TWA Terminal; designed by Eero Saarinen, 1962

A Professional Design Process

As a professional designer you need to know what you are doing at every step in a design project. This does not mean that you need to know exactly what you *will be* creating, or designing, as ***design often unfolds as the project develops.***

What this means is that you need to be aware of, you need to understand, what you are doing, step by step, from beginning, through development, to the end of a project.

When beginning a design project the following steps may provide a useful sequential path that helps to understand and develop project proposals.

Hint: Do not just 'know' the following things, write them down in a presentable document that includes visual images (which could include your own sketches, photographs of the site, and/or precedents that you find interesting): that way you can prove, show, present, that you have explored and thought about these things: that is part of being a 'professional.'

1. Understand the site, location, of the project.

Geographic, cultural, governmental; urban, suburban, rural

Know everything reasonably possible about the existing, given conditions.

2. Research and develop an understanding of the client/user.

Who is the client?

What do they want, what do they like?

Is the client the actual 'user' of the project?

3. Study the program elements:

What is supposed to be designed?

What are you being asked to do?

4. Study the required presentation, deliverable, components:

What do you have to produce?

Drawings, models, samples, written specification?

5. Identify/select a point of view or a method (methodology) for your designing:

You are going to be creating visual, physical elements.

How do you create these kinds of things?

What does 'being creative' mean?

6. Coming up with one idea can often lead to the development/creation of several components.

An idea for a wall pattern MAY also be used as the basis of a light fixture, a flooring pattern, a reception desk, et cetera. By changing the size, or the color, or the material of your initial idea you can effectively 'create many objects/components from one. This is a very, very useful idea!

How are you going to 'create' the physical and visually interesting elements (the walls, ceilings, floors, built in components like reception desks, shelving units, et cetera) that will make the project distinctive?

Aligning your approach with a movement, such as Bio Mimicry, or Critical Regionalism, or Parametric design, can direct, limit, focus your approach to creating interior elements and to how you think about the project.

Your point of view could be 'Modernist', or 'De-Constructivist' or 'eclectic'.

Your design work could be vigorously geometric, or gridded, or color driven, or curvilinear, or ...

What you design should express a point of view, (your point of view!) an idea, a philosophy, and/or some character. If you do not currently have a clear 'point of view' about design, ADOPT ONE and see how you like it. Be a Neo-Modernist designer, or a parametric designer, or a sustainable designer, et cetera. Try to make yourself have significant engagement with contemporary ideas.

Good design work is NOT bland, generic and dull.

Design Thinking

You may have heard of 'design thinking.' This is a widely referenced approach to creative working and can be applied to nearly any discipline, from interior design to astro physics to mechanical engineering.

This, below, is a good introduction to 'design thinking.' I have added my own comments to this article in **red** where I think clarification, or alternatives need to be mentioned.

What is Design Thinking and Why Is It So Popular?

by Rikke Friis Dam and Teo Yu Siang

What is Design Thinking?

Design Thinking is an iterative process (to be done repeatedly, over and over until satisfied with the resulting proposal or outcome: sometimes it takes many, many iterations to get to where you want to be!) in which we seek to understand the user, challenge assumptions, and redefine problems (many designers, myself included, do not think of design work as 'problem solving.' Rather we think of it as proposal generation. When we design something such as a table, or a room, we do so as a proposal for what might be a good thing to make, NOT as the answer to a problem. The world of design is about 'good, better, bad, worse' not 'right' or 'wrong.' You need to think about this distinction and decide for yourself how you see your work as a designer. I am not a 'problem solver'; I am a creative proposal maker!) in an attempt to identify alternative strategies and solutions that might not be instantly apparent with our initial level of understanding. At the same time, Design Thinking provides a solution-based approach to solving problems. (Again, many designers, myself included, think of design as creating proposals that address the stated 'needs' or desires of the client/user, rather than as problems that need 'solving.' Yes, this is a little bit of a 'semantic' word meaning discussion, but I deeply believe that designers create proposals that may, or may not, be adopted by their clients. I do not solve your

problems; I create a (hopefully) good way for you to experience your day in this space, with this table, et cetera.) It is a way of thinking and working as well as a collection of hands-on methods.

Design Thinking revolves around a deep interest in developing an understanding of the people for whom we're designing the products or services. It helps us observe and develop empathy with the target user. Design Thinking helps us in the process of questioning: questioning the problem, (the scenario, the need, or the desire of the client) questioning the assumptions, and questioning the implications. Design Thinking is extremely useful in tackling problems (scenarios, conditions) that are ill-defined or unknown, by re-framing the problem in human-centric ways, creating many ideas in brainstorming sessions, and adopting a hands-on approach in prototyping and testing. Design Thinking also involves ongoing experimentation: sketching, prototyping, testing, and trying out concepts and ideas.

Design Thinking's Phases

There are many variants of the Design Thinking process in use today, and they have from three to seven phases, stages, or modes. However, all variants of Design Thinking are very similar. All variants of Design Thinking embody the same principles, which were first described by Nobel Prize laureate Herbert Simon in *The Sciences of the Artificial* in 1969. Here, we will focus on the five-phase model proposed by the Hasso-Plattner Institute of Design at Stanford, which is also known as d.school. We've chosen d.school's approach because they're at the forefront of applying and teaching Design Thinking. The five phases of Design Thinking, according to d.school, are as follows:

- Empathise – with your users
- Define – your users' needs, their problem, (their scenario) and your insights
- Ideate – by challenging assumptions and creating ideas for innovative solutions (proposals!)

- Prototype – to start creating solutions (proposals!)
- Test – solutions (proposals! or options)

It is important to note that the five phases, stages, or modes are not always sequential. They do not have to follow any specific order and can often occur in parallel and repeat iteratively. Given that, you should not understand the phases as a hierarchical or step-by-step process. Instead, you should look at it as an overview of the modes or phases that contribute to an innovative project, rather than sequential steps.

As a design student, you should be pleased to tell people that “I make use of design thinking as a central aspect of how I work.” By employing design thinking you may become better, more effective, as a professional designing person! Really!