Inspiring design ideas with texts

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A design is said to be as successful as the leading idea that drives it is. Mature designers make frequent use of 'stock ideas' accumulated over time and stored in memory and personal archives. Novices do not yet possess developed collections of sources that can be tapped. In this study it was hypothesized that stimuli in the form of texts presented to student-designers along with a design problem, would improve the quality of their design solution. Results show that text-stimuli yield designs that receive higher originality grades compared to a no-stimulus condition, but practicality is not affected. We propose that textual stimuli may be useful as part of the design process and as a pedagogical tool in the design studio.

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Design products of the tangible kind such as objects or buildings are said to be designed on the basis of a 'design concept', which is an idea that drives many of the major preliminary design decisions. Such a concept may be arrived at by using a clear set of constraints and objectives as a starting point, as in Darke's (1979) 'primary generator'. But often the search for ideas is rather free and intuitive, wherein a promising idea may present itself through an associative process (Davies & Talbot, 1987). Where do such major design ideas spring from? Are they inferable from the givens of the design problem itself? This is almost never the case, and designers know it and are aware of the fact that more information must be obtained and incorporated into the problem space in order to be able to form an initial design concept. Successful concepts are those that fuel innovative and creative products, and are therefore of such value in design (and in other fields) that organizations and individuals are willing to exert considerable efforts in order to secure them. The demand has given rise to a host of methods and techniques for the elicitation of new ideas, in the hope of arriving at greater creativity. Some of the better known methods developed specifically for design, mostly in engineering, are Gallery (vanGundy, 1988) and C-Sketch (e.g., Higgins, 1994; vanGundy, 1988); for partial overviews see for example Shah and Smith (2003) and McFadzean (1998). However, substantial criticism of such methods has been voiced since we still lack a sound theoretical basis and

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empirical evidence that would allow us to understand the effects of the use of such methods (e.g., Linsey, Green, Murphy, & Wood, 2005; van der Lugt, 2001; Perttula, 2006).

Since seemingly unrelated information is often brought into the design space in order to stretch it and increase the probability of new solution opportunities, a question we must ask is: what kind of information can or should be 'imported' into the process in order to trigger ideas? There is anecdotal evidence that designers store, physically or in memory, visual images that they consider potentially helpful as sources for future design ideas. That is, images, when elicited at the appropriate moment, may be helpful. For example, fashion designers prepare 'inspiration boards' to demonstrate how they come to think of their concepts (e.g., Eckert & Stacy, 2000). Le Corbusier had an archive of newspaper clippings and other images, and kept found objects in his office, from which he occasionally drew items that elicited design ideas (Curtis, 1986). Keller (2005), Keller, Visser, van der Lugt, and Jan (2009) have proposed a digital equivalent of the traditional 'Cabinet' in which treasured objects of inspiration are stored for future reference. The design consultancy IDEO in Palo Alto keeps a collection of objects acquired by its members because they were deemed 'intriguing' (personal knowledge). Denys Lasdun (1976) generalized in saying:

> "In the course of creation an architect may receive inspiration from a large number of sources from works of the past and the present and from right outside architecture. He must have something to work on; he is certainly no less creative if he spreads his net wide and has an eye that remembers." (p 107).

William Curtis (1986) commented about Le Corbusier's design process:

> "His mind was well stocked with ideas, devices, configurations and images gleaned form tradition, from painting, from observation, and of course from his own earlier works… At the right moment images would flow to the surface where they would be caught, condensed and exteriorized as sketches." (p 11).

What these examples have in common is the visual nature of the inspiring sources that designers capture, store and surface as per need, when in search for ideas in a new design task. Design research has demonstrated empirically that exposure to visual stimuli at the conceptual search phase in designing, with or without instructions to make use of such stimuli, has a positive effect on idea generation in terms of the judged creativity of preliminary solutions (e.g., Casakin & Goldschmidt, 2000; Goldschmidt & Smolkov, 2006). There are also many specific anecdotal accounts of 'imported' concepts that, represented visually, had an impact on new designs. In many cases the source serves as a metaphor or analogy for the target design (for example, computer icon design, such as the 'recycle bin').