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Many researchers agree that finding design solutions based on lived experiences aids designers in the process of giving a specific form to function (Cross, 2011; Daley, 1984; Jones, 1984), yet there has been little research to support the use of narratives from designers' lives. Lived experiences are critical for generating design ideas, and the intuitive and subjective aspects of thought are also influential in the process, hence this academic research investigates whether the use of narratives – i.e. stories which include one or more characters and a chain of events – could help designers to work more effectively when generating product form.

The design process begins with the ideation phase, which requires a high level of creativity, followed by the visualization of product form. This is an immensely personal procedure through which designers seek and develop new concepts to clarify and extend their ideas. A designers' own background and subjective experiences shapes their individual interpretations. Its use lies in the fact that feelings lie at the heart of design. The premise of this research is that narratives help to manifest these feelings into tangible form, while instilling meaning into the design process. This is based on the idea that narratives enable us to more richly understand complex forms and hence more richly express what we mean. With the help of narratives, design can bring out a meaningful whole, a form that is coherent, complete and comprehensible.

Designers often conceive the product form intuitively at first, rationalizing it only afterwards. Constructing narratives prior may allow designers to make sense of their instincts and personal experiences more easily. Narratives encourage reflective thinking about design and provide insight into how designers' experiences and values influence the final choice of product form. When one embeds their narrative experience in the form of an object, such an object becomes part of the self – and usually these objects are considered to be the most original and unique artifacts.

The research first focuses on the works and product visualization methods of nine practicing designers. Through the one-on-one meetings with the designers, it was revealed that first-hand exposure to people, places, and objects is of key importance for designers. While Ettore Sottsass, Clare Brass, Massimo Morozzi and Constantine Boym have built on the impressions they received during their travels, for Giovanni Levanti his childhood – which was spent in Sicily – seemed to be an important source of inspiration. Literature and poetry have also proved to provide motivation for new designs – especially for Sottsass and Alessandro Mendini.

Moreover, Morozzi highlighted the close relationship between design and literature by claiming that "design is a sort of fiction." While Andrea Branzi and Gaetano Pesce point to the importance of intuition, moods, and impulses, Francesco Binfare believes in the power of dreams and epiphanies in design –in fact, this is how his Flap sofa came to life. All in all, the nine designers all heavily relied on personal experiences as well as narratives, even though they emphasized different aspects of these sources of inspiration.

This stage was followed by a survey of practicing designers from different parts of the world. Seventy –two designers' narratives were collected and analyzed. The participants were selected on the basis of developing objects for their everyday living for a minimum of five years, and have at least one of the products they designed be on the market. The designers were either part of a large corporate design studio or had their own professional practice. Collecting data through observation, survey, and informal interviews became the framework for implementing narrative into product design to enable concept/form visualization both in practice and design education.

As the second stage of the research, seven workshops were conducted. In the first three workshops, the participants – design students – were encouraged to use personal experiences and childhood memories as the basis for the design. Even though the three workshops focused on producing different objects (a cube, a container, and a lamp, respectively), the outcomes turned out to be consistent throughout the three different tasks: personal experiences and memories helped the students create more fun and creative objects with real contextual richness. The students' imagination seemed to analyze and organize their ideas and thoughts as well as the rational structures of the objects until a good fit was obtained between information and intention. This was supported by the fourth workshop in which three practicing designers were asked to design objects based on their personal experiences and utilizing specific colors. All three designers agreed that images combining their experiences with things associated with each color were helpful in the process of creating more original solutions.

During workshops 5, 6 and 7, comparative studies were conducted to demonstrate that narratives based on personal experiences do help designers come up with more interesting objects. In all three cases the participants were divided into two groups; one group was only given a design brief of the task, while the other group was encouraged not to stick to the design brief but build on their personal experiences or their cultural background. During all three

workshops, participants in the second group expressed that they found that the personal elements made their job easier, and the products designed by these participants were more novel, colorful, youthful, creative, and original and they reflected contextual richness and meaning.

Even if aesthetic judgment cannot easily be determined by scientific methods, and aesthetic qualities cannot be directly measured (Naukkarinen, 2004), a reliable method of assessment was needed to prove that the research findings were valid. By investigating previous studies (Sibley, 1959; Mugge, Govers & Schoormans, 2004; Ortiz Nicolas, 2014; Blijlevens et al., 2017) and asking design students to list the twenty most important qualities of designed artifacts, a list of the 24 most relevant adjectives was shortlisted. This list was then reduced to nine qualities of which nine pairs of opposite characteristics were formed (clean/messy, delicate/rough, desire/disgust, dynamic/static, elegant/not elegant, formal/casual, strong/weak, surprising/boring, varied/monotonous). These pairs became the basis for evaluation.

Using the nine opposite pairs, artifacts made by designers introduced in the fieldwork stage as well as products designed by participants of the second and third workshops, were assessed by practicing designers and design students. As the results reflected high reliability values for both items collected during the fieldwork and items designed during the workshops, some general observations can be made. The results supported the premise of the thesis, as the evaluators found artifacts designed with narratives more meaningful, coherent and elegant – all three of which are key factors when making choices about which objects are aesthetically and functionally superior.

The participants – students and practicing designers alike – acknowledged the merits of using narratives during the design process. They agreed that it was a valuable framework to stimulate creativity and a helpful model to discover possible forms of expressions and, possibly, a new language. Most of them also pointed out that a personal connection to the designed object lends a unique layer of meaning to the finished product. To sum up, most of the participants liked the output and were keen on using narratives in their work.

The workshops and the subsequent evaluation proved that narratives helped the participants in planning and navigating the design process. This narrative schema facilitated their discovery that design is not set apart from daily life but springs forth from the visual impressions of their experiences. Based on these findings, this thesis proposes a three-step narrative process of

"share," "recollect," and "visualize." This process encourages designers to first share – i.e. narrate – a personal experience, then recollect the emotions the given experience evokes in them and, finally, visualize the experience in the form of sketches. Sketches and drawings help to organize thoughts and to dig deeper. As a result of the three-step narrative framework, the design process, which often starts with ambiguity and anxiety on the designers' part, can lead to wonderfully unique solutions. Product form visualized with the help of personal narratives is aesthetically more appealing – stronger, more dynamic, varied and surprising – than designs that come out of a functional brief without any personal narrative. The narrative seems to be the condition that guarantees the unity of the object and, at the same time, gives the object its structure by connecting and merging lines, colors, and shapes of the experience into a new form.

The research uncovered several aspects of narratives that call for further clarification and study. An interesting issue mentioned by several participants in different phases of the research focuses on whether other people – including the future users of the objects – can really relate to products born from the highly personal experiences and memories of designers. Another important question is how the three-step narrative framework could be integrated with other constraints and considerations of the design process, for example materials, manufacturing, sustainability, and engineering.

Although some details of the real-life use of the method will need to be investigated and clarified in the future, it is evident that the method has clear implications for design education. Teaching design students to use narratives as part of their concept generation, particularly in the early stages of design when concepts are ambiguous, can lead to new interpretations, novel products, and a more personal connection with the work process.