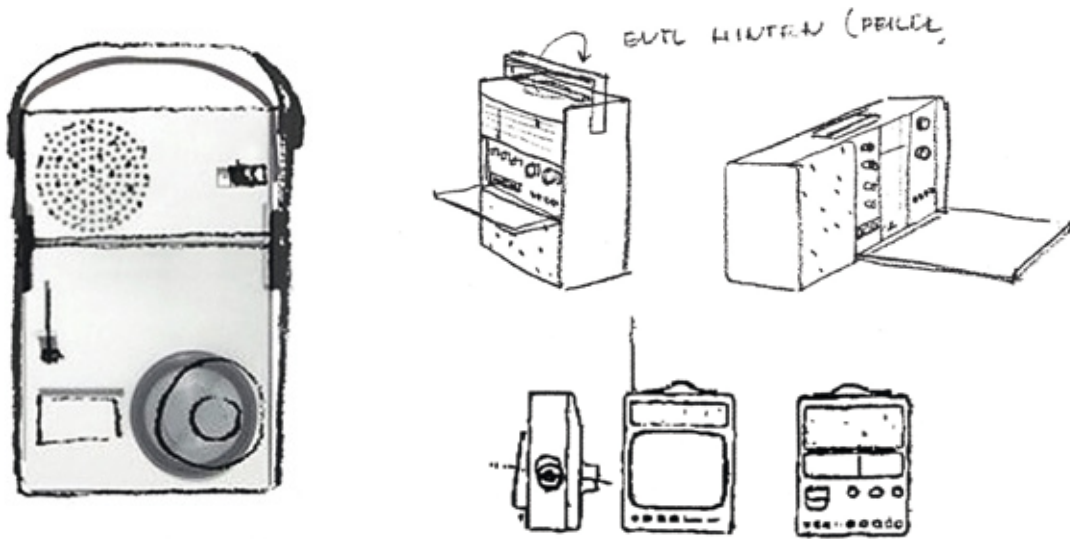
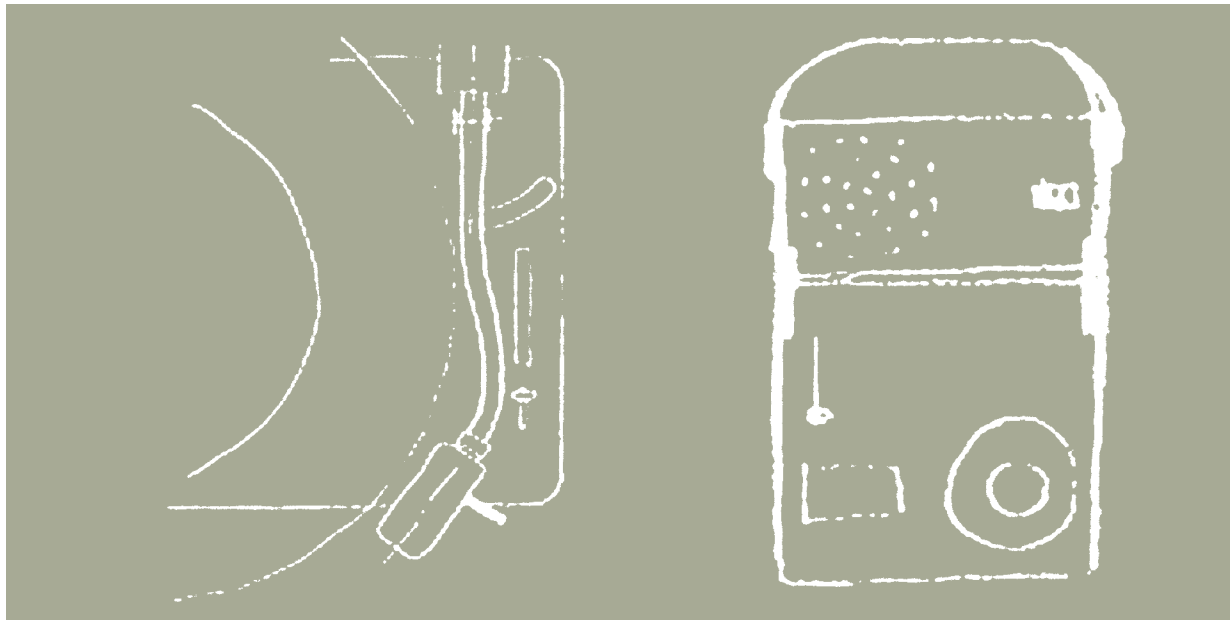
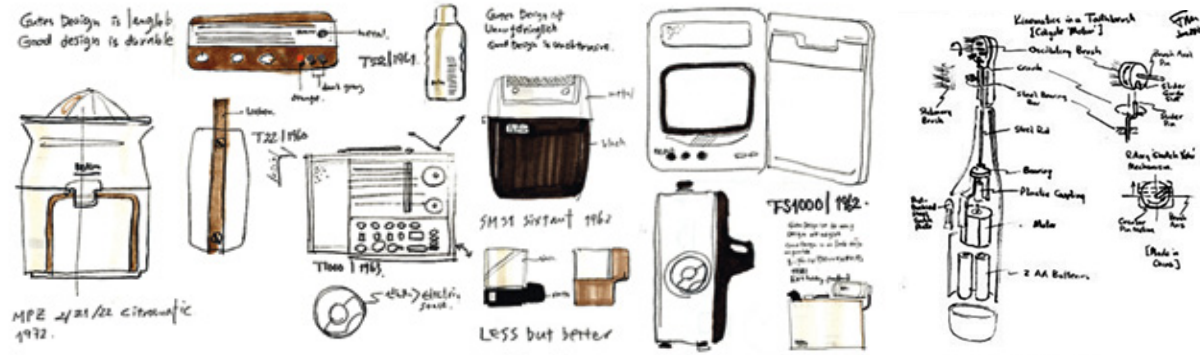


DESIGN DRAWING



Design drawings by Dieter Rams made for Braun Electronics

When can the method be used?

In the early phase of the design process, drawings tend to be simple: basic shapes or configurations, shading and casting shadows. These kinds of drawings incorporate the basic skills and rules of perspective, construction of 3D shapes, shading and constructing cast shadows. Colour is not always used and very often this kind of drawing will suffice for idea sketching or structural concepts.

When several ideas are combined to develop preliminary concepts, the designer has a general idea about the materials being used, the shape of the product, its function and how it will be manufactured. The colour and expression of the materials – for example matt or reflective plastic – become more important and the drawings become more elaborate.

Side-view sketching can be a quicker and easier way of making variations in shape, colour and details.

How to use the method?

Sketching can play a role in different phases of the design process.

Explorative drawing enables you to analyse visually and to generate and evaluate ideas throughout the entire product design cycle, particularly in the synthesis phase.

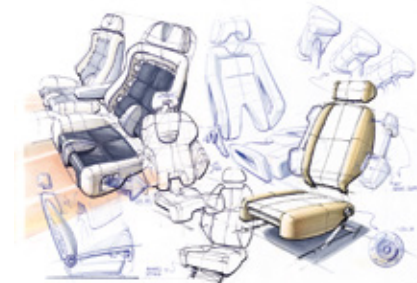
- Sketching can help you in analysing and exploring the perimeters of the problem definition.
- You can use drawings as a starting point for new ideas by means of association.
- Sketching can help you to explore shapes and their meaning, function and aesthetics.

Along with verbal explanations, you use drawings to interact and communicate with several groups of people who have different levels of understanding of professional jargon.

Design Drawing by hand is a versatile and powerful tool for both design exploration and communication. It is an integral part of the decision-making process, used in the early stages of design, in brainstorm sessions, in the phase of researching and exploring concepts and in presentation.

Limitations of the method

- You need to be a trained and experienced design drawer to be able to communicate your designs effectively.
- In some cases three-dimensional models will communicate your design more effectively than any drawing and make it easier to explain.



Tips & Concerns

- Define the purpose of your drawing.
- Make sure that you define the purpose of your drawing before you start sketching. Choose a drawing technique based on your purpose, time, skills and tools define the kind of drawing
- The significance of a drawing depends on the context in which it is made. A drawing serves its purpose when it is effective. Therefore, a certain phase in the design process may require a certain type of drawing. Since time is an issue, a quick sketch is in many cases preferable to a more time-consuming rendering.
- For generating and evaluating ideas, hand drawing is more versatile than CAD rendering and prototyping. A rendering can look very definite and unchangeable, which is not appropriate, for example, when you are still conferring with your client about design directions and possibilities.
- A brainstorm sketch can also easily be upgraded into a more presentable drawing, either on paper or digitally by using a tablet and software such as Adobe Photoshop or Corel Painter.
- Drawing by hand is also beneficial for the development of your visual perception, your imaginative capacities and perceptiveness of form in general.



REFERENCES & FURTHER READING: Eissen, J.J. and Steur, R.*, 2007. *Sketching: Drawing Techniques for Product Designers*. Amsterdam: BIS. / Eissen, J.J. and Steur, R.*, 2011. *Sketching: The Basics*. Amsterdam: BIS. / Eissen, J.J., Van Kuijk, E. and De Wolf, P.*, 1984. *Product Presentatietechnieken*. Delft: DUP. / Van den Herik, Y. and Eissen J.J.*, 2005. *Intuitive sketching: a new and explorative medium in generating ideas*. Congress CAID&CD Applications of digital techniques in industrial design engineering. May, pp. 708-713.