

# WIKI-tecture: Architecture, Value, and the Digital Age

DOUG JACKSON

California Polytechnic State University, San Luis Obispo

*The question of architecture's cultural value is foregrounded in its attempt to address the digital paradigm. Its efforts to respond to this new paradigm have to date focused primarily on the exploitation of new tools to produce new forms. Yet despite the formal novelty, the work itself fundamentally adheres to an old model of architectural production—a model that has lost its value as it has become increasingly irrelevant to an evolving digital-age culture. Instead, architecture needs to look more closely at the ways that digital technology has changed cultural practices and values in order to produce a fundamentally new kind of architecture that is culturally relevant.*

## INTRODUCTION: ARCHITECTURE AND VALUE IN THE DIGITAL AGE

The question that is most crucial to understanding architecture's position within society is perhaps the one least examined: what exactly does architecture *do* that is valued by contemporary society? Historically, the very things that were valued in architecture were precisely those aspects that distinguished it from other forms of design and from regular building and made it the paragon of cultural expression, such as its monumentality, expressiveness, longevity, and technological sophistication. But as society and culture have changed over time so to has architecture's status and its perceived value. The very traits that had once distinguished it as society's supreme artistic achievement have either diminished in value or have been usurped by other practices: the opportunity for long-lived monumental structures, for example, has generally dwindled while the number of architects has multiplied (resulting in a proliferation of lower-profile work), and its technological sophistication has

long been outmatched by engineering examples. More importantly, however, contemporary culture is so diverse and its interests so mercurial that the notion of a work of architecture as a lasting, monumental expression of a universal cultural value seems absurdly inappropriate.

This incongruity between culture and architecture's traditional mode of production has been particularly exacerbated by the manner in which digital technologies have changed contemporary culture. The origin of this gulf, however, is much older. The increasing ideological diversity and accelerated pace of cultural change that has become so problematic for monumentalized architectural expression is inextricably linked to the steady increase in and democratization of information, which in turn has followed the progress of communication technologies, including mechanical reproduction technologies. In fact, it is the historical trajectory from the printing press to the internet that frames the logarithmic explosion of ideological diversity and freedom of individual expression which is responsible for replacing the Classical "grand narrative" with the contemporary "marketplace of ideas"—a cultural environment that is not well suited to architecture's traditional mode of producing works of lasting, institutionalized formal expression. Rather, the quality that distinguishes the current digital age, that both justifies its consideration as a distinct paradigm and also proves the most problematic for architecture's traditional mode of production, is the altered relationship that individuals have to information—both in terms of its form and its direction of flow.

In the first case, once information has been digitized it essentially loses its form. Instead, the digital



Figure 1. This residence includes a movable mezzanine that can be rolled along the length of its main volume, and can be joined with a small street-facing balcony to make a larger indoor/outdoor space. (Jones, Partners: Architecture)

paradigm is distinguished by a higher value being placed on the information itself than on its particular embodiment.<sup>1</sup> This is in contrast to the era that Walter Benjamin scrutinized in his essay *The Work of Art in the Age of Mechanical Reproduction*, in which it was still reasonable to speak of the concept of an original work and its derivatives, and to speculate on differences in value between the two.<sup>2</sup> Today, rather, the notion of an original, preferred embodiment of this information is an idea that is essentially meaningless; information *content* now takes precedence over its form(at). Contemporary society instead values the ability to disseminate, update, and reformulate this content—all of which has been facilitated by the digitization of information.<sup>3</sup>

Consequently, the second significant distinction of the digital paradigm is the blurring of the boundary that had previously always been assumed to exist between the author of a work of art and its audience. While the flexibility of web browsers has long allowed individuals to personalize the information they receive through filtering (and now more automatically through the use of RSS feed aggregators), this process of selection is not endemic to the digital age, but is rather an exercise in freedom of choice occasioned by a proliferation of information and the resulting competition—dynamics that significantly predate digital

technologies. What the digitization of information allows, however, is for the form of information to be deconstructed, and for the same content to be manipulated, augmented, and reconstituted in another form altogether. Coupled with the proliferation of software and the availability of access to the internet, the digital era has witnessed the unilateral flow of information from author to audience being supplanted by a multilateral flow. In particular, the introduction of open-source and open-content<sup>4</sup> databases—such as Wikipedia—has allowed individuals to easily become authors through creating and editing information for consumption by others. So, while Benjamin ruminated on the loss of the aura, the digital paradigm suggests the loss of the individual author.

However, since architecture has historically been heavily invested in the production of original, immutable works by a single author (the architect), the digital paradigm presents a particular problem: it has given rise to a culture that expects and values the customization, creation, and reformulation of content—which traditional architectural space can not satisfy.

In fact, architecture is already losing its ability to sustain the attention of today's wired and mobile society. Devices such as iPhones and laptops now

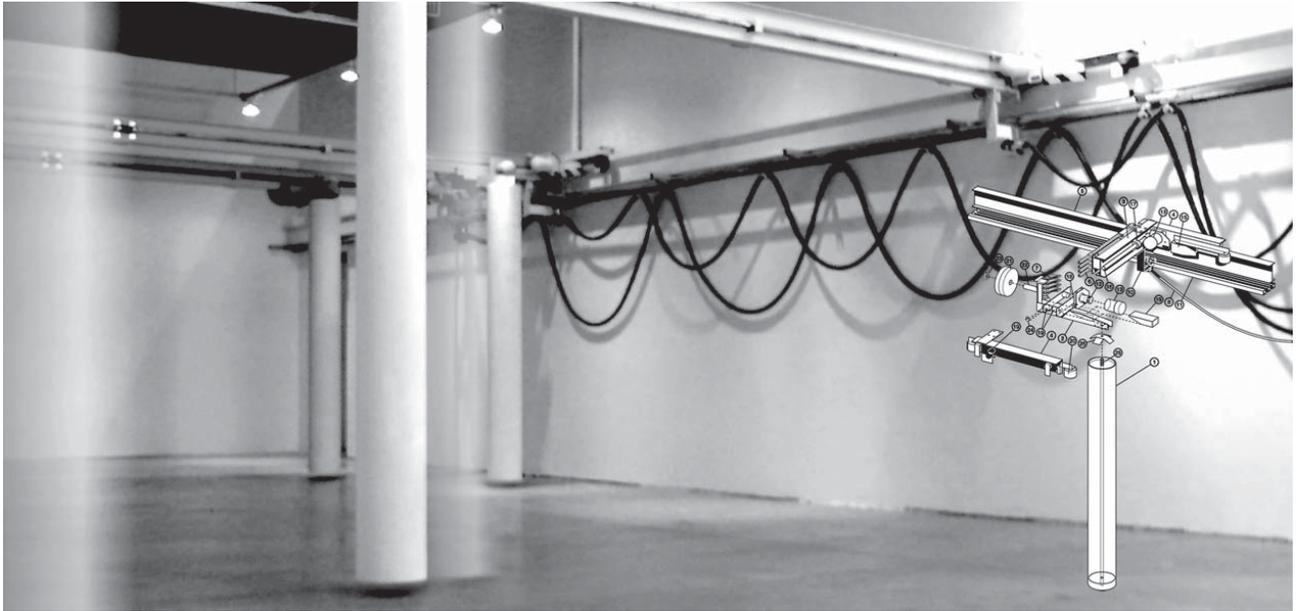


Figure 2. This installation tests a system for reconfigurable architectural space-making elements. In this case, three columns can be repositioned in order to create different spatial relationships. (Jones, Partners: Architecture)

permit individuals to become authors of their own immediate environmental experience. And while these experiences are not as profound or robust as architecture is capable of producing, they are often more engrossing to the individuals in question. Consequently, in terms of engagement they trump the physical environment which, lacking any means to be tuned or otherwise manipulated, is quickly relegated to an inconsequential backdrop—regardless of any attempts to ingratiate itself through formal exuberance or novelty.

However, is it possible to re-imagine architecture so that it could resonate with contemporary culture? Can architecture re-establish a broad cultural value by examining the way in which the digital paradigm has altered cultural values, and produce work congruent with these values?

#### WIKI-TECTURE<sup>5</sup>: THE OPEN-CONTENT MODEL

Such a strategy for re-establishing value to the physical spaces that architecture produces could be achieved through the development of techniques that allow them to produce architectural affect (or “content”) through manipulation and customization by their occupants. In this way architecture would create environments that were more *open-content* in nature, enlisting individuals as agents for their

continual re-creation through the manipulation of their physical elements.

This approach is in stark contrast to architecture’s prevailing attempt to address the digital paradigm, which has so far been limited to the adoption of more sophisticated digital tools (primarily software) and the production of certain forms that showcase these tools. This approach, despite its focus on the exploitation of novel technology, is actually the continuation of a long-standing, traditional mode of architectural production—one characterized by the technical mastery of material and craft for the production of material or technical spectacle (such as an arch, or a dramatic cantilever, or a continuously varied form), rather than conveying a meaningful idea. As such, the emergent, folded, and biomorphic formalisms that serve as architecture’s current attempt to engage the digital paradigm are, in fact, the most recent examples of a long lineage of architectural production that include numerous pre-digital precedents of material or technological bravura, such as the early and late modernist exploitation of reinforced concrete to produce extreme cantilevers (eg. Frank Lloyd Wright’s *Fallingwater*) and fluid forms (eg. Eero Saarinen’s *TWA Terminal*). This mode of production, however, is one that can only produce monumental but otherwise meaningless form for a digital-age

culture that instead values fluidity, mobility, change, and individual expression and control. Even if such form is seen as *metaphorical* of fluidity and change, such a metaphor only sets architecture up for a devastating comparison—showcasing its actual stasis and permanence, and thereby underscoring its irrelevance.

What architecture needs instead is a new paradigm, not just a new aesthetic based on the old model of static, metaphorical expression. In particular, it needs to re-understand its relationship to culture. Architecture is, after all, a cultural enterprise, a disciplined practice that employs a variety of techniques to produce forms and spaces that are socially and culturally significant. Consequently, the question for architecture ought to be: how has the advent of the digital/information age altered society and culture, and how therefore can architecture meaningfully respond to these changes in the realization of its works?

The most obvious cultural change, as noted above, is in the way that society relates to information, or to authored content in general. The popularity of open-content websites such as wikis, blogs, and online forums or chatrooms that allow or encourage authored content by their users is a barometer of the degree to which society values such partici-

pation, and the degree to which individuals associate such digital technologies with the ability to both be expressive and to manipulate or tune their relationships with others. Recent studies focusing on teens are particularly telling. A 2005 study, for example, showed that one half of all teens were internet *content creators*, meaning that they “created or worked on a blog or webpage, shared original creative content, or remixed content that they found online into a new creation.” This study further asserted that “teens and adults alike have embraced the ability to gather, chop, blend, and re-blend content to create new expressive materials,” and that “younger Americans have grown up in a world of media forms that allow them to participate in the production as well as consumption of content.”<sup>6</sup> And although this study emphasizes a trend in the teen population, an earlier study demonstrated that of those who currently create content for the internet, nearly half are between the ages of 30 and 49, which indicates that this cultural dynamic is already a demographically broad one.<sup>7</sup>

An architectural paradigm shift characterized by work that allows individuals to participate in manipulating its physical “content”—such as its formal or spatial relationships—would therefore allow the discipline to respond directly to this cultural dynamic. It would also release the discipline from its



Figure 3. The entire floor plate of this single-person residence is a hydraulic elevator platform. As the occupant moves the floor up and down alongside a vertical program wall it becomes functionally re-programmed, which dramatically alters the character of the space and also serves as a continuous index of daily activities. (Doug Jackson)

current reliance on novel, static form as the sole means by which to assert its relevance to society. Apart from the paradigmatic problems with the notion of a “digital aesthetic” noted above, such an emphasis on form is problematic given the overwhelming discrepancy between the typically long endurance of a work of architecture and the brevity of society’s investment in an idea that would support a particular form. In other words, an architecture based upon a static, immutable formalism is inherently doomed to rapid obsolescence, and will therefore quickly lose its ability to engage the society it is meant to address. In contrast, an architecture that primarily derives its value or affect from its ability to be tuned or manipulated can assert such value in spite of its particular formal character, in much the same way that information largely retains its value across multiple formats.

#### HIGH TECH VERSUS LOW TECH

One potential pitfall with suggesting the open-content concept as a model for architecture, however, is that it conjures images of cutting-edge technology as the means by which to achieve its effects. This is problematic, since architecture is for the most part comprised of extremely low-tech materials and assemblies, which makes it difficult to

achieve a technological congruency when more sophisticated technologies are introduced. Typically, architecture deals with such technological discrepancies either by segregation, wherein the lower-tech architecture is described as separate from these other, more sophisticated technologies that support it, or by framing, wherein the lower-tech architecture is designed only to be a backdrop that supports or features a newer technology.<sup>8</sup>

The open-content model, however, would neither require nor benefit from an injection of technological sophistication. Rather, its purpose is simply to present a new model for the way that individuals relate to architecture—one that is more meaningful and relevant to contemporary society—and this can be achieved through rather modest means by identifying techniques that allow the relatively simple stuff that architecture is already made of to be tuned and manipulated by those that occupy it in order to produce varying architectural effects.

The projects that have been used to illustrate this paper, for example, employ readily available and relatively commonplace technologies, ranging from casters to hydraulic cylinders. However, they each achieve effects that are highly interactive, that allow the architecture to be re-authored by its occupants

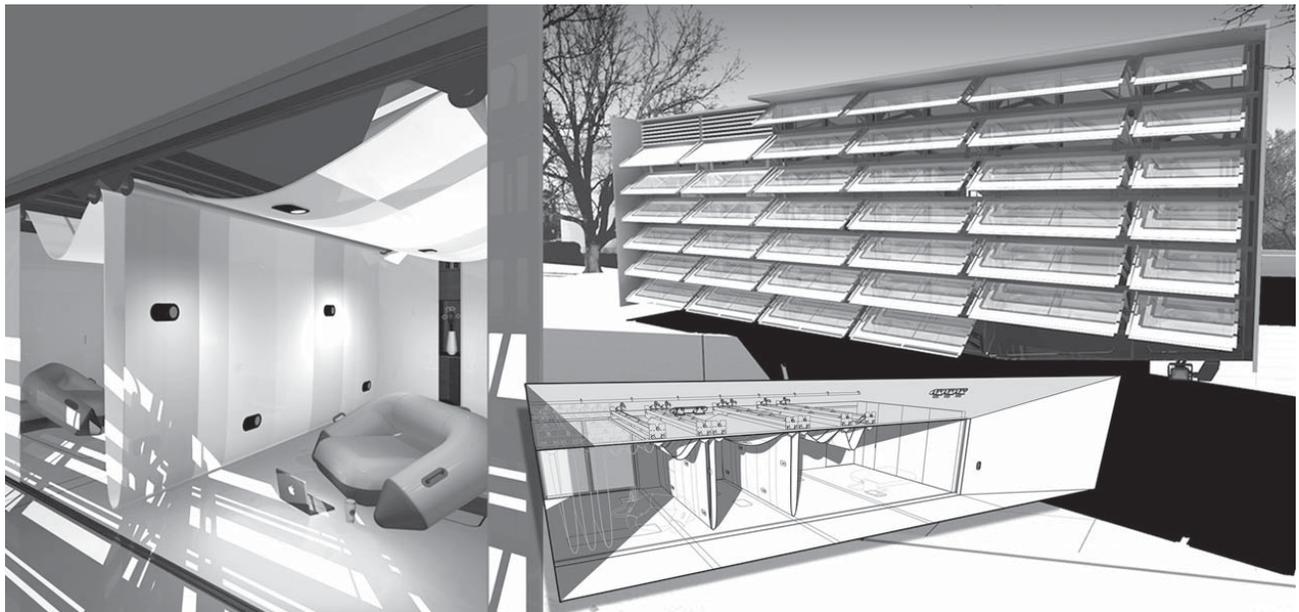


Figure 4. This proposal for an artist residence, workshop, and gallery features a flexible space-dividing membrane draped over movable hangers that can subdivide the open gallery/workspace as desired by the occupant, allowing for the spontaneous reconfiguration of the interior into spaces specifically suited for living, working, and exhibition. (Doug Jackson)

in order to allow it to relate more specifically to the way that they intend to occupy it, to allow the occupants to conceive of and create new manners of occupation and use, and to allow the occupants to employ the architecture as a means for individual expression. Furthermore, in each case the primary architectural affect is independent of the formal aesthetic, which is advantageous to the discipline in that it decouples architectural value from formal novelty. This would therefore have the positive effect of reducing the infighting that currently exists within the discipline due to different groups with differing formal agendas competing for cultural attention at the expense of others. Instead, works produced in this fashion can assert value across a wide range of formalisms, and moreover can sustain that value over a long duration even in the face of a loss of interest in a particular form.

#### THE PALIMPSEST VERSUS THE MONUMENT

While the open-content approach is capable of re-establishing the cultural value of architecture by making it more relevant and meaningful, it is not “meaningful” in the sense that it signifies a universal concept (since such significance is no longer possible), but rather meaningful in that it can accept whatever transient, localized, idiosyncratic value is assigned to it. It can become a vessel for “meaning” in a contemporary sense by becoming a medium for continually renewed expression—a palimpsest in lieu of a monument. It therefore does not suffer the impossible onus to be universally true and all-inclusive; because it is not aspiring to be a timeless embodiment of an ideology it neither risks disenfranchising those who do not subscribe to that ideology nor becoming obsolete in the face of increasingly rapid social and cultural changes. Instead, it becomes meaningful on an individual level by allowing those who interact with it to create unique relationships that are more engaging and personally relevant, and more broadly by celebrating the value that society places in such individual expression.

The open-content model, of course, is not the first proposal for an anti-monumental architecture; notable precursors include Archigram and Cedric Price. However, while they (and others) argued for an anti-monumental architecture based on individual manipulation of component parts over forty years ago, theirs does not serve as a useful

model for a digital age architecture for two primary reasons.

In the first case, Archigram’s professed denial of formal expression yielded a physical strategy that has been regarded as inherently problematic for architecture. Reacting against the static, formalist qualities of orthodox modernism they offered instead a “kit-of-parts” approach that was intended to liberate the individual from the oppressive qualities of the former. Expression had for so long been conflated with static form that it was too easily viewed as suspect, and so was downplayed altogether in favor of *experience*. The work of Archigram, therefore, was intended to produce architectural affect through *event* instead of form; the physicality of their architecture played only a supporting role in the manifestation of the architectural experience. However, as expressive form is the key feature that distinguishes architecture from other forms of building, an architectural strategy that denies or suppresses it is inherently problematic. In the work of Archigram and Cedric Price, in fact, it was this professed eschewal of formal expression that both radicalized and ultimately marginalized it—leading their work to be commonly regarded as anti-architectural.<sup>9</sup>

This strategy is in stark contrast to the open-content model. Although it is critical of static form authored by the architect, an open-content architecture nevertheless retains the discipline’s investment in formal and spatial expression—the difference is that the nature of the expression is changeable, and the responsibility for such expression, and the architectural experiences that result, is placed in the hands of the individual occupant. It envisions architecture as a physical palimpsest, allowing individuals to manipulate and re-arrange architectural form and space in order to spontaneously produce new and different experiences—experiences which are architectural, and which obtain an immediate and personal relevance to the individual. The physicality of the open-content model is therefore *inseparable from* the architectural experience.<sup>10</sup> Its anti-monumentality comes not from a suppression of its physical affect, but rather from a democratization of that affect.

This is related to the second, and perhaps more important, problem with the Archigram model when compared to the open-content model, which is centered on the role that the individual plays

within the context of the architecture. Although both approaches empower the individual to modify the work, the nature of such empowerment within the Archigram model is motivated more by the idea of freedom of *choice* than freedom of *expression*. “The fundamental idea,” Archigram asserted, was to create “a freely developing system towards personal choice and selection by the consumer.”<sup>11</sup> While this represented a fairly radical proposition at the time, the model of the individual as a *consumer* and the architecture as a marketplace of experiences is not one that specifically touches upon the paradigmatic changes to culture that have occurred due to digital technologies. Although it allowed for a higher degree of customization than architecture was previously accustomed to providing, it did not truly allow individuals to *create* meaningful architectural experience. Rather, it made the experience of architecture more akin to channel surfing—a type of experience that both radio and television had offered to individuals long before the advent of digital technologies.

In contrast, the open-content model offers a scenario in which the occupant is not simply a consumer who selects off-the-shelf accessories that provide experience, but rather an *author* who expressively employs architectural elements to *pro-*

*duce* experience. And this is precisely the difference that makes the open-content model a more relevant one for contemporary culture: the paradigmatic shift that marks the digital age is specifically the fact that individuals have ceased to be only consumers of content and have instead become creators of content.

The open-content model therefore offers a strategy to architecture that not only allows it to once again be culturally relevant, but will also enable it to preserve this relevance in the face of the rapid succession of aesthetic trends and across the long lifespan of its built works. It both accommodates contemporary society’s increasing desire for content creation and control and gives expressive form to this desire, celebrating its defining role within culture and thereby producing an architecture that is culturally engaging and meaningful. And it demonstrates the proper way for the discipline to address the digital paradigm—not through an obsession with new tools for digital fabrication and representation or through a fetishization of the imagery and forms enabled by those tools—but rather through a fundamental rethinking of architecture and the character of its authorship based on the changes that digital technologies have imparted to society and culture.



Figure 5. This project features a system of program cabinets that can be slid back and forth within the available volume. The occupants are able to create program-specific spaces between the cabinets as desired, and to eliminate that space and rededicate it to another program as interests change simply by repositioning the cabinets. (Jones, Partners: Architecture)

## ENDNOTES

1. In fact, to digitize something is to fundamentally strip it of its form. Consequently, in an age of digital information, the value placed on an original embodiment has both lessened and also adopted a nostalgic connotation—such as, for example, the lingering value ascribed to vinyl records in the face of the overwhelming cultural adoption of digital music files.

2. See Benjamin, Walter, "The Work of Art in the Age of Mechanical Reproduction" in *Illuminations* (New York: Schocken Books) 1968.

3. To take the musical example even further, the rise in popularity of DJ-ing and of the use of sampling, mixing, and mash-ups within the music scene over the last 20 years is one of many indications of the cultural importance placed on content customization, and the respective diminution of importance placed on the original embodiment. And while the vinyl format has long retained a foothold within the DJ community for both practical reasons (the ability to "scratch") and symbolic reasons (marking this community as an anti-mainstream subculture), even this format is losing out to digital ones—and in the process making it easier for the average individual to DJ as well. An article that appeared in *The Guardian* in 2004 noted the rise of "MP3Jing," and trumpeted the importance that the Apple iPod has played in extending the accessibility of DJ-ing. See Panjwani, Raj, "Last Night an MP3J Saved My Life" in *The Guardian* (Jan. 7, 2004).

4. *Open-source* indicates a software in which the scripting language is made available for editing and refinement by its users, whereas *open-content* refers to a software, such as a database, where only the content is made available for editing and refinement by its users. The distinction in terms of authorship is that in the case of an *open-source* creation the original author's contributions are slowly manipulated by the efforts of other authors over time as the work is refined and edited. In the case of an *open-content* creation, however, the original author's contribution constitutes the framework that supports the editable content contributed by other authors, such that the original authorship is preserved. An example of this distinction would be between Linux, an open-source operating system whose source code is freely editable by anyone, and Wikipedia, an open-content database whose content is editable by anyone within an established, non-editable framework that preserves the look and functionality of the database. Whereas the first is more radically open and democratic, it is also problematic in terms of its ability to serve as a useful model for architecture, in that its essential character is not necessarily preserved over time. An open-source architecture, therefore, would necessarily be a transient one, since those aspects that define its architecture-ness (its architectural "source code") would be able to be modified in such a way that could potentially undermine its nature as architecture. Open-content creations, meanwhile, sacrifice a degree of openness in exchange for the ability to preserve their essential character. As a model for architecture, therefore, they describe an object whose nature as a work of architecture is preserved over the course of its manipulation by others.

5. *Wiki* is the Hawai'ian word meaning "fast," and has subsequently come to stand for a collection of open-content web pages that can be quickly and easily edited by its users. This more recent usage is attributable to Ward Cunningham, creator of the first online *wiki*, known as the WikiWikiWeb (for more information on the history of its online usage please see <http://c2.com/doc/etymology.html>). *Wiki wiki* is a reduplication of the root word, which is a transformation commonly used in Polynesian languages to intensify meaning—in this case, meaning "very fast"—and was selected by Cunningham to showcase the speed with which the WikiWikiWeb could be edited by its users. It is perhaps somewhat ironic that this new technology and its attribute of speed would be referred to in a language that so uniquely preserves its Neolithic genesis and belongs to a culture so renowned for its unhurried pace of life. As applied to architecture, however, this irony is a useful reminder of the contrast between the slow and static character of conventional architectural construction and the cultural context within which it exists, which is that of a fast-paced, information age society that places a high value on speed and interactivity. *Wiki-tecture*, then, is meant to evoke the idea of the transformation of this slow, static architectural production into an architecture that is "faster"—in other words, one that can be easily manipulated by its users.

6. Lenhart, Amanda and Mary Madden, "Teen Content Creators and Consumers," Pew Internet & American Life Project (November 2, 2005).

7. Lenhart, Amanda and John Horrigan and Deborah Fellows, "Content Creation Online," Pew Internet & American Life Project (February 29, 2004).

8. In the case of segregation, these more sophisticated technologies are often concealed, backgrounded, or otherwise excluded from consideration as *the architecture*. In the case of framing, meanwhile, this approach tends to create an architecture comprised of two discrepant and technologically unequal parts. Consequently, the monumental technologized veneer has become a popular strategy for dealing with such technological incongruencies, since such a strategy already includes the idea of a distinction between a featured element and support element, and furthermore requires no congruency between the two. But this strategy also keeps the newer technology at a safe distance, where it is mined for its ability to produce spectacle but is otherwise prevented from engaging and thus radicalizing the remainder of the architecture.

9. This is more debatable in the case of Archigram, perhaps, than Price. The work of the former was anti-monumental, but it was certainly both utopian and aestheticized—particularly in the earlier years before the "zoom" wave of megastructures and molded fiberglass plug-in pods gave way to more systematized and transient—and less objectively formal—structures. This was roughly around the time of Archigram 7 (1966), which was five years after the debut of Price's *Fun Palace* and three years after the *Potteries Thinkbelt* project, both of which were highly influential and also remarkable in their almost complete eschewal of architectural form. In fact, when Rem Koolhaas lauded Cedric Price he did so precisely

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because of Price's denial of architecture's reliance on expression through form, space, and symbol, which he referred to as the discipline's "most dubious features." In noting that he aspired to "deflate architecture to the point where it became indistinguishable from the ordinary" he also observed the paradoxically self-destructive nature of an architecture based on the non-architectural. See the introduction to Price, Cedric, *Re: CP*, edited by Hans Ulrich Obrist (Basel: Birkhäuser) 2003, pp. 6-8.

10. This distinction highlights an aspect of the work of Archigram that bears further discussion. From their early work with plug-ins through their later event-scape projects such as *Rent-a-Wall*, *Control and Choice*, and *Instant City*, Archigram continually explored a formal trope based on the hardware/software dichotomy in which the architectural experience was bound up in the "software" (such as the off-the-shelf plug-in parts, the video feeds, etc.), which in turn rendered the "hardware" as a relatively generic scaffolding or support for this experience. However, taken as a whole, this formulation was hugely metaphorical. And while the hardware/software metaphor is certainly one that relates to the digital age, its physical manifestation is arguably a *monumentalization* of that metaphor, despite the seeming anti-monumentality of its physical components—which makes it as incompatible with contemporary culture's ever-changing interests as any other immutable formal metaphor.

11. Chalk, Warren, "Architecture as Consumer Product" in *Perspecta*, Vol. 11 (1967) pp. 135-137.