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Spatial Perception and Integration of the Interior and Exterior Environments

Plan C Paper
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Plan C Courses of Study

Housing: Societal and Environmental Issues (Human Environments 3340)
Environment, Technology, and Social Change (Sociology 6620)
Interdependence: Grounding the Eco-Self (LAEP 6900)

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Introduction

My course of study, which focused on spatial perception and integration of the interior and exterior environments, has fulfilled my expectations completely. The underlying premise of my personal design philosophy is the idea of integrating the man-made environment with the natural environment. I felt before I undertook this specialized coursework, and feel so even more now, that there is much to learn about the multitude of effects -- therapeutic, emotional, psychological and experiential, to name a few -- that designed spaces have on people.

During my undergraduate coursework in interior design, I studied the form and function of the built environment, and the various ways they influence users of those spaces; in my graduate studies in landscape architecture, I have learned similar processes with regard to the exterior, natural environment. With the completion of my coursework for the Plan C option at Utah State University (USU), I have investigated the union of these two fields, interior and exterior, to further enrich my understanding of this subject and have thereby further developed a more holistic design philosophy. My philosophy, as explained more fully in the body of this paper, is that interior and exterior spaces should be consistently considered and planned for with reference to each other, resulting in a seamless, complete, flowing design. Interior and exterior environments should not be considered as separate entities unto themselves.

Although both of these environments do have their unique purposes and activities that take place therein, I firmly believe that the potential of each is not fully realized unless both environments are integrated into a complete,
consolidated design scheme. This "whole scheme" must be firmly rooted in the designer's mind and evident in his/her approach from the very beginnings of the design process. I feel, after having taken this series of courses, better prepared to apply such a unique philosophical approach as this to my career as a landscape architect, and better prepared to work with designers, architects, and other professionals.

In this paper, I will discuss how my course of study and academic concentration integrates with the discipline of landscape architecture, and summarize the benefits and shortcomings of the coursework. I will also elaborate on my personal design philosophy, and assess the potential application of these courses to my professional objectives. I will do this by organizing the paper into the two major categorical components of my title: (1) spatial perception, as viewed from a design perspective, and (2) integration of the interior and exterior environments. Within each component, courses which best support my focus will be highlighted, and specific issues and insights gained from these courses will be discussed. I will answer the following questions in doing so:

- What were some key items discussed or discovered in this combination of courses that are salient to my area of concentration?
- How have these courses influenced my personal design philosophy?
- Could I be a better landscape architect after having completed this coursework, and how?

All the courses I selected to explore my topic were found within the college of Humanities, Arts and Social Sciences, specifically in the department of Human Environments and the department of Sociology, Social Work and Anthropology. I
also completed an interdisciplinary course offered through the department of Landscape Architecture and Environmental Planning (LAEP), which was taught by a professor from outside the department. These three courses are listed below, and following each is a brief excerpt directly from the USU General Catalog or course syllabus describing the course content:

- **Housing: Societal and Environmental Issues (Human Env 3340)**
  
  Studies housing in the contemporary U.S., including affordability, access, expectations, aesthetic considerations, and effects of public and private policies on housing choices. Needs met by housing and how the life cycle affects housing choices. Environmental issues such as land use and community development.

- **Environment, Technology, and Social Change (Sociology 6620)**
  
  Focuses on human interactions with the physical environment and changes brought about by this interaction. Topics of major emphasis include: approaches to environmental sociology; environmental values and attitudes; social movements pertaining to environmental concern; and social change responses to technology and resource scarcity.

- **Interdependence: Grounding the Eco-Self (LAEP 6900)**
  
  Examines principles of interdependence in personal, social, and cultural contexts; explores concepts of sustainability and of defining a workable environmental ethic. By choosing interdependence as its theme, this course, originating in the humanities, offers an interdisciplinary perspective on root causes of the environmental crisis.

I wish to make two brief observations that are relevant to the content of this paper before I continue. This paper deals with the issue of spatial perception and integration of the interior and exterior environments at a number of scales. At the community scale, there is too often a disconnection between interior and exterior spaces, instead of integration. This disconnection is indicative of what I call a 'neotraditional' perspective between interior and exterior spaces that could
Interior space
• island unto itself
• taking few cues from surroundings
  (viewsheds, siting, contextual aesthetics...)
• in nature, but not part of it

Exterior space

Integrated space

'Neotraditional' perspective
Goal: interior and exterior spaces as one space

COMMUNITY SCALE -- Interior space plus Exterior space equals one space

Society
• island unto itself
• taking few cues from surroundings
  (consumption, waste, pollution)
• in nature, but not part of it

Natural environment

Integrated environment

'Neotraditional' worldview
Goal: society and nature as one environment

GLOBAL SCALE -- Nature plus society equals one environment
(concept for graphic title: Eckbo, et al. 1998)

Figure A
have reached an ideal level of design, had both been integrated (see Figure A). I use this spatial concept in the first component, ‘Spatial Perception.’ At the global scale, similarly, a disconnection exists more often than not between a society and the natural environment in which it is located, indicative of what I refer to as a ‘neotraditional’ worldview. I refer to this disconnection extensively in my second component, ‘Integration of the Interior and Exterior Environments.’

‘Neotraditional,’ which I use as a term to describe these negative perspectives, is derived from the following rationale: this disconnection, be it at the community and global scale, has not always been this way. It has, however, been this way long enough to be called a ‘tradition’ in my opinion, a tradition of poor design. Classical architecture could be cited as an example of careful and quality design that has not just endured hundreds of years in a physical sense, but has shown us a standard of how quality design can be achieved (see Figure B). Proportions were scrutinized. Views were meticulously choreographed and framed. Minuscule details were given incomprehensible attention. In short, the designs that were created were timeless -- their inherent quality and reverent display of such principles as form, balance, proportion, and scale leave a testimony for future generations of the thought and theoretical premises behind these designs for that particular historical period.

Somewhere along the road, we stopped caring about this kind of quality design. We became disinterested in tying together a particular piece of architecture with the surrounding environment the way the classical architectural masters did, and frankly, we became satisfied, or content, with what I refer to as ‘neotraditional’ design that lacks greatly in substance. Rather than creating strong
Corner Detail, The Basilica, Vicenzo, Italy, 1545.
Andrea Palladio.
The corner column emphasizes the edge of the building form.

Figure B

Piazza San Marco, Venice. View of the area framed by the Doges' Palace on the left and Scuola di San Rocco on the right. The entrance to the plaza from the area marked by twin giant columns, the Giant's Column (1530), Column of St. Theodore (1539).

B-1

B-2

B-3

B-4

Tetrastyle Atrium, House of the Silver Wedding, Pompeii, 2nd century B.C.
design statements like those of the classical architecture period, we are content with weak attempts that are out of proportion and scale, and that fight against the local natural context instead of working with it. Rather than producing timeless, beautifully detailed pieces of design in the landscape of the world, we have largely become accustomed to the mass production of buildings and landscapes that are based solely on our economic capabilities of the time.

Another observation I wish to make is that the issues of spatial perception and integration of the interior and exterior environments are inseparably linked together. This is illustrated in Figure A. These drawings show a striking similarity between small and large scale design. Small scale design is represented at the community scale in this illustration, where architecture, and its associated interior space, is represented by a single building. In typical neotraditional manner, this interior space is commonly disassociated with its surroundings. In many ways, it is an island unto itself. It has failed to take cues directly from the existing exterior context. For instance, opportunities to capture a fantastic view of a distinct, distant landform have been either intentionally or unintentionally skipped over. Climatic constraints have been overlooked with reference to the building’s orientation and position on the site, and the character of the region in which the building resides has been ignored. An example of this latter statement is seen when, for example, a “chateau” style home is plopped down in an arid, desert region of Arizona. This is obviously not the most appropriate contextual setting for this style of building. In summary, the representative building in Figure A is placed in a particular environment, but is not responsive to the environment’s demands (e.g. climatic
factors, contextual aesthetics, and so on) and it is not making that intrinsic connection with its environment.

Similarly, and all too often in many places around the globe, a society lives as an island unto itself, taking few cues from the environment and the damage it is inflicting upon itself or upon other societies (e.g. in the forms of overconsumption, irresponsible waste production, air and water pollution). Society is viewed as being in nature, but not part of it...nature is considered by individuals as being ‘out there.’ In some cases citizens view their society as even being above nature. This is depicted at a global scale in Figure A.

An example of this disconnection is seen in the typical American citizens’ indifference towards their contribution to the immense production of waste. Every time we need a carton of milk, we go pick up one at the store. Soon that carton of milk will end up on a mountain of trash in a landfill somewhere...somewhere ‘out there.’ This inevitable fate does not even remotely cross the mind of the typical American consumer. They seem to have no regard for where their waste will end up. Therefore, they have no interest in reducing either their consumptive habits or their production of waste. If the reader has ever visited a landfill, he or she will instantly have imagery of the vast mountains of consumer trash and its associated unbearable stench. The United States would gain both economically and environmentally if it would follow the example of mandatory recycling practices of countries such as Canada and Germany, for instance.

Having considered now the disconnection between man and the environment at local and global scales, I now discuss some of the ways that we as
a society perceive our environment, and the impact that design professionals can have on that perception.

Spatial Perception

It would be appropriate to begin this section by clarifying how spatial perception fits into my design philosophy, and how I view spatial perception. In the context of space planning methods appropriate to a given situation, be it interior or exterior, spatial perception is an integral part of the design process, and has a tremendous impact on the user or users of a space. The most successful interior designers, for example, spend much crucial time on a project in the space planning phase, producing dozens of different plans, each of which impact how the space is perceived in a building. They create cross sections and evaluate quick sketch renderings of the three dimensional space. They will keep hashing and rehashing their design until proportions and dimensions are comfortable (based on our contemporary Western standards). This process will continue until the configuration of elements define the space correctly, until an appropriate degree of enclosure is established via partitions, windows and other openings, and so on...in other words, the designer is not satisfied until the space feels right and the desired character of the place is established.

Similarly, architects and landscape architects dedicated to quality design standards will follow similar processes to design space at a range of scales, from very small to very large. They too deal with creating or modifying the proportions and spatial boundaries of an enclosure or outdoor space, which in
turn influence the spatial definition and perception of the space (a comparison of spatial definition is shown in Figure C). The end product of the architects' or landscape architects' efforts: designs and construction drawings that eventually evolve into created or otherwise modified space that is functionally and aesthetically appealing to a broad range of potential users. Note the emphasis
here on *space*, not *spaces* (interior and exterior). When viewed this way, the space is thereby holistically integrated. Thus a genius loci, or sense of place, is established in that *space*. Spatial perception plays a critical role, for any space, building, courtyard or landscape in general which lacks that comfortable *feel* is simply not going to reach its potential.

I have attempted to more fully understand spatial perception throughout all my years of higher education, for if one can truly master, or even begin to master such a delicate balance between the form and function of the *space*, one can truly create multitudes of spaces that almost magically attract and connect with people. People understand the spaces they occupy. They perceive their surroundings, and either they *feel* comfortable there or not.

As I mentioned earlier, there are varying degrees of scale in the field of design. For example, in the field of landscape architecture, you see designs and plans generated for the smallest of pleasure gardens, but landscape architects also work at the very large scale of community and regional planning. They are often involved in the planning of an entire watershed, for instance. Architects and interior designers also deal with projects of varying scales, ranging from a simple storefront design or coffee shop space planning layout, to projects at the other end of the spectrum of scale such as resort, campus or community and regional planning, and the associated components dealt with for each. It is easy to understand from these examples how broad the range of opportunity is in these professions. In each of the aforementioned examples, boundaries and open spaces, enclosures and viewsheds, and orientation of buildings or elements on the site play a critical role in the spatial perception of the individual project. A space is
perceived quite differently in a dynamic way, too, when one moves through the space and vantage points thereby shift (see Figure D). I have mentioned that the end product of these professionals' labors is a design that is perceived in a positive way by users of a space, and ideally, a design that integrates interior and exterior spaces into one perceived *space*. This would be the ideal. But as I will also point out in the next section on integrating the interior and exterior environments, this ideal is not always achieved.

I now discuss specific components of each of my courses which were most influential in deepening my knowledge of this topic, and explain how these components have furthered my understanding of spatial perception. In these courses, I investigated a breadth of social and environmental issues, and was given opportunity to weigh these topical issues against what is taught in the LAEP department.
It was in this course that I was able to explore the topic of spatial perception from several unique perspectives. I wrote my final research paper as an analysis of values and attitude shifts affecting environmental design and development practices, comparing and contrasting work from authors from the fields of environmental sociology, environmental psychology, and landscape architecture. Some of those works that interested me the most include works by Gifford, Stephen and Rachel Kaplan, and that of Foster, which explored this idea of aesthetic preference and holistic interrelationships.

Aesthetic preference

Aesthetic preference has powerful effects on spatial perception and cognition. Environmental cognition is defined by Gifford (1997) as the way we acquire, store, organize, and recall information about locations, distances and arrangements in buildings, streets, and the great outdoors. Similar studies have been at the heart of research explored by landscape architect Kevin Lynch. Cognition plays an important role in environmental attitudes, because as we experience interior and exterior environments, what we see and how we see it shapes our behavior, both individually and as a society.

I also surmised from the Kaplans important perspectives on environmental attitudes and preferences. A common theme in their work is that natural elements are vastly preferred among humans worldwide. For an example, people will drive hundreds of miles to see and experience natural wonders like Niagra Falls or the spectacular cliffs and colors of New Zealand. People will travel for many days to personally experience the natural beauty of national parks in the United States, or
to explore distant jungles on an African safari. Kaplan implies by the following statement that this natural preference can be capitalized on by design professionals:

> Preference for the natural as opposed to human-built is of course not a surprise, but well-designed and well-built "unnatural" environments can be incorporated in a way that is responsive to the form and characteristics of the natural features of the area (Kaplan 1989, p. 49).

This responsiveness is key to spatial perception. All design professionals, in my opinion, are duty bound to follow the form of the immediate natural environment in designing those "unnatural" elements that will become part of the total environment of a place (or, in the case of urban infill, designers must draw from the existing character of the city and the immediate natural environment, combined). When they do this, they have begun to interweave natural and designed elements into one whole, and a solid, timeless design can thus be achieved.

Consider now this idea of interweaving natural and "unnatural" elements from the perspective of holistic interrelationships.

**Holistic interrelationships**

The theory of holism describes how the universe, and especially living nature, is correctly seen in terms of interacting wholes that are more than the mere sum of elementary particles (Merriam-Webster 1984). Holistically speaking, people and the natural environment in which they dwell are connected biotically and emotionally -- hence, when people visit or use a space, that connection is pulled into play, affecting their actions and shaping their behavior within a specific environment. Foster explained that
[m]an lives from nature, i.e., nature is his body, and he must maintain a continuing dialogue with it if he is not to die. To say that man’s physical and mental life is linked to nature simply means that nature is linked to itself, for man is a part of nature (Marx in Foster 1999).

This description corresponds quite closely with ideas expressed by a key figure in the landscape architecture field, Garrett Eckbo:

The function of landscape design is more than the direct design of outdoor space arrangements. In the larger sense it is the continuous establishment of relations between man and the land, tying in those hills and valleys and broad panoramas which are beyond design, through designed elements which establish a scale relation between each individual human and the large landscape, placing them so that that individual gets a maximum experience from the relationship (Eckbo 1950, p. 6, emphasis added).

This man/nature connection idea is evidently a crossover concept between numerous fields. Analysis of these two statements brings one to consider how that connection influences spatial perception. If mankind is part of nature (and I feel that mankind is of course a part of nature), then mankind must “maintain a continuing dialogue with it” (Marx in Foster 1999).

It is through the medium of designed spaces that this dialogue most often occurs in society. The experiential relationship, or connection established between the individual human and the large landscape has profound positive -- or sometimes negative -- influence on the individual and on society. Studies by the reader into therapeutic gardens, civic open spaces, recreational parks, and so on will confirm this to be so. Some graphic examples of this experiential relationship as it relates to spatial perception are found in Figure E. In each of these examples,
Itsukushima Temple and Wright’s Fallingwater, the architecture capitalizes on numerous connections which tie the buildings into the particular site. Views from the building to distant vistas are established, and approach paths are carefully choreographed. The result of such efforts is that those who use these spaces have an enhanced experiential relationship, and a connection is established between the person, the building, and the immediate environment.

Using a holistic foundation, environmental psychology and environmental sociology build paradigmatic frameworks in a way similar to the landscape architecture profession. These fields are relatively new, as is the profession of landscape architecture. All are still making headway in developing strategies to understand social needs and solve problems inherent in urbanized society. Issues that could be further explored which are directly related to my topic include psychological place attachments, meanings derived from individual personal experience, and in-depth cultural/sociological contexts. For instance, in Japan, a
quaint garden adjoining one's home is bereft with symbolic elements and
representations of larger landscape components in the distance. A comparison
and contrast study could be made between a residence in Japan and a palace in the
Middle East, for example, to explore cultural similarities and differences of spatial
perception and how the field of landscape architecture would have to adapt in
these distinctly different locations.

The benefits of having taken this sociology course are clear to me. I was
given latitude to explore a special interest topic for my final paper, given that the
material researched for the paper involved in some way work done in the field of
environmental sociology. It was a stimulating experience to see how landscape
architecture, environmental psychology, and environmental sociology overlap. I
also was able to take a step back and consider my topic from a new vantage point.
In so doing I felt I could more deeply appreciate social issues, and how they relate
to the discipline of landscape architecture. Therefore I feel my design philosophy
was greatly strengthened and enriched.

• Interdependence: Grounding the Eco-Self (LAEP 6900)

This interdisciplinary course enabled me to explore a new vision of society
in relation to the natural world. I was urged by the instructor to understand that
the same principles which govern relationships in ecosystems also govern human
growth and interaction -- a somewhat different twist to the ideas generated in
environmental psychology regarding spatial perception. Arne Naess, noted
environmental theorist, taught that the ultimate broadening of the soul occurs
when one identifies with (and I would add, perceive) all creation, from the smallest
elements within an atom to the stars in the heavens. He also noted that we need to make that connection with the natural world of which we are a part, not above (Naess in Seed et al. 1987).

Extra readings I undertook in this course lent further appreciation for and understanding of the subject of spatial perception. Specifically, Rosina Greene Kirby, when describing significant design contributions of native Mexican cultures, attributed the success of solid design to the effective use of not just evident features such as color, texture, and form, but also the effective use of the “intangible qualities of scale, proportion, and spatial relationships” (Kirby 1972). She goes on to say that

[t]he major function of landscape design is the establishment of a harmonious relationship between man and nature. In the treatment of outdoor space for human use, Mexico has -- throughout her history -- exhibited an extraordinary feeling and sensitivity rarely found elsewhere. This is evident in the magnificent relations between volumes and spaces (Kirby 1972, p. 16).

Statements such as these go unquestionably hand in hand with the dogma held firmly in the profession of landscape architecture. Courses I took in history of landscape architecture, planting design, site planning and others, expressed this necessity of establishing a sense of place and a feeling of aesthetic visual comfort on the part of the user. Again, we see examples of this at the broad range of scale, from the very small local scale (e.g. a person’s rooftop garden) to very large regional scale (e.g. the layout of a major city, a conglomeration of cities, or an interstate parkway system).

I definitely feel I will be a better landscape architect for having explored the sustainability topics discussed in this class because I have deeper respect for the
symbiotic relationship between mankind and the earth. I also further understand the ecological state of the world today. For example, wasteful energy consumption, water and air pollution, worldwide species decline, and other calamities plague the world at increasingly alarming rates. In the face of such statistics, I take heart in understanding that mankind indeed is powerful enough to chart a new course. As a landscape architect I will be dealing with such issues on a day to day basis.

- **Housing: Societal and Environmental Issues (Human Environments 3340)**

  This course offered a unique outlook on issues of spatial perception. It delved into issues concerning housing for groups such as the homeless, minorities, aging populations, and designing for people with disabilities. If you think about it, designing spaces for a broad range of potential users must not exclude those with disabilities or other distinguishing characteristics which set them apart from the majority of users. The way that people in these circumstances perceive the environment of which they are a part, must be considered when making design decisions in both the public and private realms. I studied such issues quite extensively in my undergraduate coursework in interior design. These principles of universal design (meaning design that does not exclude anyone from being able to use a particular space) carry over across the threshold between interior and exterior spatial perception and design. I truly feel I will be a better landscape architect if I ingrain these important principles into my professional design strategies.
Another interesting occasion in this course was when we studied users' life cycles affecting housing choices. The lives of individual potential users of an interior or exterior space are constantly evolving. Individuals not only experience natural aging processes, but the activities associated with each phase of life also change as they grow older. As plants in a landscape change significantly as they grow from infancy to adulthood, so do people change significantly in that landscape. Research intended to more fully understand this relationship could literally take a lifetime to really comprehend, but I feel benefitted by considering in this course how these issues can potentially be addressed in my career as a landscape architect.

While the course title (and description of the course content in the USU General Catalog) implied societal and environmental issues would be covered, each was considered individually and not in an integrative fashion. The component of integrating the interior and exterior environments, aside from the topic of a space's compatibility with ADA standards (Americans with Disabilities Act), was not significantly explored in this particular course. Nonetheless, I felt that I came away enlightened in each separate issue, societal and environmental, especially when contemporary themes such as user expectations in housing choices and aesthetic considerations were explored.

These courses have influenced my personal design philosophy by encouraging me to think globally, and to consider design from vantage points that I had not previously considered. I have a clearer, broader perspective of spatial perception, and its importance and applicability in the design field. One of my professional goals is to implement these principles into effective landscape design
solutions that feel comfortable to all potential users. I feel I am apt to be a more well-rounded professional after having taken these courses and explored spatial perception from different directions.

As I took these three courses, and for many years really, I have considered three other factors affecting spatial perception that are of particular interest to me personally as I enter the landscape architecture profession. I include these in my paper to entice the reader to think of possibilities and opportunities that could influence site design in positive ways and at different scales. I also offer specific questions that could be addressed with respect to these factors. They are (1) the changing of the seasons, (2) orientation issues, and (3) time of day.

The changing of the seasons

The changing of the seasons has significant effects on spatial perception, effects that could be beneficial for design professionals to understand when working on a public site design. As many people do, I personally find the changing seasons fascinating, and have noted the influence this change has on some people's emotions and activities. For example, winter brings dampened spirits and 'winter blues' to many people. Why do others not perceive winter this way? Does it have to do with the particular environment they are in, or their social background, or both? Also, I wonder if there is something that triggers people to come 'alive' in the spring, bursting from winter inactivity into spring cleaning rituals or recreational activities. Could it be that a subconscious signal is perceived when blossoms or new growth begin to appear on trees and flowers? Is there such a signal, and is it even perceived subconsciously? Finally, are people
of specific age groups or cultures more attuned to this dramatic seasonal shift? Having an understanding of such things could prove valuable to a landscape architect when he or she considers placement, quantities and groupings of seasonal flowering plant material in unique design situations. Some of the more dynamic landscapes in this world are those that shift and change with the seasons, with blooming times choreographed among the various plant material.

Orientation issues

The way a building or outdoor space is oriented on a specific site profoundly affects the users' spatial perception. For many people, the manner in which a particular place is perceived weighs heavily on their sense of direction. For others, it really does not matter to them which direction is north or south. Further studies could be conducted into why and how this 'internal compassing' has such an influence in some, yet hardly exists in others.

I have seen some of my fellow students in studio classes get flustered or surprised in a similar fashion. For example, when they are working on a particular design in a studio class, the instructor will often ask to see their work, and turn their paper 90 or 180 degrees to look at it. Often when this happens, the student becomes disoriented and almost completely loses touch with the orientation of their design, as if they had suddenly become lost. At other times, he or she suddenly sees a new possibility or problem in the design that they did not see before, because from the time they began that particular assignment, they were viewing their design exclusively from only one vantage point or direction.
**Time of day**

Finally, the time of day has great influence on spatial perception. Design professionals who understand this most dynamic element -- that of shifting sun angles and shifting shadows-- can make wise choices as to siting decisions, choice of material used, and placement of structures or plant material on a given project. The designer can create a particular plaza which is overwhelmingly attractive to dozens of lunchtime patrons, or on the other hand, create a cold, lifeless plaza which goes almost completely unused. Similar to my example of the seasonal drive along the multistate byway, the experience one has in late evening hours at a particular space differs greatly from the experience he or she would have at 6:30 in the morning of that same day. The color of the light literally changes as its rays penetrate the atmosphere at different angles. Shifting sun angles and the subtle shift in light color affect the perception of all objects in a space in subtle ways, but these shifts can be very powerful in affecting our mood.

Integration of the Interior and Exterior Environments

This second component, the integration of the interior and exterior environments, is really quite inseparable from the first. In my view, if one comprehends the meaning of spatial perception, one should then see how interior space and exterior space should be perceived as one *space*. As I mentioned earlier, I have been exploring through my coursework how to meld the content of my
undergraduate study of interior design with that of my postgraduate years in landscape architecture. I feel that the design of space should not “stop at the doors” with reference to interior and exterior design.

Architecture should take its cues from the environment of which it becomes a part. That landscape was there long before the building would arrive on the scene; the building will be there for generations to come after it is built. Instead of retrofitting a landscape design to a building previously designed without regard to its adjoining exterior space, why not design with both the interior and exterior in mind from the projects’ conception? The fit between that natural and built environment should by common sense be a seamless one. The Oriental people have had this concept down for centuries (Figures F, G). So did the Greeks,
Romans, and other societies commonly associated with classical architecture. This kind of example is not followed enough in our modern time. It is a tragedy when interior fights against exterior. The resulting contention stemming from such non-integral design is indeed felt, perceived by the users of the interior and exterior space.

The following quote explains a paradigm in landscape architecture philosophy. I feel that it well illustrates this concept of integration and gives extraordinary insight into the matter of integration.

The new direction in landscape architecture is toward the interaction and interrelationships of humans and the environment. The key issue is the shift from ecology as an important consideration in the landscape architect’s practice to ecology as a guiding principle at the deepest conceptual level of understanding. The emphasis is on the interaction of humans and environment to create..."mutually complementary outcomes of the ecological and evolutionary fit" (Rosenberg 1986, p. 76).

As I have come to further understand in my interdependence course, we humans share this holistic relationship with all other forms of life in this world. Similarly, a holistic relationship pervades through the fields of interior, architectural, and landscape architectural design, but this integration is not recognized often enough -- nor the potential of it fully realized -- in the theory or practice of these professions. This lack of recognition results in poor design at all scales. The hardscape material used in an outdoor plaza should integrate with the interior space with which it is adjoined (Figure H); thematic streetscape planters or other elements employed in a town’s main street image should be keyed to designed spaces of associated on-site architectural facilities (Figure I); the design theme of an exterior courtyard complex in a downtown corridor should correlate with and
complement the facade of the buildings themselves, and should do so in accordance with the overall contextual setting (Figure J). There has been extensive study into this kind of integral design by many design professionals, including Norman K. Booth and Peter Calthorpe (see examples of their work in Figures L, M, and N). Specific aspects of Booth’s work as shown here include using transition spaces and coordinating hardscape elements to mesh with architectural edges and features. Calthorpe has done much work in the area of sustainable community design, which work is highly renowned in the landscape architecture profession for its success in unifying interior and exterior elements of the community.
Just as interior elements and themes should extend outdoors, occasions should be sought for exterior design elements to be brought indoors, such as water features, plantings, and so forth, to truly integrate the interior and exterior environments into a seamless whole (Figure K). Indoor/outdoor use linkages should be considered in all aspects of the design process. The time given to effective, holistic space planning for potential users -- users indoors and users desiring to use outdoor space -- should be considered paramount in all design offices, and would surely be given utmost priority (with good reason) in the most successful of design firms.

I will now look at how my coursework has succeeded in enriching my philosophy of interior/exterior integration.
Perhaps the most influential of my three courses, Sociology 6620 stretched my abilities in critical thinking and intensive reading skills. We considered multiple viewpoints, as has herein been mentioned, from various fields. While the
technology aspects of the course veered at times from my intended focus, overall the outcome gained from reading about environmental sociology and understanding its applications in a changing world enriched my academic experience greatly.

Interestingly, I can again draw from the same quote by Eckbo that I related in the previous component section of this paper, which quote I discovered in researching material for this sociology course. Consider now this quote from the vantage point of integrating the interior and exterior environments:

The function of landscape design is more than the direct design of outdoor space arrangements. In the larger sense it is the continuous establishment of relations between man and the land, tying in those hills and valleys and broad panoramas which are beyond design, through designed elements which establish a scale relation between each individual human and the large landscape, placing them so that that individual gets a maximum experience from the relationship (Eckbo 1950, p. 6, emphasis added).

These words can be interpreted in many ways. From my perspective, that "relation between man and the land" which Eckbo speaks of supports my point. The natural environment is the setting for all built environments, and the built environment is predominantly the interface between man and his environment.
When interior, or built, environments are integrated with the exterior environment (or “tied into designed elements,” in the words of Eckbo), and are done so in such a manner so as to carefully achieve that desired spatial perception or feeling in the users, then each individual “gets a maximum experience from the relationship” between man and the land (Eckbo 1950, p. 6).

**Interdependence: Grounding the Eco-Self (LAEP 6900)**

The theme of man/environment relations carried over into my interdependence course in significant ways. We discussed the ancient “Earth Soul” concept of Gaia, wherein we as a human species breathe together as one of many species on the earth. This interconnectedness of man and his environment was examined over and over again, through readings such as Daniel Quinn’s “Ishmael,” Ken Wilber’s “The Pattern that Connects,” and Teilhard de Chardin’s “The Spirit of Earth.”

Holistic interrelationships were an interest of mine long before I decided to pursue landscape architecture as a profession. In a biology course during my undergraduate study, for instance, an open-topic research paper opportunity found me searching deep into this topic. Now, many years later, I find my interest in holism piqued all the more, especially as I analyze how my undergraduate and graduate studies can be integrated to attain the highest quality of design. This interdependence course has petitioned my thoughts as to how this can be accomplished. The greatest success to this end will be found when design professionals involved in a particular project gather at the same table, and unitedly design a beautiful, functional interior and exterior space, using as their guide
principles of sustainability, environmental ethics, and common sense. It gives me hope when I read these words of architect Nathaniel Alexander Owings:

We deal with the oldest forms of man's concern: his shelter, and even more, his need for beauty and personal expression. I feel that if we can satisfy the need for personal expression by building a habitat in cooperation with nature -- not against it -- then our philosophy...can have long-term relevance (Owings 1973, p. ix).

Master architect Frank Lloyd Wright was a legendary proponent of creating designs that cooperate (literally, 'co-operate') with nature. His 'prairie style' architecture, developed exclusively in the earlier years of his career, was largely patterned after the dominant horizontal lines of nature, and his was the belief that a building should appear as if it rose up from the ground. In other words, it should look as if it belonged there. He accomplished this, for example, by using materials for a home which were indigenous to the site, incorporating planting beds into the form of the building itself, allowing large boulders on the site to

Figure O
literally incorporate into the home by leaving them exposed in the center of a large gathering room, and projecting terraces and architectural walls into and around the landscape like arms of a living thing embracing its natural setting (Figures O and P).

It becomes my privilege as a landscape architect to work with the exterior environment in a similar way, creating and modifying it for the better. Referring once again to Figure A, it would be extremely valuable for landscape architects and other professionals to look at specific ways in which the disconnection
between interior and exterior space, as well as the disconnection between society and the natural environment at the global scale, could be diminished. In most instances, of course, that disconnection may not be made to completely disappear as with the wave of a magic wand. But there are things that we can do to integrate the natural and built environments. When employed, sustainable planning methods will help me as a landscape architect to work with, not contrary to, the exterior environment and natural systems. Some examples of these methods are listed below.

<table>
<thead>
<tr>
<th>Specific steps that can be taken by landscape architects and other professionals to integrate a project with the surrounding environment (at a variety of scales)</th>
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<tbody>
<tr>
<td>• Reduce on-site water consumption by specifying water-wise planting materials</td>
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<tr>
<td>• Create ecowales instead of specifying traditional curb and gutter drainage systems, thus decreasing runoff and increasing on-site percolation rates</td>
</tr>
<tr>
<td>• Strive to minimize embodied energy required in supplying materials for a project by specifying that, when possible, materials be used for construction on the site are to be indigenous to the area, or recycled from existing material resources</td>
</tr>
<tr>
<td>• Instigate and/or promote community recycling and composting practices</td>
</tr>
<tr>
<td>• Discourage the widespread use of pesticides and other ‘green lawn’ chemicals that are harmful to the environment</td>
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In the intermountain region, for example, pioneer settlers came west for a number of religious and personal reasons. For the most part, these settlers respected the environment at which they arrived, employing ethical land development measures and respecting the stewardship which they felt they had over the land. But uncaring promoters of ‘slash and burn’ agricultural processes
and advocates of other dominating methods typical of the modern world came west also. Many today hold these same destructive, domineering views with respect to the natural environment. Unfortunately, this is a problem worldwide. Garrett Eckbo and his associates have addressed this from a political slant, and in so doing have considered the social aspects I have been addressing in this paper:

[T]he governing power structures of [the world’s nations] impact on, or control, the quality of their physical, social, and cultural environments. These qualitative categories are so organically intertwined as to be inseparable...We will not for long be able to ignore the already existing fact that the world is inextricably one, environmentally, ecologically, and economically. The United Nations (UN) has recognized this, and so have the transnational corporations. Politics will sooner or later have to join the club (Eckbo, G.et al. 1998, emphasis added).

I believe that all of us, sooner or later, will have to ‘join the club.’ At the very least, landscape architects and other design professionals should have already ‘joined the club.’ As I undertake this challenge to integrate the interior and exterior environments, working together with my fellow design professionals, the integration will become all the easier to achieve. The disconnection illustrated in Figure A between society and the natural environment will begin to disappear.

In summary, my experience with the Plan C option has been a rewarding, enriching experience. I have ‘stepped out of my bounds,’ taking courses in subjects that were at first quite alien to me. This is, I feel, one of the most defensible reasons why one should consider the Plan C option in my department. There is something inherently invigorating when one steps out of a comfort zone
into the unknown, and has the opportunity to look at things from a different viewpoint. In my case, having never taken a sociology class, let alone a graduate level course in the subject, the task of succeeding in Sociology 6620 seemed quite daunting. In retrospect I look back on that class as one of the most difficult -- and rewarding -- classes I have ever taken.

I feel I have successfully integrated my course of study with the discipline of landscape architecture, by constantly referencing ideas and concepts between disciplines, and by open-mindedly considering and weighing those ideas for the purpose of developing my personal design philosophy. With a swift stride, I have sharpened mental faculties and developed critical thinking skills. Most importantly, I have become more acutely aware of the depth and meaning of relations between humans and nature, and of the potential I have as a landscape architect to promote, foster, and nourish those relationships in my professional work.

I humbly acknowledge that I have only begun to develop in my design philosophy this profound topic of spatial perception and integration of the interior and exterior environments. It will take many years of applying these principles in my professional and personal life to fully understand how the principles can be applied to integrate space and improve peoples' perception of that space. I look forward to that challenge.
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