

Form Follows Function

Beauty in design results from purity of function.

The *form follows function* corollary is interpreted in one of two ways—as a description of beauty or a prescription for beauty. The descriptive interpretation is that beauty results from purity of function and the absence of ornamentation. The prescriptive interpretation is that aesthetic considerations in design should be secondary to functional considerations. The corollary was adopted and popularized by modernist architects in the early 20th century, and has since been adopted by designers in a variety of disciplines.¹

The *descriptive* interpretation—i.e., that beauty results from purity of function—was originally based on the belief that form follows function in nature. However, this belief is false, since function follows form in nature if it follows anything at all. Evolution by natural selection transmits *no intention* from one generation to the next; genetic patterns are simply passed on and it is left to each organism to find use of the form that they have inherited. Despite this, functional aspects of a design are less subjective than aesthetic aspects and, therefore, functional criteria represent a more objective aesthetic than alternative approaches. The result is designs that are more timeless and enduring, but also frequently perceived by general audiences as simple and uninteresting.²

The *prescriptive* interpretation—i.e., that aesthetic considerations in design should be secondary to functional considerations—was likely derived from the descriptive interpretation. The use of *form follows function* as a prescription or design guideline is problematic in that it focuses the designer on the wrong question. The question should not be, “What aspects of form should be omitted or traded for function?” but rather, “What aspects of the design are critical to success?” These success criteria, not a blind allegiance to form or function, should drive design specifications and decisions. When time and resources are limited, design tradeoffs should be based on what does the least harm to the probability of success, however *success* is defined. In certain circumstances, aesthetic considerations will be compromised, and in others, functional considerations will be compromised. The determining factor? Whatever best serves the need.

Use the descriptive interpretation of *form follows function* as an aesthetic guide, but do not apply the prescriptive interpretation as a strict design rule. When making design decisions, focus on the relative importance of all aspects of the design—form and function—in light of the success criteria.

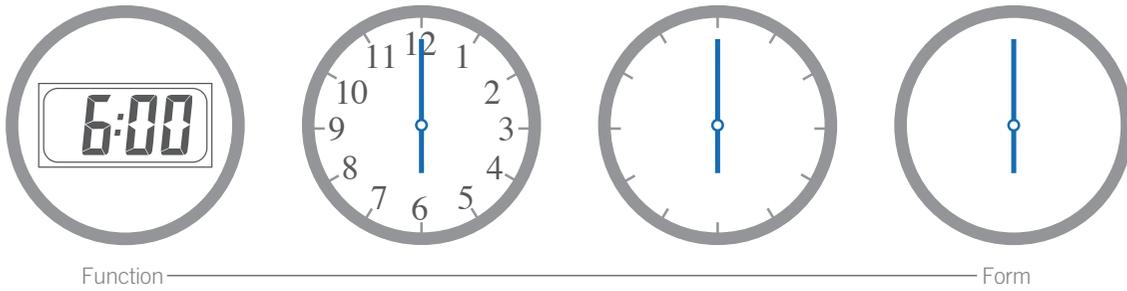
See also Aesthetic-Usability Effect, Design by Committee, Exposure Effect, and Ockham’s Razor.

¹ The origin of the concept is attributed to the 18th century Jesuit monk Carlo Lodoli. His theories on architecture likely influenced later designers like Horatio Greenough and Louis Sullivan who then articulated the concept in popular form. The seminal works on *form follows function* are “The Tall Office Building Artistically Considered” by Louis H. Sullivan, *Lippincott’s Magazine*, March 1896; and *Form Follows Fiasco: Why Modern Architecture Hasn’t Worked* by Peter Blake, Little, Brown, and Company, 1977.

² The tendency of general audiences to resist the *new* is a function of their familiarity with the *old*. It often takes several generations to erode population biases sufficiently such that the merits of a new design can be objectively considered.

Defining success criteria is essential to good design. For example, if the success criteria for a watch are defined in terms of speed and accuracy, the digital display is superior. If the success criteria are defined in terms of pure aesthetics, the minimalist analog display is superior (the pure function of

the digital display has not yet translated to a popular aesthetic for general audiences). In all cases, the success criteria should direct design decisions and trade-offs, and should be the primary consideration in determining the specifications for a design.



Perhaps no purer functional form exists than the original Humvee. Born out of military specifications, the success of the Humvee in combat led to the commercial successors—Hummer H1 and H2. Each represents a unique and compelling aesthetic that results from purity of function and minimal ornamentation.