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### **Something new, something old, something borrowed: Web pages and visual culture**

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Web aesthetics are a central, yet surprisingly little researched field of contemporary visual culture. Scholars investigating the cultural implications and aesthetics of digital imaging have largely focused on digital photography, special effects, computer games, computer animation, and, in the 1990s, CD-ROMs. With the exception of usability studies and design, the Internet has been studied largely in terms of textual communication and linguistic features in fields such as media and communication studies. It is fair to claim that the intermedial and multimodal aspects of Web content have not been a major preoccupation in either studies of visual culture or Internet research (Pauwells, 2005). This is noteworthy, given that the Web has become an increasingly visual medium since the launch of the first graphic browser, Mosaic, in 1993, and that the cultural visibility and importance of the Web as an information and communication medium has since increased considerably.

This chapter considers the visual aspects of Web interfaces in relation to discussions on digital imaging, as shaped by mid-1990s debates on digital photography, in an attempt to sketch out some central features of their visual rhetoric. In what follows, I consider Web

pages in the framework of visual media culture, that is, histories of and visual practices that precede and run parallel to the development of Web interfaces, and cut across the history of media technology. While Web design is a young profession and Web aesthetics have only a brief history, they appear less novel when considered in the context of visual practices spanning from print graphics and cartoons to animation, digital imaging, photography, cinematography, and television. The chapter begins with a general discussion of Web site visuality and considers the ways in which it connects (or fails to connect) to debates regarding the meanings and definitions of the analogue and the digital (or, “old” and “new” media), which have tended to dominate discussions on digitization and visual imaging for well over a decade. Situating Web sites into the traditions of graphic arts and existing genres of visual interpretation, I argue for the importance of contextual understanding of Web aesthetics and their visual rhetoric that accounts for the development of the Web as a visual medium and its connections to media history.

### **Novel visual forms**

Since 1993, Web pages have been characterized by the use of rectangular graphic elements (tables, frames, menus, fields, bars) that repeat the overall form of the computer screen.

Whilst site design has since adopted softer shapes (such as rounded corners), rectangular shapes and fields still largely dominate the visual structure of Web interfaces. Other visual characteristics have included animation (banners, Flash, animated GIFs, Java applets), the use of background colors and wallpapers to structure the page and to separate different parts and

elements from one another, as well as the wide use of photographs, graphics, icons, and combinations of these. Although Web pages have historically relied mostly on text, they have also been graphic in a broader sense of the term: pages have flickered and twinkled with animation and motion effects, and attracted users' attention with colors, graphic shapes, and visual elements of all kinds. On individual pages, text, image, and ornament have often been difficult to tell apart.

Media theorist Siegfried Zielinski (1999, p. 291) has nevertheless considered the combinations of image, sound, text, and movement on Web sites as aesthetical reduction in which other modes of expression are subjected to the grammatical and mathematical order of text. This argument for the primacy of the textual in Web site design certainly has some ground in a historical perspective, given that the majority of Internet uses have been textual in nature (e-mail remains the most popular of uses, chat or database searches are primarily textual, and blogs and online magazines rely largely on the written word). The case is, however, much less certain today than in the late 1990s. As the World Wide Web and its graphic interfaces has been conceptually conflated with the Internet at large in discourses both popular and academic (the Internet being the overall term for a global system of millions of interconnected networks based packet switching, and the WWW being merely one of its many parts, in addition to file sharing, email, chat or online gaming), the boundaries of the textual and the visual are increasingly blurry when considering the aesthetic aspects of the medium. Furthermore, as forms of visual expression have diversified and grown more elaborate over the years, it is increasingly more difficult to argue for the dominance of the textual in site layout.

The expressive possibilities and accessibility of the Web have facilitated the transformation of the Internet to a ubiquitous communication and entertainment medium. The Internet was strongly privatized and commercialized in the early to mid-1990s, and “user-friendly” graphic interfaces were developed in order to attract wider groups of users as well as commercial interests of advertisers, retailers, various content and service providers. The graphic interface of Mosaic (and its later “offspring,” Netscape Navigator, Mozilla and Firefox, as well as competing browsers such as Microsoft Explorer, Safari, Opera, or Chrome) enabled the use of colors, hypertext links, and basic text layout (for example, aligning text left or right, or adjusting font size and color). In Jay David Bolter and Richard Grusin’s (1999) terms, this graphic turn opened the Web up for various “remediations.” Bolter and Grusin addressed the inter-connections between different media, their aesthetics, contents, representational conventions, and user experiences through the notion of remediation: newer media are compared to previous ones, explained and understood through them, newer technologies are used in older media, representational conventions of older media appear in newer ones and vice versa. It is through such a dialogue that new media are given form and that they become situated in broader discourses concerning media and culture (Tichi, 1990, pp. 3-7).

Bolter and Grusin (1999, p. 208) suggest that, “the ultimate ambition of the Web designer seems to be to integrate and absorb all other media.” In their phrasing, the Web becomes something of a gargantuan meta-medium that threatens to devour other media, while the Web designer becomes the intentional agent of such a takeover. If the Web is seen in this vein as the “ultimate medium” that integrates functions and aesthetics of all other media into its

browser interfaces, it becomes difficult to account for media specificity in terms of technological basis, expressive possibilities, or cultures of production and usage. Rather than absorbing all other media, the Web borrows from them, adopts familiar visual practices, communicational functions, and representational forms that become transformed into something different in the process. Web visuality is a form of *bricolage* in which visual elements are borrowed, appropriated, and combined in novel ways. All this results in its own idiosyncrasies.

Graphic Web interfaces enabled diverse remediation from dictionaries to photographs, newspapers, magazines, advertising, and marketing messages. During the latter part of the 1990s, graphic design was established as a central framework for Web page creation as graphic designers starting working on the new platform and Web design was established as a specific skill and profession (Kotamraju, 1999). According to Bolter and Grusin (1999, pp. 198-199), graphic designers brought “to the Web their obsession with visual perfection” and a need to “control the placement and color of every pixel on the user’s screen.” While it may not be entirely correct to identify design expertise as visual obsession, such orientation towards designed layouts and coordinated color and style schemes was certainly in clear contrast to previous text-based online cultures of experts and hackers. In these, user friendliness or visual pleasures were rather marginal objects of concern. (Abbate, 1999, pp. 195-200; Winston, 1998, p. 333; Bolter & Grusin, 1999, pp. 197-200.)

The introduction of graphic design principles to Web interfaces transformed ways of thinking about layout, usability, and expressive potential of the medium. It should nevertheless be

noted that the skill, definition, or even the term “Web design” did not come into being overnight. As Nalini Kotamraju (1999) has pointed out, site-design skills tended to be articulated in highly ambiguous terms in the mid-1990s and the term itself was not broadly used before 1997. All in all, site design expertise encompasses a considerably more fluid and broad set of skills than those concerning the visual (or graphic design). If Web design is understood as “the technical process of making Web sites,” then its areas of expertise include coding (as with HTML, XHTML, XML, CSS, or JavaScript), the creation of graphics, as well as the incorporation of media elements such as video, sound, or chat on the site (Kotamraju, 2002, p. 5). The profession of graphic design was slow to adapt to Web design and tended to look down to both the possibilities of Web as a design platform and to design professionals working in the field (Kotamraju, 2002, pp. 7, 10-11). Kotamraju explains graphic designers’ initial reluctance toward Web design through the juxtaposition of art and code: graphic designers emphasized their art and skill over the technical mastery of code or the aesthetic limitations set by HTML. In order to become Web designers, they needed to overcome this chasm and learn new skills. (Kotamraju, 2002, pp. 11-12.) This transition was also facilitated by the fact that the expressive possibilities of the medium widened as Dynamic HTML (DHTML) enabled interactive and animated page designs. As browser version upgrades started to support more features and functions, the technical horizons of possibility setting limits to that which could be visually achieved were continuously broadening.

The aesthetics of site design depend on the capacities of browsers to support file formats, plug-ins, and scripts. Transformations in these have been rapid, given the brief history of the Web as a medium. Newer browser versions also tend to efface memories of previous

applications. Kotamraju (1999, p. 467) has identified this as “time compression” characteristic to the Internet in general and ways of figuring Web design as a profession in particular:

“Digital technology permits the evidence of modifications to be written over, erased, replaced, and forgotten with ease, speed, and low cost.” Rapid changes in technology influence ways of remembering and forgetting experiences and histories of the Web as a medium. The Web designers Kotamraju interviewed had problems remembering the impact of technical changes that had occurred only a few months ago (Kotamraju, 1999, p. 468; see also Paasonen 2005, pp. 8-9). The same goes for memories of using the medium. For example, downloading and using the 1997 version of Netscape 4.0, today makes evident the transformations that have occurred in browser interface design, the possible solutions and experiences that it enables, as well as its potential experience of usage. Although the development from one browser version and upgrade to another seems smooth, going back makes evident the differences in both usability and the overall aesthetic environment. Thinking of Web site design in a historical perspective means acknowledging both the historicity and contingency of the medium (as well as the tendency to forget its history), and its connections to media culture and contemporary media landscape. Discussions concerning the visual aspects of site design are, by necessity, also ones involving technical solutions, hardware, and software development.

Netscape started to support frames, software plug-ins, animated GIFs, and Java applets in its 2.0 version of 1996. The enabling of sound, animation, and Web cameras also meant that the Web began to remediate video, television, animation, surveillance cameras, radio, and the telephone—gradually, and to varying degrees. Videos and movies began to open up in small “players” (either in separate windows or within the page); users could access home videos,

television news, concert videos, film trailers and “teasers,” or experimental video art if they were so inclined. In the late 1990s, Web cameras became something of a phenomenon with “camgirls” running their own cameras, porn producers launching their own services, and cameras recording the weather in cities around the world for the interested to observe (see Senft 2008). With their mosaic, static yet jerky stream of images, Web cameras remediated the “witnessing function” of surveillance cameras: they appeared to witness mundane events automatically, independent of visible human intervention or geographical distance, and repeated the objective format of surveillance cameras (some Web cameras eventually provided users with the possibility of choosing angle and focus). Web cameras also involved some of the accessibility and instantaneity of live television. These connections were heightened by the similarity of the television and computer screen (Manovich, 1995a), which created some unity on the level of viewing experience.

Web cameras were popular particularly in the mid and late 1990s that also saw the rise of reality television focusing on mundane events and so-called ordinary people performing in front of the cameras (O’Riordan, 2002, 53-54). The attraction of Web cameras has been associated with an illusion of transparency, independent of whether they depicted things taking place in urban space, a private apartment, or the cage of a pet rodent (Bolter & Grusin, 1999, pp. 203-208). The “stream” of Web cam images tended to be a far cry from 24 images per second (as used in cinema, for example). The image might refresh every minute or five minutes, or even every hour; the image quality may have been grainy, and there was generally no sound. Rather than simply or directly repeating the functions and aesthetics of surveillance cameras or television, Web cameras gave rise to a particular visual form that was often



accompanied by textual communications with the audience (Senft, 2008, 4-5). Web cameras have largely given way to more explicitly interactive communication practices, such as Skype or instant messaging (IM) using cameras together with sound and text.

Web interfaces have undergone considerable transformations during the past fifteen years to the degree that the medium has basically reinvented itself. Broadband connections and increasing hardware performance have enabled wider use of video, larger image files, multimedia, and elaborate visual interfaces. Contents familiar from other media have been shifted to, and shaped by online platforms, which have, for their part, been invested with some degree of hype (that was partially disturbed, but hardly effaced by the burst of the dot.com bubble in 2000). In the course of the 1990s, the Internet came to stand for new media in journalism, advertising, and research alike, while the Web came gradually to stand for the Internet. As representative of new and digital media, the Web and its possibilities were largely defined against older and analogue media, such as print or television. In such juxtapositions, the analogue “stands for the traditional mechanical and photochemical processes in production and reproduction; digital stands for electronics and the future” (Zielinski, 1999, p. 273). While binary conceptualizations such as new and old, digital and analogue, are obviously one effective means of structuring and categorizing the field of media, they come with some analytical limitations.

In studies of visual culture in the 1990s, digital images were associated with a cultural crisis concerning the truth-value of photographic imaging as well as a crisis of “faith” in photographic images as records of that which has been in a particular time and space. No such

debates really occurred in the context of digital sound or hypertext. (Lister, 1995; Elsaesser, 1998.) Drawing heavily on studies of photography and cinema, this discourse (also referred to as “post-photography”), worked to frame digitization as a metaphor for a cultural crisis. Rather than referring to any particular technology, digitization became a framework for discussing transformations in the production, distribution, and consumption of media, the status of the visual, as well as the relationships of visual representation, realism, and reality (Elsaesser, 1998).

### **Images to trust**

Images published on the Web are generally characterized by relatively low resolution. According to standard, browsers display image files as 72 pixels (or “dots”) per inch, while the resolution for print images is at least 300 dpi. Low resolution makes files relatively small in size and quicker to download. Whether the file in question is a digital photograph, drawing, or a graphic element (ball, ornamental stripe, or a text saved as an image file), it is in all likelihood a GIF, JPEG, BMP, or PNG file with a resolution of 72 dpi. As digital files, they consist of series of zeros and ones, the order of which can be altered with algorithms, and their appearance and size is open to virtually endless alteration.

Categorizing such image files as “photographs,” “drawings,” or “graphics” is a question of aesthetic categorization. These categorizations have no basis on the materiality of the images (since they are all electronic files), or the means of generating them (with a camera, by hand,

or by computer), but on frameworks of interpretation. Photorealism can be achieved by generating images with software or by merging photographs with graphics of drawings. The perennially popular software application PhotoShop provides various filters for modifying photographs toward more graphic appearance for example, with brush or pencil strokes, fresco, pallet knife, mezzotint, or mosaic filters. The ensuing images can be printed on canvas in resemblance of an oil painting, while photorealistic graphics can be printed on photo paper in order to maximize the desired visual effect.

With digitization, the boundaries between production and postproduction, shooting and editing have become blurred in photography and cinematography alike. Digitization has blurred conventional definitions of the photographic, given that things seen in photographs have not necessarily been generated with a camera (or let alone on film). Since the early 1990, the so-called post-photographic turn inspired debates over the loss of proof-value of photographic images, as theorized within semiotics. More precisely, digital imaging was seen to mark a break from the tradition of explaining the functions of photographs through Charles Sander Peirce's concepts of the icon and the index. According to Peirce (1991, pp. 181-183), icon is a sign that stands for its referent through likeness. Icons are representative, as in the classic example of passport photographs. Index, again, is a trace, a sign created by the presence of the signified (like footprints in the snow, or a photograph caught on film). Thomas Elsaesser (1998, p. 207) points out that "the indexicality of the trace is so bound up with the iconicity of the likeness that it has, in some ways, confused these categories." Indexicality has been the basis of photographs' status as evidence, marks and imprints, as images that record that which has taken place. As Roland Barthes (1983) rather poetically put

it, the

“photograph always carries its referent with itself, both affected by the same amorous or funeral immobility, at the very heart of the moving world: they have been glued together, limb by limb, like the condemned man and the corpse in certain tortures: or even like those pairs of fish (sharks, I think, according to Michelet) which navigate in convoy, as though united by an eternal coitus” (pp. 5-6).

William J. Mitchell (1998, p. 28) makes the point more prosaically: “photographs seem to bond image to referent with superglue.” If traditional photographs denote physical reality and refer indexically to that which has been, this is not the case with digital photographs. For Mitchell (1998, p. 4), the difference between digital and traditional photography “is grounded in fundamental physical characteristics that have logical and cultural consequences.” Mitchell identifies the blurring of the categories of mechanically produced and hand-made images as one of the most important consequences. Traditional photographs result from the mechanic movement of the camera’s shutter and photochemical processes involving film, chemicals, and photographic paper. Since digital images have far less certain origins, they oscillate between visual art, graphics, and photorealism (Mitchell 1998, p. 60). Critiquing Mitchell’s views, Lev Manovich (1995b) is particularly dubious of his basic distinction between mechanical and digital photography in which the former is seen as direct and truthful and the latter, due to its internal mutability, as disturbing and questioning the relations of the signifier and the signified.

Mechanically produced photographs have been manipulated and retouched throughout their history. Whilst merging several images, editing out elements or adding new ones has been made easier by digital imaging technologies, this does not mean that such practices are novel as such. Crossing the binary division of old and new, analogical and digital media technology, Manovich suggests rephrasing the question as one concerning two paradigms of visual culture: the one realistic, and the other connected to collage and montage that breaks up the spatiotemporal unity of the image. In Manovich's view, there has never been "a single dominant way of reading photography," and realistic photography has been only one tradition among many. Mitchell's study of post-photography, originally published as early as 1992, can be critiqued for foregrounding abstract reflections on the ontological status of photography while paying far less attention to the diverse uses of photographs, or the social and cultural conventions of making sense of them. Ways of understanding images as photorealistic (as truthful or lacking in truth-value) are underpinned by cultural codes and contexts of usage. Generalized arguments over the status and meaning of images based on their technological origins cannot account for their travels across different publishing platforms.

### **Paradigms for reading pictures**

Visual practices do not follow any neat techno-conceptual divisions of the analogue and the digital. As digital images are printed out as photographs and stored in albums, or when photographs are scanned and altered, ontological and epistemological questions concerning their truthfulness tend not to be ones of primary concern. In other words, the post-

photographic crisis discourse seems to have a random connection to the practices and experiences involving digital images. With Web visuals, it can be even claimed that image manipulation and modification are more the norm than the exception. Most images are altered in some ways before uploading—be this in terms of size, color balance, hue, file format, resolution, or cropping—without such modification challenging their status as photographic images. Claiming that all images published on the Web would be interpreted through the same semiotic codes since they are digital image files with the same resolution is obviously too weak an argument to be bothered with. Holiday snapshots published in blogs or photo sharing sites (the framework of amateur photography), news pictures in online newspapers (the framework of journalism), images in an online art gallery (the framework of visual art), home page of an institution (the framework of promotion and public relations), or an e-shopping site (the framework of advertising and commerce) belong to obviously different visual regimes. For example, in journalism, photographs are assumed to be authentic, non-manipulated (unless stated otherwise), and taken in the time and place stated in the caption (see Mitchell, 1998, pp. 218–222). Journalistic images illustrate new items and bear witness to current events whereas in the visual arts, fictitiousness and photorealism tend to be understood as aesthetic categories that shape ways of interpreting images. Addressing, reworking, and playing with these codes may well be the main focus of artistic work.

Amateur photography (so called “family snaps” and, to a far lesser degree, amateur video) has been one central arena of visual remediation from the personal home pages of the 1990s to contemporary social networking and photo sharing sites. Independent of their technologies of production, personal photographs present visual proximity in the sense of functioning as

records of everyday life, as a visual memory produced by and for one's self, friends and family. This set of images relies on indexicality and iconicity in terms of the people, events and places depicted, while also relying on an assumed textual innocence of amateur photography (Zimmermann, 1995, pp. xi–xii; Citron, 1999, p. 17; Kuhn, 1995, pp. 16-20, 42). Defined against its hierarchical opposite, the professional, amateur photographer or a hobbyist Web site designer is assumed to operate simpler versions of technical equipment and software and to work for the purpose of pleasure on her or his leisure (Zimmermann, 1995, p. 1). While the relation of the sign and the referent and the ability of media representations to convey reality have been widely questioned in discussions on digital imaging and post-photography, “the photographs we take ourselves are meant to tell the truth in a way which we would no longer expect of any publicly placed picture” (Slater, 1995, p. 145). Personal photographs used in blogs, personal home pages, social networking profiles, or personal ads carry historically formed codes of amateur photography that set limits to the play of the sign, the signifier, and the signified.

Assumptions concerning image manipulation or visual authenticity are clearly redrawn on commercial and promotional Web sites. Here, images are hardly assumed to be “direct” in the sense of conveying any particular realness. Product displays with co-ordinated colors and matching backgrounds, images of happily smiling model customers or friendly employees can by all means be read as indexical signs of things depicted. Considering the standard practice of image manipulation, this is far from certain, and hardly the most central of issues when investigating their meaning. Furthermore, this uncertainty spans from Web pages to printed and electronic (“analogue”) publicity texts and advertisements created by PR and advertising

agencies. Ways of looking at advertisements are structured by viewers' awareness of the fact that these images aim to influence them: to produce positive associations, to gain recipients' trust, interest, and ultimately a will to purchase. These appealing displays are in all likelihood read less as traces of reality than as representations standing in for and substituting reality—as texts that aim to produce a certain framing or impression of reality.

Such examples of personal and promotional photography, their adjoining codes and conventions of interpretation, make visible some of the problems inherent in generalized overviews on digital imaging as marking a cultural crisis. Furthermore, both promotional and personal (amateur) practices make evident the centrality of commercial cultures in digital imaging and visual culture. As Don Slater (1995) and Patricia Zimmermann (1995), among others, have pointed out, the history of so-called home media is a commercial one involving cameras, film, developing services, as well as guidebooks and special interest magazines providing amateur photographers with representational guidelines and aesthetic norms. With the Web, products and services catering to the hobbyist site designer have spanned from scanners and digital cameras to image manipulation software, guidebooks, site templates, hosting services, personalized domain names, and a range of publishing platforms.

### **Histories of the graphic**

The roots of digital imaging, computer technology and information networks all lie in U.S. military experiments and interests. The relations of military institutions and those developing



computer technology have often been symbiotic (Manovich, 1995a; Darley 1991). The first drum scanners for digitizing images were built in the 1950s. According to Andy Darley, until the late 1960s it was possible to identify two paradigms within digital imaging: engineering (with a technical focus) and modernism (focusing on experimental art) and the two often collaborated closely together. Funding for experimental projects combining engineering and artist practices was gradually cut as the entertainment industry and the media started to show increasing interest in digital imaging in the 1980s. With commercial exploration and application, visual experimentation shifted from the paradigm of modernist aesthetics to that of graphic design. According to Darley (1991), the nowadays widely used term *computer graphics* was only launched once the paradigm of graphic design took over, and as the possibilities of digital imaging were increasingly applied to commercial ends (as in television shows, advertising, music videos, or cinema). With computer graphics, graphic design became the key framework for discussing, conceptualizing, and developing technologies and skills related to digital imaging.

The framework of graphic design has been crucial for research and product development in digital imaging, and remains so in the context of Web design (after all, the Web is all about graphic interfaces, often created by designers). Web graphics refer to the overall page design and layout in which visual, textual, and variously animated elements are mixed together; to structural and thematic solutions; color schemes; the site's overall design functions and hyperlinks (see Kotamraju, 2002). As design elements, photographs are only one visual element among many others. This broader visual entity provides them with a new interpretative framework: not only the individual images but, far more centrally, the page and

site design provides users with interpretative guidelines. Lev Manovich (1995b) has addressed such use of photographs as *graphic elements among others* in the tradition of commercial photography and advertising. In advertising, the boundary—as well as differences—between images created by hand or by technical means are fundamentally blurred as photographs are merged with text, graphic elements, and other visual elements into an assemblage comprising a new graphic entity. Such use of images, whether digital or analogue, is based on the principles of collage (which Mitchell associates exclusively with digital imaging). For Manovich, there is in fact no such thing as “digital photography” but merely a tradition and continuum of *the graphic* that encompasses photography, graphics, analogue, and digital imaging technologies. Rather than pondering the crisis of photography related to digital imaging, Manovich’s suggestions point to a conceptual and theoretical shift towards analysis of graphic cultures cutting through various visual technologies and aesthetics, and disturbing any clear divisions between analogue and digital technologies. Animated GIFs provide one possible example of such histories and their reverberations within Web graphics.

In addition to singular, still images, Web sites feature a range of moving images from video to animated icons and banners, Shockwave and Flash animations. Small, looping, and often flashing, animated GIFs were the precursor to moving Web visuals. Initially used on all kinds of sites, animated GIFS became, in the course of the late 1990s, markers of amateurism that have been most generally used on personal home pages (and, more recently, in personal profiles on some social networking sites). Mailboxes opening and closing, stars twinkling, skulls winking, smileys, atoms, flames, and various moving objects from rotating disco balls to tornados or hourglasses have been used in sites hosted in different parts of the world. While

simple to make, animated GIFs tend to be downloaded from online galleries similarly to wallpapers or icons. Small and quick to load, they are used similarly to icons and clip art files: for attracting attention to the page's features (it tends to be common knowledge that a mailbox implies the possibility of sending e-mail, or that a man with a shovel implies the site being under construction), or for livening up otherwise static and text-based pages. Applets, small programs created with Java and supported by browsers since 1996, have been used especially for creating diverse motion effects in still images.

In terms of their visual style, animated GIFs resemble short comic strips, cartoons, clip art files, three-dimensional logos and text elements created with computer graphics. Considered in the context of visual culture, these animations connect to the traditions of animated film and moving graphics. In his study of animation film, Norman M. Klein (1998) discusses a continuum of *graphic narratives* developed since the 18th century, including cartoons and illustrations of late 19th century newspapers, 20th century traditions of caricature and visual narration, as well as animated film. Eadweard Muybridge's animal and human motion studies conducted since 1877 have been generally seen as precursors to cinematography, whereas according to Klein his contemporaries saw them as graphic narratives similar to optical gadgets and innovations of the time, such as zoetropes, thaumatropes, or phenakistoscopes. These devices used drawings in order to create an illusion of movement, and relied on visual simplification, surface, rhythm, repetition, and line, in doing so. Considered in this framework, animation is much less a sub-genre of cinema (based on techniques of photography) than a form of graphic narrative. Images for optical gadgets and animation film were made by well-established draftsmen and illustrators for whom these new "platforms"

were parallel, rather than representative of any paradigmatic shifts in visual representation. (Klein, 1998, pp. 3-7, pp. 12-14; Huhtamo, 1997, pp. 82-84; Huhtamo, 2000.)

Cinematography and photography are explicitly connected to the graphic already in terms of etymology. All three terms derive from the Greek word *graphikos*, concerning painting or drawing. The graphic continuum both precedes and exceeds the cinema. Like previous graphic innovations and gadgets, Thomas Alva Edison's early mutoscope pictures were based on repetition, looping images, and scenes. As cinema developed both aesthetically and technically, it became predominantly narrative in form. As Manovich (1995c, p. x) puts it, "Everything which characterized moving pictures before the twentieth century—the manual construction of images, loop actions, the discrete nature of space and movement—all of this was delegated to cinema's bastard relative, its supplement, its shadow—animation." Unlike cinema, animation (this bastard relative) continued to heighten and underline its artificiality and excess.

Online animations have not been predominantly occupied with narrative but connect more to the tradition of graphic narratives and their attractions of motion, transformation, and repetition. Cartoon characters and their characteristic gestures, such as Felix the Cat pacing back and forth lost in his thoughts, Snoopy sleeping on his doghouse, or Calvin and Hobbes wildly dancing, were easy to appropriate as animated GIFs. Like mutoscope films, phenacistoscope disks or zoetrope images, these animations loop and resemble animated cartoons that regularly involve characters defying gravity and metamorphosing in shape and form (Klein, 1998, pp. 22-23; also Huhtamo, 2000, p. 139; Huhtamo, 1997, pp. 85-86). With

Flash, animations have become increasingly graphic in the sense of foregrounding shapes, colors, patterns, their two-dimensional transformations, and collage over any “cinematic” or photorealistic effects.

### **More than film**

In 1999, the book *Website Graphics Now! Best of Global Site Design* addressed the (then novel) techniques of JavaScript, Flash, and Shockwave animation. Its preface stated that “what works for the movies, will work on the Web ... Tell a good story and we will listen. Make it look good and we will keep our eyes on it. And make it work well, so we don’t switch off before the Happy Ending” (Spiekermann, 1999, p. 5). In other words, the preface framed cinema as the penultimate goal of Web design, and a criterion of rich content. The formulation may seem odd in retrospect, given its emphasis on narrative and Hollywood aesthetics in the context of Web site design that has since developed into increasingly graphic direction in terms of visual display. Cinema, along with television, was the dominant medium of the 20th century that novel media have challenged, complemented, and converged with. Given this—as well as the convention of interpreting photorealism as conveying the real (Manovich, 1995b)—it is hardly surprising that the increasing use of moving image and audio online has been identified by some as technical and aesthetic “perfection.”

Since 1999, the increase in broadband connections, developments in computer and browser performance has certainly meant Web interfaces are becoming increasingly visual and

multimedia, but hardly cinematic. Rather, the development of site design points to a need to depart from cinema as a dominant framework for thinking about moving image culture—or let alone visual culture—and to redefine it more broadly in terms of the graphic. The abovementioned book has certainly not been the only instance of cinema being introduced as an aesthetic norm or template for making sense of visual culture. The discipline of cinema studies has tended to dominate ways of narrating the history of optical gadgets. Consequently, they have been defined as “pre-cinematic” and pinned down in a specific technological and aesthetic history, rather than investigated in historical context as developments and practices independent of, although preceding or parallel to, the development of cinema as a cultural form (Huhtamo, 2000). Similarly, online animations from Flash to machinima, or various forms of streaming media, point out the necessity of studying multimodal and intermedial contexts and connections without reducing the variety of visual practices to notion of “the cinematic.”

The “graphic continuum” approach for thinking about visual content online ties together the traditions of photography, painting, and graphics that are often understood as clearly separate or even opposing paradigms and fields of practice. Divisions have been made, for example, between the expressive paradigm of visual arts and the (photo)realistic or photographic mode of representation (Elsaesser, 1998, p. 205; Holland, 1991). The graphic continuum cuts through media history; it heightens the ties between various technical applications and their visual attractions, and considers continuity and variation without resorting to assumptions of automatic or fundamental rupture caused by the introduction of new technologies. Whereas scholars addressing the “crisis of the photographic”, such as Mitchell (1998) have focused on

the differences between the indexical, mechanically recorded photographs and digital (graphic) imaging, Manovich has aimed to recontextualize both forms of imaging as belonging to the category of the graphic. Such an approach seems fitting to considerations of Web site design in a historical context of visual practices. Seeing the field of the visual as structured by the graphic provides an alternative point of departure for thinking about site design. Rather than returning to notions of photorealism (and the adjunct debates concerning truth value in digital imaging, as waged since the mid-1990s), visual practices online need to be seen as fundamentally hybrid, multimodal, and as incorporating visual elements into new kinds of graphic assemblages. Such a perceptual shift also necessitates thinking beyond the juxtaposition of the analogue and the digital (or old and new media). Instead, the visual aspects of Web site design need to be considered in the framework of not just graphic design but equally that of a graphic continuum from print media to illustrations, animation, and collage.

### **It's not all the same**

The visual rhetoric of Web design involves intermedial and media historical connections, generic conventions, and codes of interpretation. Web sites are a central component of contemporary visual culture and their intermedial connections go several ways. These involve, for example, aesthetic affinities between Web graphics, flyers, and other forms of contemporary consumer graphics, or the use of menus, tables, and forms in book layout, television, or cinema. In the early 2000s, several television channels in my native country of

Finland introduced popular TV chats shown after the end of actual programming. Following the format of online chat, participants send SMS messages that appear on the screen (that becomes transformed into a televisual chat room) while occasional hosts or guests appear in a separate window next to the text field. Initially building on the aesthetic novelty of TV chat, such programming has since become standard. Remediations between Web and television concern not only the structure and feel of the interface but also uses of language and forms of communication—and these, of course, are difficult to tell apart.

Considering intermedial connections in a broader cultural context, it should be noted that popular media is fundamentally intermedial: same visual materials are distributed on film, television, and gaming as on online platforms or in print media. As Mikko Lehtonen (2001) has argued, digitization of media culture increases such intermediacy, the recycling and marketing of media contents, stories, and characters from one platform to another. All this necessitates accounting for the visual rhetoric of Web sites as something resulting from the circulation of visual elements across the field of media, and as involving bricolage through which these elements are transformed and set in new (technical, aesthetic, and interpretative) frameworks while still remaining recognizable themselves.

This chapter has investigated the visual aspects of Web design in relation to debates concerning the status and meaning of photographic imaging technologies, paradigms for interpreting images, as well as the possibilities of conceptualizing the history of visual technologies as one involving a continuum of the graphic. In an aim to situate Web graphics in the context of visual culture, I have addressed various representational forms and traditions



side by side without discussing their specific origins and by highlighting their tendency to intertwine in terms of practices of media production, usage, and modes of interpretation. This approach may, however, risk blocking media specificities and technological transformations from view—or even creating a falsely smooth narrative of progress from one media or distribution platform to another. While not one medium or visual practices related to it can be reduced to any other, neither should a medium be explained through or in terms of another (as has occasionally been the case with the uses of cinema as template for understanding other visual media). In other words, considerations of Web visuals in the framework of the graphic continuum need not lead to aesthetic, technological, or historical reduction of Web aesthetics to visual conventions already introduced and circulated in other media. Rather, I see that historical frames of interpretation as essential for a contextual understanding of how media develop, how they are made use of, and how they become situated within broader media culture.

The skill and profession of Web design is a recent one. As Nalini P. Kotamraju's studies (1999; 2002) point out, it came into being gradually after the launch of the graphic browsers and has functioned as an umbrella term for a variety of skills and tasks. Web design has not been the sole propriety of graphic designers and the field of site design is by definition broader than one concerning graphics. The introduction of templates and dynamic HTML shaped the Web radically as a visual environment in their emphasis on coordinated colors and the overall centrality of visual styles. Graphic interfaces are more explicitly about graphic design than they were a decade ago, but parallel to this development there exists a broad range of visual styles, genres, and practices ranging from hobbyist photo sharing sites to visual art

forums, modding (such as the modification of graphic game characters, settings, or objects), or amateur, semi-amateur and professional pornography delivered in virtually endless styles and formats. Although the Web has become an increasingly commercial and designed environment, it accommodates a diversity of visual practices that call for contextual approaches that do not block the surrounding media culture, its histories, institutions, or economies from view.

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