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# Artful Surfaces in Design Practices

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**Figure 1:** A shared workspace full of artful surfaces.

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**Abstract**

A largely overlooked aspect of innovative design practices is how workplace surfaces play a role in supporting designers' everyday work. In this paper we introduce the idea of *artful surfaces*. Artful surfaces (Figure 1) are full of informative, inspirational and creative artefacts that help designers accomplish their everyday design practices. The way these surfaces are created and used could provide information about how designers work. We identify four types of artful surfaces: personal, shared, project-specific and live surfaces; and describe them using examples.

**Keywords**

Design practice, ethnography, artful surface, artefacts

**ACM Classification Keywords**

H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

**Introduction**

Design practices encompass countless activities, techniques and use of material and digital tools. One of the important but largely overlooked aspects of designers' everyday practices is how their workplace surfaces play a role in supporting their work. Their desks, office walls, clipboards and drawing boards are full of informative, inspirational and creative artefacts such as, handmade sketches, drawings, posters, post-it



**Figure 2:** An extreme use of artful surfaces at a designer's private desk.

notes and so on (Figure 1). These artefacts have instrumental as well as inspirational functions. Workplace surfaces are not just the carriers of information but importantly they are sites of methodic design practices [3]. Surfaces offer resources for social, organizational and individual activities that designers routinely encounter and use on an everyday basis [2].

In this paper we introduce the idea of *artful surfaces* – surfaces that designers create in order to help their everyday way of working. The importance here is on the creative ways by which designers externalize their work-related details on different workplace surfaces. From 8-months of ethnographic fieldwork in two academic departments of industrial design (using methods such as naturalistic observations and contextual interviews with designers and students), we develop a simple classification of artful surfaces: personal, shared, project-specific and live surfaces. These surfaces are not mutually exclusive. It is only for analytical purpose we categorized them in this way. Using examples from the field, we illustrate what these surfaces are like and how they are used.

## Artful Surfaces

### 1. Personal Surfaces

Personal surfaces are created and utilized by individual designers. These surfaces can be in a vertical or horizontal form, or as a mix of both. These surfaces are incorporated into office desks, walls, private whiteboards, and other individually owned places. The artefacts associated with these surfaces are design sketches, ongoing project-related information, physical models and prototypes, as well as other inspirational and personal information. As we observed, the arrangement of these surfaces was diverse. Figure 2

shows an extreme example of personal surfaces full of different material artefacts. These artefacts have different sets of functionalities ranging from reminder, occasional communications with colleagues, time management, to individual project management. These surfaces are generally used for a long-term basis. But the arrangement of different artefacts on personal surfaces differs in their lifetime.

Personal surfaces are used not only for organizing and accounting for different design projects, they are also used for developing new ideas, inspiration and to support creative thinking. The spatiality and portability allowed by these surfaces help designers' creative and innovative thinking. Additionally, we also discovered subjective purposes behind using these personal surfaces to express a designer's social identity, personal history and experiences. In one case, a designer organized his office wall by sticking artefacts ranging from inspirational sources to information about successful projects – representing a portfolio-type appearance summarizing the designer's interests and achievements. This was an example of creating and displaying social identity. Although we saw some examples of horizontal personal surfaces, designers often preferred and used vertical surfaces. This kind of orientation allowed others to have a quick look at different artefacts on these surfaces and provided ease of communication to "bystanders" while discussing specific design issues.

### 2. Shared Surfaces

In the two industrial design departments that we studied, we observed that many surfaces were specifically created and shared amongst a group of co-located design students (Figure 3). The main purpose



**Figure 3:** A shared wall, full of sketches, design ideas and other informational artefacts with an added layer of post-it notes and other annotations.

of creating and using these kinds of surfaces was to share resources and information amongst a relevant group of people. Here, the surface itself was shared but not necessarily the informational and inspirational artefacts on it. However, there were a few examples of jointly owned artefacts on these shared surfaces. These shared surfaces were created and used over a long period of time.

In our study, we observed that the most used shared surfaces were large notice board, clipboard, and physical walls within the design studio. They carried both informational and inspirational design artefacts. Typical candidates were informative artefacts such as design sketches, scenarios, use-cases, visual design principles, amongst other things. And inspirational artefacts such as posters, magazine clips and related material were also used. Importantly, paper-based sketches have an inherent nature of sharability. For example, as shown by Baskinger [1], two-dimensional design sketches are useful not only to develop a design idea, they are also used for recording, envisioning, and narrating ideas, sharing and reflecting both at individual level as well as social levels.

As an example of shared surfaces, Figure 3 shows a part of a shared notice board cluttered with different artefacts that was shared between 3-4 design students. Since these surfaces are used by multiple people for different purposes, they require some form of formal organization. Figure 3 also shows different labeling and patterning schemes in order to allow clear understanding of the information. It shows colored post-it notes indicating categories of the artefacts. This type of shared surface can be used in a multilayered way and their portability help in (re)arranging artefacts



**Figure 4:** A project-specific surface.

attached them. Overall, we observed that the public visibility and their availability in common physical spaces allowed the design students concerned to easily discuss and manipulate the contents incorporated in these shared surfaces.

### 3. Project-specific Surfaces

These types of surfaces are created by a team of designers or design students when they work on a collaborative project. The organization, placement and interaction with these surfaces depend on the kind of project that designers are working on. The surfaces are developed using movable whiteboards, wooden walls, tables, and other similar placeholders. These surfaces hold artefacts that are relevant to a specific project. Informational artefacts related to project definition, project schedule, to-do list, division of work, design concepts and sketches and so on are normally seen on these surfaces. During the course of a project the contents of these surfaces emerge or change, through a collaborative process. Figure 4 shows an example of a project-specific surface made of soft wood (created for temporary purposes). It carries artefacts such as a detailed project schedule, initial sketches, related literature information and possible design concepts.

Functions of project-specific surfaces are largely productivity-focused. Time-management, scheduling, work progress and division of workload are the most important functions of these surfaces. A normal time line of this kind of surface is the duration of the project (in the case of the students observed: 2 to 6 months). During the project, these surfaces allow a team to organize, manage and reflect on their work in an effortless, visual manner. The informational artefacts that are attached to these surfaces are used both in



**Figure 5:** A live surface.

synchronous and asynchronous manner. During a group meeting, for example, designers can easily refer to or demonstrate particular design phenomena by showing or pointing to specific artefacts. On the other hand, these surfaces allow individual members of a team to leave traces of their actions when not all members are present. In both cases, these types of artful surfaces serve as a mediator of social coordination.

#### 4. Live Surfaces

Live surfaces are the short-lived, temporary surfaces that designers develop and use during their real-time collaborative group activities such as brain-storming. These surfaces provide a platform for designers' creative thinking and innovative design methods. These surfaces are very short-lived and last only until a particular brain-storming or other specific design session finishes. The differentiating aspect of live surfaces from the other types of surfaces is that live surfaces are constantly built and changed by a group of designers in synchronous, co-located collaborative sessions. These surfaces may be either vertical or horizontal. Designers use artefacts such as large paper sheets, post-it notes, physical models and prototypes and iteratively make changes to the contents and physical arrangement of these surfaces. Live surfaces effortlessly help in discussing two or three-dimensional design artefacts. As can be seen in Figure 5, a live surface allows real-time collaboration between a co-located design team and involves the use of creative and inspirational artefacts. Figure 5 shows the use of both horizontal and vertical surfaces. In this specific case, designers are trying to generate possible keywords individually on a horizontal plane (table) and after discussing these they create a new vertical surface with post-it notes to make a reformed category.

## Conclusions

It has been frequently suggested within the HCI field that material artefacts – that populate the workspace ecology, need to be taken into account for understanding group work [4]. Designers' working surfaces are important for supporting their everyday design work, communication in a design team and with colleagues, and play an important role in performance and creativity. The ethnographic study allowed us to understand the set-up, orientations, time-lines and related functions of these artful surfaces. We illustrate the dual nature of these surfaces. On the one hand these surfaces help designers to organize their work and be accountable for it, using to-do lists, time-tables and work-division charts, for example. On the other hand, surfaces also have an inspirational role as they allow designers to create their social identity, collect inspirational, personal and creative sources of information.

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