The modern world has become one of dualities, of abstracts and of tangibles. No one development better represents this trend than the Internet. While we shop and browse in a world constructed of ones and zeroes, it creates a physical reality in terms of cash and buildings and trucks and all the things that make businesses. As the physical becomes the virtual, so to does the virtual become the physical. How do we construct this reality? It seems that the physical needs of such a reality will be constantly changing. There will be a need that remains constant though, the need for accurate representation of this abstract. How does this creation of ours, this abstract, translate into reality? A community of small offices in downtown Cincinnati is presented as such an example.
SMALL OFFICES FOR A NEW AGE:

DOWNTOWN CINCINNATI

A Thesis

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To my family, for their unending faith and support
“… The changing role of architects means that they might be less involved with the ‘technology of construction’ but that they must be involved with the ‘construction of technology’ instead.”

-Bernard Tschumi
CHAPTER 1

A NEW ERA

Our daily lives and the architecture we occupy are being translated into the virtual world of the Internet. Increasingly we are doing things online that used to be exclusive to the analog world around us. This arena, although digital in nature, is no less real than our own physical arena. It is an architecture of bits. We need to examine how the post-information age is rubbing off on architecture.

…I have found that many valuable concepts of architecture feed directly into computer design, but so far very little in the reverse, aside from populating our environment with smart devices, in or behind the scenes. Thinking of buildings as enormous electromechanical devices has so far yielded few inspired applications.

While Nicholas Negroponte is referring to the more direct physical application of buildings, he has hit upon a very important point.

1.1 Change in language

Our lives are changing at a dramatic pace. We see the entire model of our existence with a different structure. It is common fallacy to imagine that because many things seem to remain the same that little has indeed changed. That is not so. Most of what has changed has been directly associated with communication. Communication is an integral portion of language. It stands to reason then that our lives along with our language are now fundamentally different. According to the prevailing notions of linguistic philosophy (presented by Ferdinand de Saussure in his Cours de Linguistique

2 Ibid, p.164.
3 Ibid, p.211.
Général) a language is inherently a structure rather than a collection of words\textsuperscript{4}. Our language has changed and the language of architecture is no exception.

1.2 The Internet

In the past few years, the advent of the Internet has most likely had the single greatest impact upon our daily lives. More than just web pages with something for sale, entire industries are being forced to change the way that they do business. In this new language (inherently a structure) the old models no longer exist.

The music industry is a good example. The long held industry model has been physical. Artists record songs. The songs are then mass produced in album or single format on a variety of media. Advertising ensues and copies are shipped all over the world to radio stations and stores. This is all very physically intensive and requires a vast industry to support it.

Digital processes appeared and very soon all changed. With the advent of the CD format it was possible to save the music in a language that computers could understand. While the size of files protected them, it was not much later that the MP3 format was developed. Songs were easily reproduced and the free (although technically illegal) trade of songs began. Companies like Napster\textsuperscript{5} developed programs that took advantage of this and allows for users to trade songs directly from their hard drives.

But Napster's import goes far beyond the balance of power in the music business. Napster represents a new idea, a different architecture for exchanging information.\textsuperscript{6}

Despite the warning signs many large labels are facing an unprecedented challenge to their structure. Other companies have adapted and sell digital music online or even give it away. Many smaller artists see this as liberating because their record revenues never earned back production costs. They are now concentrating on live

\textsuperscript{5} Information on Napster can be found on their website http://www.napster.com
performances to create revenue and free recordings are used to promote them. The structure has changed, a new language exists.

1.3 Representing the New

As a new language develops itself often times old pieces find places within its structure. Does the new language of our age require an entirely new architectural vocabulary? Historically we find that this often the case. In the gothic era life centered around the church and so we have the great cathedrals of that era. The industrial revolution gave us mass production and was reflected in the factories and production centers of the time. We are in a new period. Our architectural vocabulary should reflect this. If current language contains pieces of the past, so will the new vocabulary.

First and foremost, this is a digital age. The bits are superceding the bricks. In the early nineties Columbia University scrapped the idea of building an addition to its law library and instead bought a supercomputer and starting scanning in deteriorating texts.7

Next this is the age of the consumer. In the early days of the Internet it was assumed that content providers would be the really big players. As it turns out commerce is king. Wal-Mart faces its first real challenge from a company that exists and only sells on the world wide web, Amazon.com, not from a resurgence of Sears or K-Mart. Note the prominence of the “.com” in Amazon.com and other major online stores. This stands for “commercial”. It is no coincidence that it is also the single most popular domain.8 It should be noted that when Turkmenistan opened registration to its domain name “.tm” in 1998 many rushed to them merely for the fact that the domain was the same as the abbreviation for the term trademark.9

This is a society overwhelmed by media that convey information and entertainment. Nicholas Negroponte refers to this as the “Post-Information Age” where we have become markets of one with advertising and information tailored to our individual needs.10 While Negroponte see this as positive, others are not as optimistic.

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Sanford Kwinter, in his essay *Virtual City, or The Wiring and the Waning of the World* finds this dangerous.

This boundaryless new medium or ‘virtual’ reality is, however, *not* a simulated environment as many are still claiming. It is a new space altogether, indeed a new type of *total* environment- and I borrow the adjective total from sociologist Erving Goffman, replete with the ominous overtones lent by its association with prisons, mental hospitals, factories and schools- a new *total* institution, though one made possible now not by confining walls and political, social and medical decrees, but by the seemingly ‘natural’ evolutionary convergence of telephones, data banks, computers and televisions.11

It is as if this were the fine tuned update of Jeremy Bentham’s Panopticon.12

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11 Sanford Kwinter- *Virtual City, or The Wiring and the Waning of the World* 
*Assemblage* 29; p. 91, 1996.
2.1 Site

The first need is a site. Is the normal site for an office appropriate? Or is a new approach needed? A large company will seek to make its offices attractive to employees. A company such as Eddie Bauer has the resources to make its headquarters in the suburbs outside of Seattle enticing. Every aspect of the employees’ life at work will be taken care of on the campus.

Our World Headquarters operates under a casual dress code and offers many convenient services: on-campus cafeteria, dry-cleaning, a weight room, exercise classes, postal services, a cash machine and more.13

As early as the 1970’s Xerox had established its Palo Alto Research Center in the hills above what is now Silicon Valley with the campus approach.

The company challenged the fledgling organization to create the office of the future and establish Xerox' place within it.14

Microsoft followed this theory when it established its offices in the then rural area of Redmond, Washington.

Tall fir trees, forested trails, snow-capped mountain vistas, basketball courts, soccer fields, a museum, a store, numerous food pavilions, and

13 Eddie Bauer promotes this to prospective employees on their site (accessed June 2000) http://www.eddiebauer.com/careers/frame_corpopportunities.asp.
14 Taken from Xerox’s Research and Technology Site, http://www.xerox.com/go/xrx/xrx_research/AX_6_1.jsp?id=48660 (accessed June 2000). The group managed to influence future work environments not only through their research, but with the facility in which the research was conducted.
shuttle buses. No, this isn't a national park. It's Microsoft's corporate headquarters in Redmond, Washington.\textsuperscript{15}

One of the first steps is to refer to the headquarters as a “campus.” This evokes more of the feel of a small college than of a traditional place of business. The next is to take care of everything. Each individual's wants will be met on the campus so there is less temptation to leave. The more convenient it is to do things on campus, the easier it is to work a long day. Intramural sports teams and jogging trails, lunch rooms and espresso stands all create the insular environment that will keep an employee happy. Providing a comfortable place to work makes for better workers.

Small offices have no such luxury. The existing culture and activity must be inherent to the site for a small company to attract employees. In years past all that was required was the ability to get lunch at noon. Now there must be food available around the clock. “Nerds get what they want when they want it, and they go psycho if its not immediately available.”\textsuperscript{16}

Empty offices in Wall Street would seem an ideal place for small new technology and design firms, but as the Director of one New Media Firm was quoted saying “There just ain’t jack to do that far downtown.”\textsuperscript{17} More and more small startups find that what have traditionally been neighborhoods are the ideal location for businesses.\textsuperscript{18}

It is apparent then that the location of a community of small offices must be located in an area with an existing culture that extends beyond normal 9-5 support.

\subsection{Infrastructure}

Even the smallest of companies are in need of serious communications infrastructure. Companies such as Advantas (Vantas office centers) and HQ Global

\textsuperscript{15} Microsoft promotes this prospective employees on their site (accessed June 2000) http://www.microsoft.com/jobs/oncampus.htm.
\textsuperscript{18} Ibid.
Workplaces (which are now, coincidentally, a single company) continually promote the ability of firms to “Plug N’ Play” directly into their offices.\textsuperscript{19}

It is no coincidence that their terminology bares a distinct resemblance to the Microsoft “Plug and Play” technology\textsuperscript{20}. Much as a computer user wants to take a peripheral and have it seamlessly install into the computer, a business should install into an office.

While an office will need the most up-to-date connections, more importantly it will need the ability to keep those connections up to date. As well as provide the proper amount of flexibility desired.

There are three levels to consider: external, central and local. External infrastructure is the availability and proximity of the local pipelines. Central is the heart of the building, the flexibility and adaptability of it. Lastly each area must be as flexible and adaptable as the tenants themselves. These three levels should almost be a fractal pattern. At close examination they follow the same pattern at different scales.

In New York many developers are trying to promote what have traditionally been financial districts to smaller, edgier firms that have usually gone for neighborhoods. The difficult part is creating an inviting atmosphere. The draw they are counting on is the fact that downtown has the densest fiber infrastructure in the city.\textsuperscript{21}

Buildings themselves are starting to reflect what is becoming common in the computer industry. Computers used to be like VCRs and stereos, objects only to be opened by trained personnel.\textsuperscript{22} Increasingly we have computers that open with the flip of a handle or the twist of a screw and unfold like origami, allowing configuration after configuration to be arranged. Much like plumbing and electrical systems, data and communication lines drive the design of a building. In addition to dropped ceilings we now have raised floors with removable panels. Protected chases run vertically. Server rooms are becoming a common place program item with high importance. The design of

\textsuperscript{19} Information Vantas Office spaces can be found at http://www.advantas.com and information on HQ Global can be found at http://www.hqglobal.com. (sites were accessed in May 2000.)

\textsuperscript{20} Information on Microsoft technology can be found on their site http://www.microsoft.com (accessed May 2000.)

\textsuperscript{21} Austin Bunn, “NYC Courts New-Media Migration”

\textsuperscript{22} The venerable Macintosh Classic body required a special Apple designed tool to open it.
a building now resembles the design of a computer because in many ways the buildings are computers.

Critics claim that the information technologies act like viruses in the bodies of architectures with deeper results than any other technological innovation so far. They would by now influence almost all spheres of human life and practically no modern building could function without them.23

Even individual spaces are following suit. With the advent of DSL24 and cable modem technologies, remote locations can turn into a smaller network running a home or office by maintaining a constant connection to larger networks. Within an individual building (depending on its size) there can be numerable networks. If the building itself is running a main network, the line between networks becomes even more blurred. Tenants have the option of being a part of the larger network, forming a smaller branch of the network or even connecting to another system through the building’s connection.

2.3 Exposure

Neighborhoods need exposure to attract new construction. New construction needs exposure to attract tenants. New businesses need exposure to attract investors and to flourish.

Who is exposed to the site? How and when do they interact with it? Many new dot.com and related companies are working to sell their services to the world at large, to the business community or both. They are seeking to attract investment. They are seeking to create excitement. Larger companies have the luxury of a full-scale media blitz placing ads in traditional media such as television, buying up slots during the super bowl and prime time. For smaller companies associating with an area that is fostering innovation can create the proper image.

Moving even further, a building itself can become the communicative media. This is not a new trend, only it is now rapidly accelerating. Blank walls have provided

24 Digital Subscriber Line.
room for billboards. Times Square is synonymous with media. The next level brings
whole building integration.

They would change houses into information boxes, vertically layered and
flexible inside with self supporting skin on the outside. The exterior of a
t_true Mediarchitecture should be decorated with electronic images, but
there can also be images of informational text-image-decoration on the
buildings skin.²⁵

Functions of a building can also be integrated into communicating its message.
Cafés with a decided internet flair can bring in the right dialogue. Galleries can present
works by companies associated with the building. Advertising has become one of the
biggest draws of talent in this age of panglobal capitalism. Blur the line further between
marketing and art. Over all the building needs to communicate not only what gets done
there but who is doing it. To reflect the fast pace and ever changing output, the building
will need to be just as flexible in its own display.

²⁵ Christian W. Thomsen, “ Mediarchitecture: Part 1, defining positions.” p.79
CHAPTER 3

DOWNTOWN CINCINNATI

3.1 Project Description

The ability to present abstract the virtual into the abstract is undoubtedly an import issue to today’s Internet companies. Large companies with multimedia presence have little trouble achieving this goal. Smaller companies, especially those that do not directly sell or offer services to the average consumer on the internet, have a much harder time establishing themselves. Many smaller companies who are facilitators, such as web designers, graphic designers and others, need a way to communicate both what they do and who they are. As individuals this is a daunting task at the least, as a community they possess the group dynamic necessary to make themselves known.

A sort of community building that can provide the necessary nexus. For this region an obvious choice is the heart of the local business community, downtown Cincinnati. The spaces should provide the necessary physical backbone as well as the ability to communicate.

3.2 Program

A need has arisen for a new building. The concepts of office and workplace have been altered with the way our society now connects. The way people use computers and view their utility has changed. Businesses exist where customers never see the office. “office” is a very lose term. Knowledge has always been power, now the ability to find information is the ultimate power.

How do you create a building that fits these needs? It has to do with how the space is claimed and how it relates to individuality, but never forgets the sense of community. The building must not only create a framework for individual expression; it must establish the fabric that will create the cohesive whole.
This includes providing the electronic infrastructure of the building, making it a live-in server. The physical manifestation of an Internet service provider and all of its facets tied to its meaning in both form and attitude.
**Site:** Downtown Cincinnati, between Vine and Walnut on Court St. This site provides a unique opportunity to communicate to both the pedestrian and the motorist in an area that sees high traffic during the business day.

![Site location in downtown Cincinnati.](image)

**Function:** Multiple Use, with offices and commercial space. The size and relative function of these spaces is based upon the current standard small office. The way in which they come together as a cohesive and operative whole with the rest of the building defines their success.

**Backbone:** Networking and connectivity, these needs change rapidly. The ability to accommodate these needs means establishing a flexible and organized method of constantly updating the network capabilities of the building. Occupants will need security reliability and speed.

**Small Offices:** Communications/ Technology/ Media firms with low numbers of employees and low space requirements but with the ability to connect with other firms for large projects.
**Recreational Research Center:** This is where group interaction and the idea of being loud in a social setting connects with the isolated computer jockey locked in his fetid cubbyhole. Sometimes these spaces are referred to as a ‘cyber-café’ (a poor term at best). Elements of progression and exhibit start to play roles in this space.

**Gallery of Communicative Media:** This is where interactivity is lower on the scale. The cooperative of firms that occupy the offices will use this partially as group advertising area but also to display like an art gallery the best in new projects.

**Telecommuter Opportunities:** For those who do not work in the offices, but need the connection to the community presence as well as the ability to connect to the network. Although they will not be directly occupying real space they will be contributing to the direct presence of the building and receiving the benefits of that association.

**Commercial Zone:** All good buildings need storefront opportunities. Part of the way to engage the neighborhood is through pedestrian interaction. This area sees high foot traffic during lunch time as workers vacate the surrounding offices. The function of this could vary.

**Ongoing Exhibition:** Presentation of the development of modern media technologies, sort of a changing display show the evolution from calculating to communicating.

The building should include the many ways of presenting interior function and temporality with graphic/ornamental display.

The project should develop a significant identity as place and as an icon. It will accommodate a need for space, advertise the product of its functionality and promote the worth of both.

The building will develop an identity and a given name associated with the function.
CHAPTER 4
PROJECT APPLICATION

4.1 Application

After working out a program for the design a series of sketches were done over actual photos of the site to work through some rough aesthetic ideas.

Figure 4.1.1 Overlay sketch from the north side.
Figure 4.1.2. Overlay sketch from south side.

The different nature of the north and south sides of the site became apparent in these exercises. The more pedestrian activity and smaller scale of the south lent itself well towards the retail and smaller scale exhibitions of the project. The north worked well with grander statements due to its vehicular nature and larger scale.

Figure 4.1.3. Sketch of third floor plan.
Two main volumes were developed, the site affording two ground spaces. While these volumes are separate constructions. Each volume was placed in and around a steel structure that continued after the building itself stopped. This is intended to create the feeling that the building grew within a pre-existing network. To further the image the two structures were connected with a light steel framework much like scaffolding only more permanent. This then continued in the airspace over the existing BP station on the northern part of the site. The framework ends in a support tower on at the edge of the site.

The galleries and the recreational research facility were put into storefront positions more actively engaging the pedestrians along Court Street. The lunch time crowds from the surrounding offices playing an important role in developing a relationship between surrounding businesses and the companies resident in the building. The offices for these tenants occupy the remainder of the south structure and the north structure.

Figure 4.1.4. Expanded plan sketch and refined south elevation sketch.
An earlier charrette had produced a potential model for the recreational research center. Design elements from this are incorporated into the commercial facade and general retail function. The shaders are used directly (figures 4.1.6-7).

To connect the two main structures and project the activity within, a transparent circulation system is used. Outside of the offices all movement is carried through this entirely glazed system. The circulation breaks away from the structure at a right angle further exhibiting action within.

Much like the infamous banner ad of the internet the entire building promotes itself and its function through billboard advertising. Constantly changing this presentation is most prominent on the north facade and the gridwork expanding to the east.

Figure 4.1.6. Recreational research center exploration.
Figure 4.1.7. Recreational research center exploration.

Figure 4.1.5 Overlay of scaffold imagery over site photo
Figure 4.1.8 Previous project used to explore similar aesthetic issues.
4.2   Result

Figure 4.2.1. View from Court St. (south).

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Figure 4.2.16. Structural Detail, view from south.
Figure 4.2.17. Entry.

Figure 4.2.18. Main Staircase, to offices and galleries from entry.
Figure 4.2.19. Circulation between structures.
CHAPTER 5

CONCLUSION

5.1 Discussion

The transfer of information from our own analog realm to the internet has been fast and furious. While much of this communication has been in this one way there has been return as well. Linguistically it is evident in the words “at” and “dot” making large inroads back into daily usage. Web sites are now advertised on buses and on television. The boundaries between what has been called the virtual world and the real world have been blurring. The Internet is just as much a part of our lives now as any other broadcast media maybe even more so.

How does this affect architecture? As the vocabulary of our daily lives change, so should the vocabulary of architecture. Does it affect all areas of architecture? Over time, yes it will. As in our daily lives it starts in one part and spreads from there.

… The changing role of architects means that they might be less involved with the ‘technology of construction’ but that they must be involved with the ‘construction of technology’ instead. They have to instrumental in the construction of new computerized technologies that are already transforming new building and design processes… The design of new conditions for architecture of course means new attitudes toward the activities that take place in the architectural spaces they design: a new attitude towards programs and the production of events, so as to reconfigure and provide a rich texture of experiences that will redefine architecture and urban life. The challenge is enormously exciting.\(^\text{26}\)

In this project a small office building was looked at as an example. In it would be housed small companies, the companies that are facilitating the communication between the analog and digital worlds.

5.2 Conclusion

This project is a start, to see if a question needs asking. Should a new architectural vocabulary be created in response to the developments in the world of the Internet? Through this exercise the answer appears to be affirmative. Has this project created this? No, it has not. It has been successful in opening a dialogue, starting the process. By the time the design was finished and recorded, the conditions surrounding it had already changed. The burgeoning Internet economy has seen the peak of its first growth cycle come and go. We, as architects, are barely catching up.
Bibliography


Eddie Bauer Career Center. 


Zakon, Robert H. “Hobbes’ Internet Timeline.”