Visions: A Golden Age in a Dark Future

May. 1997
Charles W. Kottka, Jr.

Visions: A Golden Age in a Dark Future

Bachelor of Architecture Degree Program
Thesis Design

Thesis Design Committee:

Uwe Koehler • Professor of Architecture • Thesis Studio Critic

Patrick George • Assistant Professor of Architecture • Thesis Critic

Endi Poskovic • Assistant Professor of Fine Arts • Thesis Consultant

© 1997 Charles W. Kottka, Jr.
Abstract

...I have all my life looked to the future for purpose and inspiration for my exploits. The term itself suggests an ideal, the ultimate manifestation of our deeds and dreams. As an existentialist, I feel responsible for the state of the world to be. As a Taoist, I embrace the security of the assured promise of the future. As a designer, I wish to sculpt that universe conceived in my own vision.

Architecture is a means to the end of a calculated projection. It is a tangible art of immense impact on culture, and can be an accurate symbol of that culture's impact on history. I study the discipline not just for folly, but as a practical and conscientious way of molding the future, leaving a legacy of beneficial ideas and environments for my children. My so-called folly is merely to generate excitement, delight if you will, in their perceptions of the material world. It has to be fun, so I speculate, postulate, and idealize the mundane shelters into grand machines for living, organic entities capable of evolving just like humankind. My passion is in making connections to simplify processes of the universe into beautiful truths. I don't want to suggest that the future is just the proliferation of mathematical equations; that would be advocating destiny. Instead, I hope to introduce the feasibility of guessing the future for our own well-being.

Using futurist philosophical doctrines, I have explored methods of examining our paths and possibilities both as an entire culture and in terms of architectonic development. I have based my conclusion partially on the built world's relationship to art, technology, socioeconomics, and the price of tea in China. It has also been analyzed through my own attempt at visual futurism; rendering an abstract vision of what's to come, and juxtaposing it against the framework of what already is.
For Chantelle,
Without whom I would have most definitely-strangled somebody.

The present is the ever moving shadow that divides yesterday from tomorrow. In that lies hope.

- Frank Lloyd Wright (1869-1959), U.S. architect. Closing words of The Living City, pt. 5, "Night is but a Shadow Cast by the Sun" (1958).
Acknowledgments

Thanks to my immoral support group: Spartacus, Punch, Emo, Pixie/Lolita, Chief, Saturnine, Galahad, Check, Morgaine, Loki, The Poolside Commandos, and the Big Bone Lickers.

Of course, I should thank my professional advisors, too: Professor Uwe Koehler, for experience and motivation, and Professor Patrick George, for at least passing interest in the video game reality, and being more than I expected (we should talk Greek mythos sometime). Professor Endi Poskovic inspired me to keep my hands on the paper. Professors Daniel Doz and Rob Benson believed that fictional architecture is still architecture.

There were several outside sources that more than aided my research. Natalia at the Art Institute of Chicago, Ryerson and Burnham Libraries. Bart Swindall, Jr., tour coordinator at The Auditorium Theater. Many at The Library of Congress, Prints and Photographs Division.

There’s probably quite a few musicians, artists, directors, poets, writers, actors, and thinkers who have not only gotten me through this, but also lent me role models of who I want to be. I hold the highest respect for the unquantifiable. Speaking of which, also thanks to MacGyver, Dwayne Schneider, Tim the Toolman, and Scotty. Now if only I could fix the coffee pot.

Finally, I would like to invoke the Muse Cleio, daughter of Zeus and Mnemosyne, so that she may grant me the wisdom to understand the passage of time and history.
## Contents

Abstract ......................................................................................................................... 3  
Acknowledgments ........................................................................................................ 5  
Introduction ................................................................................................................. 7  
Background .................................................................................................................. 10  
Research and Findings ................................................................................................. 12  
Futurist Projections ...................................................................................................... 13  
Results .......................................................................................................................... 22  
Project Abstract ............................................................................................................ 23  
Organizational Data ...................................................................................................... 24  
Design Criteria .............................................................................................................. 25  
Site ................................................................................................................................. 26  
Space Requirements ..................................................................................................... 27  
  - Telecommunications Cybercafe ............................................................................. 27  
  - Inter-responsive Ergo-partment .............................................................................. 30  
  - Architect's Office and Studio ................................................................................. 32  
  - Retail Information Boutique/Cyberstore ................................................................ 34  
  - Cyberoptic Holotheater Refit ............................................................................... 36  
  - Main Residential Addition and Twin Tower ......................................................... 38  
Space Relationships ..................................................................................................... 39  
Space Summary ............................................................................................................. 40  
Reflection ....................................................................................................................... 41  
Notes .............................................................................................................................. 42  
Bibliography .................................................................................................................. 43  
Presentation Boards ...................................................................................................... 44
Introduction

As it is not really 2056, I am forced with the dilemma of projecting programmatic requirements 60 years into the future, including considerations for both advanced technology and changed lifestyles. This futuristic framework will not be totally complete until well into thesis study next semester, so I cannot yet elaborate on many aspects of the temporal dichotomy. I can, however, at least provide an outline of the projection guidance.

We walk past the rusted vestiges of our city’s past, the natural decay and rebirth of ongoing civilization, without conscious thought of our own inevitable deterioration. The constantly evolving world does not always change for the best. Sometimes, it requires humans to adapt to a new way of life, sculpted by advanced technology, depleted resources, overpopulation, and adapted environments. This is the future which I will explore, referred to in a whole genre of fantasy themes. Though dark by today’s perspective, I believe it can be a positive setting for human development.

The fascination with a dark future is both personal and romantic in nature, a tragedy and opportunity just the same. The grotesque character of man’s throwbacks has for a long time been a subject of art, literature, music, and movies, being given an outlet in modern and expressionist art movements in this century. The focus is not the horror, but the resilience of human buildings, and the possibility that such mechanistic ugliness is as much a subconscious projection of man’s id as it is the symptom of apathy and chaos. Even as a physical manifestation, the grimy mechanisms of modernity are a metaphor for the inner workings of the human body itself. If life imitates art (as does vice-versa), the disrepair and worn appearance of many of our creations may in fact be itself our greatest contribution to the insight of subconscious art. However, the statement of neglect, corruption, and destruction cannot be dismissed without considering it as an attack on our values of universal order.

I sincerely believe that I am exceptionally sensitive to the perpetual tides of time. It is my megalomaniacal duty then to render my visions using whatever skills I can muster; specifically, art, prose, and architectural design. I will attribute this educated guesswork to a variety of references whose views I at least marginally relate to, combined with my own abstract artistic license. Using the processes of logic and deduction adopted by the futurist movement, coupled with a subjective artistic and psychological sensitivity, I can present a work that is more than just science fiction. It can serve as a goal, a fable, and a warning.

As the tangible element of this synthesis, I wish to combine two different concepts. First, I am planning a large urban multiuse building, encompassing residential, commercial, municipal, and office space, to demonstrate the idea that buildings must be able to readily adapt to new purposes for peak efficiency in a rapidly evolving culture. It will also be a tool in exploring a variety of elements in the lifestyle of individuals, from their home life and recreation to occupational and political transactions. This way, the roots of this futurism can extend further and diversely in order to fortify the trunk.
Secondly, I will sculpt the aesthetic of this new world in the image of my own art work. An existing structure is to be mutated by the ravages of time, receiving technology and machinery to remain functional in a world of harsh conditions and minimal resources. Using stylistic drawings, created during and previous to the thesis, description of projected images will be superimposed on an existing building—causing a sharply contrasting dialogue between old and new. It will be the idiosyncrasy of this juxtaposition that will guide the aesthetic approach, a type of chaotic motif, formed by necessity and reflecting its own evolutionary process.

At this juncture, I have one building specifically chosen as my subject. The Auditorium Theater in Chicago, Illinois, designed by Louis Sullivan and Dankmar Adler (with elements created by a young Frank Lloyd Wright), is a prime target for the manifestation. It is a noble jewel in Chicago architectural history, and subject of a great deal of criticism, praise, and editorial; the shock value of a high-tech metamorphosis should be outstanding. It is already outfitted with a hotel, ball room, and retail space, besides the theater proper, so should adapt to maximized use smoothly. The facade changes, however, will be drastic, superimposing a techno-mechanistic shell over the original masonry envelope.

The atmosphere surrounding this synthesis remains vague at best, until prescribed by the thesis doctrine. However, predicting the future alone is not specific enough a pillar on which to build a clear context. Indeed, a particular future is what we seek, that of our chosen site. If this stays constant (which is not yet set in stone), this refers to the future of the north side of Chicago, Illinois, downtown by the lakefront, middle America, the United States, Western Hemisphere of the planet Earth. There is a danger, however, that this projection could become too specific, bogging down the design process and the goals of the project. It merely serves as a focus for reference, a starting point of present-day to base a fictional society and appearance.

A study of current and, where applicable, past conditions of the neighborhood will be required to accurately suggest a path. The building itself, the Auditorium Theater, will be of highest interest, from its stylistic roots, through its documented history, to its age-telling present. I hope to also network with the organizations controlling the building to learn of their plans for it and its place in the city. This story will be written to continue through today to a period set toward the end of my own lifetime, though far from the end of the subject’s.

The social and cultural projections should be the most insightful to the eventual re-design of the structure. It will not only provide us with the needs of the design program to be written, but also the aesthetic language in which to speak it. The Chicago mentality and spirit have, since the very beginning of the city, been an enigma among the international communities. A unique blend of cultural diversity and mechanistic unity make it a prime subject for a trip well into the twenty-first century. The clear philosophy present throughout the region, of realism, goal orientation, and resource, will be the main building block for the look of the future. The city constantly looks forward, and knows where it wants to be and how to get there. I will judge its potential success and shortcomings.
Futurism

We already have the statistics for the future: the growth percentages of pollution, overpopulation, desertification. The future is already in place.


The process of futurism is, by design, a lonely one. It requires that the author step outside of his own time frame, and therefore his own culture, so as to observe the convergence of history from a third-person perspective. Historians have come to accept the corruption of fact by point of view, and use that incongruity to make evolutionary conclusions. Futurists, however, attempt to break through those biases to open up creative opportunities that would otherwise be stifled by the point of view of the present. They often have to abandon preconceptions and assumptions of the present to approach the future with an open mind. It is almost more valuable to attempt to view history from a point in the past, looking at present events and technologies as science fiction, and then simply building on the logical path which that has rendered. As I have stated before, the scientific method of futurism that I use is extrapolation: referencing the progression of history from past to present, drawing a “line” of evolution, and using that as a gauge for the future. It would seem to me that the most accuracy comes from drawing the line from the middle outward, instead of from the observable end (the present). Now should be treated as a foreign entity.

For instance, I wish to render lifestyles in the year 2056. First, I would break down “lifestyle” into quantifiable elements, such as most advance technology, social structure, pastimes, and artistic style for each period (a sample of the most primitive or average elements may also be valuable). Then, I would survey several periods, say, 1997, 1950, 1920, and 1890, in that particular region (we are not dealing purely with time; place still has relevance). So as to develop an unbiased account (to avoid judging our time as the automatic “best” of all developmental periods), I would make a value judgement of each element from the perspective of, say, 1950 or 1980. The “line” I’ve created is now asymptotic, pointing to the future and the past. Assuming they function similarly (humans progress with the same natural drives in the past, present, and future), I can now make an educated (or calculated) guess as to what level of advances will occur and the problems we, as a culture, will come up against, and approximately when. The rate of progression is the most important factor to extrapolate, here, much like a type of “socioeconomic calculus”. The specific advances are guesswork at best. More likely they are science fiction, with the intentions of suggesting real possibilities. However, since we can accept a high degree of biased guesswork in the study of history, futurism requires no more substantiability to be significant.
Background

I would sum up my fear about the future in one word: boring. And that’s my one fear: that everything has happened; nothing exciting or new or interesting is ever going to happen again . . . the future is just going to be a vast, conforming suburb of the soul.

...every architect feels the desire to shape the future, even if they focus on past history or present practicabilities; each will carry a permanent manifestation of an idea and its expression. My vision parallels, if not equals in stature, those of Claude-Nicolas Ledoux, Etienne-Louis Boullée, Antonio Sant’Elia, Tony Garnier, R. Buckminster Fuller, Ron Herron, and Lebbeus Woods. It is sensual in nature, abstract and arbitrary to my tastes, but I feel it still holds validity and objective interest. Hopefully, it will inspire the same criticism and thought that my predecessors have, and I will be projected into a lifetime of such exploration, regardless my status.

Tangibly, I have seen this aesthetic take form in postmodern techno-mechanism. Two of the best examples of this are the British contemporary architects Norman Foster and Richard Rogers. They create buildings that appear to be more like massive machines, working steel and glass monuments to the technologies they depend on. Characterized by external mechanical and structural systems, space-age materials (like stainless steel, cables, and plastics), and complex geometrical forms. Two such examples are Lloyd’s of London Building (1986) by Rogers and the Hongkong Shanghai Bank (1986) by Foster, which exemplify the architectural approach of a visual futurism. However effective this point may be addressed, it still lacks purpose in our society, suggesting that it acts for a greater need than yet exists; the need of the future. Being before their time, these buildings often meet with a great deal of dissention, because it is impossible to ad-
dress your context when it does not yet exist. In these example, it is fascinating to note, real context is addressed, and with some discontent contempt, reflected through a new-age mirror.

Perhaps the most impressive display of this vision comes not from any architect, but from the freedom of the cinema. Here, boundaries of possibility can be crossed without regard for the lack of realism. The line is blurred so the impossible can become real; every architect’s fantasy. Some of the best, most technically detailed examples are films directed by a single man: Ridley Scott. In both Aliens (1977) and Blade Runner (1982), technology sets the stage for an otherwise impossible story. Aliens prospers under the expertise of a team of talented designers (Ron Cobb, Jonathan Foss, Mobius, and H.R. Geiger), who put in the effort of an architect to create a completely believable, though oddly foreign, fantasy landscape. The success relies on the depth of design, which is unprecedented, by not only rendering a vision, but by explaining the vision’s elements to give them reason. Blade Runner achieves the same degree of reality in celluloid, over a much more vast stage: the entire city of Los Angeles. Our imagination is stretched without our intellect being insulted. The feasibilities of evolution are apparent, and as our desires become possible, so they will be created. In this perspective, our dreams really do come true, given enough time.
Research and Findings

...to define an entire culture is the twenty-year passion project of an anthropologist, not a one-semester architectural thesis. However, a great deal was derived from the process, both in terms of understanding anthropology (applied, to some degree, to spacial psychology and knowledge-based architecture), and historical research.

There are certain moments when we might wish the future were built by men of the past.

The works of Louis Sullivan were a great inspiration. Because he was one of the “great masters”? No, on the contrary. He was a modernist, and he looked forward just as I do, from his foothold in 1890, toward today. He speculated the possibilities of a new future where buildings could be constructed as organically as the perfection of natural providence. To him, the wonders of steel frame and electricity would bring us closer to our natural roots, allowing buildings to be living machines, where “living” uses multiple definitions: a metaphor for organic life, and a mechanism in which to exist as humans. Japanese Metabolists, such as Noriaki Kurokawa and Kiyonari Kikutake, have taken this idealism full-circle into the modern day, and while Sullivan and his contemporaries were able to render the idea on the canvas of architecture, the Metabolists use it in conjunction with technology to be the designing factor, its purpose.

Dankmar Adler also had a great deal to say about the future, ever looking forward through the eyes of an engineer. He had the vision to take the new and make it better, being one of the first architects to approach the skeletal steel frame. Obviously, this way of building is what eventually became the future, spurring modernism in the 20th century into a frenzy of geometric and architectonic possibilities. His use and creative design of then untried mechanical systems baffled his contemporaries, but effectively contributed to the evolution of building technology. Though not yet free to express technology as form determinant (if he had been, he may have been very successful without Sullivan’s talents), he found ways to let a building’s inhabitant’s know its progressive stance in architecture.

Analysis of the Auditorium, through plan and prose, gave me a great deal of insight into its conception, and the thoughts of its fathers. It was a futurist ideal, a wonder of modernity, and can still be thought of as such, 100 years later.
Futurist Projections

Purpose

Science fiction writers foresee the inevitable, and although problems and catastrophes may be inevitable, solutions are not.


What I present to you here is a warning, only veiled in the guise of science fiction. I do claim that it is science fact. It is my own futuristic projection of possibility, certainty, and fantasy, based both on research and synthesis.

The independent mind of humanity is the constant from which I branch out. I am assuming that we have the power to create our own universe, especially in our own perspective minds. What we see is merely a projection of ourselves, so the limit of creation is merely our imagination, which has of yet remain relatively untapped.

So hold tight to the reins of time, as it gallops into the void of unknown realities. Ride its turbulent winds with vigor or be stomped under foot, leaving only blood as your mark on the land. Stopping it is futile, but drifting on the flow will give you all the opportunity to expand your own existence, to evolve to a higher form.

I give you all this one warning. I am the devil which leads your mount into the darkness, for in that darkness I can see. Whether I am a savior or a demon depends only on your perspective. Regardless, this will be the last time that I show myself as such. I will create myself in your image so that I may walk among you, driving my desires forward. What are my intentions, you may ask? Only the inevitable.

The Dark Future

We are come not only past the century's closing, he thought, the millennium's turning, but to the end of something else. Era? Paradigm? Everywhere, the signs of closure.

Modernity was ending.
Here, on the bridge, it long since had.

- William Gibson, from *Virtual Light*

The constantly evolving world does not always change for the best. Sometimes, it requires humans to adapt to a new way of life, sculpted by advanced technology, depleted resources, overpopulation, and adapted architecture. This is the future which I will explore, referred to in a whole genre of fantasy themes. Though dark by today's perspective, I believe it can be a positive setting for human development.

I don't try to describe the future. I try to prevent it.

The fascination with a dark future is both personal and romantic in nature, a tragedy and opportunity just the same. The grotesque character of man’s throwbacks has for a long time been a subject of art, literature, music, and movies, being given an outlet in modern and expressionist art movements in this century. The focus is not the horror, but the resilience of human buildings, and the possibility that such mechanistic ugliness is as much a subconscious projection of man’s id as it is the symptom of apathy and chaos. Even as a physical manifestation, the grimy mechanisms of modernity are a metaphor for the inner workings of the human body itself. If life imitates art (as does vice-versa), the disrepair and worn appearance of many of our creations may in fact be itself our greatest contribution to the insight of subconscious art.

**Art in Technology**

If the world would only build temples to Machinery in the abstract then everything would be perfect. The painter and sculptor would have plenty to do, and could, in complete peace and suitably honoured, pursue their trade without further trouble.


Technology and fashion work in much the same way; they are parallels. They are made obscure by the human need to change, a combination of boredom of the mundane and the desire to move forward to the progressive. If we analyze those things which in the distant past were considered art, made so by their "magical", otherworldly qualities, we find something odd happening when the magic is gone. They become analytical commonplace. Portrait painting, the ability to reproduce accurately an image in time, was overcome by the invention of the photograph, which is dominated by a scientific process. Architectural orders and proportions once considered sacred are now dismissed as logical rules of thumb for designing stable structures that respect common building materials. Magic is simply a science that has not yet been reduced to teachable terms. Art is then an expression of reality which cannot yet be created by self-replicating means: mass production and machinery. Every form of art is in danger of being discovered by technology.

That would be the pessimistic view, especially to anyone with special interests in art and design. To think that all of our mysticism could be replaced with computer data output is more than a little unsettling. However, we can reverse the perspective to find that art is the true power, infusing its passion into machines, and making them less mechanistic, taking away their logic and replacing it with expressive humanitarianism. This is how we teach our creations to serve us, to no longer be barriers as they are in youth. Computers today reflect it; the devices are becoming so complex that they can reach out to us on our own level. Operating systems can now simulate the clutter and personality of your desk, and they have the ability to work inefficiently and chaotically so they can better interface with the human mind. Ergonomics allow the imperfections of human design to dictate our environment. Virtual reality allows us to work with machines in exactly the same way we
interact with every physical element in our lives. Instinct, common sense, creativity, and desire are becoming compatible with what, just a few years ago, was a realm of trained engineers and programmers exclusively.

**Technology in Art**

Science and technology multiply around us. To an increasing extent they dictate the languages in which we speak and think. Either we use those languages, or we remain mute.


It is then safe to assume that the exchange works both ways. If machines are working their way into our everyday lives, inspiring a feeling of comfort and flexibility usually associated with traditional methods and media, then their images are endearing themselves into our unconscious minds. We have already seen the results, in a direct manner, through the Pop Art movement, which exhibited icons of technology and mass-production, in their purest form, as an emotional, meaningful expression.

As a culture, we have learned to associate certain images with the idea of modern technology and progress. Graphics totally unrelated to machines in any way often express the same “feeling”, attempting to evoke a sense of advanced quality and improvement over old products. Packaging in advertisement of just about any consumable has been driven to a sci-fi type look, suggesting that whatever is contained within is the best (or better) than we can possibly produce by today’s 21st century standards.

Nearly everyone alive today has grown up to recognize these symbols, and my generation inherently knows many specifics. We know a circuit-board from a microchip, a mouse from a joystick, videotape from film, digital from analog anything. We look at older televisions with their round screens and dial knobs, compared to today’s flat-black screened, buttonless TV’s, or the angular chrome-and-steel cars of earlier decades opposed to the modern “roving jellybeans”, and we can appreciate the evolution in the works. We’ve lived it, and taken it into our hearts as it grew up with us. Margaret Mead asserted in 1970 that the youth of the time were the first indigenous citizens of this new country, comfortable with the concept of person and machine living in symbiotic community, and exposed to it from birth (*The Futurists*, p. 34). Born shortly after that period, I can associate with it, seeing not the newness, but the daily grind of just another technology. The beauty is not in that it exists; we are only impressed by the creations it may or may not play a part in. Regardless, technology leaves a watermark on all of our work, just as a brush leaves a stroke.

**Disempowerment of Technology**

Computer science only indicates the retrospective omnipotence of our technologies. In other words, an infinite capacity to process data (but only data—i.e. the already given) and in no sense a new vision. With that science, we are entering an era of exhaustivity, which is also
an era of exhaustion.


The pursuit of smaller, smarter, better, and faster has brought us into a new dark ages; a narrow-minded racetrack of microprocessors and automobile engines, new items by no means, but still the focus of our invention. While our greatest minds concentrate on the acceleration of machines, the realm of new ideas lies unattended, ignored as a poetic folly. There seems to be a panic to squeeze every bit of potential out of an idea, avoiding the possible mistakes of new endeavors. If it is true that we only learn from out mistakes, then the educational system seems to be in danger. Creativity is commonly trained towards success, to develop a final product; its use as a tool of curiosity has been dismissed as a hobby or pastime. In reality, it could best serve, to some, as a way of life. However, many of our greatest visionaries find for themselves a place in the system only as authors of science fiction. To receive an education in the sciences and finer points of research and design, and use it for anything less than a career in product development, a cog in some corporate machine, is frowned upon as a disappointing failure. We see not potential in the person, but in his tangible creations.

So where does it end? When will the computers be fast enough, when will the furnaces, engines, and generators be efficient enough? When will there be electronic access to everything we could possibly need? When can return to the purpose of examining ourselves? Perhaps when there is no more electricity to run the computers, no more coal to generate it, no more petroleum for our cars and no more natural gas for our homes. By then, I'm sure we'll have wonderful computers, incredible vehicles, and beautiful homes. Just in time for forced obscurity.

In the end, there will always be new artistic endeavors and new technologies. They will serve each other in polar opposition, reuniting, and inspiring new creativity on the part of the human element.

**Depletion of Resources**

We shall be better prepared for the future if we see how terrible, how doomed the present is.


Most technology, those devices created to enhance our lives and do our work for us, as we know them, consume energy. It, of course, must be generated by consuming fuel, often nonrenewable fuels such as petroleum, coal, natural gas, and uranium. However, at current trends, and based on estimated reserves, we may find our planet nearly out of some of these halfway through the next century. Our lifestyles obviously will change in respect, for better or worse.

Hopefully, we will come to anticipate the transition before it is demanded. Our consciousness and conscientiousness have been raised.
Reuse, Recycling, and the Environment

Telepresence had only hinted at the magic and singularity of the thing, and he'd walked slowly forward, into the neow maw and all that patchwork carnival of scavenged surfaces, in perfect awe. Fairyland. Rain-silvered plywood, broken marble from the walls of forgotten banks, corrugated plastic, polished brass, sequins, painted canvas, mirrors, chrome gone dull and peeling in the salt air. So many things, too much for his reeling eye, and he'd known that his journey had not been in vain.

- William Gibson, from Virtual Light

Along with accepting technology into our lives, my generation has had to accept also the responsibility of its wake. Our interest in refuse is now of everyday concern, evident in the recycling bins and minimal product packaging in everyday life. The trend continues to grow, not simply as a bleeding-heart liberal gesture, but a legitimate communal understanding that we can all see the end of the burning candle. A combination of the global village outlook, mass scientific knowledge, and overwhelming proof of the damage we've done has driven us to this.

Overpopulation

As we have become more advanced as a world culture, the art of medicine has stood at the forefront of progress. The effects are obvious, stretching lifespans while ensuring the health of the young. Here also lies the danger of too much positive technology: the pie is sliced too thin. Humanity will always adapt, and like a greedy spoiled child (as I see our culture right now), it will learn to temper in the face of greater needs.

The new Wonders of the World lie in urbana, meant to be enjoyed by a huge audience. Cities are becoming massive living-machines, as are the buildings within them, and they require the absolute patronage of their inhabitants to fuel the technological progress. They are growing to encompass what we now consider suburbs, and a tight grasp is held over entire regions by what only could be called city-states. They function independently of outside political boundaries, and therefore must be able to govern themselves as a sovereign state. The decentralization of the U.S. government, a reality of today (thought the topic of a greater political debate), is the prime environment for this change in power. The machine must run, and it cannot be restrained by the forces of equality and socialism. It requires the freedom to exist outside of the technically-retarded outside world, but it does not own authority to gut the natural world for its own purposes; on the contrary, it serves to preserve the natural state of much of the Earth by concentrating the needs of humanity to a higher density of centralization. Humanity must finally give itself boundaries as to how far it may subjugate its world, but it must also accept with that responsibility, the constriction that it will have to adapt to.

Fiction describes the megalopolis, a critical mass of people and technology, all things that make up humanity in fact, as a distinct possibility. The Sprawl, a band of urbanity spreading from New York to Boston to Atlanta, is such a phenomenon which we may face
(Gibson, *Neuromancer*). The direction of development demands such a web of interlinked community to produce a positive living environment for so many with so little available resource.

**Alternate Lifestyles**

We are always talking about being together, and yet whatever we invent destroys the family, and makes us wild, touchless beasts feeding on technicolor prairies and rivers.


I remember taking a trip to Texas, to assist a couple of old friends, Todd and his wife Kerry, with their move back to our home, Chicago. Todd had been in the military for four years, and now they both planned on pursuing full-time college studies. They wanted to move in with Kerry’s family, but her mother and stepfather have decided to get a divorce. Her mother will be moving out of the townhouse, but will be alone soon, as Kerry’s sister will be going to college in a couple of years. If there were a place, she could stay with her daughter and keep her home; they all still get along with her stepfather, and he wants to keep the house. But the townhouse won’t adapt to that. It’s designed for a typical family, with a master and two minor bedrooms, and facilities for one family. But for a young married couple, their sister and mother, and her ex-husband, there simply isn’t a home. In fact, there are few homes that could adapt to this arrangement at all. As family combinations like this become more visible, we need to build for them.

This is just one example of how the population of the United States is in transition, moving away from the nuclear family structure that has been prevalent for the last 50 years. Many architectural solutions have been posed to this problem, since most of America’s housing stock was designed originally for those families, and is incapable of supporting many new configurations. New living arrangements are appearing all the time, with the increasing availability of technology, time management, and social mobility. The scope of this research demands exploration of a variety of subjects to some degree. The eventual goal is to develop a prototype program for new living structures, possibly based on older ideals, or maybe contemporary movements that have recently begun suggesting results. The foci of the thesis are affordability (including availability, quality, and efficiency) and alternative living structures, which may or may not include the single-family model. I want to expand the definition of “home” in hopes of making it more widely available. This may even include challenging and revising the *American Dream* ideal as a dated philosophy. Existing shared housing concepts, like “granny flats” attached semi-independently to the back of an existing home, independent guest suites, and boarding arrangements in empty houses suggest that the idea of home must be reconsidered.
Mixing Cultures

Skinner liked maps. Some of the National Geographics had maps folded into them, and all the countries were big, single blobs of color from one side to the other. And there hadn’t been nearly as many of them. There’d been countries as big as anything: Canada, USSR, Brazil. Now there were lots of little ones where those had been. Skinner said America had gone that route without admitting it. Even California had been one big state, once.

- William Gibson, from Virtual Light

By the beginning of the 21st century, we had perfected the electronic global village. By way of the Net and other informative media, explorers from most any civilized culture in the world could reach out and virtually touch their counterparts halfway around the world. After the global education initiatives in the ’20s, even third-world societies had access to the technology, and a widespread cross-cultural exodus ensued. World citizens had witnessed the planet in the confidence of virtual reality; now they wanted to experience it in true reality. While fuel was still cheap and available, mass migrations of Japanese into California and Mexico, Southern Europeans and Chinese into Russia, and Americans spreading out to everywhere else conceived a phenomenon of ghettos in almost every major city in the world. The evolution of cybernetic neuronets followed suit with language chips and burst translation software, again closing the cultural gaps lying between people for centuries. By 2050, the transition had become tangible in the form of entire cities, like New Tokyo in Baja California and Gorbachevgrad in Nigeria.

Modernity of the Poor

“You know,” Sammy Sal said, pausing before a first shallow sip, “you shouldn’t have this kind of problem. You don’t need to. There’s only but two kinds of people. People can afford hotels like that, they’re one kind. We’re the other. Used to be, like, a middle class, people in between. But not anymore. How you and I relate to those other people, we proj their messages on. We get paid for it. We try not to drip rain on the carpet. And we get by, okay? But what happens on the interface? What happens when we touch?”

Chevette burned her mouth on expresso.


- William Gibson, from Virtual Light

As we push forward in our world of stability and prosperity, something amazes me about our goals. Or, more specifically, those of the Men in Power. The stakes are getting bigger. Investments can be made now that put those ten years ago to shame.

However, there is another side to this dichotomy of classes. If the masses, the majority of the population, live in a medievally technical state, then there must be a force absorbing the wealth and knowledge of our time. Someone will be able to afford to use the remaining resources to take advantage of the impending progresses in technology, and they will prosper beyond our dreams. Those in such graces will find themselves living with
luxuries not even conceived of today. A future which many of us hope will be cast on all populations, a "Star Trek" future of overall prosperity and enlightenment, is long in the making, though. Nearer in the future, tightened belts of a global economy will withhold these advances from most, leaving the few with the ability to take advantage of the rewards. Broadening the gap between the classes,

Today's politics are dominated by those who are born to privilege, native to education and financial backing unavailable to most. They prosper and ride to power to protect their own interests, and cannot be overthrown because they know that it takes money to make money, which they have. However, by all accounts, trends point to a new form of currency on the rise: information. If this becomes the symbol of power, then the tides of government will shift to whoever controls it. Information is far more capable than money to reproduce in the right hands.

Who's hands? Technocrats, by definition, are the directors of information. They are the power brokers where the power comes in an intangible form. Perhaps the idea of the rich perpetuating themselves in power positions seems socially unfair. If so, then this shift should be welcomed by most; instead, we will find ourselves ruled by the intellectuals who put themselves in power with knowledge. Where information is the currency, rulers will not be able to keep control without mastery of the trade. The Bill Gates-type characters will be those who rise into government, wielding a combination business acumen and technical mindedness. Unfortunately, these technocrats will require even less public support or awareness than their modern-day money-driven counterparts.

The "Home Computer"

Electronic aids, particularly domestic computers, will help the inner migration, the opting out of reality. Reality is no longer going to be the stuff out there, but the stuff inside your head. It's going to be commercial and nasty at the same time.

- J. G. Ballard (b. 1930), British author. Interview in Heavy Metal (April 1971; repr. in Re/Search, no. 8/9, San Francisco, 1984).

In keeping with the desensitization of technology, the role of personal computers in the consumer market must change. According to critics of the manufacturers, personal computers have topped out their power struggle regarding the average user's needs. Affordable PCs have risen to a level beyond the needs of writing letters, balancing checkbooks, and playing games, in terms of the dominant rating system of CPU speed. This is the region where research and development has focused for the last several years, contributing to the obsolescing of standard products in as little as three years. Due to this, other areas of technological development have fallen behind, creating frustration over the voids in the market, and opening up room for corporate politics, seemingly embarguing evolution from the needs of the consumers. Major technology conglomerates are able to retain power by not changing the product; it would risk opening up new markets for new producers.
Trends require the integration of computing machines (write about pocket computers CWK) into a variety of purposes. That integration is most important where the spending of resources is most liberal: the home. Architecture requires the assistance of intelligence and response to stimuli if it wants to continue in a resource-depleted world. This would bring new meaning to the home computer, and it would require little more "power" than is available by today's standards. Such a computer would not only become an integral element of the building, but also lose its sacred seat as the wonder tool of the educated. It would now serve the same place in our lives as the telephone and thermostat.

It will serve these purposes literally. Energy conservation on a thermal level is of extreme urgency, so servo-actuated vent ducts in every room, sensitive to temperature and pressure, are nearly a necessity. By interconnecting these systems to a central processor, programmed with resident's preferences and schedules, peak efficiency can be obtained by spending money on the software to control the environment instead of the resources to maintain it.

**Manifestation**

As the tangible element of this synthesis, I wish to combine two different concepts. First, I am planning a large urban multiuse building, encompassing residential, commercial, municipal, and office space, to demonstrate the idea that buildings must be able to readily adapt to new uses for peak efficiency in a rapidly evolving culture. It will also be a tool in exploring a variety of elements in the lifestyle of individuals, from their home life and recreation to occupational and political dealings. This way, the roots of this futurism can extend further and multiplicably in order to solidify the trunk.

Secondly, I will sculpt the aesthetic of this new world in the image of my own art work. An existing structure is to be mutated by the ravages of time, receiving technology and machinery to remain functional in a world of harsh conditions and minimal resources. Using stylistic drawings, created during and previous to the thesis, description of projected images will be superimposed on an existing building—causing a sharply contrasting dialogue between old and new. It will be the idiosyncrasy of this juxtaposition that will guide the aesthetic approach, a type of chaotic motif, formed by necessity and reflecting its own evolutionary process.

At this juncture, I have one building specifically chosen as my subject. The Auditorium Theater in Chicago, Illinois, designed by Louis Sullivan and Dankmar Adler (with elements created by a young Frank Lloyd Wright), is a prime target for the manifestation. It is a noble jewel in Chicago architectural history, and subject of a great deal of criticism, praise, and editorial; the shock value of a high-tech metamorphosis should be outstanding. It is already outfitted with a hotel, ball room, and retail space, besides the theater proper, so should adapt to maximized use smoothly. The facade changes, however, will be drastic, superimposing a techno-mechanistic shell over the original masonry envelope.
Results

Design Solution

In short, the building becomes a theatrical demonstration of its functional ideal. In this romanticism, High-Tech architecture is, of course, no different in spirit-if totally different in form-from all the romantic architecture of the past.


The renovation and addition of the Auditorium Theater building is the would-be architectural manifestation of this new science-fiction culture. As an icon, it attempts to express in aesthetic language the tides of this culture, in all aspects. I reality, however, the best that it can hope to do is render the existing building with technological means (the computer on which I type right now), and show it in its present and new environments (and potentially, past, given more research and modeling). Following is the design program that expresses the multiuse building through a potential evolution, and helps explain the preliminary modeling that was done as the graphic element of this thesis.

Future Projection

Many of the preceding articles are brought to their fruition in the possibilities and aesthetics of the project. I have hoped to depict a change visually; such an attempt involved a great deal of image information as well as background to give the images meaning. Visual futurism is dangerous because it allows itself to be contradicted. It has no material basis, for the most part, and often relies on arbitrarily sensual guesswork. The concept of architectural futurism suggests the same products, but with a much stronger foundation of technology and purpose. Preferences of not-yet-existent people are still left to guesswork, but an anthropological tilt is added to the analysis. Therefore, I present this not as a prediction but as a projection.
Project Abstract

It is the year 2056, and the Grand Barony of Chicago is in great need of new downtown housing and residential support on the north side. With the congressional Limited Energy and Resource Act instated last year, the construction of a new apartment complex in this zone is expressly forbidden. However, such construction could take place in the form of an expansion addition to any structure currently zoned for residential use. After careful consideration of the existing possibilities, it has been our findings that the prime spot is the old Auditorium Theater building on Congress St., from Michigan Ave. to Wabash Ave., near the lakefront. It is now adjacent to a considerable area of vacant land after a recent material recovery project [building demolition], and, little known to many, contains a converted condominium complex behind the theater, where there used to be a hotel. Therefore, our required zoning parameters are well within constraints. Since the abolition of widespread historic preservation initiatives three years ago, any resistance to altering the face of the monument should be minimal, allowing both design and economic freedom. However, let it be stated that the client's intention is not to obliterate the historic nature of the building. In fact, revenue from this project may potentially be diverted to a second phase of the project, renovating the long-since closed and artiguated theater and adapting it to the technology of more modern cyber-optic holotheaters. Also, any facades left intact to the original construction shall receive reconditioning as needed. It is dearly hoped that such a building could revive the decrepit near-south lakefront after the failure of the 85-story Heptplex limited income housing complex built nearby fifteen years ago. Such a building could reunite the history of the neighborhood to the necessities of the modern day, inspiring a whole new era of growth.
Organizational Data

This is a complex project, with seemingly insurmountable barriers, and so requires the cooperation of a variety of individuals working towards a common noble goal. Though the client, per se, of this project is the building owner, a great many other parties must be given credit where it is due. Of course, the Grand Barony of Chicago, under the esteemed sovereign leadership of his majesty, Baron Adlai E. Stevenson IV (and with proper regard to the former Archduke William R. Daley, should he regain the throne any time soon), has provided an infinite range of support to the initiation of this project. It was the Chicago Life Improvement Committee, appointed by this administration, who introduced us to the demographic need of housing in this area, as well as the idea for an urban beautification initiative, and the good press it would reap. The Chicago Historical Society, though virtually powerless, has served in a voluntary role of considering the historic presence of the old theater. With their tireless hours of research labor and design review, for which they receive no tangible reparation, some small element of the historic identity of the site just might stay intact. Panasonicototronics Corporation of Japan also serves us as the world's leading producers of high-tech, low-E building equipment, and their subsidiary, Arymamo Engineering, has been precontracted under Yakuza Law to design the necessary mechanical and environmental systems. Their past work, though considered utterly disturbing and overwhelmingly thoughtless and "tacky" by the architectural critic community at large, has proven them worthy of this important municipal endeavor. And last but far from least, thanks to the grace of the Teamster's Union, without which most of us working on the project would not still be alive. Their backing of the contractor negotiation process has cut the early contract red tape down to a surprising minimum, as it has the number of contractors available.
Design Criteria

The preceding pages present a great deal of guidance as to the intent of the project design. The aesthetic nature of the should reflect the time (that being 2056), which is considered only visionary at this point. It will be assumed, for the sake of argument, that the timeline specified in my manifesto of future events has taken place and impacted the social, cultural, political, technological, and artistic world in which this building is to be designed. This must be considered as part of the context. Many things that are typically taken for granted will need to be rethought, and by following the guidelines illustrated in the upcoming manifesto, these details will be outlined and addressed.

However, the fact that the construct will take place in the future cannot absolve us, as designers, from still creating an effective and pleasing solution. Indeed, most projects that architects take on must be forward-thinking, for their completion often takes a great deal of time after their inception, and they are expected to compete with the fashion of their day. Normal design criteria, as it is universal in nature, has to transcend time without becoming too enamored with the simple fact of its future existence. For example, an English Cottage Style house can still be built in the mid-21st century. The only difference between doing it now or then is the same difference between the John Ruskin's time and our own: special spatial considerations of the culture for which it is built for, and their specific technological parameters. The elements that make it a Cottage Style design are still intact, such as materials, scale, proportion, form, texture, etc. Though some aspects can be faked, simulated, or concealed, like a built-in home entertainment telecommunications system in this Cottage Style house, clad in a composite plastic substance resembling field stone, the style is always transcendent.

Considering this, it is suggested that the original style of the Auditorium be respected by the addition design, under the philosophy that contrast will accentuate the assets of each section. Approaching the design in this manner allows freedom in the use of contemporary materials for the addition, minimizing construction and resource costs, a particular concern of all parties. Any new elements added to the original "section" of the building shall respect its original intent, and, if possible, copy in every way its aesthetic, tectonics, and form. Original materials, with our so-called advanced technology, should be duplicable, at least on a limited basis. As far as the new "addition", it is up to the discretion of the architect as to the range of expression guiding the process. Choice of a common mechanistic style, using exposed plasteel framing, composite insulative cladding, external mechanical systems, and LCD enviro-glass is probably in order. Such systems can be fabricated inexpensively as modules, and have a high reclaimability. Overlapping or juxtaposition of the two systems is again the choice of the architect.
Site

...the old Auditorium Theater building on Congress St., from Michigan Ave. to Wabash Ave., and its context near the lakefront will be the setting for this endeavor. At this time, site information has not yet been collected, and so cannot be presented. However, I will outline the potential contents of this chapter.

A full inventory of the Auditorium building will be required to estimate the extent of adaptations to be proposed. Hopefully, I can acquire detailed CADD drawings, perhaps from HABS or historic organization sources, to expedite my synthesis of a virtual site and building model. In addition to this, I plan on developing a basis for my predictions by compiling a past, present, and near future history, as it truly exists, of the site. This will begin with a brief history of Adler and Sullivan, and their process of the erection of the theater, and an overview of the culture, politics, and technology of the time. Then a timeline will be drawn, extolling the more telling moments in its history, taking us through the Colombian Exposition, the Chicago Fire, The Great Depression and Prohibition, both World Wars, the Civil Rights movement and Democratic National Convention, the Energy and Gas Shortage, and the Bears' Superbowl. What changes were made, and how the structure has survived will give me an idea of its longevity potential, and any need for renovation. Chicago city planning in this region will also serve an important role, suggesting the real possibilities of the next few years. Personal visits to the building and historic preservation society may uncover other plans in store for the Auditorium.

Now that visits have been made, plans have been studied, and histories have been read, I am prepared to attack the design problem. The exact biography is elementary, as is that of Louis Sullivan, so I will not go into detail there. I have constructed a 3-D computer model of the existing building, including the interior of the first two floors. In doing so, I have subconsciously imprinted in future designs to the site the architectonic intentions of the original design: proportion, scale, geometry, and contrast of the facade. Much like recopying class notes, I have committed these to memory.
Space Requirements

Telecommunications Cybercafe

...a public meeting area serving both the residents of this building and the larger community. Patrons are seated at supercomputer table terminals and greeted by a holographic hostess. They can simply enjoy a cappuccino and full control over their entertainment environment, or interact with the mainframe for a variety of occupational or personal needs. The stations are manipulable for an individual or parties up to eight, and can accommodate virtual teleconferences, full-size hologram projections, and for privacy, isolation fields. Customers will also enjoy a variety of real and synthesized sandwiches, soups, salads, and beverages of varying intoxication from the kitchen, brought to them by live servers. An informal environment, complimentary to other eating and entertainment establishments in the area, may be a necessary hub on which to build community solidarity. It also serves the practical technology needs of those without high-end computer systems at home, and for minimal fees, provides them with cybernet capabilities, object scanners, and holoprojectors, which can be connected to most popular personal microcomputers and cyberjack interfaces, safely and legally.

The Users, Times and Activities

Occupants of the new Auditorium Apartments, as well as the outside public, can utilize this facility. Patrons are projected to be white-collar middle-class city dwellers, who have an excess of money to spend on small pleasures, but not enough for their own high-end computer systems. Many do or would like to telecommute to work, which may be done on
occasion here, if just to get out of their apartment for a while. The isolation fields allow for conferences of all sorts, and so may attract larger groups. An alternative to the typical “night life” will draw a diverse crowd looking for a more intellectually stimulating way to spend their evenings [due to the urban multi-shift system, creating a continuous flow of revolving producers and consumers, some people’s evening may overlap another’s work day. The cafe has to be designed for the mix].

**Equipment and Furnishings**

The main cafe space is dominated by the table terminals. Resembling a black glass tabletop (specific aesthetic designs vary, and can be customized), the surface is capable of more than setting plates and cups. It is a video display accepting touch input, as well as scanning and holoprojection. The simple video interface allows customers to select from a huge variety of entertainment sources, degrees of privacy, and internet control. The actual supercomputer hardware is located remotely; these are only terminal units, and are durable, light, and moveable. Interface jacks are located under the lip of the table. Audio, lighting, ventilation, and isolation field systems are located in the ceiling grid. A reception counter, adjacent to the kitchen, should stand at the front entry, as much for security as for paying the check. Servers carry hand held terminals for remotely placing orders and accepting payment (as well as inter-employee communication). The kitchen, partitioned from the cafe, contains dish washing and storage, refrigeration unit, cooking station, synthetic food processor, preparation counter space, water reclaimer, dry food storage, beverage dispensers, and access to the supercomputer hardware. In addition, a niche for a desk and employee closet is necessary, with a standard fixed terminal for phoNet, accounting, and recipe management. It is not necessary to make this a separate room. A single institutional restroom for up to three people will be sufficient, with no special equipment concerns [separate restrooms are no longer a programmatic need].

**Special Design Criteria**

Though a public space, an intimate, warm, comfortable environment is desired, to attract a pensive, intellectual crowd looking to relax and enjoy the amenities. The architectural component should be dark and set to the background, showcasing the technology available to the patrons. The virtual entertainment and interaction devices will prove to be more realistic if not juxtaposed against real tectonic elements. Only the kitchen/office, as a separate space, should feature bright, efficient surroundings, but this should not interfere with the cafe atmosphere of mystery and theatrical intrigue.

**Environmental Conditions**

As stated above, the cafe should be lit minimally, making each station feel like a warm, cozy niche, a personal carrel in the darkness. Within the overall dark environment, each table can individually control its own ambient conditions, including light, sound source and volume, air flow, and, to some degree, temperature and outside interference. If there are windows to the street in this space (not a requirement), the should be variably dimmed with LCD screens during certain times of the day. Natural light can be maximized to save energy by creating a composite of patron preferences in the main computer, and optimizing their exposure. Skylights may be helpful here, and perhaps even natural ventilation can be controlled in the same manner. Again, the kitchen should be much the opposite, treated mainly as a work environment, for efficiency, cleanliness, and organization.
Space Adjacencies

This facility will be located either at street level or at least one of the lower levels, accessible and visible to building occupants and passersby outside. It should be clustered within the internal mall of commercial and public establishments, probably as an anchor or architectural focus point. It has its own restroom, so does not need adjacency to a public toilet. At this time, it is uncertain whether similar functions, like eating, entertainment, and shopping, would be best clustered together or distributed diffusely throughout the public space.

Estimated Area

Allotted area per table .......................................................... 58 ft²
(based on 9 ft² per person, average 4 people, 12.5 ft² per table/terminal, plus 20% for circulation)
Cafe space, optimal number of tables is 30 .................................. 1740 ft²
Stage/conference center ......................................................... 40 ft²
Reception/security counter (4'x5') .......................................... 20 ft²
Kitchen ............................................................................... 140 ft²
(20 linear feet of 18" counter/utility space and 4' circulation, plus 30 ft² for required equipment)
Office space ................................................................. 30 ft²
Supercomputer space ......................................................... 20 ft²

Gross Area ................................................................. 1990 ft²
Space Requirements:
Inter-responsive Ergo-partment

...a high-tech living unit, to replace the converted dormitory hotel rooms now in the building. The current spaces are not sufficient for permanent domiciles, and were never intended to be more than overnight dwellings. In fact, even the squatters found in undeveloped sections of the hotel require more than one unit, and often partition off whole sections of hallway to make a single home. Especially in these areas, some major restructuring is going to be needed to provide saleable apartments. The solution for the areas that have gone condo has been to simply open doorways between the rooms, creating shotgun layouts, and not very practical for multiple private spaces.

The Users, Times and Activities

The living units must provide for 24-hour access, service, and privacy. The specific living arrangements and family makeups vary considerably, so the modularity of the spaces, for customizable orientation, is of the utmost importance.

Equipment and Furnishings

Though most of the apartments' furnishings are to be provided by the tenants, the efficiency of the design depends on a network of built-in amenities. However, the most important element to be integrated into each apartment by owner is not a tangible furnishing at all, but the holographic and environmental software implemented through the living unit's central home computer. This computer is installed as part of the utility module, which includes all of the plumbing, bathroom and kitchen fixtures (excluding walls), fire suppression, the electrical and communications center, a lighting and holography array, the HVAC distribution core, and several universal utility couplers (UUCs), arranged for multiple building configurations. This utility module is a self-contained unit, that can be wholly installed (usually from the building exterior via crane or scaffold) or replaced for repairs and improvements. The modules are manufactured off-site inexpensively as a stock consumer product, and for this site, they can be transported from across Lake Michigan in large numbers on hovercrafts. Utility branches can then be installed in the ceiling and recessed floor grids, distributing ventilation, electricity, and, in a few cases, plumbing through the apartment. Similar branches, called crown utility module branches (CUMBs), are mounted through the UUCs to provide for retrofit areas adjacent to the apartments (like hallways and anterooms).

Special Design Criteria

A comparable motif will be executed throughout the complex, for the sake of reuse of modular parts in the apartment interchangeability. However, since a great deal of the apartment interior is defined by its holographic software, fabricated aesthetics will be chosen in the interest of efficiency. Layouts of the individual apartments will be set in walled-off clusters of four to six, so freedom to reallocate space between them relies only on portable modular partition walls.

Environmental Conditions

The home computer will be the central control system for each individual unit, and can be programmed to regulate the environment of each area differently. Included in central control is temperature, ventilation, light level, holography motif, and any sound damping or force-field options that are available. Typically, remote controls are located in each room, sometimes with their own computer interface and holomonitor; personal computers can also be used. Each adjustment can be personalized accordingly.
Space Adjacencies

The ergo-apartments shall be organized in such a way as to allow easy access to each unit from vertical circulation nodes, and must comply, of course, with applicable codes (the CUMBS provide fire suppression to hallways, reducing risks). The units can be organized in clusters or in rows, and variety of configurations will be expected. They must be organized to allow a clear path for the UUCs to be interconnected to the service runs, whether they be horizontal or vertical, exterior (as on the addition) or internal (as in the old building). Isolation from public use areas is recommended, especially the theater and street frontage.

Estimated Area

Average net area per apartment................................. 1000 ft²
(based on 150 ft² per room, average 4 rooms, plus 50 ft² bathroom, 50 ft² storage,
150 ft² kitchen/utility, and 150 ft² entry and circulation (15%))
Utility module footprint approx. (3’x15’).......................... 45 ft²
Partition footprint and utility runs..................................... +5%
Corridor and anteroom circulation.................................. +10%

Gross area per apartment........................................... 1200 ft²
Space Requirements:
Architect's Office and Studio

...a 21st century design studio whose open atmosphere and technological refinements are conducive to building and other design in a variety of media. There is a definite polarity in the layout; the first area is necessary for the operation of any traditional business effort. We can call this the Office. The second part is an extrapolation of the modern artist’s design studio, but far more intense in personality and comfort, for the new virtual reality machines require that the designer be in a submissive yet confident posture. This will be the Studio, carefully concealed from the formal publicity of the office, allowing the creator to become one with the machine through a combination of specialized neural enhancers, body sensor wear, and holographic imagery, without exposure of the think-tank process [though done mostly for recreation, it has become acceptable to use customized hallucinogenic drugs to bridge the gap between the human mind and computer reality; designers have found it integral to professional use]. The Studio must meet these needs while responding to traditional design methods.

The Users, Times and Activities

Yours truly, upon noticing its vacancy, has suggested the restoration of the offices in the southern tower to their earliest use: offices for an architectural firm. Our firm is small, in terms of manpower, but is extremely influential in the downtown area. Adler and Sullivan’s own firm hailed here for many years, though the new equivalent will do little to simulate tradition. New design technologies are currently being explored by us in the hopes of incorporating them into the Congress Street office. This will consist of only four rooms: a reception office/conference room, a tech/storage room, and two private design studios for the partners.

Equipment and Furnishings

Though most low-level employees will telecommute (about ten people currently work in this capacity), nonspecific workstations will be set up in the first two areas for in-house operations, including two reception/secretarial stations, two architectural stations, a mainframe control station, and six black-panel presentation stations in the conference table, which also includes a central holoprojector. This is where client meetings would occur, so comfortable chairs and unobtrusive terminals are suggested.

The design studio is indeed the climax of the technical accomplishment. These studios are synthesized from think-tank principals, using virtual computer interfaces for only the main designer’s use. On one hand, the studio will include a drafting/digitizing table, a modeling station, and a terminal. In the center is the paradox: the virtual design chair, ergonomically designed to automatically adjust for support and comfort over long periods of time, as the designer moves erratically in a semi-hypnotic computer interface state.
Many chairs also include personal hygiene systems for extended sessions (some designers create under neurostimulants for over 48 hours). This method allows an architect to fully conceive an integrated computer model of a complex building, worked out to construction detail in 3-D, under a consistent train of thought, in a short period of time. Cyberjack interfaces, transdermal injectors, and cybergloves and monocles are among many of the available tools, while a main holoprocessor provides the main viewer. Walls and furniture are to be padded in case of unconscious movement during these sessions (some people feel more comfortable standing or walking around while under the influence of the neural enhancers). A comfortable futon and mini-vanity are also to be included, so that the architect can clean up and sleep off a design binge.

Special Design Criteria

The design studios are to be furnished and decorated strictly to the user's personal preferences. The office, however, must cater to a more formal appearance. The motif of black-on-black has been chosen, suggesting a nebulous space of unseen lights, windows, and surfaces. A sleek, technical, slicker-than-future look is the goal. Very little ornament, besides scattered backlit artwork, shall be allowed. The tech/storage room will be simply mechanistic, inexpensively exposing the systems (including a utility module).

Environmental Conditions

The interior is well lit and warm, but carries the illusion of being suspended in a spatial void as it is visually undefined. The sound system should reinforce this with music and pink and white noise. The terminals distributed throughout the office each have controls for ambient conditions, with programmed presets for presentation, client meeting, interoffice meeting, evening hours, and daily function. The floor will also be lit from recesses, for safety.

Space Adjacencies

This facility will be located in the south tower of the old building, on the 13th and 14th floors (the design studios will be on the 14th). The 13th floor is open to the elevator and stairwell, while the studios are accessible only through a stair concealed behind the reception desk. A separate entrance to the elevator, at the street frontage, will occur at the west or east of the box office on the first floor. This entrance will also service other offices in this wing, but not the commercial or residential areas.

Estimated Area

Net 14th Floor:
(2) Design studio spaces each ........................................... 250 ft²
Net 13th Floor:
Reception Area ................................................................. 300 ft²
Conference Area ................................................................. 350 ft²
Tech/storage room (incl. 50 ft² bathroom) ............................ 300 ft²
Utility module footprint approx. (3'x15') .............................. 45 ft²

Partition footprint and utility runs ..................................... +5%
Corridor, stairs, elevator, and circulation ............................ +15%

Gross area ................................................................. 1800 ft²
Space Requirements:
Retail Information Boutique/Cyberstore

...a sort of "learning store", where both learning aids and direct knowledge are sold [direct knowledge is computer software that can subliminally insert basic information in most any subject into the permanent memory, using only simple audiovisual equipment, and occasionally mind-stimulants to improve susceptibility]. A variety of personal computers, classroom cyberlinks, mind-stimulants, and educationally-priced software packages are available to inner-city students and tutors. Though independent of Roosevelt University, this is commonly where textware and teaching aids are purchased by the student population. The west street-level frontage space is in high demand by retail developers, and should be adopted as such. Formerly, it was the entrance to Roosevelt's on-campus dormitories, which earlier had been the Auditorium Hotel. In a small space on the corner of Wabash and Congress, there is an existing bookstore, but it is currently inefficient at handling modern educational needs, and can be improved and expanded into the dormitory lobby space.

The Users, Times and Activities

Patrons, mostly Roosevelt University students, shop at this establishment for a variety of information needs. This could include old-fashioned paper books (still very popular), textware [software version of a book, often hyperlink indexed and inclusive of video, sound, and 3-D files], and a variety of classroom learning and teaching aids. Not only do they sell personal computers (students typically use pocket-sized units with holomonitors), but the store also handles, services, and installs supercomputers, telecom and satcom systems, neuronet interfaces, and low-tech cybernetics. In addition, the Information Boutique will also merchandise "direct knowledge", a method of installing simple knowledge into the long-term memory without going through the labor of learning it traditionally. This is, of course, no substitute for education, as it can only install simple list information, and not comprehension or mechanics, but it does speed the educational process. Sessions of direct learning work much like indoor tanning; go into a booth, plug into the machine, stare at a hypnotic projection through goggles, and accept the transdermal injection of neurostimulants and consciousness repressors. If a client has a neuronet, they can jack in and the process will be quicker and more effective. After an hour or so at the machine, and a few hours to adjust, the client has instant recall
over a new pool of knowledge, say, a complete vocabulary of conjugated Spanish verbs with definitions and pronunciations, or maybe an extensive cross-referenced catalog of historic buildings, architects, places, and dates. The knowledge lasts indefinitely if referenced periodically, though may not always be 100% accessible.

**Equipment and Furnishings**

The front of the cyberstore must be set up like a typical bookstore: small aisles of bookshelves and display cases, whose end caps typically have sample players of the textware content. These shelves shall be rearrangeable by the employees. The display counter in back serves as checkout and reception for the direct learning booths, and has invisible terminals for the employees in the glass. The semi-private booths behind the counter may be completely enclosed or simply carrel desks, sitting or lying down. A headset with earphones and a cyberglove with an active derr are wired to a terminal in the booth, which is where payment is made and the client is readyed for the experience. Personnel must be on hand to aid the clients.

**Special Design Criteria**

The space should be treated as any other retail business: conducive to buying. It should also suggest an expertise in technology, so a techno-mechanistic motif is expected. Perhaps this space can be placed on the street transition between the old and new buildings. The inside of the store can then mimic the entrance, while staying connected to the old Roosevelt University. Though it is desired to have the clients of the information boutique in relative privacy, viewing them may inspire others to try it out, demonstration being the best selling approach.

**Environmental Conditions**

It is the architect's discretion as to the amount of subliminal suggestion equipment will be installed into the lighting equipment and sound system. Besides that, the front store area should be brightly lit and clean, colored to inspire a mood of trust and impulsiveness. The ventilation has to respond to varying public crowds, and all systems should labor to isolate the direct learning area, making it quiet and relaxing.

**Space Adjacencies**

As stated before, the transition from the old to new building may create a seam in time and style, appropriate to this use. This may be a clue to access and approach.

**Estimated Area**

Pending specifications of the users.
Space Requirements:
Cyberoptic Holotheater Refit

...the grand theater that was once the very purpose for the Auditorium Building has befallen years of unfortunate neglect, due to a variety of shortcomings. Public interest in the theater has dropped significantly in the last 30 years, putting the Chicago Theater Association on hard times; where live productions do still occur, larger venues outside of the crowded downtown are preferred, especially since they are newer, less expensive to maintain, and more capable of handling large scale special effects. The structural system is in question, having deteriorated with age and a settling foundation (accelerated no doubt by the New Madrid earthquakes of 2032-35), and requires expensive attention. There is still a huge electrical draw from the thousands of incandescent lights and outmoded mechanical systems, which is simply unacceptable by current energy codes. Finally, the piece-by-piece replacements of amenities is too expensive to continue in keeping with historic accuracy.

The Users, Times and Activities

However, there has recently risen a new need for the old theater. Ironically, it is the advent of a new technology that rejuvenates the Auditorium’s usefulness. Holoprojection technology has evolved into an inexpensive, widely accessible interest in the entertainment industry, especially since the advent of new crystalline optic chips by Panasonyotronics. A great deal of new movies are being filmed in this 3-D format, and are only awaiting venues in which to present them to become available. Since a large clear stage area is needed for the projections, the renovation of smaller stage theaters has become a trend. Obviously, the historic preservation opportunities are abundant, as hundred-year-old auditoriums, long converted to low-budget movie theaters or small-production artifacts, may be able to regain their past glory.

Equipment and Furnishings

The beauty of all this is, holoprojection devices actually take up less space than traditional theater equipment, and can be installed alongside these systems to allow for simple reconfiguration to live stage production mode. Some of these projectors can even replace stage lighting in certain instances, with a much lighter power draw. Therefore, this machinery can be integrated into existing theaters with little or no interior atmosphere impact. Restoration can take place without restraints of modern amenities changing the character of the space. The Auditorium, I believe, is a prime candidate. With over 4000 seats, a central downtown location, immense historic significance, and on-site restaurants, residents, and students, it would serve as a successful heavy-use entertainment and educational theater. At least enough revenue could be earned to cover the costs of refurbishing the expensive liabilities noted above.

In addition to the holotheater and live stage resurgence, there are a variety of other technologies available to insure the success of the new theater. Cyberoptics for those in the audience with digital optical enhancers implanted into their eyes (another growing trend, using cyberjacks) can be wired into the seats or remote sensors for an even more spectacular viewing experience. Similar systems exist to increase audio performance, even though the natural acoustics of the Auditorium are already splendid. Also in this vein, legal neuroenhancers have proven to be a huge marketing tool in entertainment, selling appropriate derms [transdermal drug release patches (Gibson, Neuromancer)] for each presentation at the snack bar. In high-end venues, active transdermal injectors are available to control the substance’s effect on the participant, optimizing the drugs to follow the show’s rhythm. In addition, force fields are becoming commonplace in public spaces, both for damping of sound and visual privacy (isolation fields can subtly refract
sound and light, distorting and attenuating it in a focused area to avoid eavesdropping or disturbance). Stronger repulsor fields have been shown to aid security measures and public safety, and can even be used recreationally by adjusting gravity pulls on the audience as another cinematic augmentation. Such features, I suggest, should be added to the theater refit, making it as much a modern marvel as it was 150 years ago.

Special Design Criteria

The most important design implementation will be that of transparency. The restored theater is not to change visually, at this time. The challenge will be to restore the 1890's ambience within a modern technological marvel.

Environmental Conditions

Aside from the experience-amplifying equipment installed throughout, standard ventilation and lighting are still a concern. Most of this will be piped through the floor from below, and use the existing concealed systems in the ceiling.

Space Adjacencies

The central location of the theater will of course remain. New access for both safety and marketing may be considered, where they can optimize people flow around the building's profit centers. Channel egress past amenities like the Cybercafe and the retail units. It should not interfere, however, with traffic from the residential, office, or university areas of the building. Access to the monorail station is a necessity.

Estimated Area

There will be no changes to the space allocation of the current theater.
Space Requirements:
Main Residential Addition and Twin Tower

...a great deal can be done in the shell of the Auditorium Theater; indeed, much has been done. However, expansion allows the glory to be greater, and takes away the burden of catering to impropriety. Though it can be assumed that the vacant quarter block behind the Auditorium will be filled in the next 60 years, it can also be expected that it will find itself again vacant.

The Users, Times and Activities

The main purpose of the addition is to allow expansion of the residential space, as is needed in the program. Access and natural lighting can be better controlled, so activities that require enhanced support from the overall building will fit best here.

Equipment and Furnishings

The addition is nonspecific to all spaces it envelopes, but an interior/exterior relationship of similarity and scale are paragons of modern design fashion. Consider this when planning the equipment to be used and its impact on the aesthetic nature.

Special Design Criteria

Besides necessity, the addition is also a playground for the century-and-a-half old transition; experimentative architecture is expected, involving the utmost respect of the old building, while celebrating the attributes of new styles. Use a combination of good judgement and freedom to make a fitting tribute to the past and future at the same time, blending the difference in order to fully ascertain some of the basic truths about good architecture through all time.

Environmental Conditions

As the original building, through the use of bearing walls to the exterior, allows for minimal permeability, the addition shall maximize daylight and natural ventilation. Efficiency is overwhelmingly important, and special considerations can be given to this need. Whether it be sunlight refocusing arrays, solar energy collectors, air scoops (to take advantage of the lake effect), or thermal containment fields, new technologies are welcome to maximize the building potential.

Space Adjacencies

Located at the northwest quarter of the block, the site has direct access to a great deal of the old building, including the theater, residential, ground floor, and office space, and also two street faces and a monorail track on the west side. Utilize these relationships.

Estimated Area

Area at this juncture is indeterminable, until the refit of the Auditorium reveal additional needs for space and support.
Space Relationships

This functional diagram is pending design compatibility with plan of existing facility. It is based on space requirements as available, extrapolating future information.
Space Summary

...this is a preliminary calculation, made before the final program.

Gross Area Calculations

Net assignable square footage
Telecommunications Cafe .................................................. 1990 ft$^2$
Total residential area .................................................. 75,000 ft$^2$
  (Based on 1500 ft$^2$ per apartment, 50 new apartments)
Total new retail spec space ............................................. 20,000 ft$^2$
Administrative suite ...................................................... 8000 ft$^2$
New office spec space .................................................... 15,000 ft$^2$
Occupant services ......................................................... 500 ft$^2$
New lobby ................................................................. 1000 ft$^2$

Total Net Building Area ............................................. 121,490 ft$^2$
Unassignable space (30% of gross: mechanical, circulation, etc.) .... 52,070 ft$^2$

Total Gross Building Area ........................................... 173,560 ft$^2$

Estimated Cost

(Though not accurate to the true economic projection, cost is in 1990 dollars)
Renovation of original Auditorium Theater is not included in these calculations.

Basic cost at $84 per ft$^2$ ........................................... $14,579,000$
  (Based on excellent quality construction of dense residential/office/retail)
Add Chicago regional modifier of 1.12 ................................ $16,329,000$
Estimated escalation/inflation for 30 months at .25%/month ................ $1,225,000$

Actual estimated building cost ...................................... $17,553,000$
Fixed equipment allowance 7% ..................................... $1,229,000$
Site development allowance 5% ................................... $878,000$

Total construction cost ................................................ $19,660,000$
Movable equipment allowance 5% ................................... $983,000$
Professional Fees 12% ................................................ $2,359,000$
Contingencies 10% ...................................................... $1,966,000$
Administrative Costs 3% .............................................. $590,000$

Total project budget .................................................... $25,558,000
Reflection

Conclusion

Science fiction writers, I am sorry to say, really do not know anything. We can't talk about science, because our knowledge of it is limited and unofficial, and usually our fiction is dreadful.


I look at this experience as an opportunity to explore the wilder ranges of design, and explore myself as a writer. I did not intend on being great at any of these things, but rather to integrate a variety of elements . . . perhaps too many. I have accomplished a few of my objectives, however: to put my vision in an orderly format in the program; to research and comprehend a complex historic structure; to write with feeling about the possibilities; to build a 3-D computer model with multiple building stages; to use that model to animate a presentation; to improve printed graphics on a computer-generated layout. I believe that these things make this as yet unrectified project an educational success.

Experience

The study of the Auditorium Building became a project upon itself, as was the computer modeling of the building. It very well might have been feasible to downscale the thesis focus into working with Roosevelt University and the Theater Association to build such a model, to be used as a resource for future architectural endeavors. At that degree, I might have been able to complete the interior of the model, including CADD plans based off of the HABS documentation, and more effective fly-throughs. This would have also offered the possibility of developing a client relationship, which the current state of this project is virtually devoid of. A transaction like that would have motivated the thesis to become more productive, and would have surely spawned just as many new design ideas, possibly to be included in the existent master plan of the building.

But all of the remorse over courses of action in the world could never change the results, which do not go unsold. Another lesson learned, which may be some cause for the lack of chutzpah, is the apparent distaste for visionary outlooks within serious academic endeavors. I might attribute this to the incredible void of good science fiction in the last ten years (possibly the symptom of an overly content culture?). Regardless of the cause, the fact seems that the very attempt is looked down upon.

Epilogue

I walk away from architecture to explore more of what I imagined here. I'll leave the design to those with a head for choices. I am better at asking questions, defining situations, and fixing details. I consider myself an engineer, a builder, and an artist. Architects are something more, which I am not . . . CWKjr97.
Notes

Text in this font represents present thesis ideas.

Text in this font is written from the future point-of-view, as in the program.

Text written in this font are inspirational quotes that help me explain my ideas.
All quotes taken from *The Columbia Dictionary of Quotations*, unless otherwise cited.

All images without captions are either public domain clip art or my own hand-rendered and CADD-rendered drawings. Graphissoft's ArchiCAD 5.0 was used for most of the computer-generated graphics. Other images stand as cited.
Bibliography

The Art Institute of Chicago, Ryerson and Burnham Libraries architectural collection. Selected sheets of the original plans for the Auditorium Building, microfilmed in June, 1952, on loan from the architectural firm of Holabird & Root & Burgee.


Ridley Scott (director). Alien. Paramount Pictures ©1979. A technological marvel of stage set detail and technological accuracy, the vision of four artist/designers set to the background of horror.


A VIRTUAL REALITY THESIS IN CHICAGO. 2056

SITE ANALYSIS: MICHIGAN AVE. AND CONGRESS PKWY.

VISIONS: A GOLDEN AGE IN A DARK FUTURE
Futuristic Projection by Charles W. Kotter Jr.

A Virtual Reality Thesis in Chicago 2056

"Area is both intellectual exploration and the ideal of a genre.

Inspirations: Working in an Established Literary Genre

Visions: A Golden Age in a Dark Future
Futurist Projection by Charles U. Kotaka Jr.

Visions: A Golden Age in a Dark Future

Master Plan: Auditorium Renovation and Addition

Virtual Reality Theories in Chicago, 2056
Virtual Reality Theories in Chicago, 2056

Building Additions: New Technology on Proven Ground

Visions: A Golden Age in a Dark Future