Type
Object

Barbara Brownie

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Printed in China

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collection of contemporary
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possible by the extension of the letterform
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1 Introduction

When typography is removed from the confines of the page, it can be transformed from a flat sign into an object. This object is capable of more than just linguistic signification. It has tangible properties that cannot be replicated in the visual environments of the page or screen; it has weight, volume and surface properties; it may be manhandled or navigated around. Typographic objects are more than just three-dimensional type. They explore the connections between type and other objects through interaction and duality, extending our understanding of the letterform, its appearance, and its function.

In its most common incarnation, the typographic form is a printed, written or drawn sign on a flat surface. Studies of typography deal primarily with the letter as a flat sign rather than an object, and in so doing, make a number of assumptions. The first of these is that letterforms are front-facing. Other objects may have many alternative surfaces, each with a different appearance. A person, for example, is just as familiar when we approach his or her profile as when we approach his or her face. In contrast, we recognize a letter only by the shape of its silhouette. A letter viewed from the side is not recognizable as a letter, rather an abstract object. Since letterforms have been conceived (or designed) as flat signs with 'no intrinsic third dimension' [1], they have not developed distinct or recognizable side-surfaces that can reveal their identity. This has left designers of three-dimensional letterforms free to imagine the surfaces of their objects in varied and interesting ways.

Secondly, letterforms are often assumed to signify something beyond themselves. They are expected to communicate linguistically; to be read. In recent studies of typography, it has been established that typography may be simultaneously pictorial and linguistic [2]. Letterforms can therefore perform two signifying functions at once, perhaps communicating one message pictorially, and another linguistically. Three-dimensional letterforms can extend this duality further, to the extent that it is not only a signifier, but also an object in itself. On the page, printed typography can only signify ideas, events or objects beyond itself. As an object, a letterform can become the thing it signifies. It can perform the function or action that it describes.

Despite these historically held assumptions, there is evidence of the typographic object in artifacts dating back many centuries. Even on the flat page, typography has long demonstrated the potential to be presented as three-dimensional. Massin's compendium of *Letter and Image* identifies alphabets from as early as the ninth century which depict objects manipulated into the form of letters [3]. The subjects of these illustrations are familiar to readers as tangible objects: animals and people who are commonly depicted and encountered in physical space. When printing began to replace lettering, typefaces continued to be depicted as having three-dimensional form. Wooden type presented an illusory third dimension at least as early as the 1750s [4]. The restrictions of moveable type printing processes may not allow characters to overlap as if in three-dimensional space, but nineteenth century typographic illustrations established the notion of the page as 'environmental' space, which may contain three-dimensional typographic objects [5]. Shadows were depicted below letters to suggest that they were objects resting on a surface, or shading was added to the sides of strokes to suggest that letters had depth.
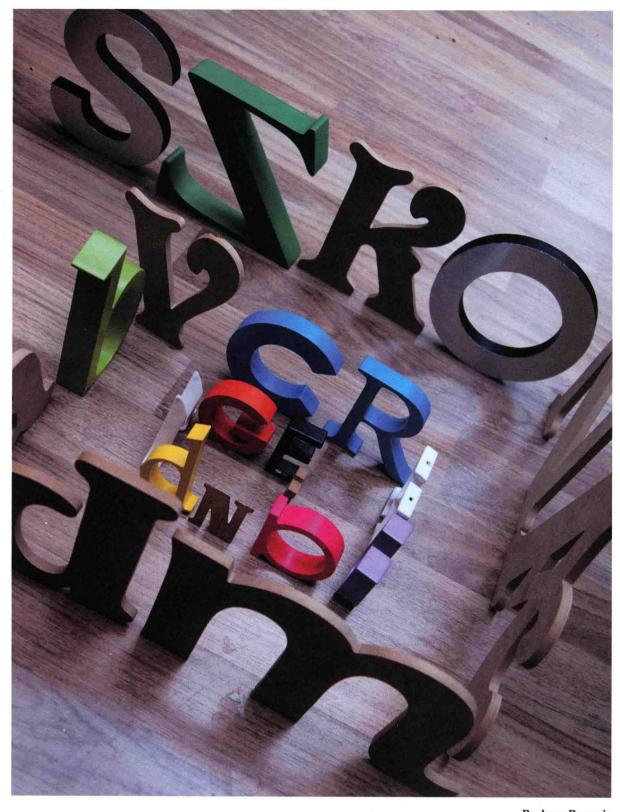
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Letter Objects
2009

Alongside this history of illusory three-dimensional letterforms, there is a parallel history of the typographic object. Gutenburg's printing press was designed with the intention of producing printed pages, but in order to do this Gutenburg had to create metal type. Metal type is simultaneously type and object, with letterforms extruded from one end, albeit in mirror image. It's purpose is to create printed letters elewhere (on a page), but it is also capable of linguitic signification itself (without ever having touched a page). Likewise a wooden printing block is carved so that a letter extrudes from its surface, and may be read directly even though this is not its primary intended function. Gemma O'Brien's *TypeGun* (below) reveals that metal and wooden type may also be used as the bui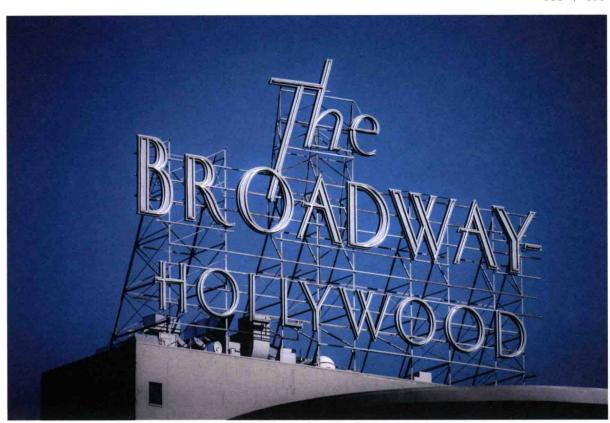lding blocks for other objects. Here, a model of a gun is constructed from a collection of printing blocks. Significantly, the letters do not merely decorate the surface of the model. Instead, they *are* the model; so integrated into its construction that they contribute to its physical form.

Storefront signage is another historically established application of three-dimensional letters. In signage, letters are removed from the page, becoming tangible objects. Initially, signs were painted on flat surfaces, but before long letters were individually cut. Those letters cut from thick materials had depth, as if they were extruded. Examples remain today, including the signage for *The Broadway Hollywood* (top right). After the introduction of neon lamps in the 1900s, it became possible for signage to be constructed entirely of neon tubes, or to contain neon lights. In Chris Elms' photograph of traditional *Pleasure Beach* signage (bottom right), letters can be seen to act as a container for light bulbs.
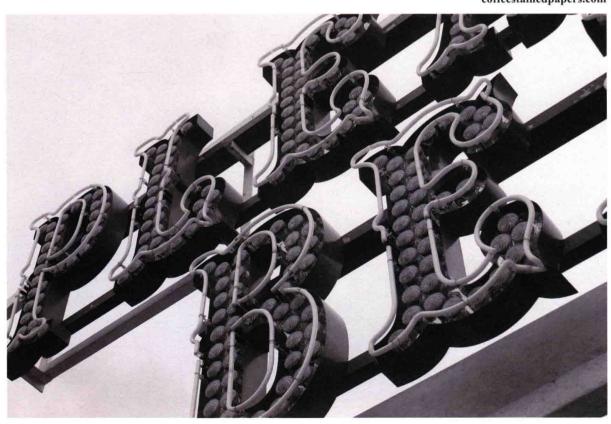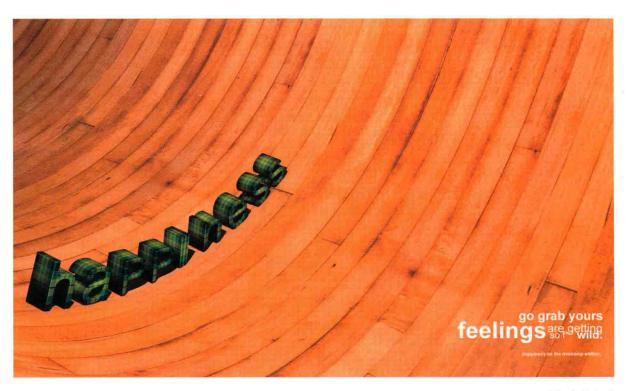
Corey Miller
Broadway Hollywood
2010

Chris Elms
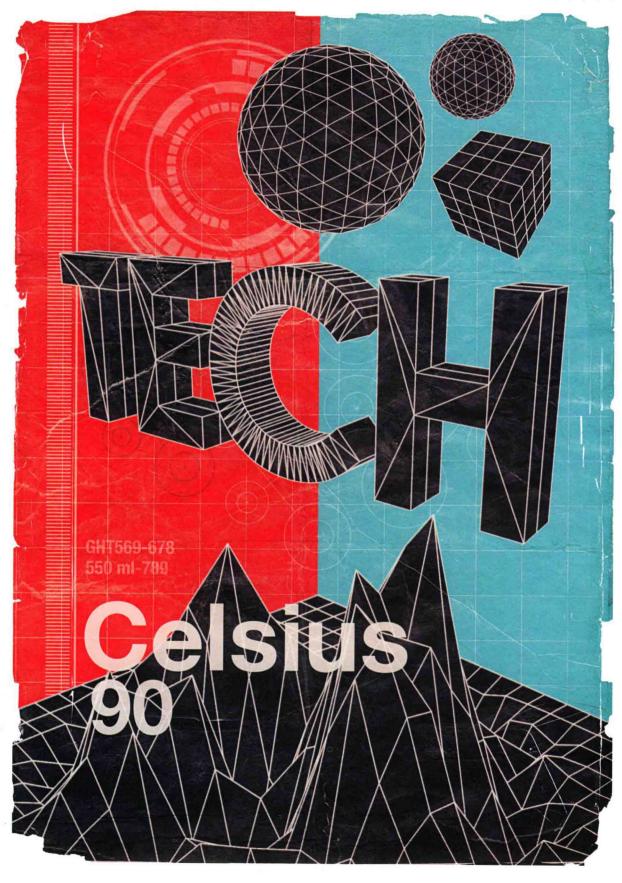Signage
2010
coffeestainedpapers.com

In the digital age, it has become possible to accurately replicate the appearance of reality. Like the flat surface of paper, the flat screen of a computer may be imagined as containing volume. Digital images such as *Happiness*, by Thaís Trizoli (above), present three-dimensional letterforms rendered with surface texture, and illuminated to replicate the light conditions of real-life environments. These virtual typographic objects take a vital step away from the construction of a letterform as it has been in print. Traditionally, a letter has been a composition of connected strokes. In virtual environments, three-dimensional letters are constructed instead from an arrangement of polygons, arranged at varying angles on all three axes. Letters are considered in terms of interpolation of splines rather than connection of strokes. This method is overt in Giampaolo Miraglia's *Celsius 90* (right). Miraglia's piece reveals one significant difference in the construction of written letters and

their three-dimensional virtual equivalents. In written form, the letters 'T', 'E' and 'H' are all complex, requiring multiple strokes, whereas a 'C' requires only a single stroke of the pen. Here, however, the situation is reversed. We can observe the complexity of a curved 'C', when reduced to polygons, compared to the simplicity of the straight lines of a 'T', 'E' or 'H'. The 'C' is constructed from many more polygons than are required to make the other letters.

Digital modelling allows the designer to create objects that imitate both the real-life environment and the properties of substances contained within it. Virtual three-dimensional typography is increasingly varied in its imitation of the properties of real-life materials. Imitation of the qualities of real objects, and their real-life behaviours, allows designers to further enhance the impression of reality. Alvin Mendoza's *Shatter Type* (overleaf)

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