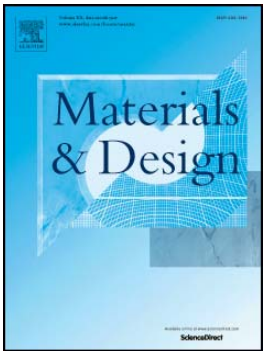

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DIY Materials

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Highlights:
· DIY materials are proposed to offer new aesthetic expressions grounded on imperfect aesthetic qualities that show the existence of an alchemists (i.e. designers) manual labour and craftsmanship
· 27 cases of DIY material are grouped into two categories: new DIY materials, and new DIY identities for conventional materials.
· DIY Material practices contribute to material innovation bringing together the aspects of design, science and technology

Abstract

The democratization of personal fabrication technologies in parallel to the rising desire of individuals for personalizing their products offers great opportunities to experiment with advanced, distributed and shared production processes as well as design new materials. In this article, we introduce the notion of Do-It-Yourself (DIY) Materials, which are created through individual or collective self-production practices, often by techniques and processes of the designer's own invention. They can be totally new materials, modified, or further developed versions of existing materials. In order to provide an operational vocabulary to discuss DIY materials, we have collected 27 DIY material cases developed in the last five years. We group the collected cases under two main categories: (1) DIY new materials: which focus on creative material ingredients (e.g. a material made of dried, blended waste citrus peel combined with natural binders); and (2) DIY new identities for conventional materials: which focus on new production techniques, giving new expressions to existing materials (i.e. they do not necessarily contain new ingredients, such as 3D printed metal). Grounded on the commonalities of collected cases, we discuss the design opportunities, including new aesthetic impressions offered through DIY material design practices.

Keywords: ***DIY materials, self-production, imperfection, personalisation***

1. Introduction

Materials in everyday artefacts are embodied in products mainly through mass production. This will not change in the near future. However, in the past decade, parallel to the advancements in mass production technologies, another approach has emerged, bringing a new dimension to the relationship