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# Improving the Law Office: Principles for Design

Uriel Cohen

*University of Wisconsin - Milwaukee*

Gerald Weisman

*University of Wisconsin - Milwaukee*

Anthony Schnarsky

*University of Wisconsin - Milwaukee*

William Robison

*University of Wisconsin - Milwaukee*

Mary Gorman

*University of Wisconsin - Milwaukee*

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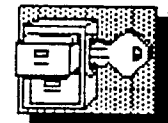
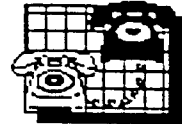
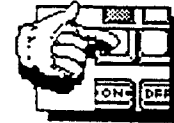
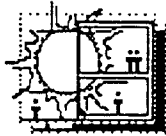
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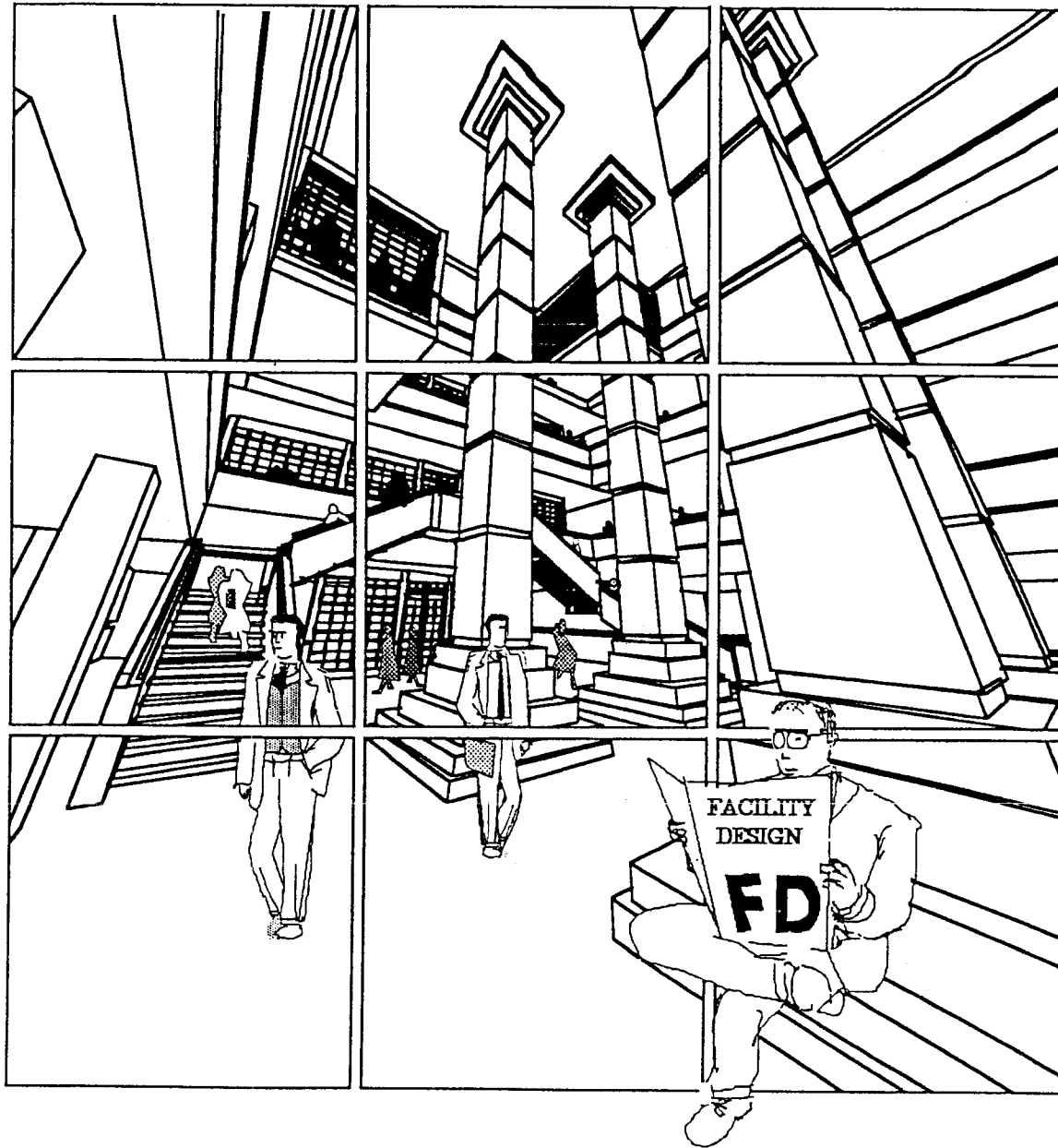
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# IMPROVING THE LAW OFFICE: Principles for Design

Edited by Uriel Cohen, Mary Gorman, William Robison,  
Anthony Schnarsky and Gerald Weisman



The School of The  
Architecture University of  
& Urban Wisconsin •  
Planning Milwaukee



**IMPROVING THE LAW OFFICE:  
Principles for Design**

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**ABSTRACT**

This report describes an applied research, translation and design application project. Information about law offices was gathered and transformed into fifteen critical design principles. The format and approach leading to design principles creates powerful descriptions of the organizational and individual needs that will affect law office facility design. Seventeen different solutions to a program for a 267 person Chicago law firm are used to illustrate the application of the design principles method.

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# IMPROVING THE LAW OFFICE: Principles for Design

**editors:**

Uriel Cohen  
Mary Gorman  
William Robison  
Anthony Schnarsky  
Gerald Weisman

**contributors:**

Gerald Crain  
Nissa Dimantis  
Mary Gorman  
Norhashimah Jantan  
Adrian Langhus  
Kristi Minser  
Gray Mitchem  
Eddie Muni  
Jeffery Musson  
Eric Ponto  
Keya Ray  
Mary Richter  
William Robison

The School of The  
Architecture University of  
& Urban Wisconsin-  
Planning Milwaukee

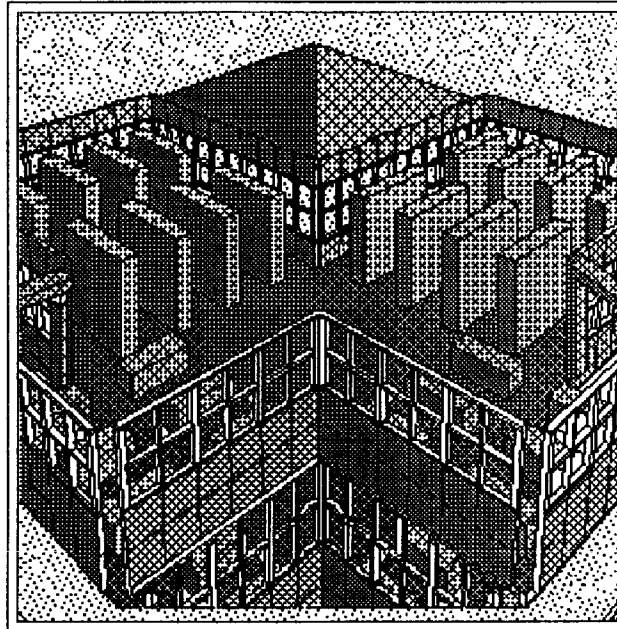
March 1989

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# Introduction



One

# Introduction

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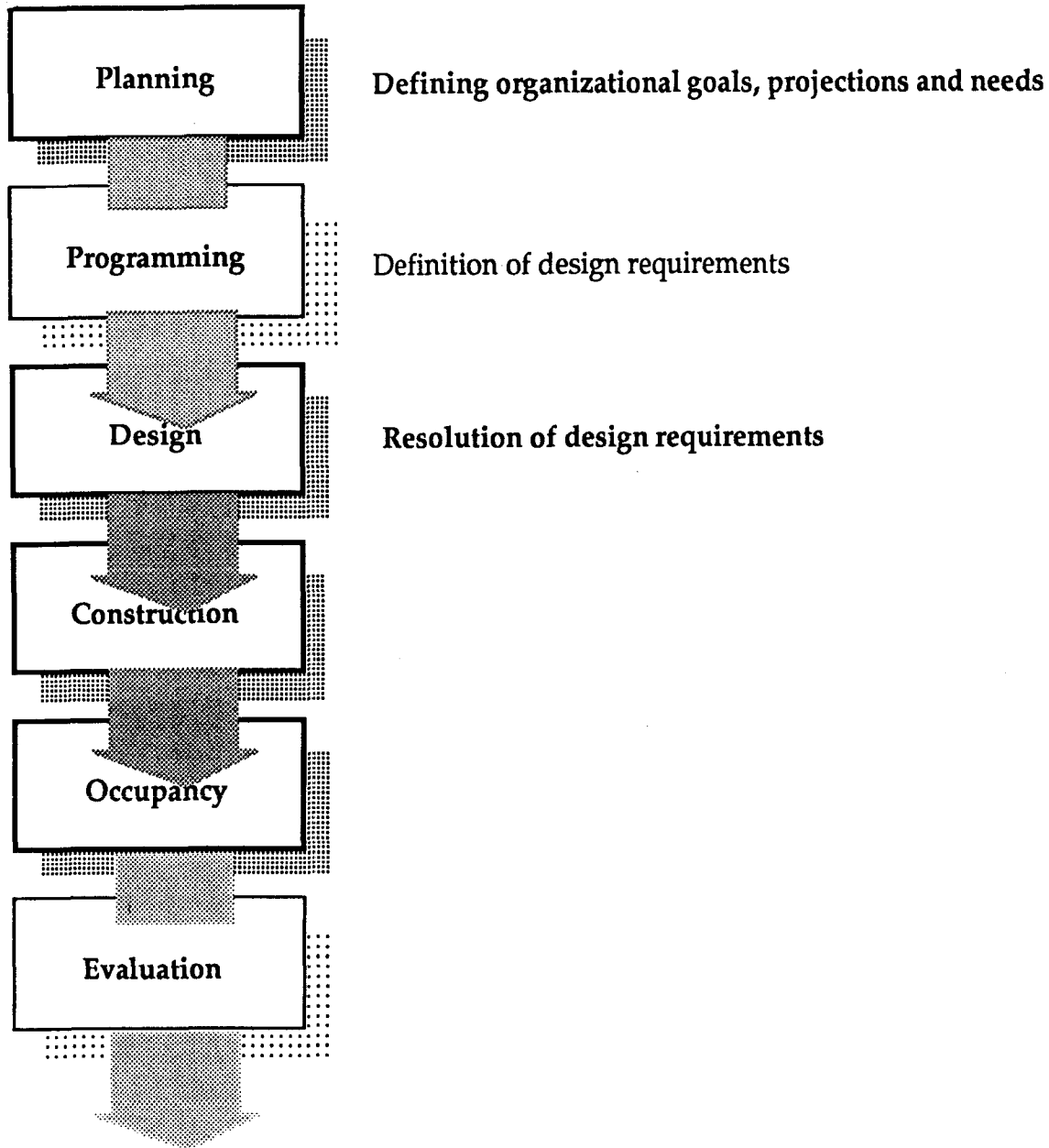
This publication is directed to anyone involved in the planning, design or management of law offices. A broad range of people, with quite disparate backgrounds, operating in different kinds of firms, fill this important function. In larger organizations someone may have full time responsibility for management, maintenance, and renovation of the office environment. In smaller firms, one lawyer may be handed the task of finding a "suitable" office environment and negotiating a lease. In many cases the people making these important decisions must do so without either training or prior experience regarding law firm facilities. In all cases they are making decisions which are of long term importance to their firms.

To assist in the making of such decisions, this publication introduces two important concepts. The following section argues that the planning, design, management or renovation of law offices should not be discrete and unrelated events; rather they can and should be components of an inter-related process of Facility Management. Anyone involved with their firm's physical environment should be viewed, and should view themselves, as a Facility Manager.

Part II introduces an approach to the development of facilities based upon the formulation of Design Principles. The essential information such principles must convey and the process by which they are generated are introduced. Part III presents a set of Design Principles which define some of the qualities or characteristics the environment of a law firm ought to possess. These research based Design Principles are rooted in an understanding of the needs of any complex organization and the employees of which it is comprised. This is followed -- in Part IV -- by two architectural schemes, both based upon this same set of principles, which provide case studies for design application. These schemes illustrate the relationship between general environmental qualities and specific architectural solutions.

It is hoped that an appreciation of key principles for the design of law offices, along with an understanding of when and how they can be utilized within the overall facility management process, will create Facility Managers who are more informed, sensitive and successful consumers of environmental design services.





**The Traditional Facility Delivery Process**

**The Facility Delivery Process**

The process by which new facilities are currently planned, programmed, designed and delivered is all too often fragmented and uncoordinated. The client organization determines -- on the basis of organizational goals, projected growth, and assessment of current facilities -- that a new facility is required. It then falls to the architect or interior designer to review these organizational requirements and "translate" them into requirements for design of the physical environment and to proceed with the design process. Often, however, more emphasis is placed upon development of the design solution than upon the definition of design requirements. This lack of clear communication and co-ordination between those who initiate, define and resolve the facility needs of an organization may lead to elegant solutions, but for the wrong problems.

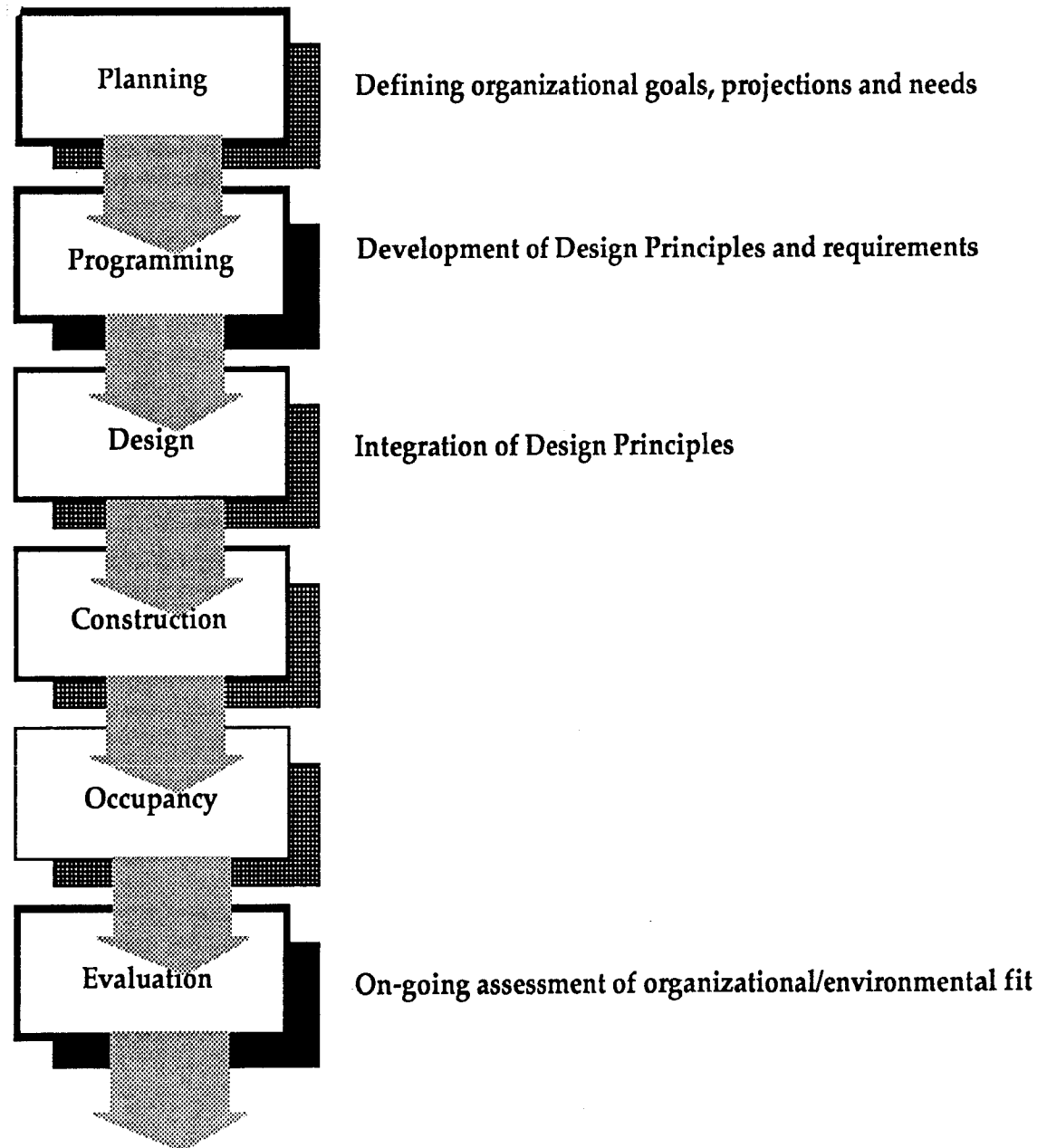
Similarly, after construction and occupancy, there is often a lack of clear communication between those who use the facility and those responsible for its planning, design, maintenance, and improvement. There is not often a formalized process for on-going evaluation of facilities and for the feedback of the results of such evaluation for both environmental and organizational change.

## Linking Organizational and Architectural Environment

In recent years, important changes have been taking place in the traditional facility delivery process. These changes have to do with improved information flow and communication, and the forging of better linkages between organizational and architectural environments. Facility Planning, Programming, Design, Construction, Occupancy and Evaluation may be viewed -- not as discrete activities -- but rather as inter-related phases of an on-going facility management process.

In contrast to traditional facility delivery, Programming and Evaluation emerge as critically important in this new process. In Programming, the needs of the organization -- defined in the language of departments, job descriptions, and work flow -- are "translated" into the language of architectural design as defined by location, square footage, sensory conditions, materials and finishes. Design Principles of the sort presented in Part III can play a critical and integrative role in this "translation" process.

On-going facility Evaluation allows monitoring of goals as articulated during the Programming phase. Do employees find their new work stations comfortable and efficient? Is informal interaction across departments reaching desired levels? Does the facility effectively communicate the intended organizational "image" to staff, clients and the public? The results of such evaluation can then serve as the basis for subse-



The Facility Management Process

## The Emergence of Facility Management

Thus the new field of Facility Management has emerged over the past decade as an important element in the complex process of creating quality environments for corporate and institutional clients. The growth of Facility Management has been fueled by the recognition that both the life and success of any organization are influenced by the physical setting which it occupies. Patterns of employee communication, satisfaction, productivity, and self-image are at least partially shaped by the planning and design of the work environment.

The goal of Facility Management is to provide needed direction, clarity and continuity to the planning, programming, design, construction, occupancy and evaluation of buildings. A multi-disciplinary field, Facility Management involves management and design professionals, computer-aided-design specialists, and environmental design researchers. Methods and knowledge from all of these domains are employed in various phases of the facility management process.



*The first Facility Design Studio-- Fall 1988 Department of Architecture  
School of architecture and Urban Planning The University of Wisconsin-Milwaukee*

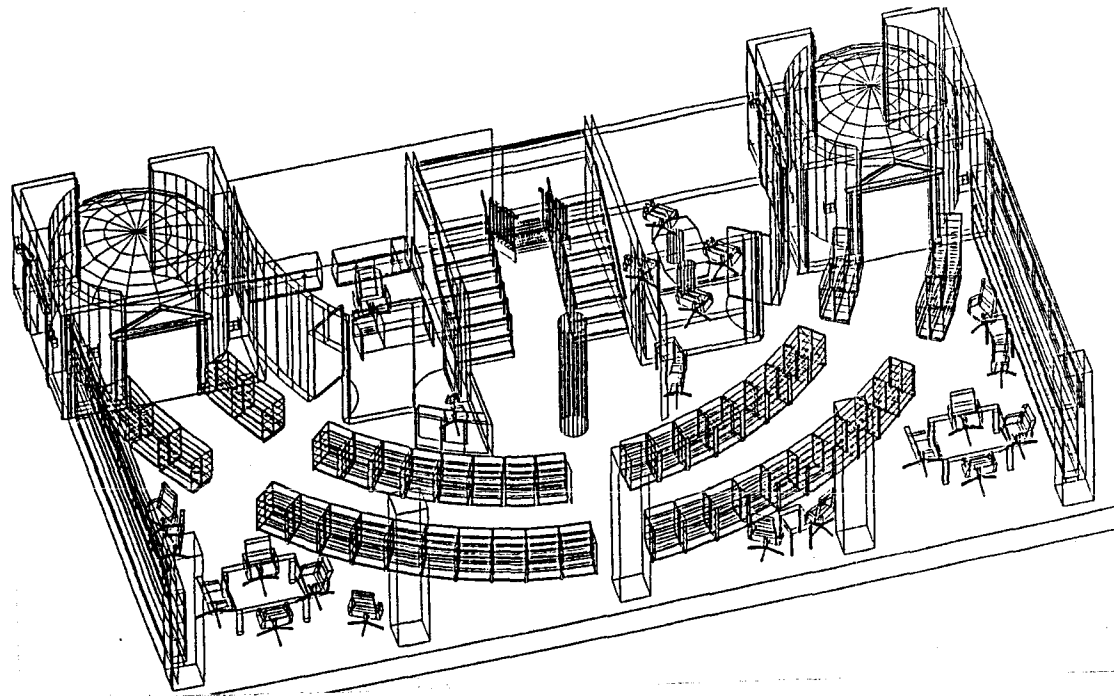
*Individuals in studio (from left to right regardless of row):  
Adrian Langhus, Jeffery Musson, Gerald Crain, Eric Ponto, Gray Mitchem,  
Anthony Schnarsky, Charles Wischow, Keya Ray, Mary Richter, Norhashimah Jantan,  
William Robison, Mary Gorman, Uriel Cohen(seated), Nissa Dimantis*

*Not shown: Michael Bahr, Kristi Minser, Eddie Munip, Pete Weston and Gerald Weisman*

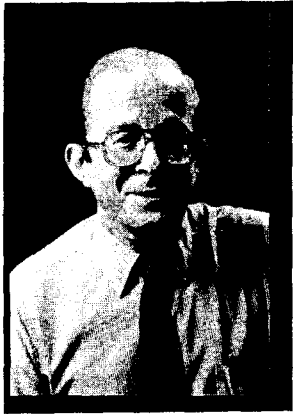
*Photography above and Editors: Paul Olsen*

## Acknowledgements

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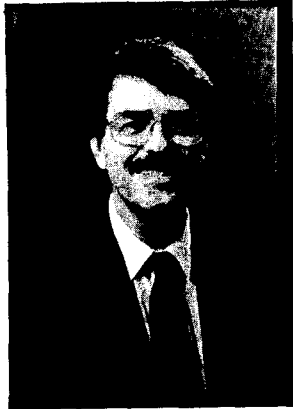
*Design by Jeffery Musson. Computer generated axonometric of his "atrium library" that serves as a landmark for wayfinding and as an image feature in this proposed design scheme.*



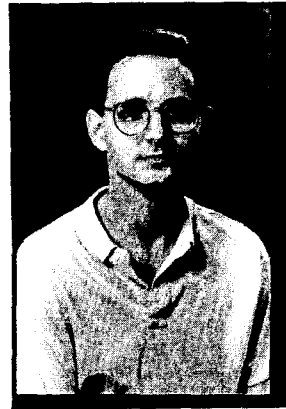
*Uriel Cohen*



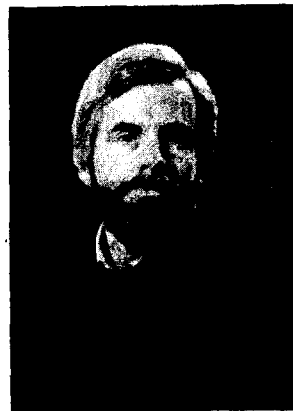
*Mary Gorman*



*Anthony Schnarsky*



*William Robison*



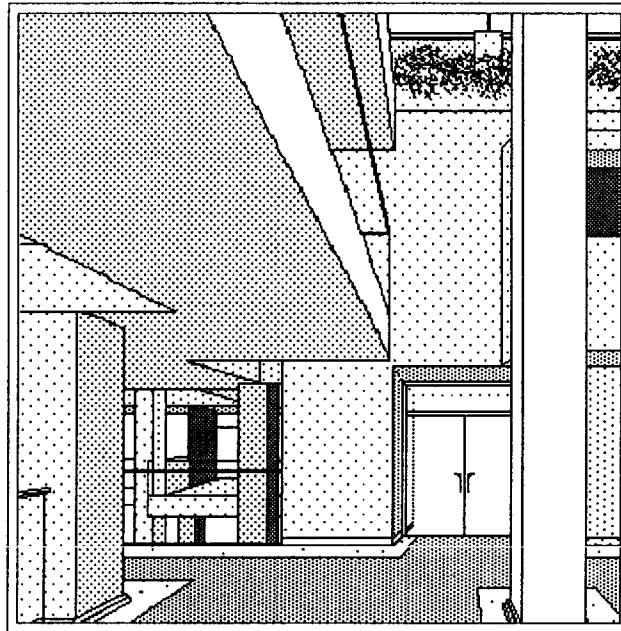
*Gerald Weisman*

## The Editors

This publication emerged from the work of students in the School of Architecture and Urban Planning at the University of Wisconsin-Milwaukee. All were enrolled in an architectural design studio during the Fall 1988 semester, under the direction of Professors Uriel Cohen, Anthony Schnarsky and Gerald Weisman, which focused on issues of Facility Design and Management.

This studio was structured in response to an extensive and innovative set of educational objectives. Like the field of Facility Management itself, the studio was fundamentally inter-disciplinary in nature; students were required to explore the research literature on behavior and work environments, to develop individual programs for a large and complex law firm, to complete architectural designs for this firm, and finally to employ advanced micro-computer hardware and software in all of these tasks.

# Design Principles: An Approach to Programming and Design



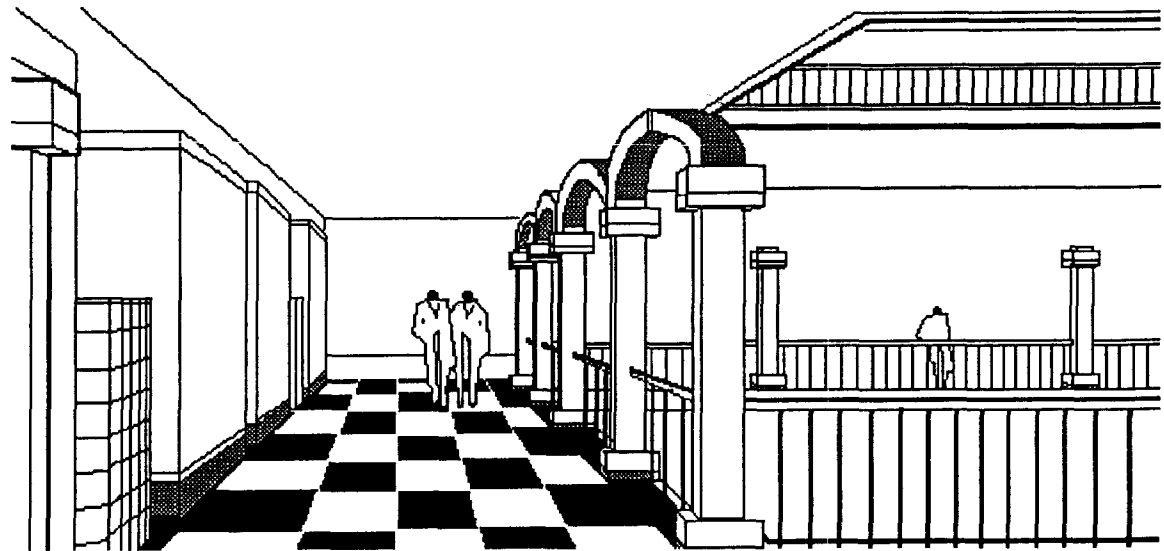
Two

An important part of any program for a building design is the articulation of the basic goals or issues to which the designed environment should respond. These issues should be generated from the global purposes of the facility. For example, in the context of designing environments for children, the mental and physical development of residents can be a primary goal that is then further developed/expanded and then refined and defined to specific goals. The “mental and physical development of children” can be partially met by “learning through participatory experience,” and further defined by the specific example of “manipulating selected variables.”

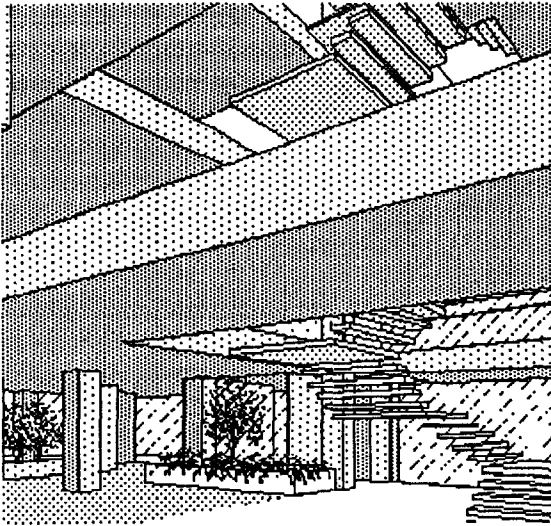
A closely related process for organizing the programming for design is to identify the important, user-relevant issues and problems which can be the driving force behind the solution. For example, in the context of the museum, “way finding” and “museum fatigue” are two critical issues which form a strong basis for design principles. Given the issue of way finding, it is clear from the research literature that a coherent path can facilitate easier visitor’s orientation. Two design principles that emerge from this issue are “understandable structure” and “circulation which overlooks.”

**Design principles suggest critical environmental factors, qualities and characteristics of those settings which will facilitate the goals or resolve the issues.** For example, the main quality of “circulation which overlooks” is clear from its title: The visitor’s commanding view on all or most paths from the initial point of entry or central location.

Design principles are intended to be abstract, general, evocative and suggestive of a range of design options. A good design principle should evoke a number of equally good design alternatives, not just one solution.

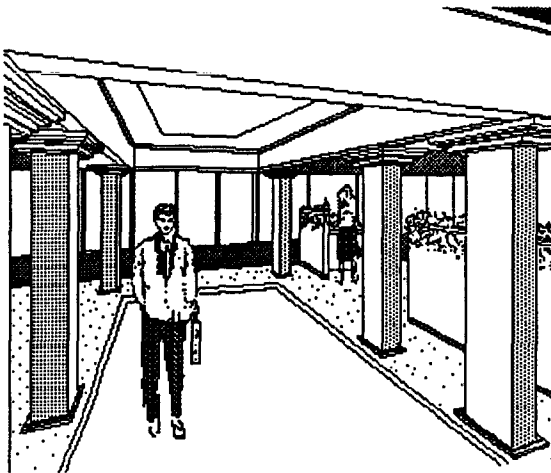


*Design by Norhashimah Jantan.*



*Design by Antonia Diamantis.*

Although architects use design concepts like “symmetry” or “central spine” as organizing tools, usually they are form-based, not issue or user relevant. Seldom have they been evaluated, or questioned seriously. The design principles advanced in this project are much like those in Alexander’s patterns (Alexander, Ishikawa, and Silverstein, 1977). They are based on behavioral issues that are derived from the research of problems in the built environment and the myriad opportunities for enhancing people’s lives. Some of these are from research literature on basic behavioral issues, others are from literature on offices and law practices, and still others are from facility management issues. The principles are several in number and testable. Whereas Alexander’s patterns are often criticized as being too concrete, specific and dogmatic, the intention here is to communicate information which may provide a direction and a range of design options. The goal is to inform the readers and to stimulate their imagination and intuition, while avoiding doctrinaire solutions which might inhibit design innovation.



*Design by Gerald Crain.*

The use of design principles listed in this report is meant to be selective and flexible. It is clear that several design principles, e.g. “neighborhoods”, are appro-

priate for some law offices, particularly large ones, but not for others.

While some design principles are truly universal, a few principles might be conflicting with other, equally sensible principles. So which ones are really the proper principles to be used?

There is no simple answer to this question. Most are useful in any given situation, but like helpful tools in a tool box, not all are necessary or appropriate in each problem situation.

Design principles are indeed tools to aid in the design process, and guide the formation of the design environment. Therefore, they should be used selectively, with care and flexibility.

#### **Key features of the Design Principles**

The format for each design principle allows use by a variety of users; designers, law office employees, facility managers, administrators, researchers and students of the above disciplines.

The principles are stated independently of each other so that programmers and clients can specify which principles are appropriate for their particular situation. This also allows the designer to develop a selective set of design principles.



As developed specifically for this project, each design principle has five parts:

**Title (and icon)**

An evocative name that is memorable. It is stated in general terms, usually specifying some quality the environment should have.

**Overview**

An expanded description of the topic.

**Issues**

A statement of the problem(s) to be solved and the context for the principle.


**Approaches for design**

Basic approaches and design strategies to solve the identified problem. The approaches are generic and several in number.

**Examples**

Selected case studies which illustrate the more important features of the approaches above. The examples are several in number and uniquely different from each other.

Adopted from Cohen, U. and McMurtry, R. *Children and Museums: A Design Guide*. Center for Architecture and Urban Planning Research, The University of Wisconsin, Milwaukee, 1985.



## Group Integration

Principle after  
Editing Team

**Overview**

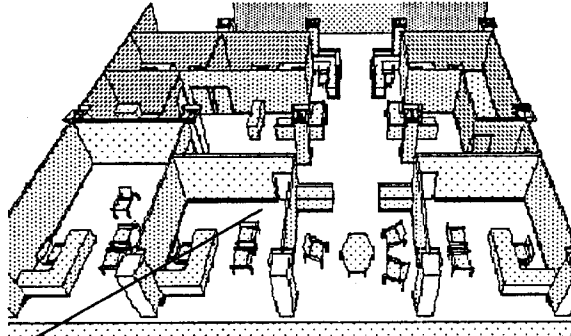
There are two organizational philosophies common to law office planning:  
 1) Arrangement of staff by law specialty or  
 2) Deliberate mixing of individuals from various law practices so as to avoid cliques. Group integration enables employees to perceive themselves as members of a community and not as discrete individuals working for a nameless organization. All individuals should share a feeling of belonging to groups whether in a functional department or in close sets of "neighbors" that are mixed from the law firm's many departments. In either case, care must be taken so that any working group's functional interaction is not hampered.

**Issues**

Prevent the creation of practice cliques.  
 Create groups that will foster informal interaction between practices and enhance the feeling of community between these groups and within the firm.  
 Maintain the integrity and efficiency of the functional workgroups within the firm.

**Design approaches**

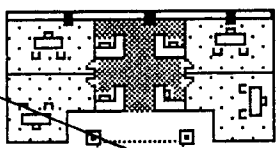
Disperse and mix  
 The success of this principle depends on the dispersal of lawyers across disciplinary lines.




*The "bay system" used in some offices require a mixing of practice groups and the creation of an integrated neighborhood system to bring together groups of employees that would not otherwise interact. The creation of a successfully "integrated neighborhood" depends on many factors such as circulation paths, shared amenities, and a common shared identity.*

difficult to keep it is quite natural groups around. If there is no stitch on to, then in proximity or

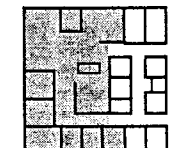
*Example: Primary circulation around and secondary circulation through groups give them definition and create boundaries. Design by Kristie Minser.*



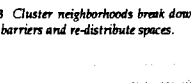
**Figure 1. Individuals must feel a sense of membership in their place of employment.**



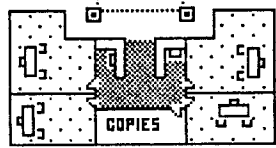
**Figure 2. Circulation can be used to create group identity.**



**Figure 3. Cluster neighborhoods break down cross practice barriers and re-distribute spaces.**



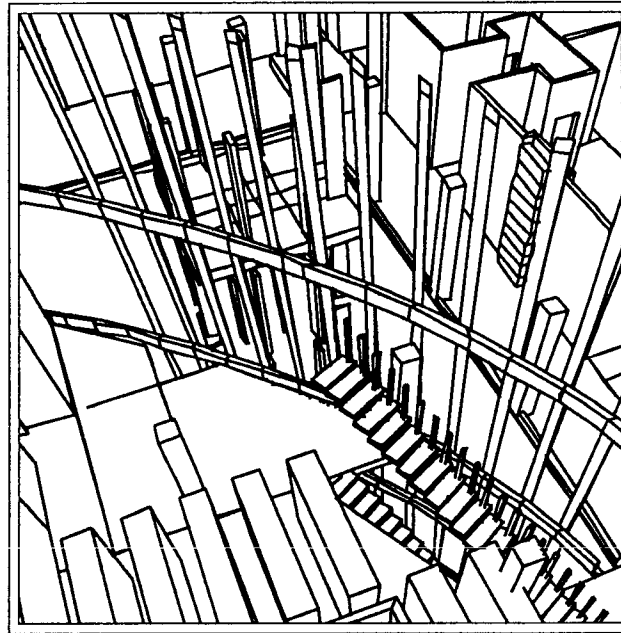
*Example: Two bay clusters sharing a common amenity (the copy room) will be pulled together as a group. Design by Jerry Crain.*



**Physical clustering**  
 While the physical clustering of individual workstations can aid in the definition of neighborhoods or communities, this alone is not sufficient to create functional groups. It is important that the clustering of groups support formal and informal communication in order to be successful (Fig. 3).  
 Clusters around a common core  
 Work groups may be defined by their relationship to common areas or shared amenities. A functional and physical center can serve as a landmark unique to each group and can further enhance group identity and character.

**Circulation defines groups**  
 Clear paths of primary, secondary and even vertical circulation can help define groups. Group definition can be strengthened by their orientation within and relationship to circulation paths in much the same way that neighborhoods are defined with respect to street systems (Fig. 2).  
 Subtle changes in design or the creation of landmarks along circulation routes can help to define groups.

# The Design Principles



Three

# A Guide to all the Design Principles used

---

## Development of icons

The important accomplishment in this project was the development of the Design Principles which form a bridge from traditional architectural programming to improved Law Office design. Each of the fifteen principles was the work of an individual in the integrated Facility Design Studio.

Each principle stems from a clear Design Topic that was identified as being important from a longer list of issues. Looking back to that early point in the semester no one in the class had an overall picture of the work going on except as a list of fifteen discreet topics.

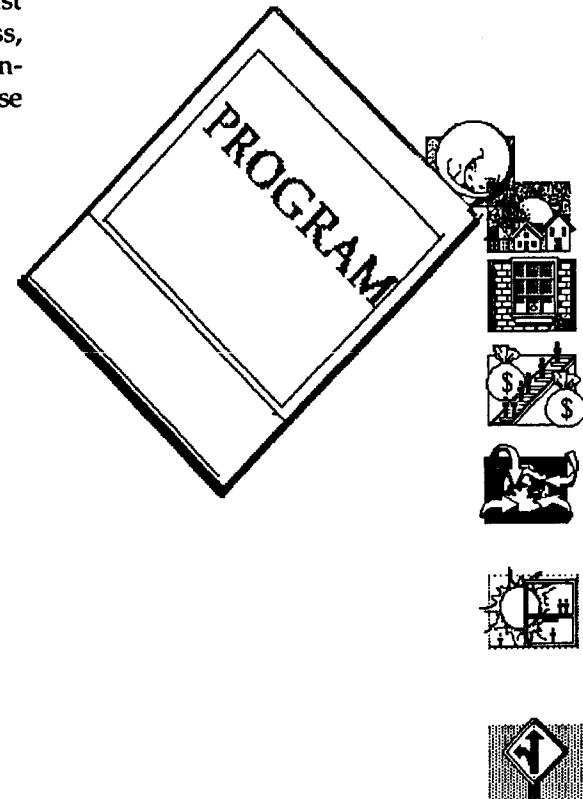
One enterprising student, Bill Robison, saw the enormous wasted time each class meeting in communicating the nature of those fifteen domains of effort to all participants. Words and lists were just not enough.
















Bill's contribution was to design a graphic icon for each Design Principle, each then still a Design Topic. These compelling flags became very useful in our communication in the class and for presentations to clients and visitors to the studio. It is possible that many individual authors were positively motivated and directed by these icons as they moved the Design Topic to the more powerful Design Principle status.

## Possible Design Principles and the ones found in this booklet

The fifteen Design Principles match the number of students in the studio. There are more topics for the Law Office than this number.

The list of possible Design Topics was perhaps twice the number of students. This longer list was generated from group discussion process, the experience of the instructors and by examining the context of the particular Law Office case study we chose.



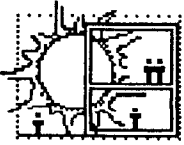
Design Topic	Design Principles	
Comfort	Comfort _____	
Control	In Control _____	
Confidentiality	Off the Record _____	
Accessibility	Accessibility _____	
Personalization	A Place of My Own _____	
Image	Image _____	
Indoor/Outdoor Connection	Indoor/Outdoor Connections _____	
Sense of Whole Organization	A Sense of the Whole _____	
Status	Status as a Tool of Organization _____	
Relaxation	Retreat _____	
Personal Privacy	Privacy _____	
Group Identity	Group Integration _____	
Defensible Space	Defensible Space _____	
Legibility	Wayfinding _____	
Interactions	Keep Them Talking _____	

*Figure 1. An overall table indicating each selected Design Topic, the resulting Design Principle and its graphic icon*

Design Topics come from three basic sets--  
 1) Human behavior topics universal to all projects, but often omitted  
 2) Issues common to the type of facility  
 3) Issues specific to the client's needs and building context.

In this publication the fifteen Design Topics were selected as most being most appropriate, and one was assigned to each student. The involved process of making a Design Principle out of a Design Topic has already been explained in Part Two. As you read the next pages, you will see that method applied over and over.

We hope the overall iconic summary shown by the table on the left (Fig. 1) gives you a clear map of this exciting new approach to architectural programming and facility design.



# Indoor/Outdoor Connections

*Principle after  
Gray Mitchem*

## Overview

The reasons for wanting a connection with the outdoor world are numerous. The obvious pertain to natural light and view. Just how important these are and how to achieve an equitable distribution of them are both behavioral and design issues. However, given the scale and complexity of the modern, large office, there is, conceivably, more than the indoor/"outdoor" connection at the periphery of the building. There are basically two modes of such connection:

- 1) The interface of the real outdoor environment and the indoor environment
- 2) The creation of an "artificial," large-scale interior space which serves as a surrogate for the outside environment.

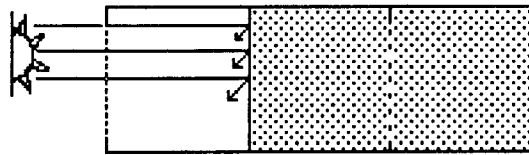
## Issues

### Isolation from the outside world

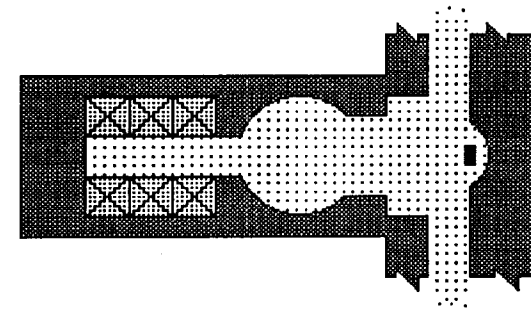
In today's large, modern office complex, many employees are isolated within artificially lit spaces where getting a view to the outside is difficult at best. This is even the case in some spaces that are relatively close to the perimeter, but whose natural light and view are all but blocked by opaque, perimeter offices. Among the various needs for sensory stimulation, this need for access to the outside is great. (Fig. 1)

### Indoor point of entry

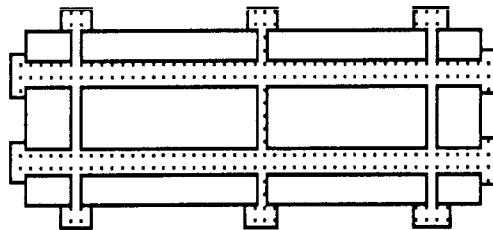
In a tall building, public access is invariably by ele-



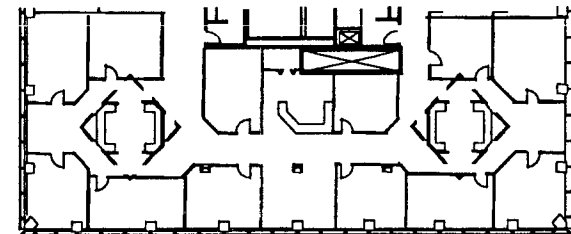
*Figure 1. Interior spaces are often isolated from the benefits of outdoor connections.*



*Figure 2. The elevator lobby must itself be a place that is partly inside the facility and partly outside, yet must express the character of the inside.*



*Figure 3. Major circulation paths with views to the outside provide main streets within a complex plan.*



*Example: Main street approach in use at ends of corridors in this office neighborhood arrangement. Design by William Robison.*

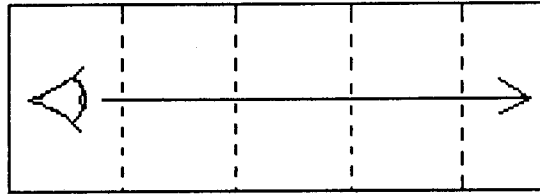
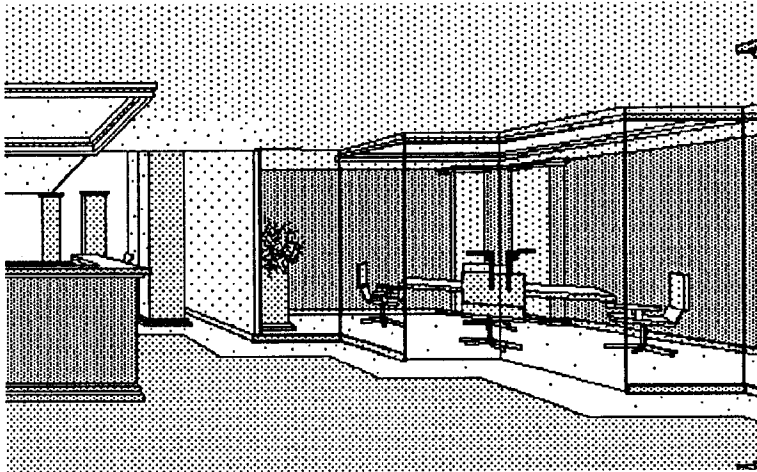


Figure 4. Layers of transparent boundaries reduce feelings of enclosure .



Example: Transparent walls enclose a conference room, allowing it to be perceptually connected with the reception area adjacent to it. Design by Antonia Diamantis.



Figure 5. Percieved edges to define boundaries, without the use of walled enclosures.

vator, which is, in most instances, at the building's core. When the elevator doors open, the visitor is at the threshold of the facility - the point of indoor/ "outdoor" connection. (Fig. 2)

### Design approaches

#### Main street

One or more major circulation pathways that transect the facility, uninterrupted, with a view through at each end, where there could be a public or semi-public space such as a conference room, lunchroom/lounge, waiting area, or anteroom to a particular functional space. (Fig. 3)

#### Transparent boundaries

Extensive use of acoustical glass partitions, frameless, tempered glass doors, and an expanded core area containing spaces for common use, functions requiring carefully controlled lighting, and service spaces.

Some kind of visual connection with the outdoors is crucial for a psychological as well as a perceptual vista. A visual connection with the outside improves one's wayfinding, deemphasises space limitations, gives a true sense of time, and may also reduce perceived crowding. (Fig. 4)

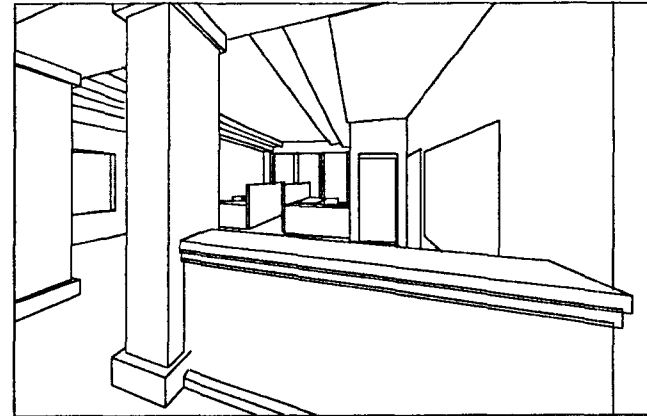
#### Edges and partial enclosure

The North American concept of space makes use of the edges of things. If there aren't any edges, we make them by creating artificial lines. Therefore, a distinct edge between the office proper and the window wall can create a zone that allies itself distinctly with the outdoors.

The edge in conjunction with partial enclosure might further reinforce this zone that is linked to the outdoor world and strengthen its identity as a fully differentiated space, without disturbing visual continuity. (Fig. 5)

### Letting the outside in

Borrowing a part of the outside allows one to cross the threshold into the fringes of the outdoor world, while still bound to the indoor world. An accessible extension can be a balcony, a roof garden, or some other creative means of embracing a portion of the outside. (Fig. 6)

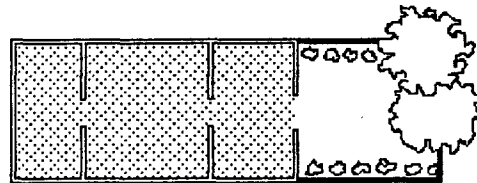


*Example: Partial enclosure creates an edge without disturbing visual continuity. Design by Mary Gorman.*

### A volume of space and light

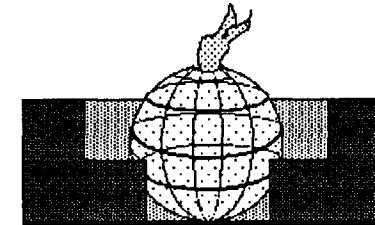
A large spatial volume within the bounds of the building structure; there may be plants within it, and water; it offers visual relief and possibly allows several floors to be seen; may be a place for repose or discussion; air rising through it may refresh the senses; may also be an arousing point of arrival. (Fig. 7)

In the case of a facility where there is no pre-existing natural place for a literal indoor "outdoor" connection, an interior volume of space and light serves as a meeting place, a retreat, and a central organizing space - active uses of the space, as opposed to strictly passive ones (that is, for visual relief, or a change from indoor lighting).

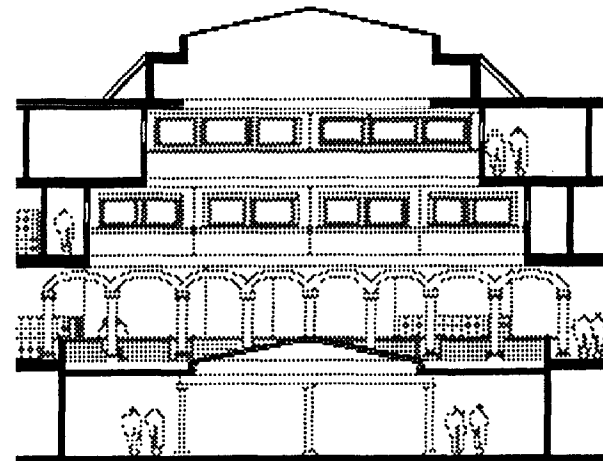


*Figure 7. Letting the outdoors in.*

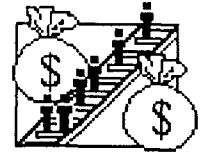
A volume of space and light permits openness within the security of the facility.



*Figure 8. A world of space and light.*



*Example: Centralized atrium as source of light and multi-functional space. Design by Norhashimah Jantan*



Principle after  
Jeff Musson

## Status as a Tool of Organization

### Over View

This principal explains the role of status in defining and differentiating groups and individuals in a law office setting. This study explains how different philosophies can become manifested in design as well as detail various means of manipulating space to achieve desired levels of status.

### Issues

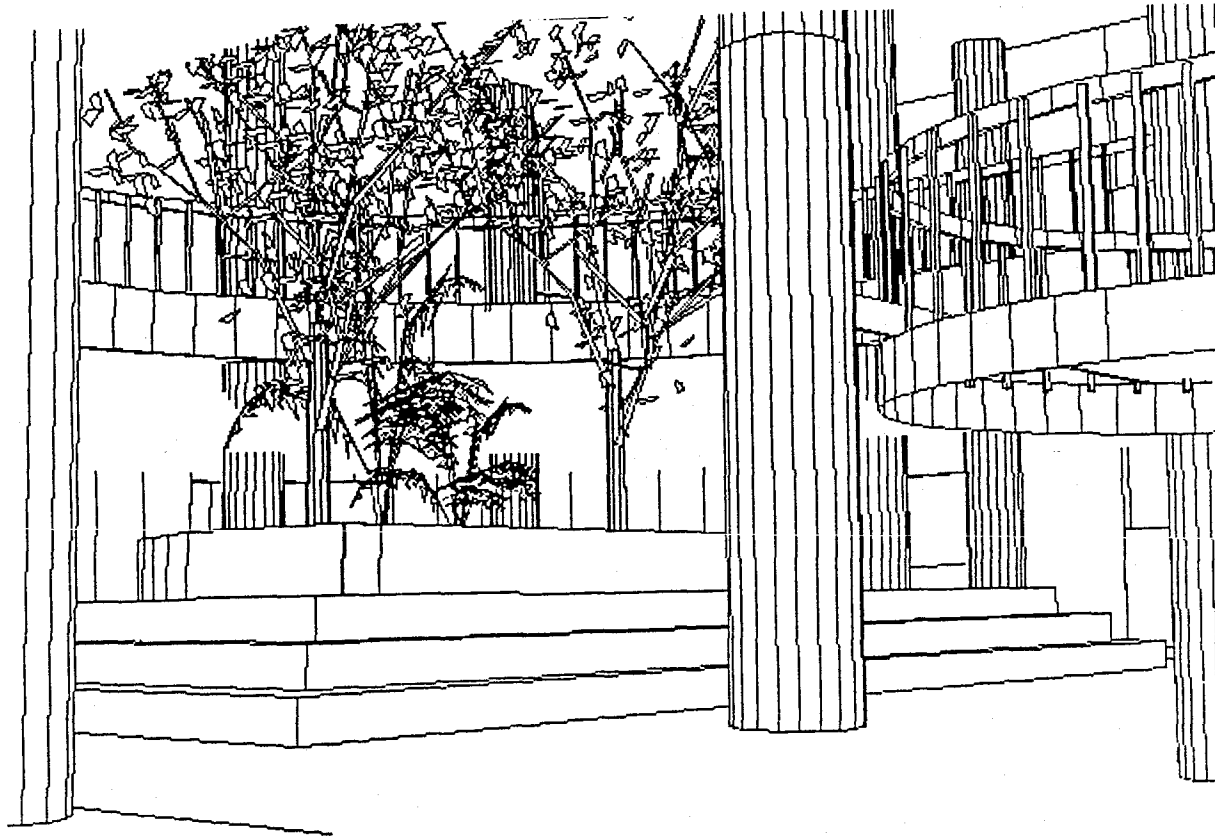
The over all status of the office should be perceived by the public to be commensurate with that of a successful law firm. Status definition should reward and recognize relative importance to the overall organization.

The definition of groups by status level should not isolate or alienate lower stationed employees.

The choice of status distribution should reflect the organizational philosophy of the firm. Three types of organizational "mind-set" are as follows:

### To the Winners Go the Spoils

One point of view provides a strict definition of status levels between various groups. A proponent of this philosophy would feel that each group has it's place in the corporate hierarchical ladder. They recognize that it is not particularly fair, but they had to suffer on their way up and everyone else should have to also.



*In this design, the status of the firm is embodied in the grandeur of the atrium. Other spaces within the plan are organized around it. Design by Jeff Musson*



### All men (and women) are created equal

A second design philosophy gives equal status to all members of the organization. This approach attempts to avoid differentiation and promote a "democratic" organization.

### Rewards based on merit

A compromise approach combines the two previous philosophies into a balanced distribution. Merit is rewarded and groups are defined, and there is careful consideration given to all parties to achieve a balanced distribution.

## Design Approaches

### Offices with a view

A design emphasizing view as a determinate of status would situate high level executives with access to that view. As the view to the view diminishes, so does the relative level of status. Site specific conditions would decide the relative level of each location. For example, a corner location with a poor view might carry a higher level of status than a mid-building location with a spectacular view. (Fig. 1)

### Higher level, higher status

Generally, the higher the floor, the greater the level of status. Executives can easily judge their progress up the corporate ladder based on their progress up to higher floors, with attainment of the best office on the highest floor as the ultimate status symbol. (Fig. 2)

### Corners as a status opportunity

The corners of an office always carry a higher level of status. The degradation of status is proportional to the distance from the corner. (Fig. 3)

### Larger offices, higher status

As the size of an office increases so does the perceived level of status. Offices in less desir-

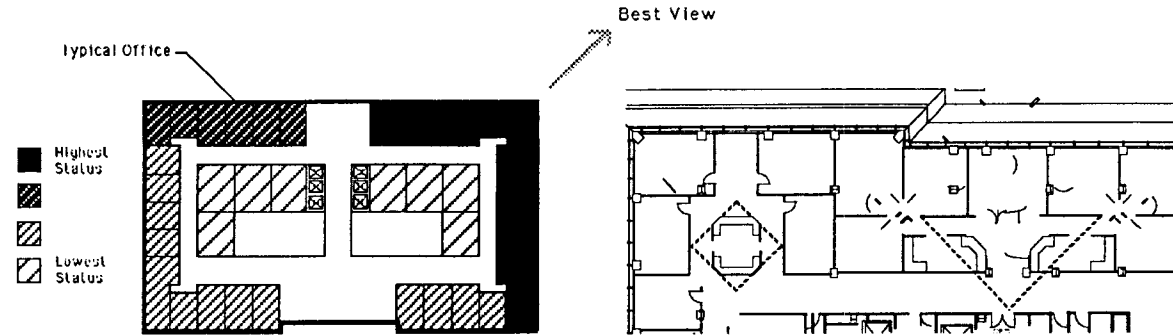


Figure 1. Views offer higher levels of status.

Example: Offices line the north wall overlooking the Chicago River, the best view afforded by the plan. Design by William Robison

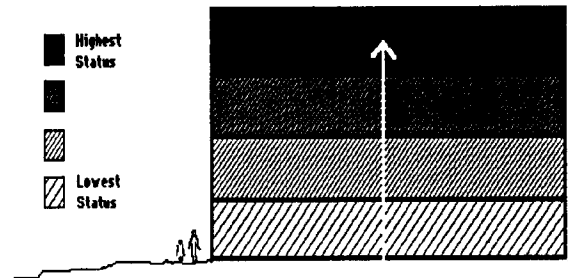
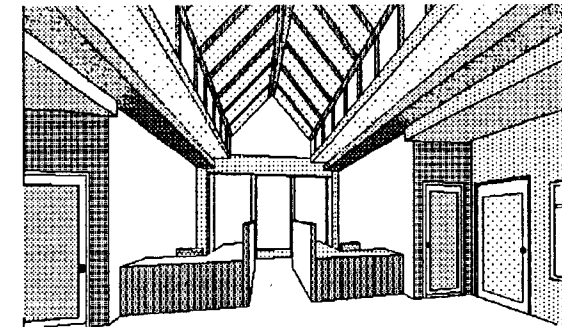


Figure 2. Status as determined by floor height.



Example: Office clusters on the top floor contain fewer offices and are given a skylight in their community area. Design by Mary Gorman.

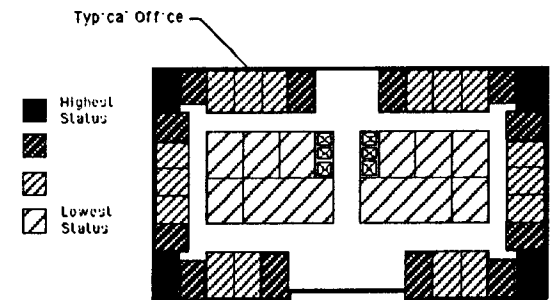


Figure 3. Higher levels of status result from corner locations.



Example: Corner offices in this plan are larger than surrounding offices. Design by Keya Ray.

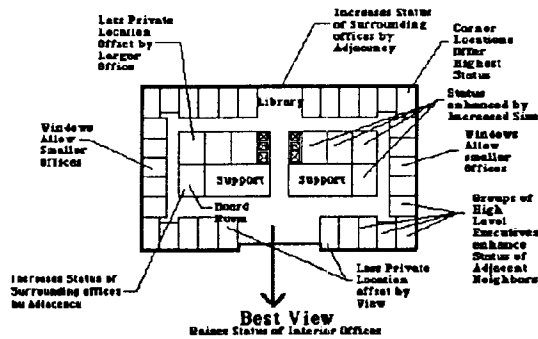
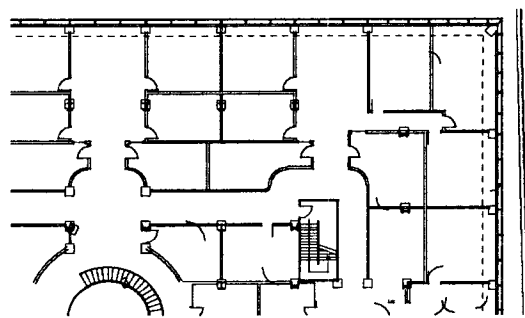
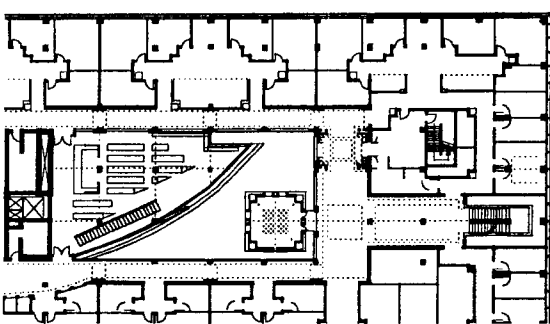


Figure 6. Equalizing spaces with status.



Example: The offices along the perimeter are located furthest from circulation routes and therefore have less distractions. Design by Adrian Langhus



Example: Office clusters adjacent to primary activity centers, as in the library shown above, will be more desirable. Design by Hairuddin Munip.

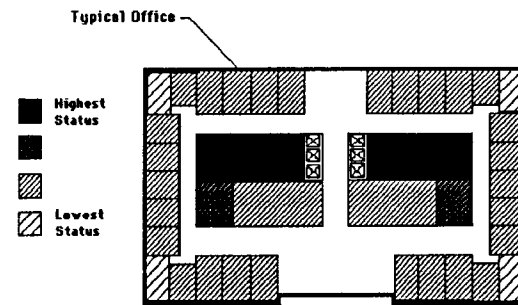


Figure 4. Levels of status based on office size.

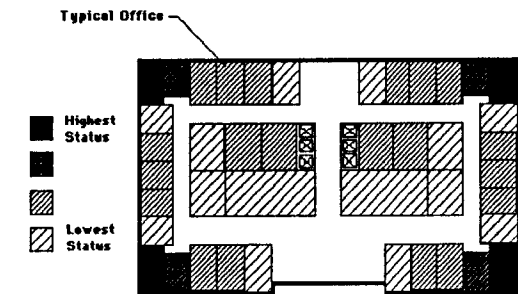


Figure 5. Status as related to privacy.

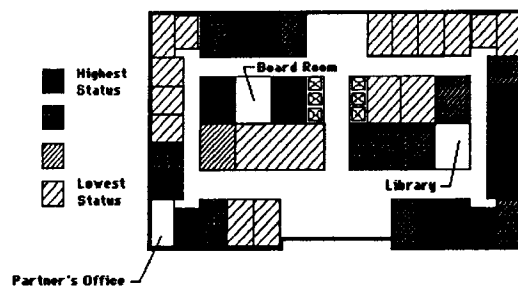


Figure 7. Status gained from proximity

able area can be enhanced by increasing their respective size. (Fig. 4)

### Status influenced by privacy

Offices located in remote locations can be perceived as having a higher level of status based on their privacy. This fact can be utilized to upgrade isolated offices that might ordinarily be less desirable. (Fig. 5)

### Activity centers influence neighbors

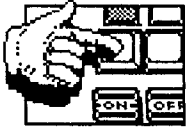
Strategically placed activity centers can influence perceived status, i.e. Adjacency to the library or the board room can bolster the status of less desirable offices. (Fig. 6)

### Equalizing spaces with status

A floor plan can be manipulated using various status related factors. The factors can help to define groups and individuals. They can also serve to reduce status differentials among seemingly disadvantages locations. (Fig. 7)

### Equivalency with other firms

The overall status of the firm should be at least equal to that of similar law offices. This status standing can be achieved by several methods, i.e. choice of finish materials or the use of elegant and sophisticated interiors.



# In Control

*Principle after  
Antonia Diamantis*

## Overview

The design of the workplace should provide all individuals with a sense of control over their environment. This is especially important considering the limits that one's position places on the degree of and factors over which one has control.

## Issues

Individuals in upper level positions usually occupy cellular offices which offer a greater degree of direct control over their environment. They have more opportunities to express the control associated with their status.

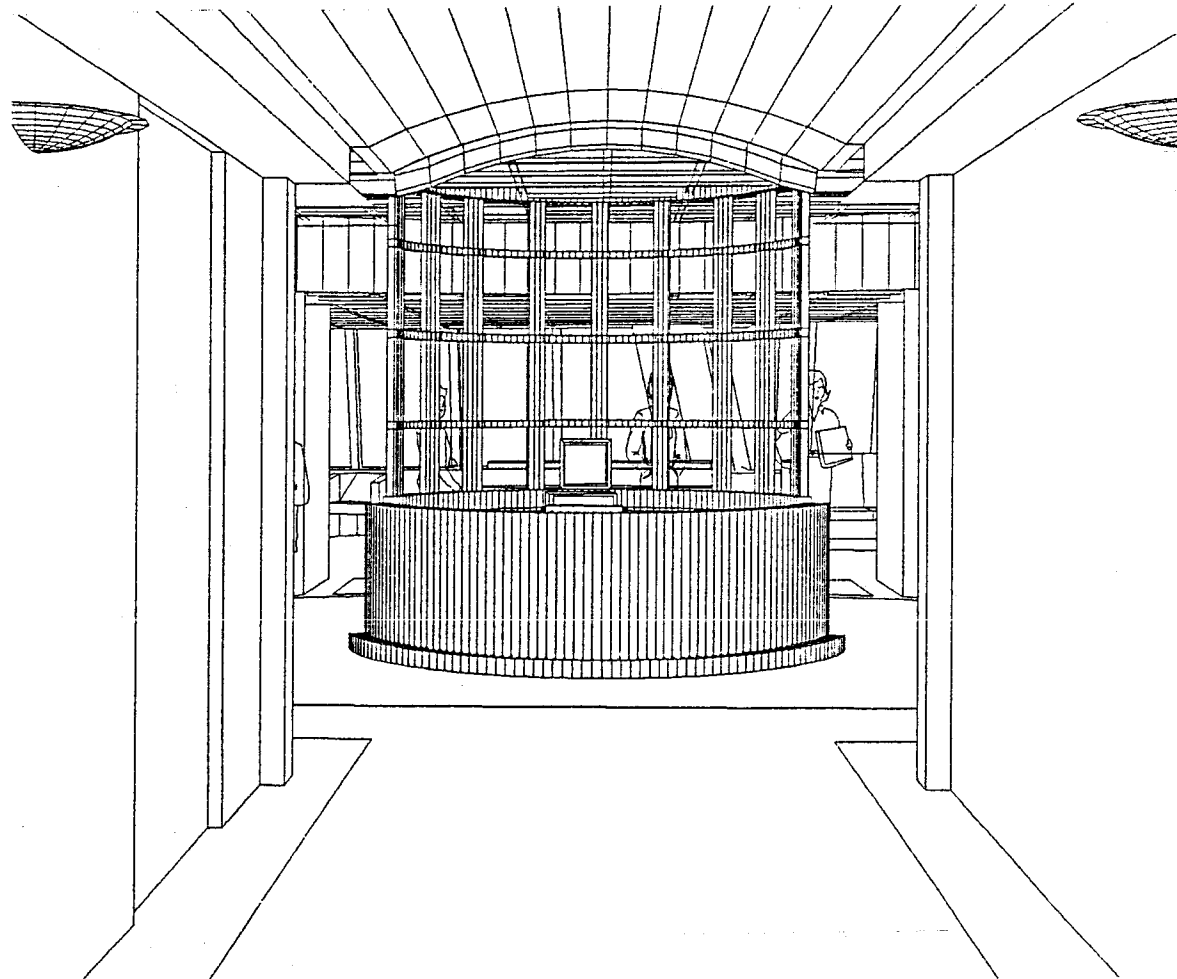
Individuals in lower level positions tend to work in more open plan areas or shared offices where control over their local environment is limited. The public nature of their work setting deprives them of direct control over many aspects of their daily experience.

Equally important is the perception of control sought by clients. They must be reassured that despite the fact that they have revealed their most personal affairs to their attorney, they have not relinquished all control over their fate.

## Design approaches

### Democratic design

Involve users in the design from the start. Worker participation in the design process itself has been



*Primary control in the office environment begins with the visitors arrival at the reception area. Design by Mike Bahr*

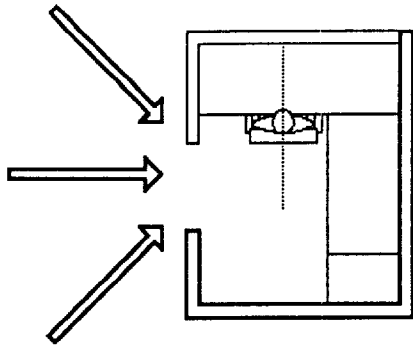


Figure 1. Physical enclosure enables individuals to control accessibility and avoid visual distractions

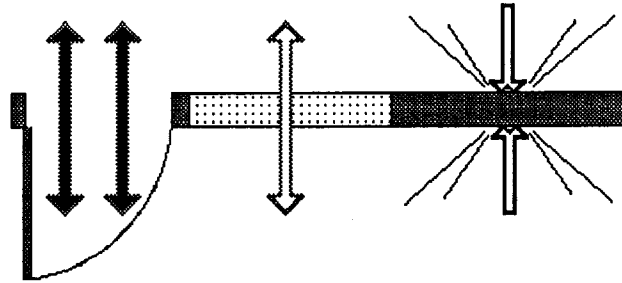
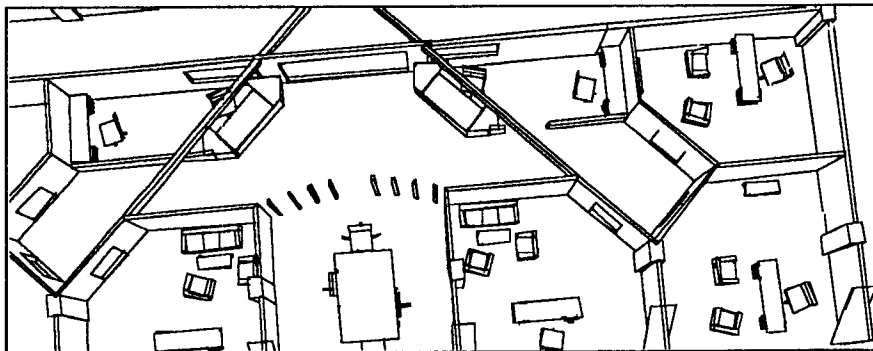


Figure 2. Varying degrees of enclosure help regulate control.



Example: Typical office cluster. Private offices allow user control of accessibility, lighting, etc. Design by William Robison.

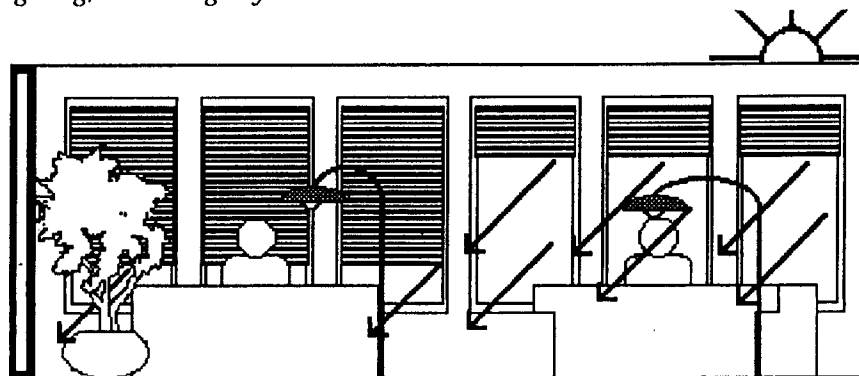


Figure 3. Employees should be provided with control over various aspects of their environment

found to increase satisfaction in various qualities of the work environment. The effect is even reflected in satisfaction ratings for qualities over which the workers had no influence. As employee participation increases, so does satisfaction.

### I need my space

The configurations of workstations themselves should either provide some degree of enclosure defining an individual's space or, at least, some type of controlled access to what is perceived to be the individual's space. Avoid all orientations that permit traffic to approach from directly behind the seated worker. The workspace becomes defensible through the ability to define one's area of control and to survey one's surroundings. (Fig. 1)

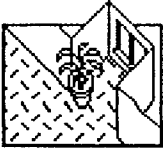
The boundary itself can assume varying degrees of enclosure at the discretion of the occupant. Some type of transparency, such as a window to the office space, would introduce an intermediate level boundary whose permeability or impermeability is controllable. (Fig. 2)

### In the control seat

Employees should be provided with some form of control over lighting levels, temperature, solar gain and glare within their work area. Flexible workstation equipment can fulfill the task requirements of each position as well as each individual worker's needs. (Fig. 3)

### I did it my way

User control over the workstation can be heightened by a design which includes only the most basic elements and invites the occupant to fill in the gaps with his/her own touches. The location of features, such as doors and windows, and the basic office shape should allow several arrangements of furniture and equipment.



# Retreat

Principle after  
Eric Ponto

## Overview

The term retreat covers not only the physical manifestation of space to accommodate "leisure activities" and interaction outside the workspace, but the physical and psychological need for escape and relaxation during the workday as well.

## Issues

### Physical fatigue

Employees require breaks in the day to relieve eye strain, and stretch.

### Mental fatigue

Employees need an escape from office routines and surroundings to find privacy or interaction, as well as a change of scenery.

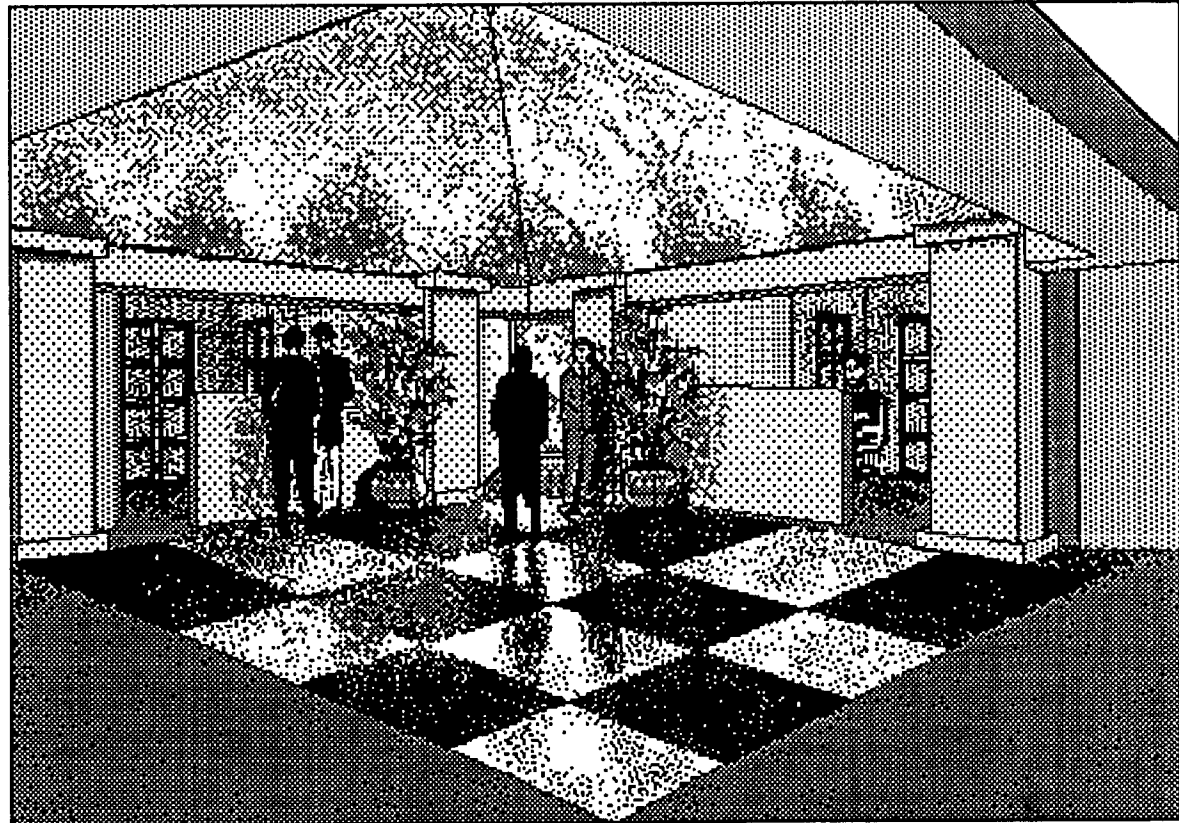
### Client needs

A good law office must provide the client with a space where they can feel they have some measure of privacy.

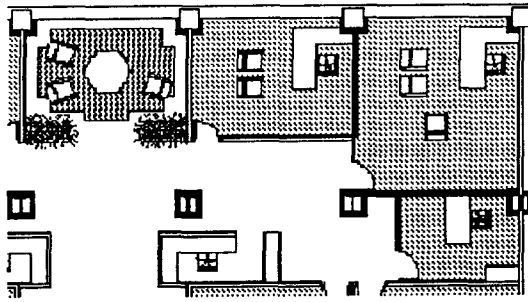
## Design Approaches

### Visual variety

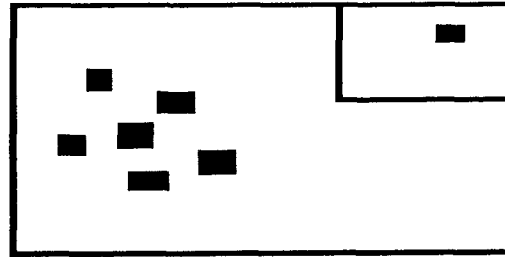
The type of retreat defined by visual variety can be experienced without the viewer even moving. The use of indoor/outdoor connections contrasts with the confinement and the lack of visual variety of the typical office area and produces a situation where the viewer can cleanse his mind with a visual "break" and never



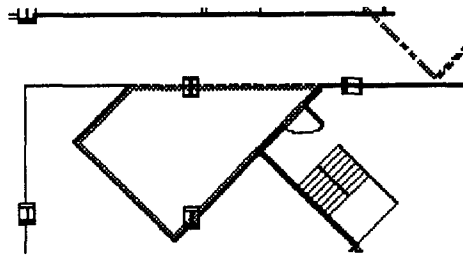
*This view of a community area connecting two office clusters is an good example of retreat. The space affords the employee a place to "get away" from their work and chat with fellow workers in a pleasant atmosphere. Design by Kristi Minser.*



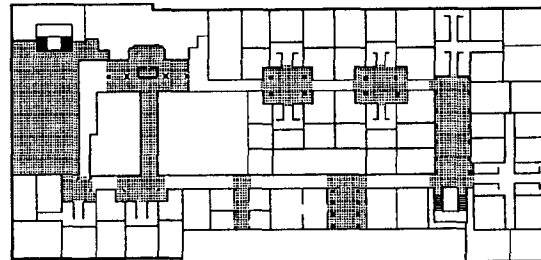
*Example: As many employees as possible should be given private offices, regardless of the size. Design by Antonia Diamantis*



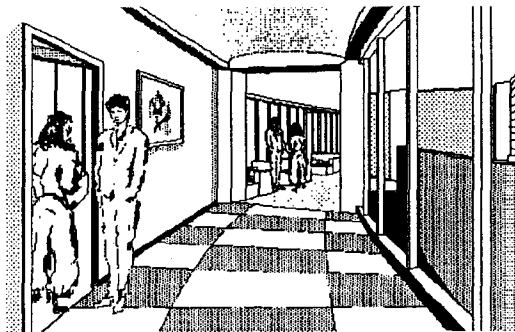
*Figure 1. Each individual in the office should be provided with a place where they can be alone.*



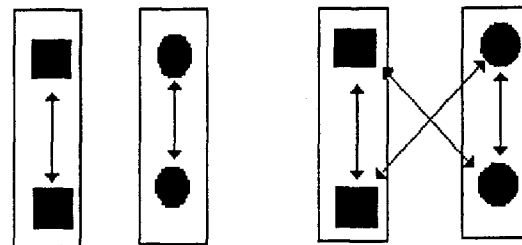
*Example: Placing retreat areas just off the main circulation paths takes advantage of available views and amenities. Design by William Robison.*



*Figure 2. Darkened areas within this plan represent pockets for retreat. Design by Jerry Crain*



*Example: Opportunities for social interaction within the immediate work environment. Design by Adrian Langhus*



*Figure 3. Social interaction as a form of retreat can increase employee productivity.*

leave the workstation. Where indoor outdoor connections are impossible manipulation of surface textures, color, patterns, space configurations and artificial light may help to provide visual variety.

### Private place

Privacy is an important part of any office. The means by which an individual gains privacy and the levels of privacy vary greatly. At higher levels workers are allowed physical isolation away from others if they choose. In the lower ranks the workers may have only implied privacy, such as dividers or partitions. Places should be allocated where employees can go to for privacy. (Fig. 1)

### Transitional retreat

Workers on route to a meeting or bringing material to the data processing center all experience some "retreat time" as they move from one space to another or from one activity to another. This off task time could be used constructively. Information could be gathered about issues pertinent to the company on time that the user sees as leisure. (Fig. 2)

### Social Interaction

Social interaction provides a form of retreat for workers and is a valuable tool for the company. It not only allows them a break from their work, it may also provide an opportunity for the exchange of ideas. With this in mind, the company can manipulate where workers socialize and ensure that even during free time, the employees are productive. (Fig. 3)



# Privacy

Principle after  
Keya Ray

## Overview

In any office it is possible to define a continuum of spaces from the interface of the firm with the outside world, to the sanctum of individual offices. Individuals at various positions along this continuum should ideally be provided with opportunities for environmental control of social interaction and involvement in activities.

## Issues

### Control over accessibility

The ability to control unwelcome intrusions by exercising control over access to one's individual workplace.

### Control over distractions and interruptions

The unintentional and accidental effects of being near other people.

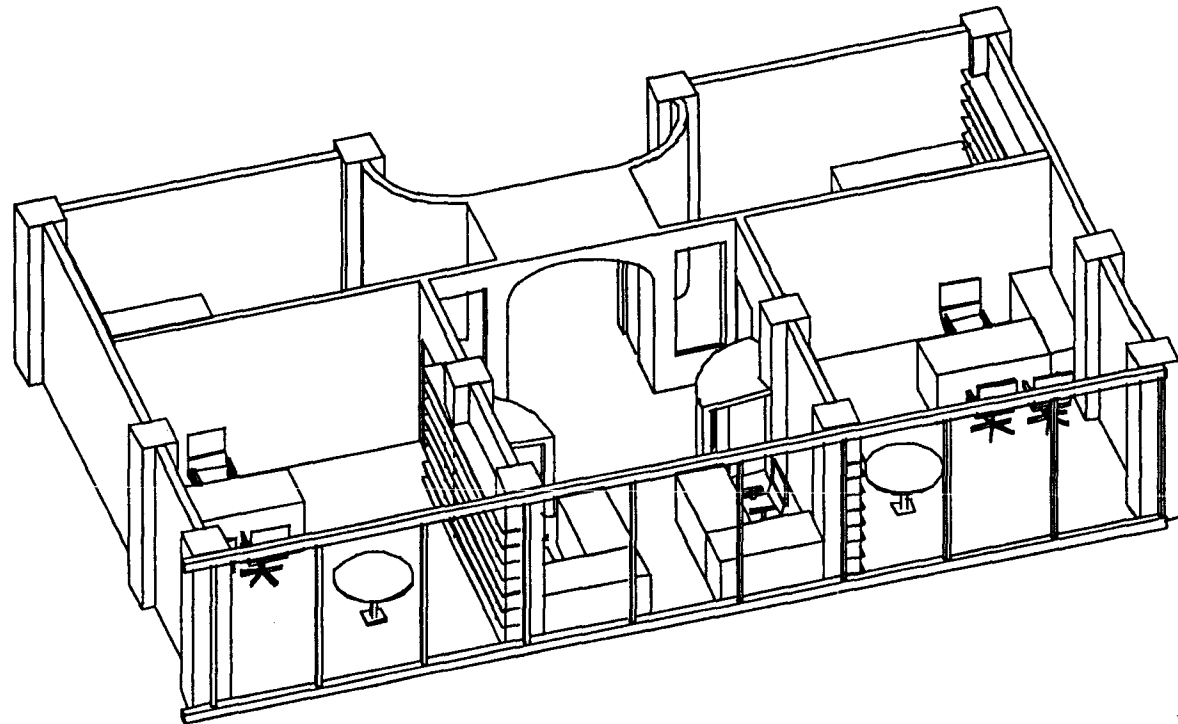
### Speech Privacy

Refers to the selective control over who receives sensitive or confidential information about one's self or others. Threats to speech privacy may be both intentional and accidental.

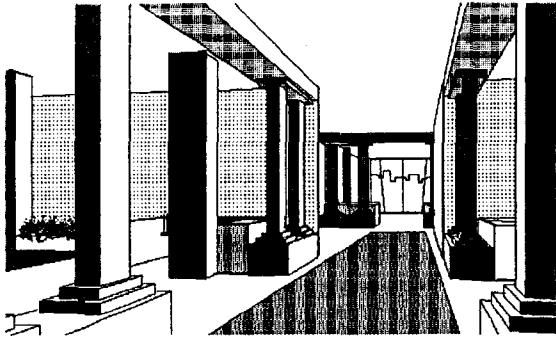
## Design Approaches

### Barriers between public and private zones

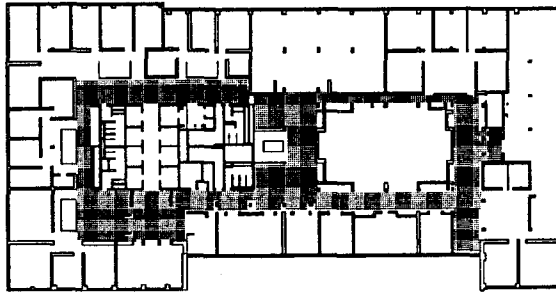
Barriers can take the form of actual walls and doors. However, easily recognizable symbols can be equally effective in communicating the same message as a partially shut door or a full height partition.



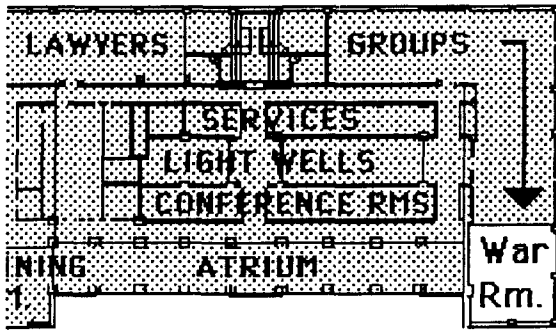
*Privacy is a need shared by all employees, from the lawyers in their cellular offices to the secretaries at their work stations. Design by Adrian Langhus*



Example: Transition zones between public and private spaces can be as simple as open vestibules. Design by Mary Richter.



Example: Circulation passing by neighborhoods in a typical plan do not intrude on the individual bays. Design by Keya Ray.



Example: Spaces requiring maximum privacy are placed off the beaten path. Design by Mary Gorman.

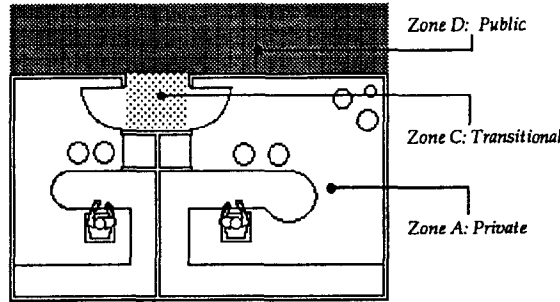


Figure 1. Transition zones help to create smooth passage between public and private zones.

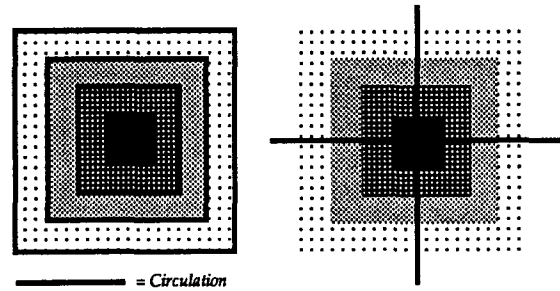


Figure 2. Circulation paths which border privacy zones are preferred to those which break them.

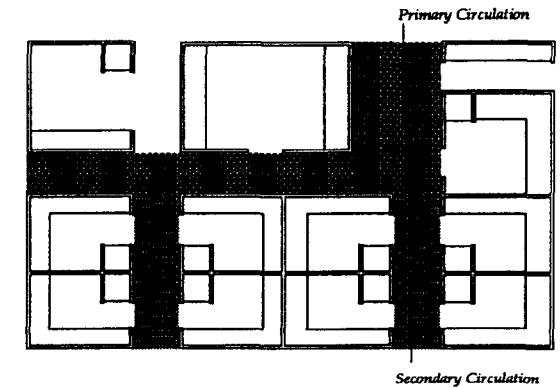


Figure 3. Offices off primary circulation are afforded more privacy.

### Transition areas between public and private zones

Clear definition of transition areas can make the gradation of public to private smooth and can minimize conflicts arising from direct contact between private workstations and public zones. Transition zones should be defined both at the macro—the firm's interface with the outside world—and micro level. (Fig. 1)

### Circulation paths that pass by and not through

It is important that circulation routes pass along the borders of the different zones and not through them. Thus areas along different points of the continuum from public to private zones can maintain and preserve their desired level privacy. (Fig. 2)

### Away from the main street

Placement of workstations along secondary circulation routes removes them from the mainstream of activity and these can then serve as extended transition areas for a number of offices. These offices can then maintain some degree of privacy without actually being located in the inner private core. (Fig. 3)





# Keep Them Talking

*Principle after  
Peter Weston*

## Overview

An office environment which facilitates both formal and informal interaction at all organizational levels will help a firm prosper. Office layouts which allow everyone needed privacy and condemn no one to isolation, which foster intimate interaction among neighbors and bring neighborhoods together as communities, will benefit.

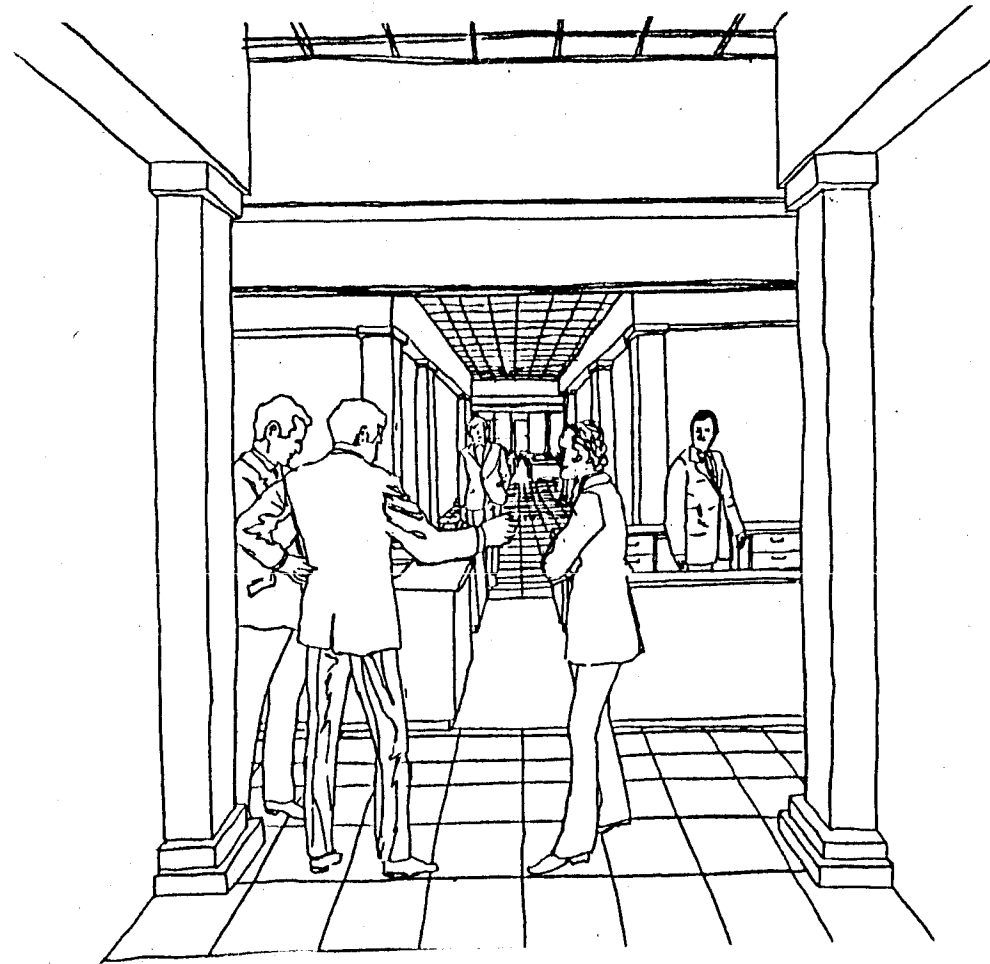
## Issues

Too often individual employees or whole departments will suffer the effects of being in a relatively isolated environment. Employees will garner a feeling of being unattached. Whole departments can develop a sense of isolation from the superior powers of the company as a whole. These problems can be attributed to both office layout and managerial style. Bringing people together correlates directly with designing an office environment that facilitates both formal and informal interaction. Here, informal interaction happens dynamically between community members, while formal interaction (such as staff meetings, conferences, etc.) help to tie the individuals to the whole.

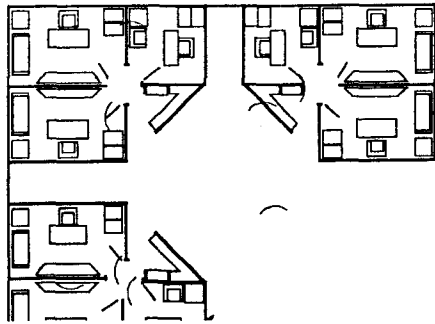
## Design Principles

### Cluster Groups of People

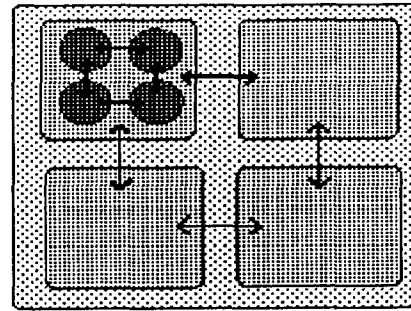
The designer must not simply search for places to put individuals. He must produce spaces



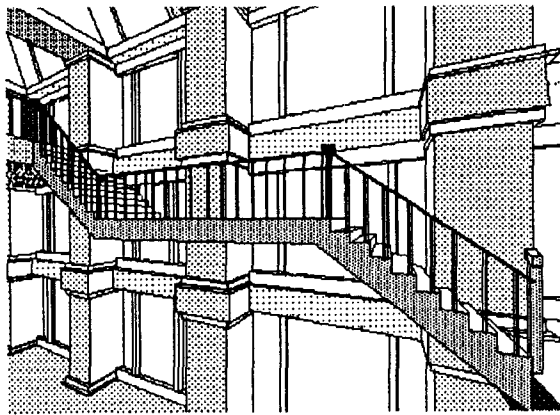
*Primary circulation routes are a most likely location for informal interaction. Design by Charles Wischow.*



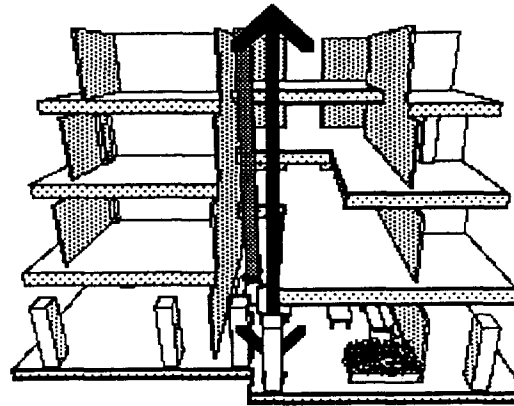
*Example: A typical office cluster configuration. Design by Kristi Minser.*



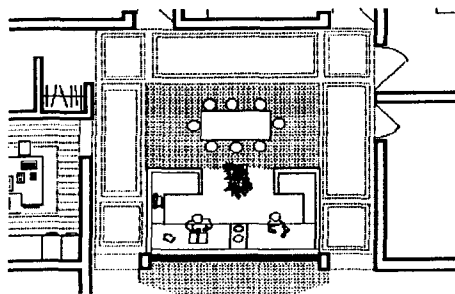
*Figure 1. Interaction occurs within clusters and between groups.*



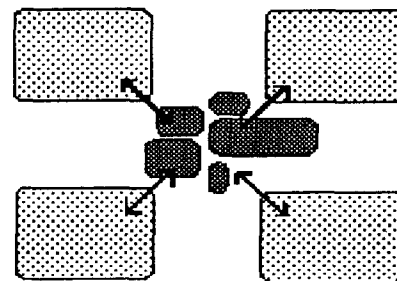
*Example: A full story atrium used as primary circulation promotes interaction and multi-floor integration. Design by Mary Gorman.*



*Figure 2. A vertical link between levels of a multi-story office decreases isolation. Design by Antonia Diamantlis.*



*Example: A conference table shared by a bay of offices acts as a tool to draw employees together. Design by Keya Ray.*



*Figure 3. Shared amenities help to encourage intercommunication between groups.*

which foster interaction among others in particular neighborhoods or communities. Establishing neighborhoods in an office layout entails careful planning of adjacencies so that offices are clustered together to form communities, and communities are clustered to form the company. These clusters can be placed along circulation routes to increase the chance of intergroup interaction. (Fig. 1)

### Vertical Integration

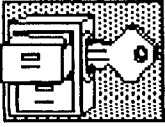
In a multistory office layout, if users haven't a need to move from one floor to another, they won't. These users will develop a sense of isolation from the other floors and from the company as a whole. Encouraging floor-to-floor interaction within the firm will help reduce the tendency toward segregation. Additionally, visual cues from open spaces (such as atriums) will be a continual reminder of the multi-floor integration within the firm. (Fig. 2)

### Central Support/Amenities

Neighborhood and community interaction is enhanced with centrally located amenities and support facilities. The constant flow in and out of support spaces of people from all different levels will bring the firm together. This chance for informal and/or formal interaction will help to strengthen the firm's identity as a unified whole. (Fig. 3)

### Nooks

Providing small spaces or "nooks" adjacent to public spaces like lunch rooms, or in private spaces such as conference rooms will provide multifold opportunities. The designer can create visual and sensory relief with these expanded areas along hallways, as well as provide employees the opportunity to engage in a more in-depth interaction that might not be otherwise be available in a busy crowded hallway.



# Off the Record

Principle after  
Mary Gorman

## Overview

Security and confidentiality are important elements in the success of a law firm. The impression of security and confidentiality can many times be as important as the physical manifestations required to attain them, if not more. A client, as well as an employee, must feel that information is privileged and that the storage and processing of that information is handled confidentially and filed securely.

## Issues

### Protection from exposure

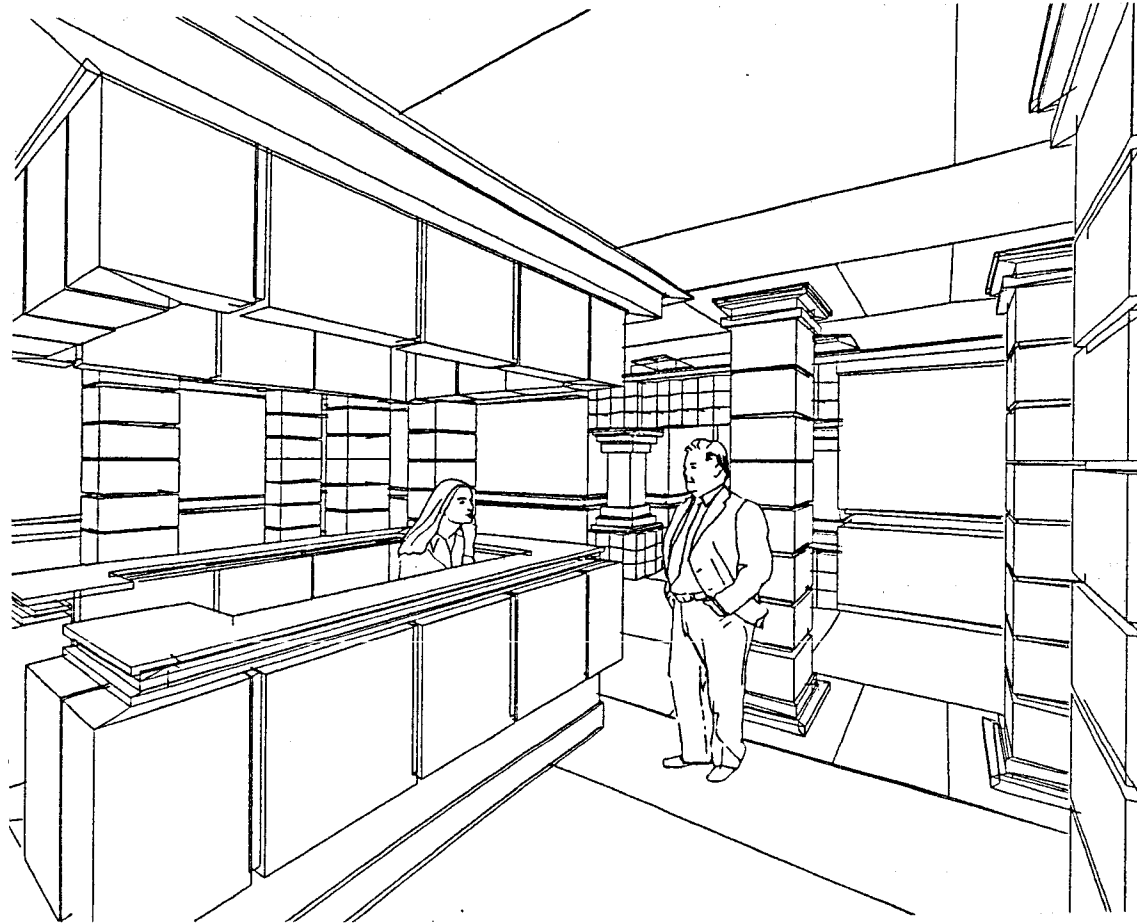
Inherent in the legal process is the need of the client and attorney for privacy and confidentiality so that privileged information does not fall into the wrong hands.

### Enable employees to talk among themselves

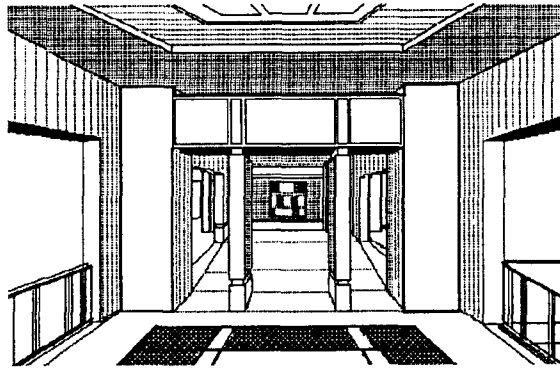
Employees handling a client's case must be able to have conversations among themselves without fear of being overheard. Places must be provided for attorneys to work on confidential documents for extended periods of time, undisturbed.

### A safe place for documents

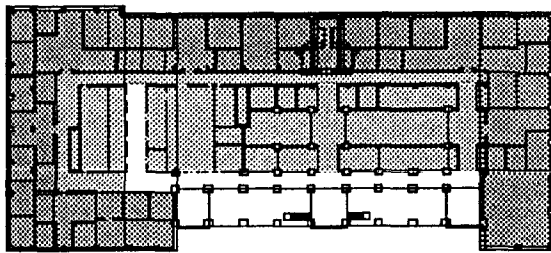
The maintenance of the clients' privacy must be carried through to the handling, processing and storage of the clients' written information and documentation.



*It is important for the client to feel confident in the security and trustworthiness of the firm from the moment he walks in the door. Design by Gray Mitchem*

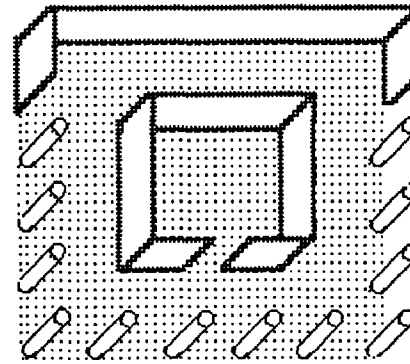


*Example: Implied boundaries along circulation routes indicate a change in public access. Design by Keya Ray.*

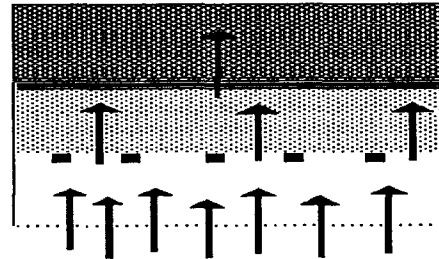


□ PUBLIC    ▨ SEMI-PUBLIC    ▩ PRIVATE

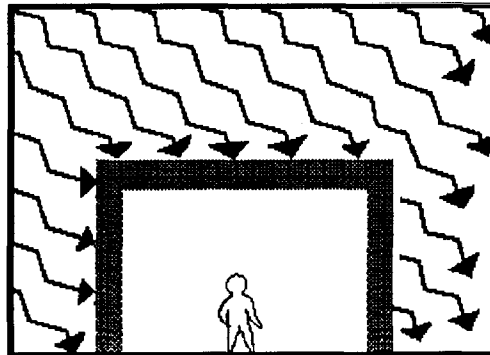
*Example: Buffer zones between public and private spaces isolate private offices. Design by Mary Gorman.*



*Figure 1. Enclosures can be tangible or implied.*



*Figure 2. Isolation can be achieved by physical or psychological separation.*



*Figure 3. Both clients and employees need to feel that delicate information is safe from exposure.*

## Design approaches

### Enclosures and boundaries

The architectural elements of enclosure can create physical boundaries and just as importantly, implied boundaries. The physical aspect of enclosure creates a separation from others both visually and acoustically. How others perceive the use of these enclosures can give the physical boundaries they create more power in maintaining separation. What people infer from something like a closed door is as important as the physical barrier the closed door creates. (Fig. 1)

### Degrees of isolation

Different levels of privacy require different degrees of isolation. Degrees of isolation deal mainly with the perception of isolation, rather than just the physical manifestation of it. As one moves through space, the feeling of isolation depends more on what an individual's sense of it is than the actual proximity to others in the space. Perceived as well as actual isolation can manifest itself in a variety of ways: in the idea of enclosure, one's orientation in space, a change in the direction or quality of paths, one's relationship to mainstream circulation, etc... (Fig. 2)

### A safe place

Processing and filing of client related documents is the "unseen" aspect of security and client confidentiality. A secure and selectively accessible space for current document storage is imperative. Being able to discretely handle documents is as important to the welfare of the attorney's mind as the client's and should be an important aspect of efficient and careful space allocation and placement. (Fig. 3)



# Accessibility

Principle after  
Norhashimah Janatan

## Overview

Efficient circulation throughout a typical office depends on the accessibility of various departments and offices to the lawyers and staff. A successful office plan must be easy to understand and the transition between different departments and offices should be as uncomplicated as possible.

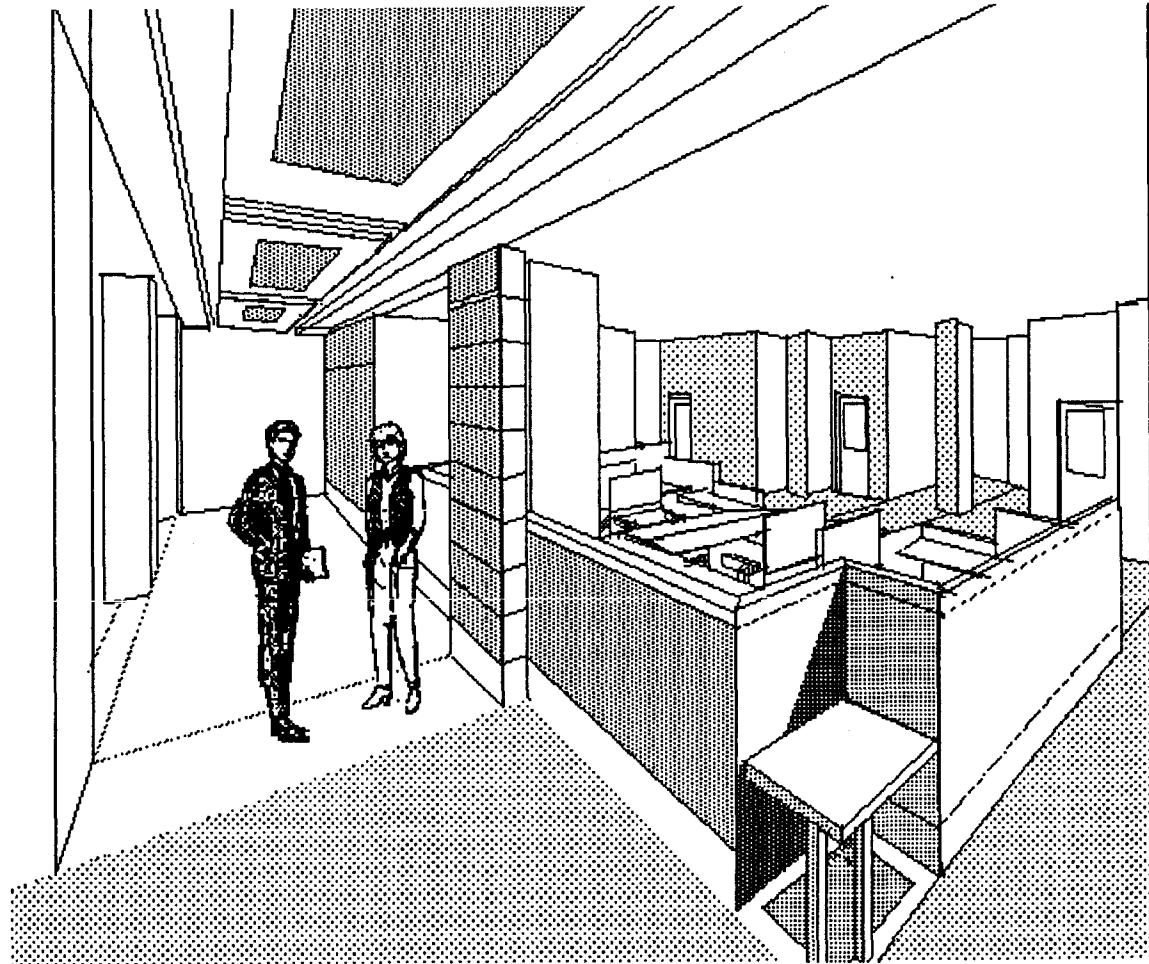
## Issues

Areas of differing levels of accessibility must be created to allow for the privacy needs of employees and clients and to facilitate wayfinding. Each office and department should be thoughtfully placed in plan so as to reduce the energy expended in travel time between them. Accessibility to one area should not be at the "expense" of another. One should be able to get to a space without interrupting or invading other areas.

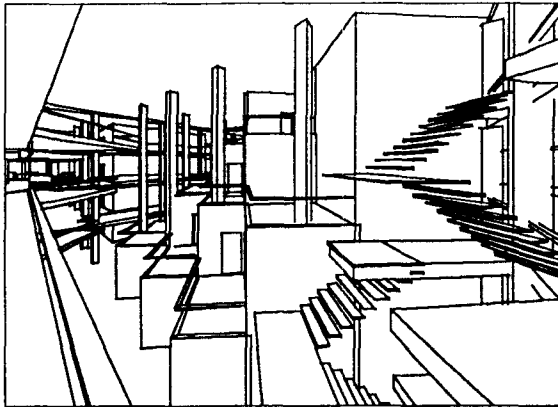
## Design approaches

### Proximity in location

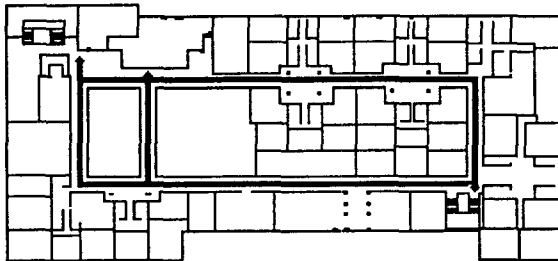
The concept of proximity in location should try to provide users with a non-time consuming accessibility from one area to another. Not only should it answer the issue of traveling time, but it should take into consideration the ease of access to certain areas. This concept applies to



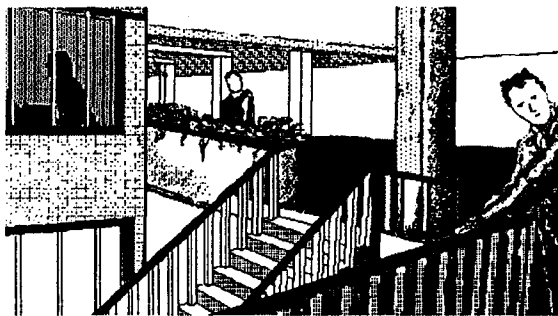
*Previewing a space allows one to physically see their destination and to choose the best route to travel. It also gives them the opportunity to decide whether to go in to an area or not without having to enter. Design by Hairuddin Munip.*



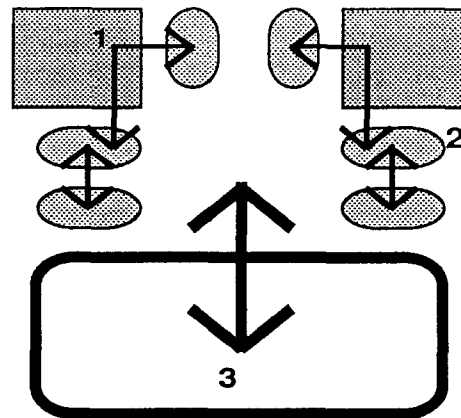
*Example: Stairs next to library make it easily accessible from any floor in the firm. Design by William Robison.*



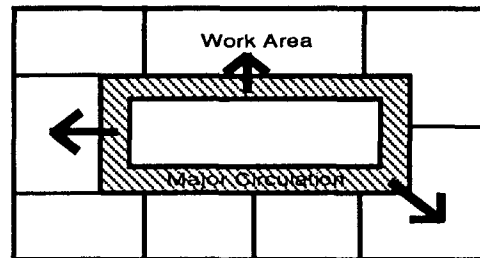
*Example: Circulation should be clear, easy to follow and make all areas of the office accessible. Design by Jerry Crain.*



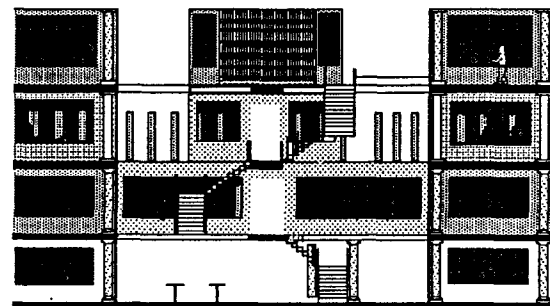
*Example: Seeing into a room before entering avoids interruptions and is reassuring to the user. Design by Eric Ponto.*



*Figure 1. Departments shared by all members of the firm (3) should be centrally located, while secretaries and legal assistants (2) should be nearby lawyers (1).*



*Figure 2. Loop circulation patterns are commonly used because of their straightforwardness.*



*Figure 3. Visual accessibility is aided by multi-story views and windows in offices and rooms. Design by Eric Ponto.*

### Clear circulation configuration

Clear circulation configuration is important in space planning. The way circulation is designed can either aid or confuse users as to how to approach their final destination. Users must be able to comprehend the configuration of the circulation and, most important of all, be able to figure out which passage would be the quickest route. (Fig. 2)

### Visually accessible

Visual accessibility has practical and psychological benefits. To aid in wayfinding, the user must be able to ultimately see his place of destination. Psychologically, visual accessibility helps the user in two ways. The destination and its entry should be easily seen or recognizable to reassure the user not only that they will arrive, but that he or she will be able to enter the space as well. In terms of efficiency, a visually accessible space responds to the need of the user who doesn't want to be in a space yet, but would like to see if there is activity inside. In some cases, this can provide security control of the space. (Fig. 3)



# Comfort

Principle after  
Jerry Crain

## Overview

Comfort is an essential element in the creation of any habitable office environment. In the case of a law office, comfort becomes a critical factor that must be considered. Employees must feel comfortable to do their job well and clients must feel comfortable when visiting the firm. *Physical comfort* (an obvious aspect of comfort) deals with furnishings, lighting control and environmental fluxuations. *Psychological comfort* is often overlooked when designing for comfort. *Feeling comfortable* in an office depends on the way the surroundings are perceived as much as how the office actually appears.

## Issues

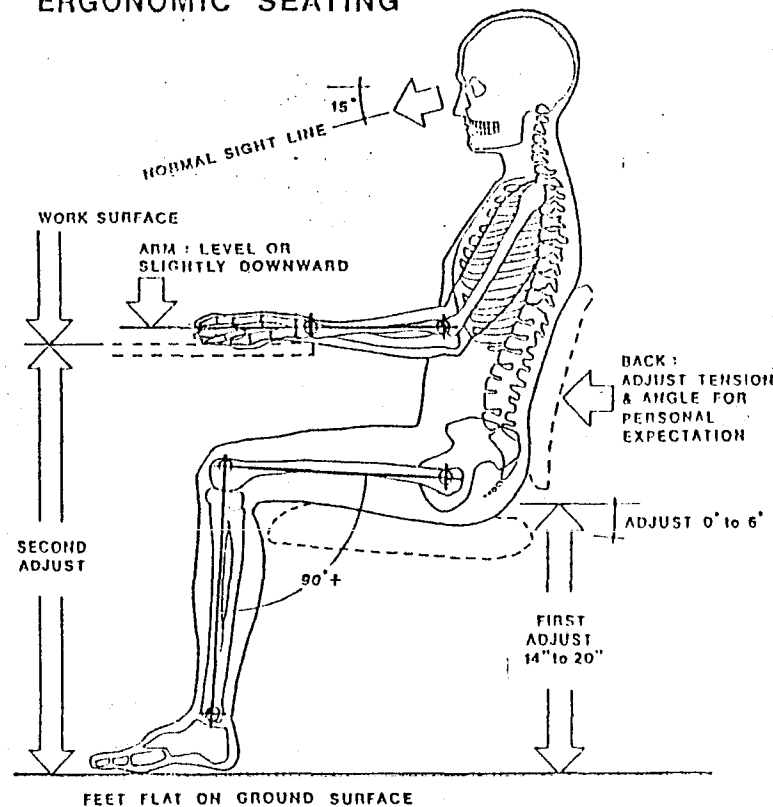
### Physical

As is the case with many large office buildings, the control occupants have over their environment is limited. As employee positions are lower on the scales, the amount of control over physical comfort also decreases.

### Psychological

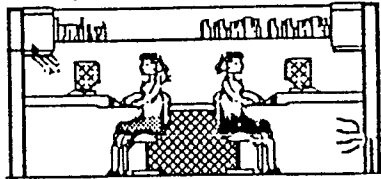
Control is a factor that makes an environment comfortable psychologically. Not being able to regulate your surroundings tends to be frustrating, making users very uncomfortable. Social comfort within a large law firm is also an issue that needs attention. In many cases, people of

## ERGONOMIC SEATING



*Adjustable seating is imperative for employees whose primary tasks include sitting for long periods of time. If it is not imperative, adjustable seating can help to improve worker effectiveness, concentration and overall performance.*

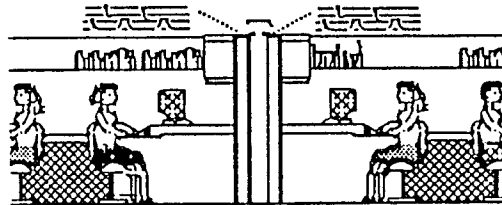
Individual  
task lighting



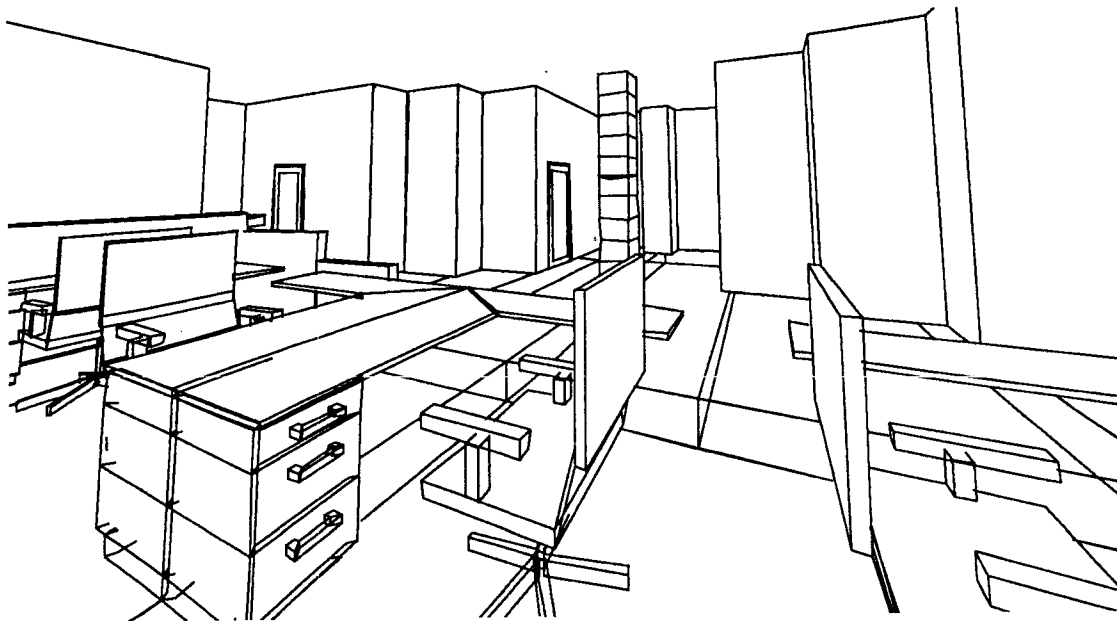
ADJUSTABLE  
VENTS

*Figure 1. Employees and staff do not have control over lighting and temperature. Providing alternatives at workstations that allow some control.*

muzak - sound masking



*Figure 2. Muzak acting as white noise drowns out normal office sounds around a workstation.*



*Example: Comfort in the office begins with the employee's work station and extends out to control of environmental factors and distractions around the immediate area. Design by Hairuddin Munip.*

different status levels work together in functional work groups. Too much disparity between comfort levels within these groups tends to alienate and create a feelings of uneasiness among employees.

### Design approaches

#### Open plan controls

In today's modern office environment employees need to be able to control their surroundings. Many office planning systems do integrate controls into their systems to regulate lighting (for reading, glare discomfort) and temperature (hot/cold discomfort). (Fig. 1)

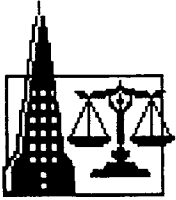
#### Noise and sound alterations

If distracting noise is within the immediate area, masking it with a more pleasant sound can tend to drown the noise out. (Fig. 2)

#### Ergonomics

Ergonomics is a major element that is all too often overlooked in the modern office environment. The benefits of comfortable furnishings can be felt through an increase in productivity and decreased medical expenses. An employee's needs should be taken into consideration so that the proper furniture can be found for their individual jobs.





# Image

*Principle after  
Kristi Minser*

## Overview

Responsible office design today can no longer begin with mere physical planning. It first requires an understanding of the corporate culture: the idiosyncratic way in which an organization operates as well as its pervasive philosophies. Those who design the modern office must view the client in precise terms and then determine how to successfully convey the unique image of that client. In addition, the competitive market of today dictates that as a base, interiors must impart a sense of permanence and distinctive character, to counterbalance rapid employee turnover and to create corporate individuality

## Issues

### Philosophies and goals

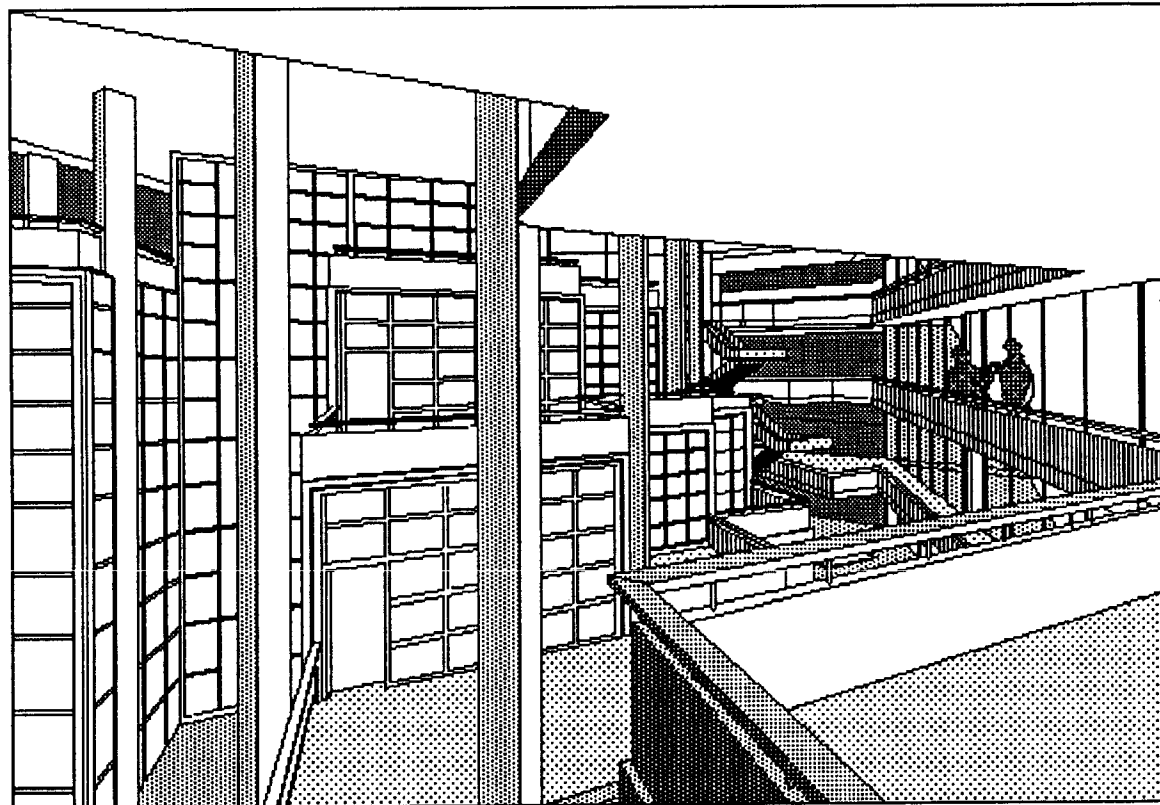
The organization's outlook and style should be emphasized in the design and throughout the office.

### Corporate self confidence

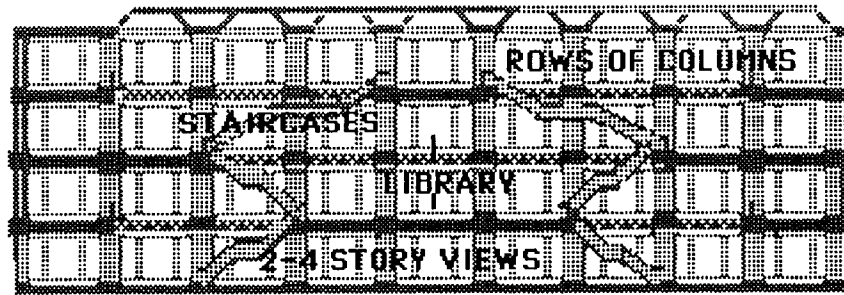
The character and attitude of the organization should be fostered within the firm and projected to the public.

### Public self confidence

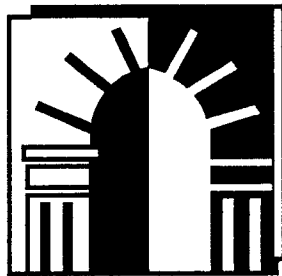
An image of power and experience should be created and conveyed to the public to inspire confidence and act as a beacon for future employees.



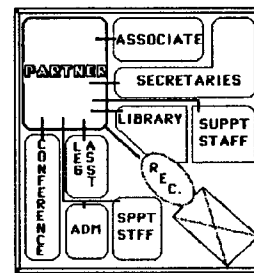
*The library, a symbol of knowledge, skill and tradition, here becomes a building within a building. Housed in the centrally located atrium, it serves as an icon for the firm and acts as a dominant image maker. Design by William Robison.*



*Example: VPKK is a firm modern in thought and based in tradition. The three facets of VPKK--power (stairs, 2-4 story views), knowledge (library) and tradition (rows of massive columns) are enclosed in the atrium to create an enduring and dynamic image. Design by Mary Gorman.*



*Figure 1. Motifs can become cohesive image-making elements in a design. Icon by Norhshimah Jantan.*



*Figure 2. Image starts with the organizational structure.*



*Example: Soft uplighting, open spaces and multiple views through windows create an honest, straightforward, modern image. Design by Kristi Minser.*

## Design approaches

### Philosophies and goals

Focus on main organizational philosophies and goals that best portray the image the firm wants to put forward to the public. Choose select features that embody the organization's ideals.

### Elements and motifs

Appropriate architectural elements and motifs must be selected and applied to create an image commiserate with the ideals of the firm. These elements should tie in with the features and should be prominent, readable and meaningful. Consistency throughout the design with these elements cannot be stressed enough. (Fig. 1)

### From top to bottom and inside-out

Surface treatment and architectural motifs should not be the only methods used to convey image. Treatment and arrangement of work stations throughout an office plan are important cues to employees, clients and competitors of the integrity of the firm's projected image. A firm that only worries about the image of its reception area is a firm that might be perceived to be inconsistent with its clients as well. (Fig. 2)



# A Place of My Own

*Principle after  
Adrian Langhus*

## Overview

A law firm is made up of many individuals, whom in turn comprise various small groups, practices, specialties, and departments. In order to retain a human element in amongst all of these hierarchies, personalization and group identity need to be established. Often, who or what we are is expressed in what we display to others. The control an employee has over his/her own space is a direct reflection of the confidence management has concerning that employee.

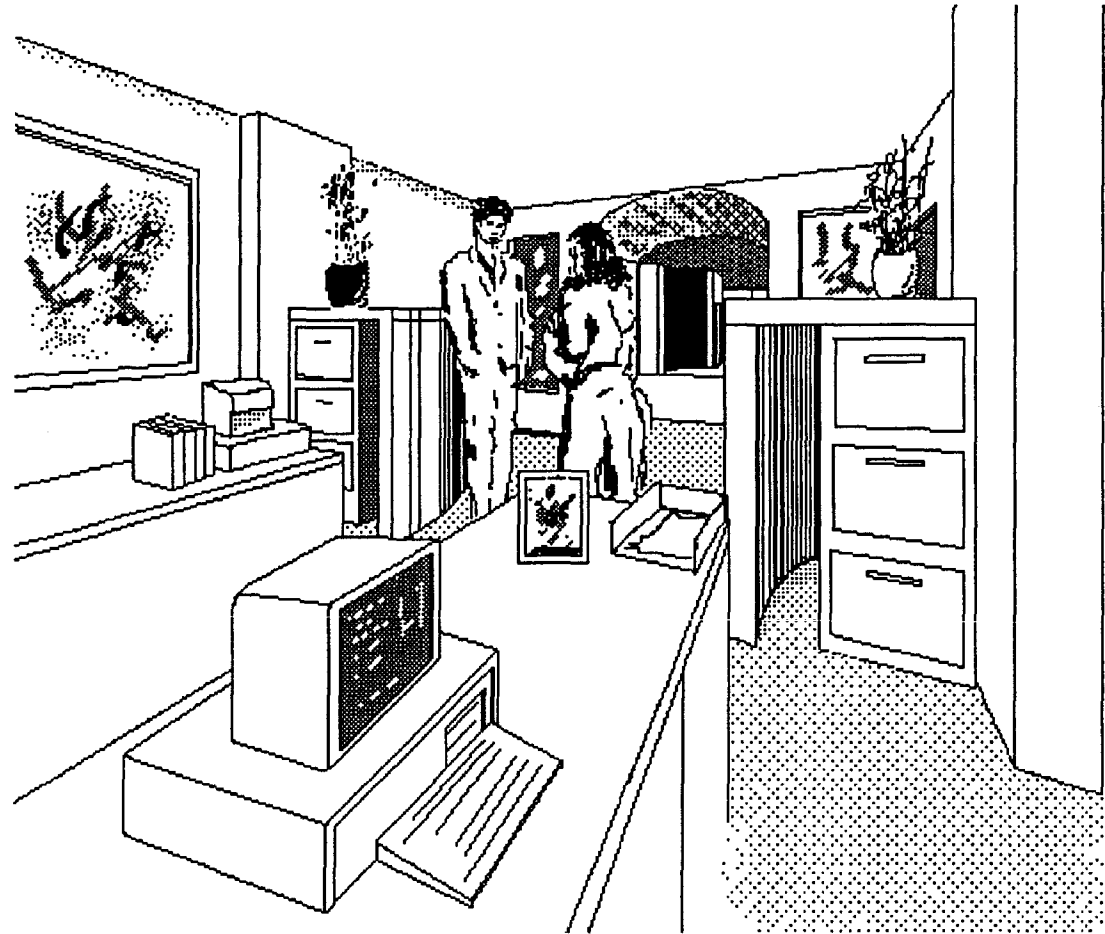
## Issues

Encourage participation and pride in the company and domain  
Encourage self-reliance, independence, and sense of identity

## Design approaches

### Encourage user participation

It has been shown that the higher the level of user participation in the design process, the greater the level of user satisfaction in the created environment. This participation must be promoted not only at the inception of the project, but throughout the life of the building. It is hoped that this participation not only provides better results (due to the fact that the user may very well know the most about his/her individual needs), but as well promotes a sense of control over one's



*When employees are allowed to personalize their workspace, their sense of control over their environment increases and their morale improves. Design by Adrian Langhus.*

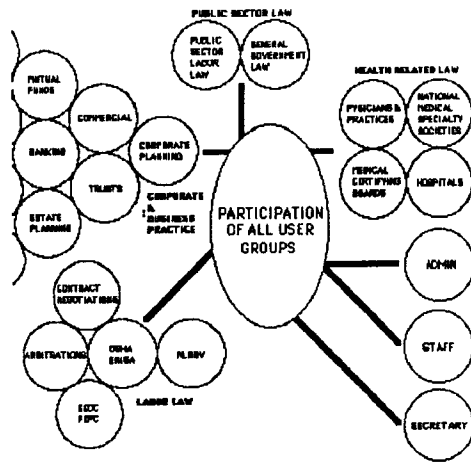


Figure 1. All members of a firm should have a say in the look, design and layout of their firm.

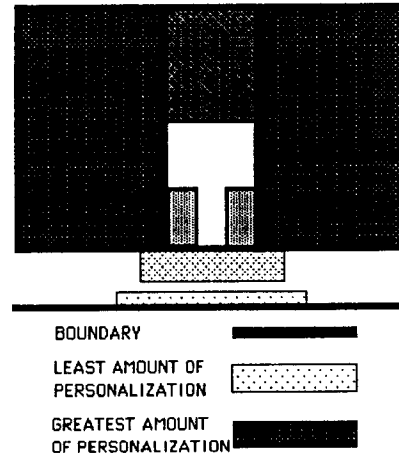
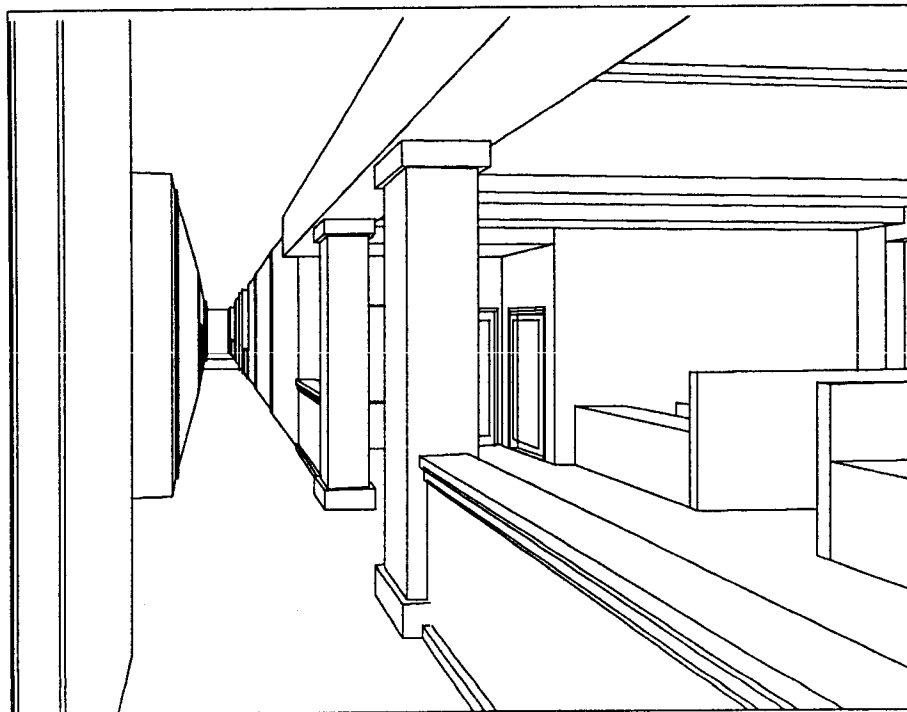


Figure 2. Physical and implied boundaries help to maintain an employees territory.



Example: A landmark boundary at a neighborhood point of entry creates a distinct identity for that neighborhood and separates the public circulation from the private office cluster. Design by Mary Gorman.

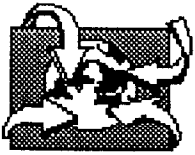
the company, and thus provides for a happier, more productive employee. (Fig. 1)

### Define personal and domain boundaries

Employees need to be able to express to others their own personal identity. Control over ones space is actually more important to the lower status workers, than some of the higher status workers. This is due to the greater supporting role of the environment in expressing their competence, self-worth, and achievement. The creation of defensible space fosters the attitude of creating a space worth defending, in a company worth defending. People want a space to call their own, in a neighborhood they can identify with (in this case a domain (in whatever form that may take)). These boundary markers help others know where to be and not be, as well as guide behaviors in a particular direction, conducive to the space and the situation. (Fig. 2)

### Design for personalization

Because personalization is a reflection of self, serving as feedback to the individual as reinforcement of self, foster the personalization of spaces, plan for flexibility. Design the shell of the space and the major architectural details, but leave the interior to be decided by a site interior manager, or by a committee of employees. Leave money in the budget for just this purpose. Allow the occupants of the space to work in the newly designed space for a while, before the furniture, paint, and other accessories are ordered.



# A Sense of the Whole

Principle after  
Hairuddin Munip

## Overview

An organization should be perceived as one entity with one major goal/principle shared by all members. Members should share a feeling of belonging even if separated by multiple floor levels. The sense of belonging to the community of the firm can be achieved through architectural manipulation of the space.

## Issues

Increase interaction across departments/floors and prevent isolation.

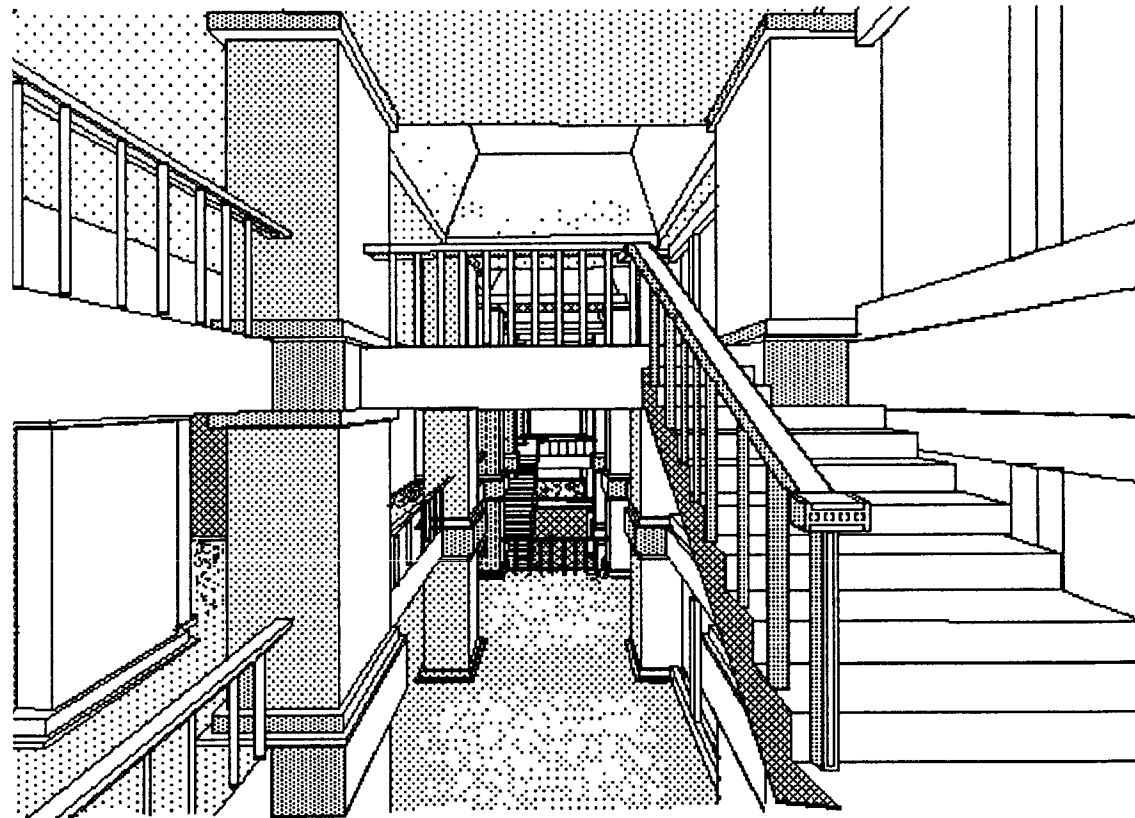
Promote a sense of unity and belonging across floors to tie all members of the organization together.

## Design Approaches

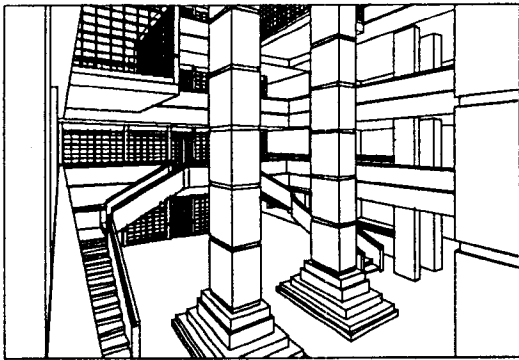
### Expanding the Visual Field

Walls that define space can deprive an individual of outside communication and social flow. Expanding the visual field with physical openings (doors) or transparent openings (glass wall, windows) will help to break down the sense of confinement walls can create and enhance the individuals sense of belonging to the whole.

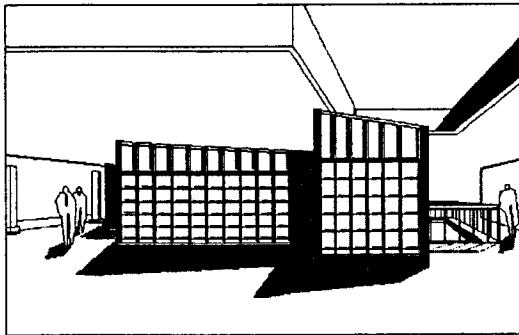
The sense of belonging can also occur on the next largest scale—between floors. Existence of clear connection between floors and a consistency in architectural treatments throughout the firm will help to create a transparent connection between



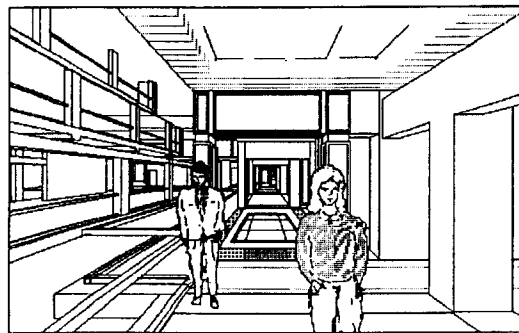
*An atrium links floors together, but is not enough to tie a firm together as a whole unit. A sense of belonging to the whole is enhanced when the atrium contains internal vertical circulation and runs the length of the building. Locating internal circulation within the atrium increases interaction and reminds employees that they are members of a large firm, not just one floor or work group. Design by Mary Gorman.*



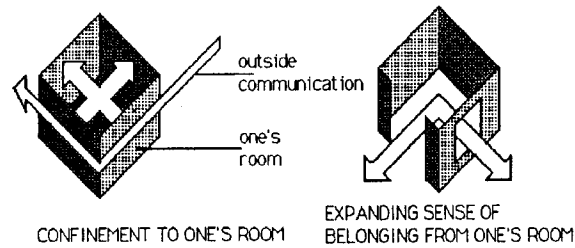
*Example: The vertical nature of massive columns in an atrium reinforce the multi-floor link by pulling the eye upward. Design by Gray Mitchem.*



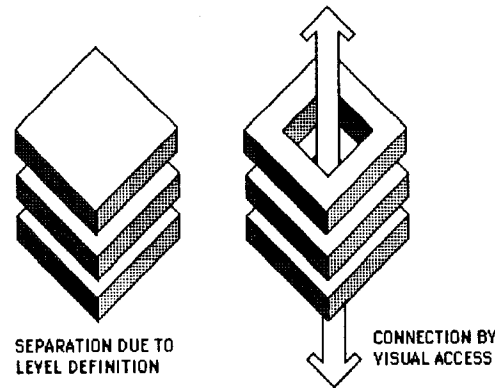
*Example: The computer room is centrally located near primary and vertical circulation. Design by Norhashimah Jantan*



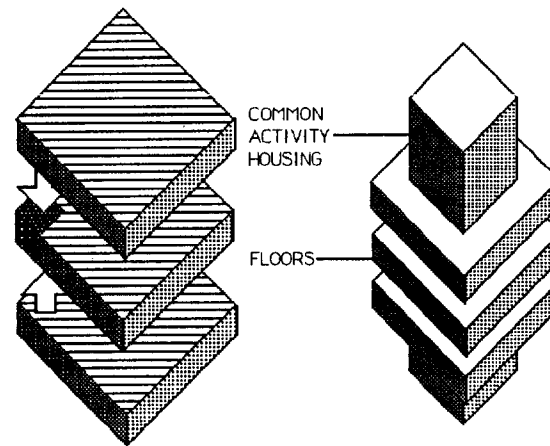
*Example: Architectural motifs and elements used throughout a firm can help to tie the firm together. Design by Hairuddin Munip.*



*Figure 1. Windows and doors help to keep an employee from being cut off from the firm.*



*Figure 2. Transparent connections between floors help to visually link the firm together.*



*Figure 3. Placement of common activity centers within a firm can be across floors or centrally located.*

floors in which members are able to see the entire multi-levelled workplaces. (Fig. 1)

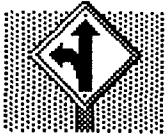
### Activity-based linkage

An area of activity common to all employees is a wonderful tool to use to tie all members of an organization together. This activity could be housed in the same location on each floor and possibly linked together by vertical circulation. This "housing" approach implies a locational, vertical public-use area separating itself from other "private" areas.

This single activity could also be located on only one floor. However, the activity that occupies this place should be important enough to draw all members of the organization to this location. (Fig. 2)

### Thematic Design

A uniform (as in the army) defines an organization as one entity with one shared goal. When the organization's environment is the uniform then the organization becomes one. Variation of a single design theme applied to the architecture throughout the space of a firm parallels the "single entity, single goal" concept of an organization and helps to remind an employee or client that, wherever they are, it is within the confines of the firm. (Fig. 3)



# Wayfinding

Principle after  
William Robison

## Overview

Legibility of the environment affects the users ability to interpret the built environment so they can maneuver within it or find specific locations. Although this issue primarily concerns first time users, regular employees can be confronted with difficulties in wayfinding, especially during emergency situations.

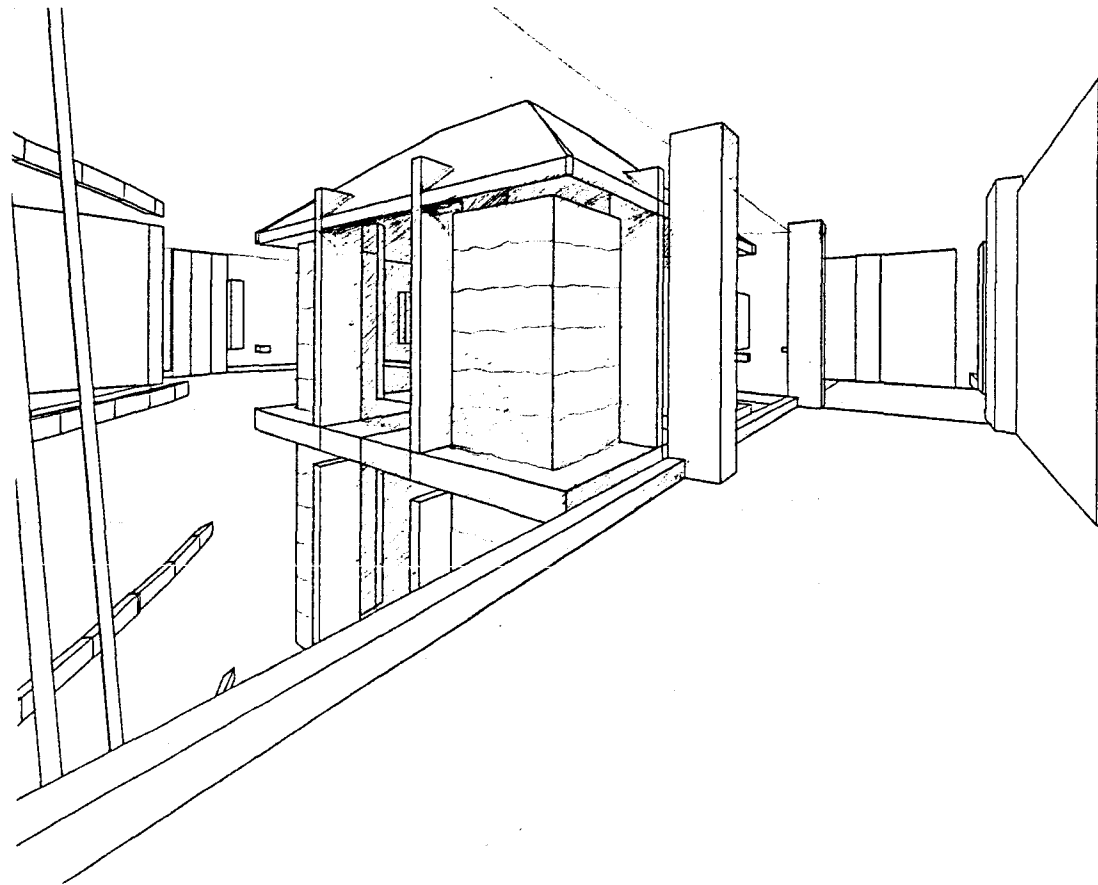
## Issues

Improve the general ability of first time users to interpret and use the environment.  
Create an environment in which employees can easily adapt to relocation and change.  
Provide emergency egress which is logical and easily located.

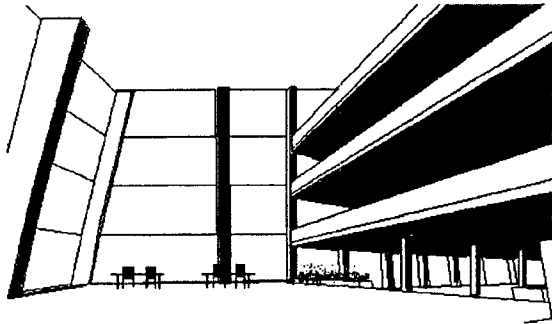
## Design Approaches

### Landmarks

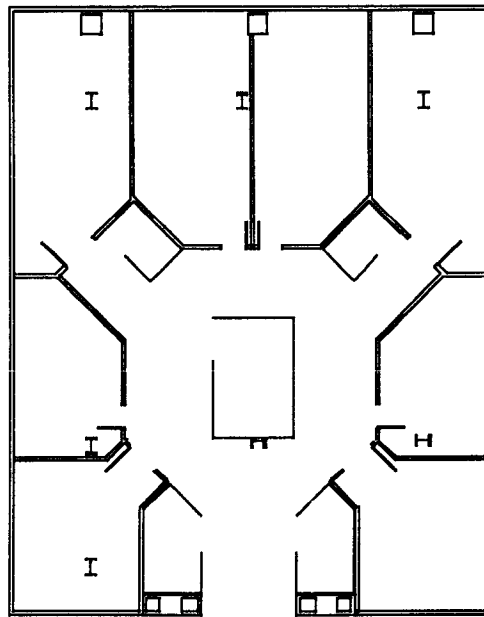
Within the office landscape, the location of certain 'landmarks' can be a great aid in wayfinding, be they consciously placed by the architect or not. Objects such as elevator banks and firestairs often serve as landmarks in large multistory buildings because they are assumed to remain in a constant position over all floors. The architect can and should consider providing other landmarks which are specific to the client floors, and which can serve as benchmarks for orientation due to their prominence and location throughout



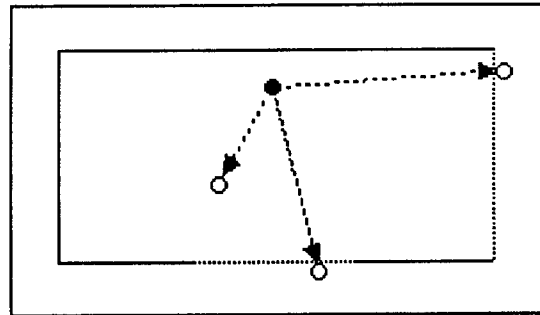
*Landmarks within the office, especially those which can be viewed from multiple floors, such as this stair tower within an atrium, help the user to quickly locate themselves within the plan by serving as a familiar benchmark. Design by Hairuddin Munip.*



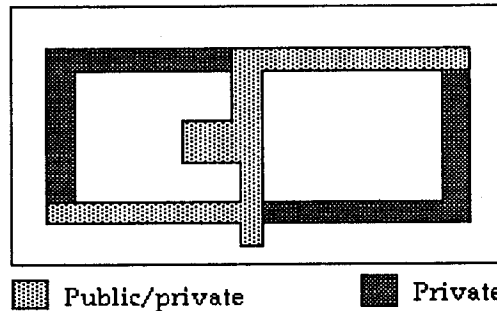
*Example: The atrium can act as a wayfinding device, allowing the user to see multiple destinations. Design by Mary Richter.*



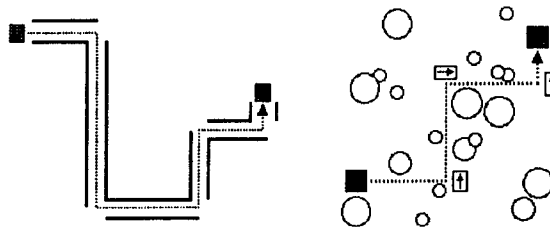
*Example: Using repeating bay units with characteristic attributes can make spatially differentiated zones. Design by Mary Richter.*



*Figure 1. Major destinations within the office can be seen from the user's initial viewpoint.*



*Figure 2. Differences in colors and textures in private portions of the office can help to define boundaries and paths for the visitor.*



*Figure 3. A trail can be indicated either by distinct boundaries, or by repeating markers within the open office landscape*

the office layout.

### Visible destinations

Locating key areas within a building so that the user can see to one location from the other is one way to facilitate wayfinding. Being able to sight a destination from the current location makes it easier to choose a route through unfamiliar territory that lies in between. When more than one route is available, being able to see the destination from the point of decision between two routes makes the choice easier. (Fig. 1)

### Spatial differentiation

Differentiating spatial attributes and features, (color/texture punctuation) such as surface texture, size, and color in different zones within a space can help to distinguish these zones. Design variations help to give each area within a building its own distinct identity, making it easier to locate or direct others to. Also, specific functions or building features which repeat over many areas might be distinguished or "punctuated" by a standard repeating color or feature. (Fig. 2)

### A trail

This concept involves the defining of a specific path (A) to an often used area, by distinguishing the path from the remainder of the office. One continuous, traceable feature might be present along the path to guide the user, or the path might be treated in a different way, architecturally. The most obvious example of this type of trail is a closed corridor, which connects two points directly. Periodic reinforcement (B) of the trail, through repeating markers or patterns can be helpful, to reassure users that they are going the right way.

In this way, the route from the reception area to a primary conference room, for example, might be marked with a "trail". (Fig. 3)



### Imageability (cognitive mapping)

The overall plan of the office should be such that consistent patterns are set up which can be interpreted and used to develop an overall image of the office layout. While this might not be necessary in a smaller office, where a general overview of the organization can usually be seen at one time, it is strongly needed in large, multi-story office plans. When possible, the image of the plan should carry over from floor to floor to aid in overall wayfinding. When users can make sense of the patterns used to organize the spaces within the office, wayfinding is facilitated (Fig 4).

### Signage and maps

A sign can communicate the name or identity of a given area. It can provide directions or warnings to guide users into, or out of, certain places. The primary locations of signs should occur at decision points, that is where a choice of different routes must be made.

One form of sign might be a map of the floor, showing the location of various zones, specific departments, or emergency exits. (Fig. 5)

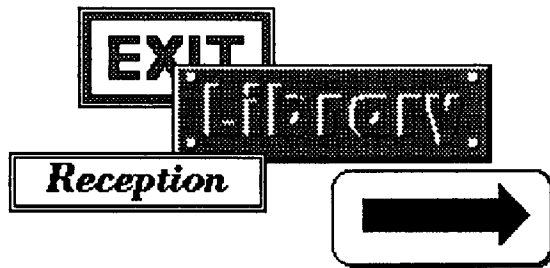
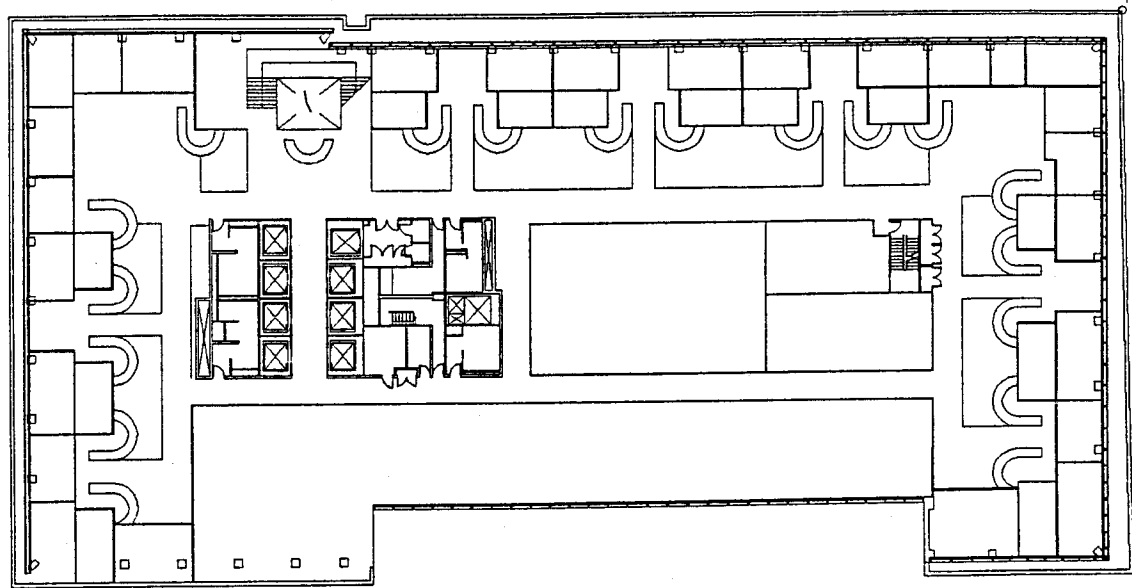


Figure 5. Signs guide the user to their destination.



Example: Each of the circular half-walls and overlooks act as landmarks to the bays and to primary circulation paths. Design by Peter Weston.

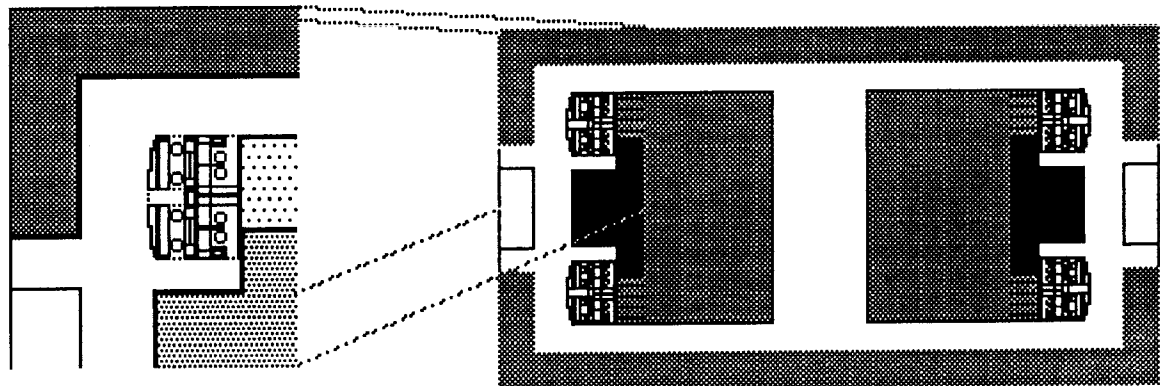
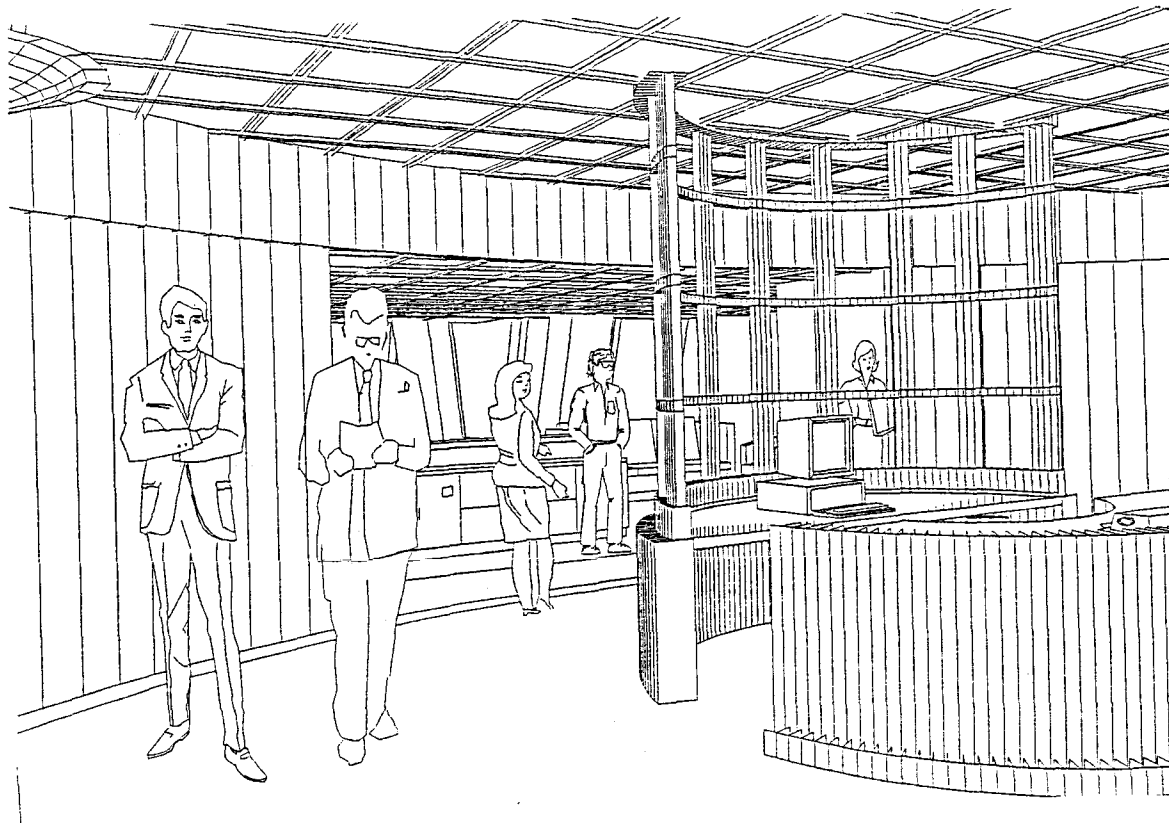


Figure 4. The image of a plan should carry over from floor to floor to facilitate wayfinding. Consistent patterns in the plan can be used to develop an overall image of the plan.



Principle after  
Mary Richter

## Defensible Space



*Clear boundaries are created around the reception desk which separate it from surrounding circulation and allow it to act as a transition between the public (outside) and private (the firm) zones. The receptionist might be surrounded by busy traffic, but will still be able to maintain needed space and territory because of the effective placement of the partitions. Design by Mike Bahr.*

### Overview

In a work environment, employees and sometimes clients need to have a space that can be called their own. It is a place that others will know not to enter because it is clearly marked as a personal space or territory.

### Issues

- A need to define personal space.
- A need to control access to workspace by others.
- A need for easily discernable public and private areas.
- A need to temporarily mark or claim space.

### Design approaches

#### Physical markers

Through the use of office furniture and partitions, a definite boundary around the individual work place can create a personal territory.

#### Symbolic markers

A change of materials or levels can create a territorial zone which causes one to question whether or not to enter the space.

#### Temporary territory

A place that does not belong to any particular person may be claimed temporarily. By placing personal belongings at a work place, the territory has been marked and others know not to use it. This would apply to users of the library, group spaces and clients that require personal space.



# Group Integration

Principle after  
Editing Team

## Overview

There are two organizational philosophies common to law office planning:

- 1) Arrangement of staff by law specialty or
- 2) Deliberate mixing of individuals from various law practices so as to avoid cliques. Group integration enables employees to perceive themselves as members of a community and not as discrete individuals working for a nameless organization. All individuals should share a feeling of belonging to groups whether in a functional department or in close sets of "neighbors" that are mixed from the law firm's many departments. In either case, care must be taken so that any working group's functional interaction is not hampered.

## Issues

Prevent the creation of practice cliques.

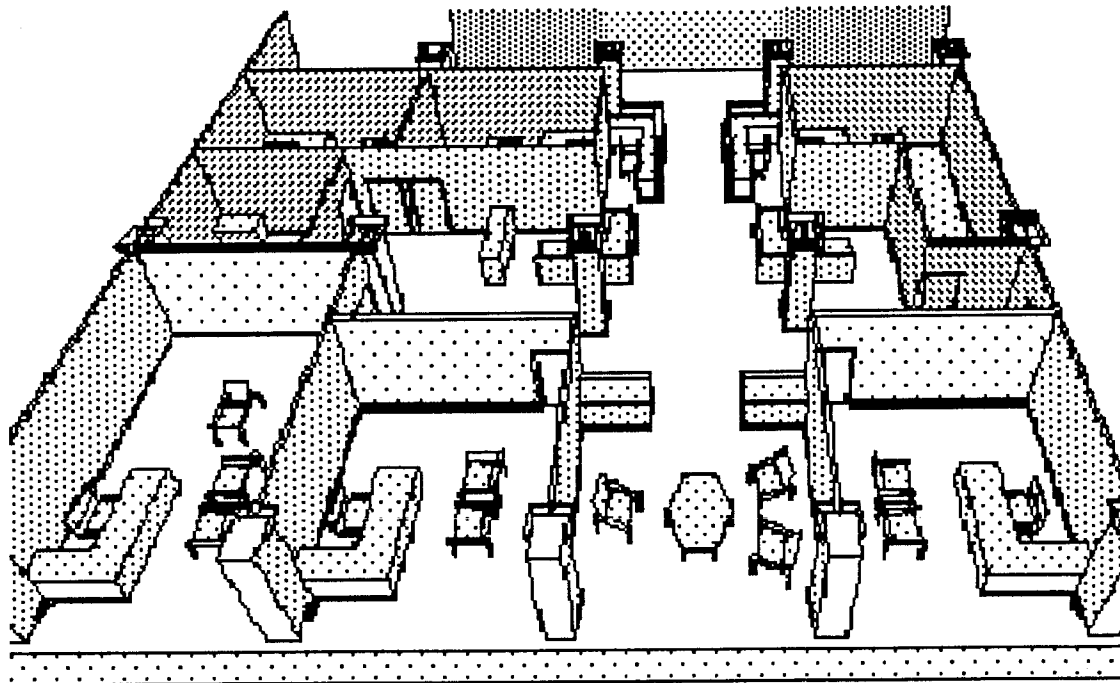
Create groups that will foster informal interaction between practices and enhance the feeling of community between these groups and within the firm.

Maintain the integrity and efficiency of the functional workgroups within the firm.

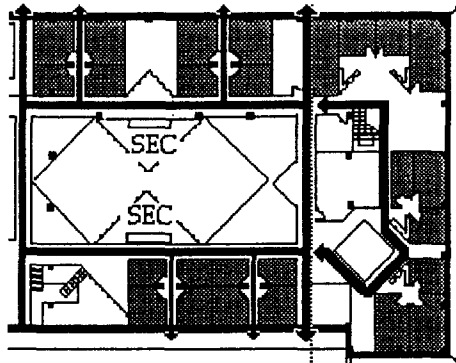
## Design approaches

### Disperse and mix

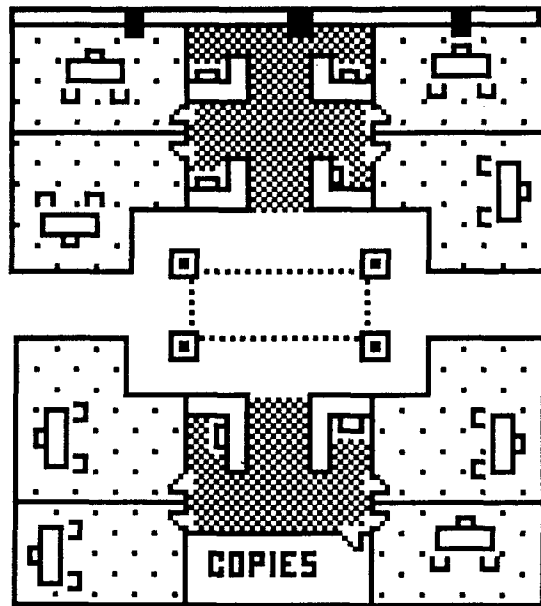
The success of this principle depends on the dispersal of lawyers across disciplinary lines.



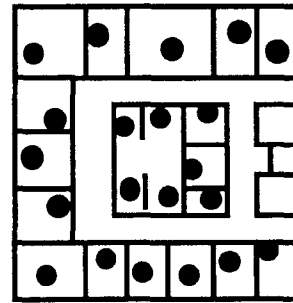
*The "bay system" used in some offices require a mixing of practice groups and the creation of an integrated neighborhood system to bring together groups of employees that would not otherwise interact. The creation of a successfully "integrated neighborhood" depends on many factors such as circulation paths, shared amenities, and a common shared identity.*



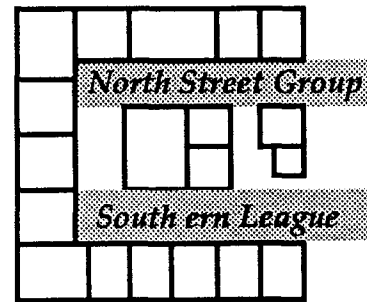
*Example: Primary circulation around and secondary circulation through groups give them definition and create boundaries. Design by Kristie Minser.*



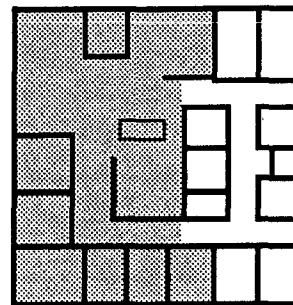
*Example: Two bay clusters sharing a common amenity (the copy room) will be pulled together as a group. Design by Jerry Crain.*



*Figure 1. Individuals must feel a sense of membership in their place of employment.*



*Figure 2. Circulation can be used to create group identity.*



*Figure 3 Cluster neighborhoods break down cross-practice barriers and re-distribute spaces.*

Without this mixing, it would be difficult to keep practice cliques from forming as it is quite natural for people to create their own groups around perceived common identities. If there is no evident and simple identity to latch on to, then groups formed will be based on proximity or affiliation (Fig. 1).

### Variation on a theme

While it might be appropriate to follow a consistent pattern with regard to materials, furnishings and decor throughout the office, some changes can serve to define groups and give departments their distinctive character. Subtle changes in design or the creation of landmarks along circulation routes can help to define groups.

### Circulation defines groups

Clear paths of primary, secondary and even vertical circulation can help define groups. Group definition can be strengthened by their orientation within and relationship to circulation paths in much the same way that neighborhoods are defined with respect to street systems (Fig. 2).

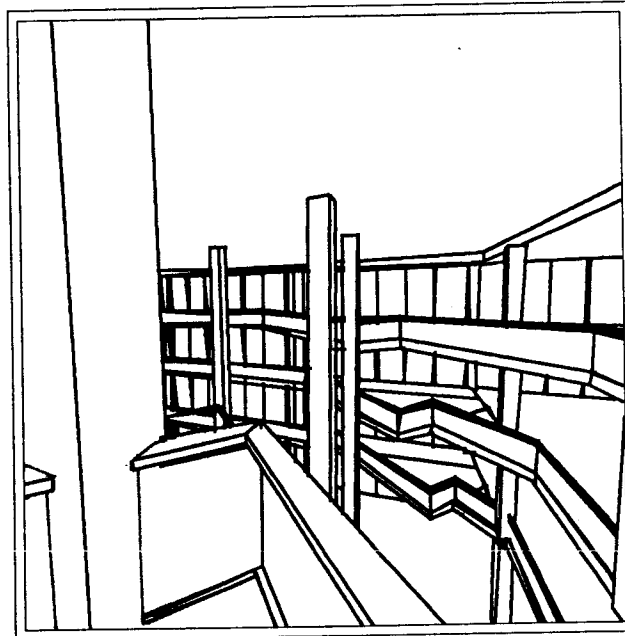
### Physical clustering

While the physical clustering of individual workstations can aid in the definition of neighborhoods or communities, this alone is not sufficient to create functional groups. It is important that the clustering of groups support formal and informal communication in order to be successful (Fig. 3).

### Clusters around a common core

Work groups may be defined by their relationship to common areas or shared amenities. A functional and physical center can serve as a landmark unique to each group and can further enhance group identity and character.

# Selected Design Applications



Four

**Design Principles form a crucial link of programming requirements to better design**

The attempt to urge the student to consider the future user's needs during the design process is not a revolutionary idea. The topic of research based user requirements has been included in the architect's education for more than twenty years. Many architectural educators might confess how lifeless this topic can be to a young person with dreams of creating architectural forms. What excited us about this approach was making such a clear and stimulating connection between behavioral needs and the formation of challenging design insight. The device that we found to construct this bridge was the "Design Principle".

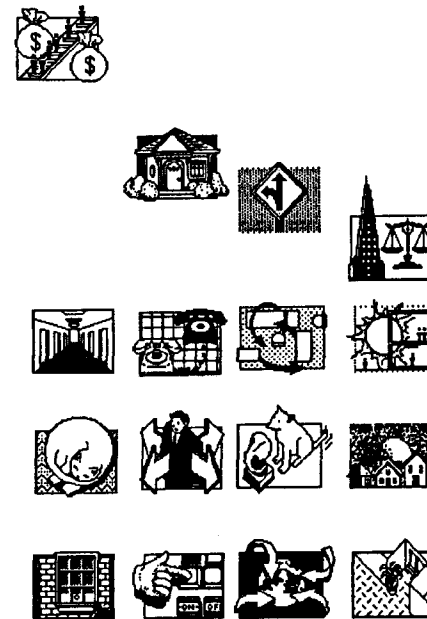
In a sense, the long and known list of user requirements can be called "Design Topics". These have the unfortunate property of being all too general and weak at defining the design's performance criteria. In past attempts we found that by only requiring the student to research these lack luster topics by literature review, case study, analysis these design topics continued to remain low in influence. These drab topics were all too quickly ignored and disregarded when the heady search for a design solution began.

The breakthrough came in insisting that the student develop "Design Principles" which by their nature require link the user's needs to design thinking. These have already been described in detail in Part Two. What Part Four emphasizes is just how much influence just a few "Design Principles" can have on the design.

**How the studio designers chose their design program**

All students were required to meet the basic architectural program for the Law Office. They had to design within the actual enclosure envelop on the top four floors of an office building at the corner of LaSalle and Wacker in downtown Chicago. What varied was which set of Design Principles each elected. One factor in selection was how well developed each design principle was by that mid-point in the semester. Another factor was that each student felt capable of just so many issues given the remaining studio time. We felt it instructive for the reader to see the elective pattern for all principles by all student designers. After all, this class represents the typical aspirations of the designers that you work with in the profession.

The matrix on the next page shows the elective pattern of the major Design Principles for each designer. The average that were successfully integrated was about three per designer. You have been seeing glimpses of many of the resulting solutions as you read Part Two and Part Three. Following the next page you will see two solutions in greater detail, and how many of the office's design features can be attributed to specific Design Principles.



*Each designer had to prioritize and select only those Design Principles they felt most important and that could be managed in the remaining studio time*

Design Principles	Michael Bahr	Gerald Crain	Niessa Diamantis	Mary Gorman	Norhashimah Jantan	Adrian Langhus	Kristi Minser	Gray Mitchem	Eddie Munip	Jeffery Musson	Eric Ponto	Keya Ray	Mary Richter	William Robison	Peter Weston	Chales Wischow
Sensory Stimulation	●				●											
Comfort																
In Control					●						●	●				●
Confidential Privlidge						●		●								
Efficient Access					●											
A Place of My Own										●						
Image & Ability	●			●	●	●								●	●	●
Indoor/Outdoor Connections	●	●	●			●	●	●	●		●		●	●	●	●
Conjoining Entity			●	●		●	●		●		●			●	●	●
Status as a Tool of Organization						●		●		●	●					●
Retreat				●										●		
Privacy in the Workplace				●					●	●		●				
Neighborhoods	●		●		●	●			●		●	●	●	●	●	●
Defensible Space								●			●					
A Guide to Wayfinding	●			●	●			●		●		●	●	●		
Keep Them Talking		●				●						●	●		●	●
Changing Faces in the Workplace											●					●

*Matrix Showing Design Principles Selected By Each Designer*

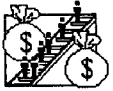
**Must One Use All Design Principles?**

This matrix shows the pattern of use of design principles by different designers. It illustrates that not all design principles have to be employed in each design application, nor that the same ones are to be used by all designers. However, it also shows that some principles (e.g. Neighborhoods, Indoor/Outdoor) are more "popular" than others.



### Group Integration

Clusters of four offices and work stations for several support staff create identifiable "neighborhoods."



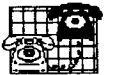
### Status

Window-side offices are traditionally valued; the cluster design allows for expression of hierarchy yet does not devalue the other spaces; support staff is given a shared quality space, too.



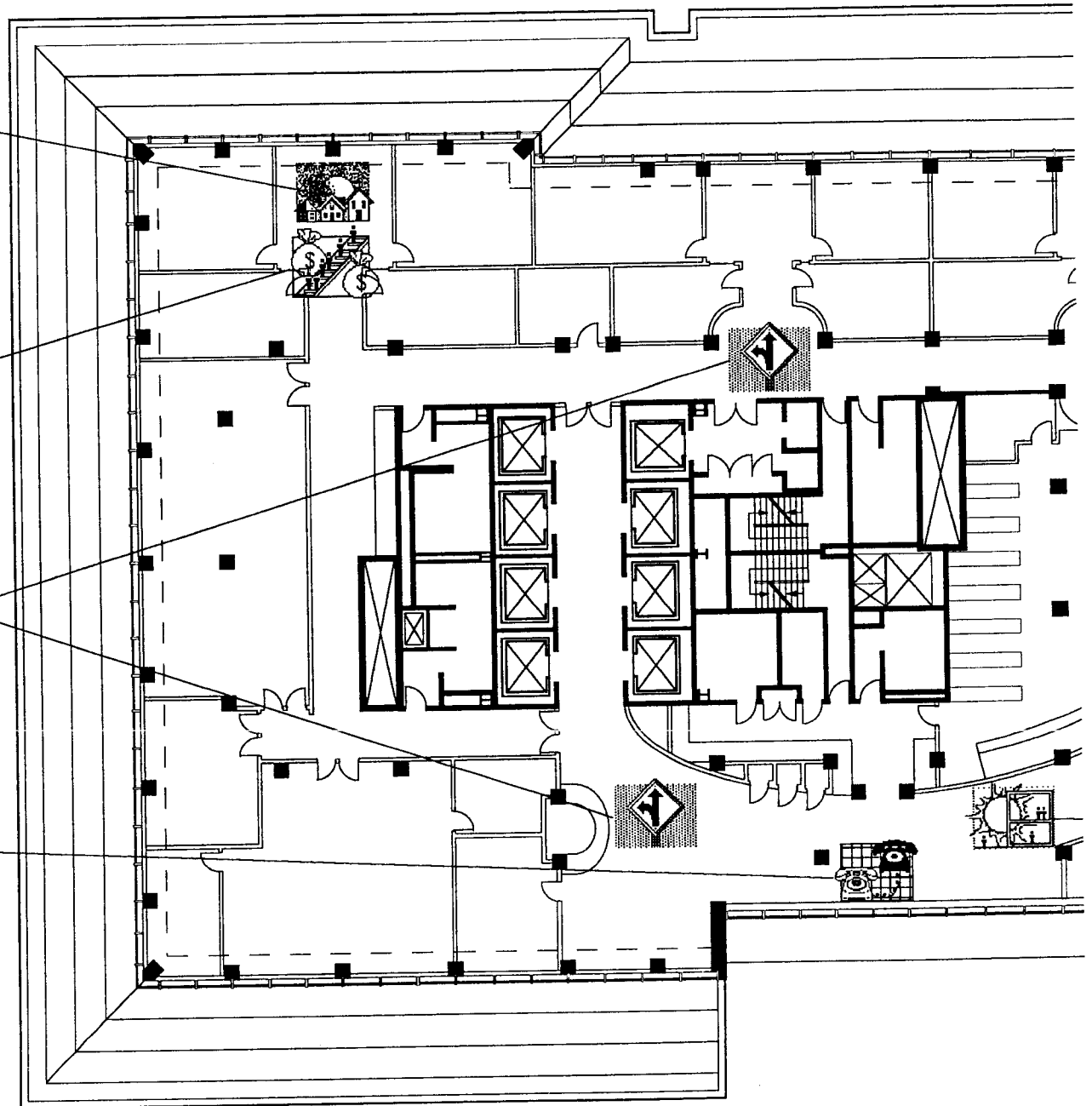
### Legibility

Shorter passages, the unique form of the curved "main street" and open views to most public space and to outdoors help in spatial orientation and wayfinding.



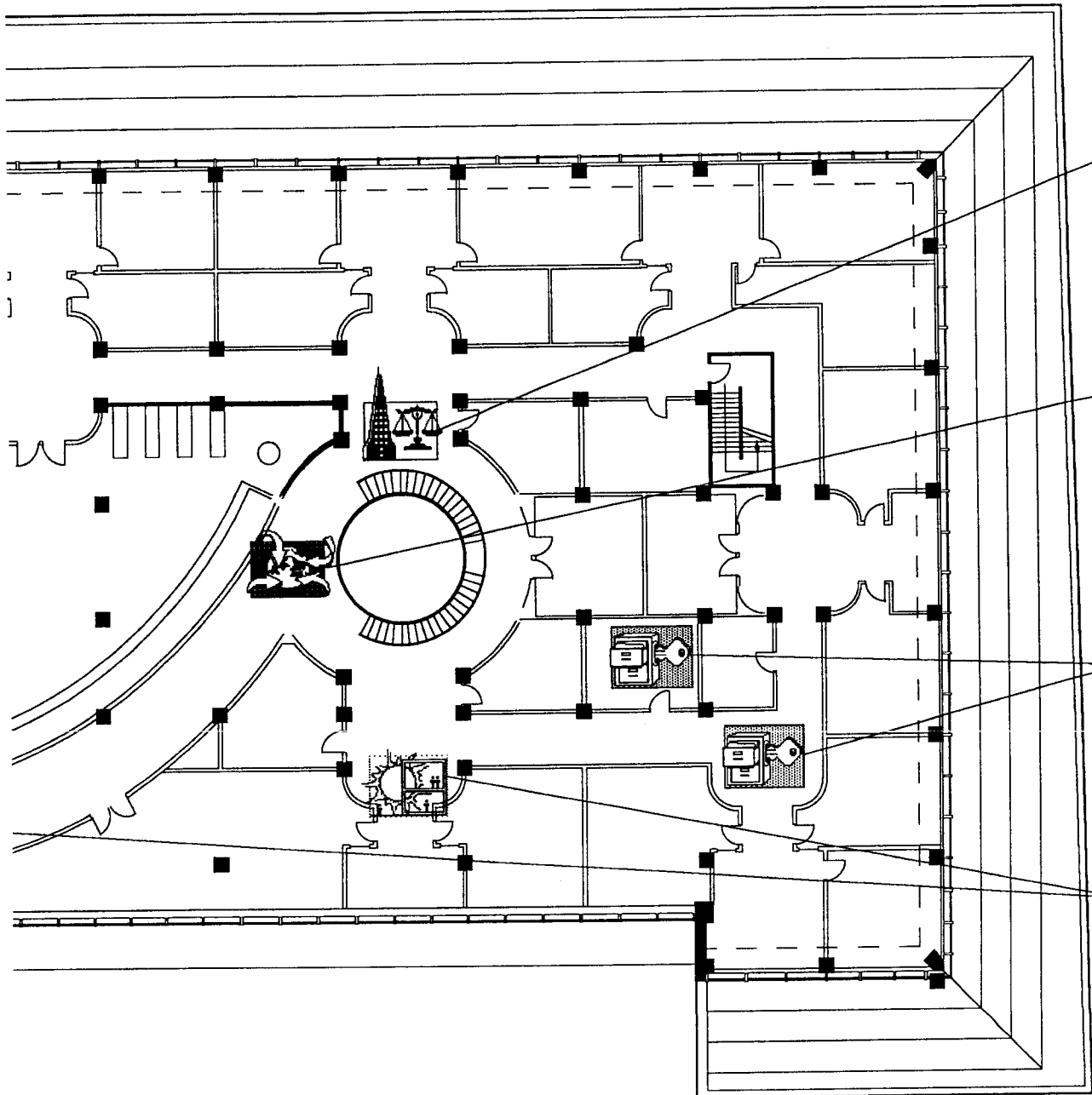
### Interaction

The entry and waiting area merge into the "street cafe". This and other central amenities provide places for interaction both for the public and employees.



*Design by Adrian Langhus. Plan view of 26th floor featuring library.*





**Image**

Visual landmarks such as the circular stair and the library as a "showcase" provide a particular ambience and help to deinstitutionalize the interiors.



**Sense of the whole**

The thematic, repetitive design; the curved "main street", "public library", and the circular stair case provide a comprehensive sense of the office.



**Security and confidentiality**

Controlled access to each group of offices ("neighborhoods"), and provision of a variety of secure meeting rooms create both an actual and perceived sense of security.



**Indoor/outdoor connection**

The plan provides a high degree of transparency; most public spaces have a direct view to the outside.



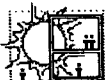
### Interaction

Common areas shared by employees in each "neighborhood" provide opportunities for interaction and relaxation during formal and informal breaks.



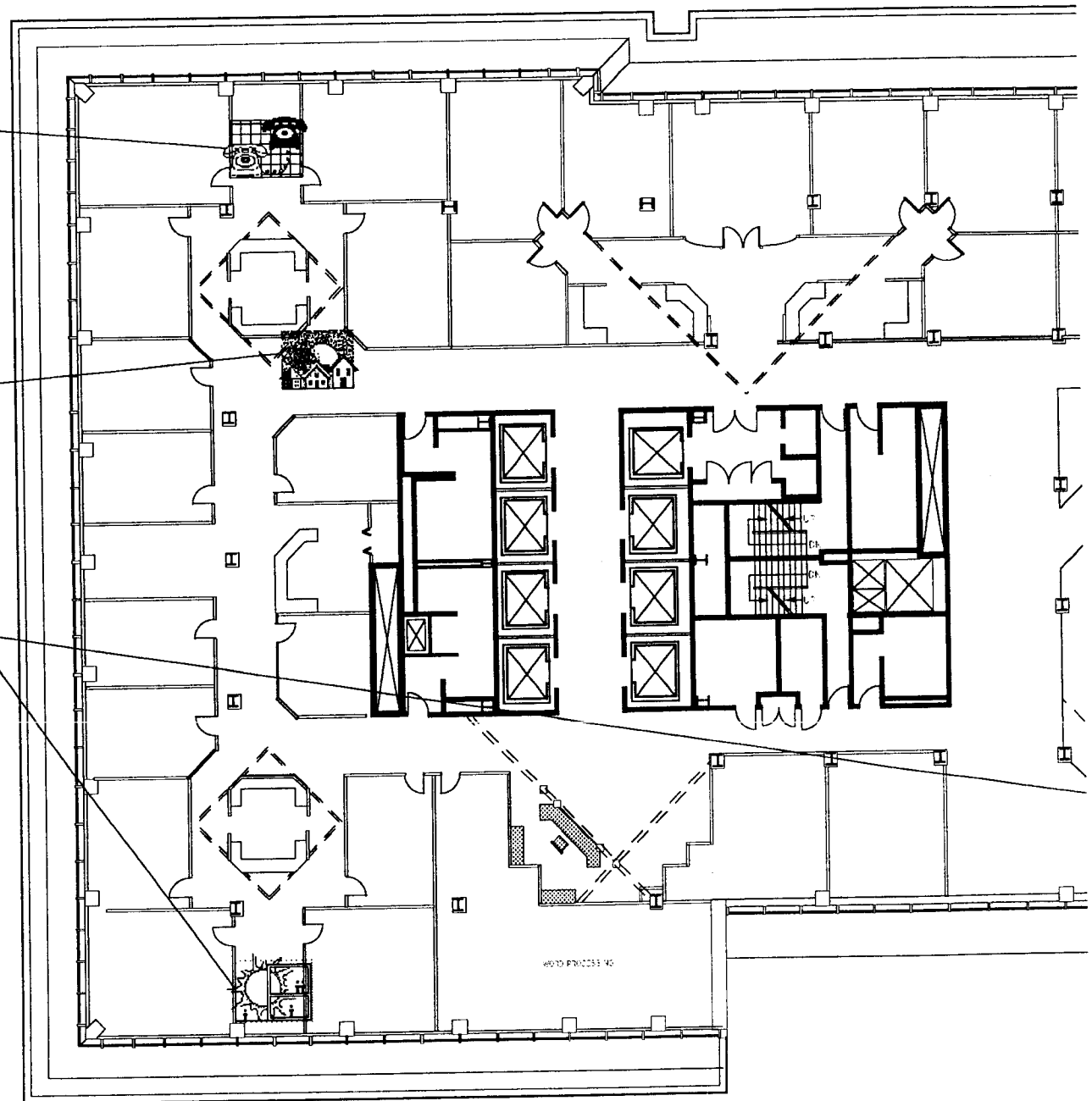
### Group Integration

Clusters of four to six offices with partially enclosed shared secretarial stations create identifiable "neighborhoods".

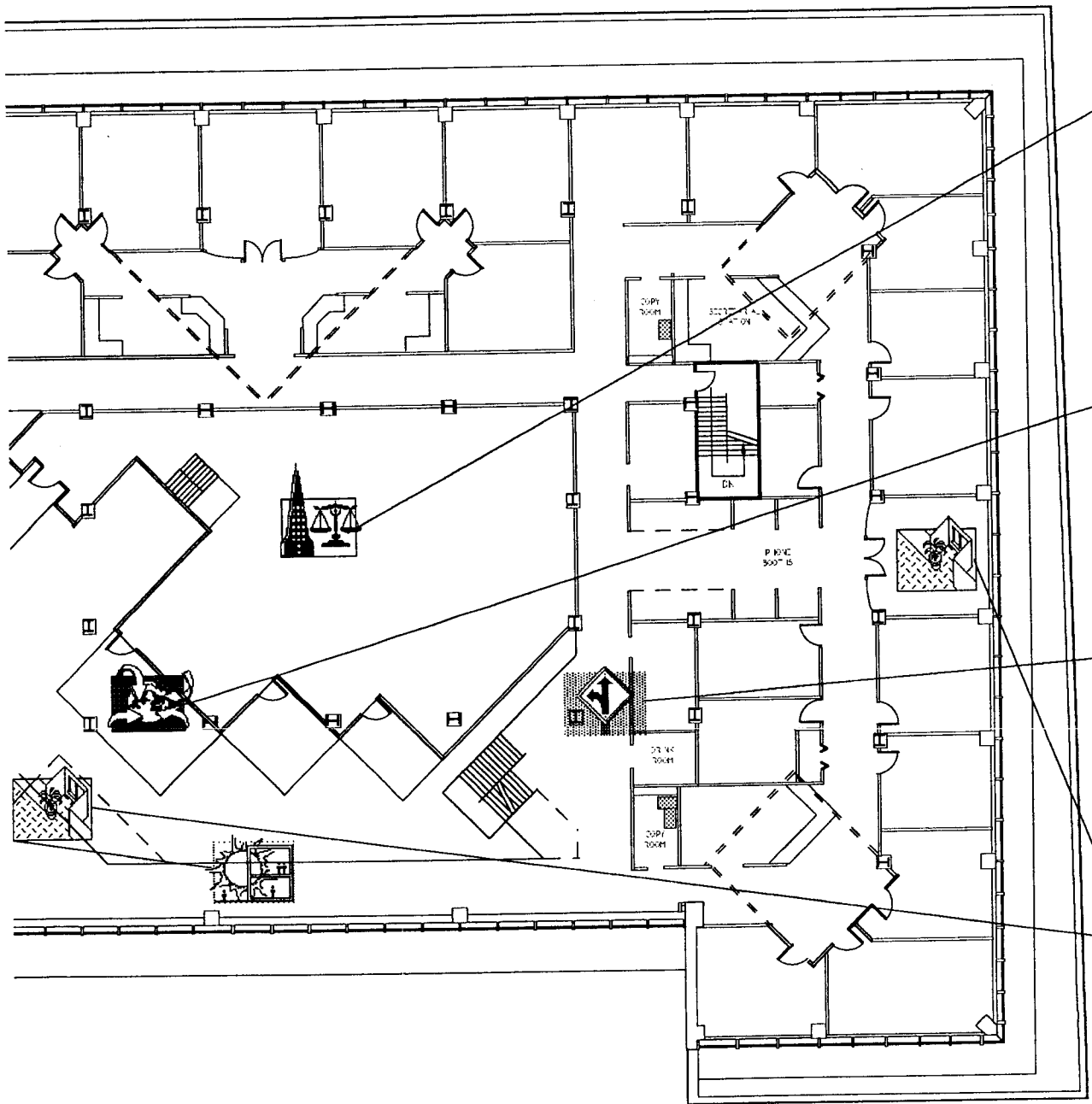


### Indoor /outdoor connection

Secured corridors terminate in views to the outside and provide natural light. The central atrium area also provides a high degree of transparency and a direct link to the south light.



*Design by William Robison. Plan view of 24th floor featuring atrium and library building.*



**Image**

The multi-level library has a contemporary "show case" quality, radiating through the open atrium. The Unusual configuration coupled with the adjacent public and open spaces, provide a visual landmark and a unique interior image.



**Sense of the whole**

The multi-story library is a building within the atrium, visually observable from many vantage points, and conceptually "connecting the parts" of the office.



**Legibility**

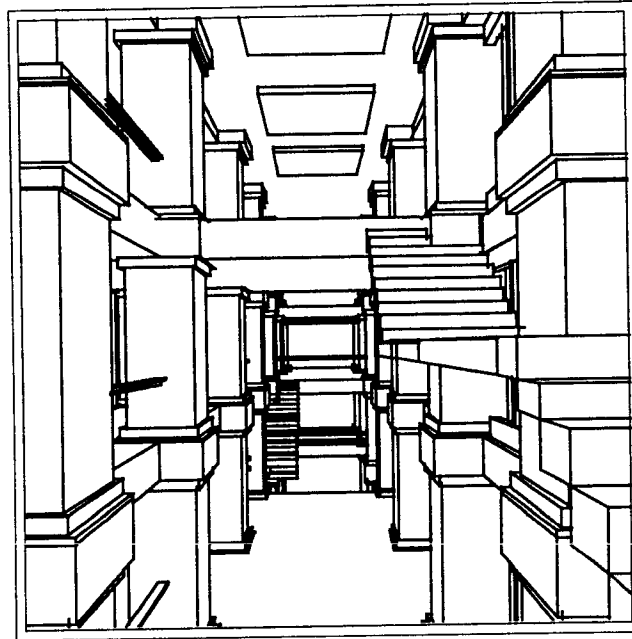
The simple but interesting plan configuration, the prominent atrium and library as "landmarks", and visual connections to the outside aid in spatial orientation and way finding.



**Retreat**

Employees and visitors can use these semi-public areas for relaxation, intimate conversation, or solitary reflection. Few in number and variable in size, these spaces provide some level of privacy, yet are accessible, and allow views to the atrium and to the outside.

# Conclusion



Five

# Conclusion

We can attest to the fact that all these students were challenged with more reality and design requirements than they had ever experienced before. As educators, we met our goals to impart well established environmental behavior knowledge while preserving the creative environment found in the training of an architect through this format.

Why should this educational success be noted by the Facility Manager? We feel that these students were typical of the same range of skills and aspirations that you find in the design profession. Our claim is that the depth and awareness of important user issues was increased by the process shown in this short publication. Therefore, it is possible that you can affect the quality of service from your designers by communicating your heightened expectations outlined in this booklet.

Because this was the first offering of this format, we do not have the full documentation proving we changed the course of design history for these young professionals. A simple way to question the effectiveness of the Design Principle method (Fig. 1) follows:

- 1) Did Design Principles take a "brilliant" design and make it better? (Fig. 2)
- 2) Did Design Principles take an "adequate" design and make it "brilliant"? (Fig. 3)
- 3) Did Design Principles take the "mediocre" design and make it "adequate"?

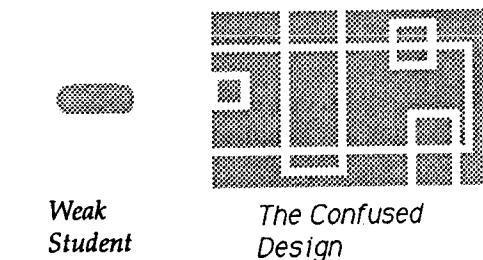
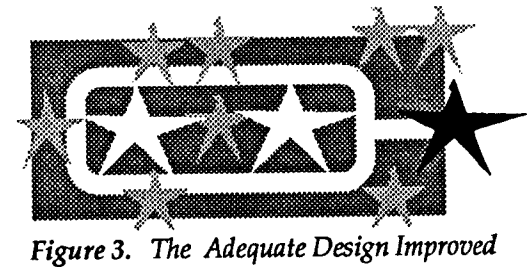
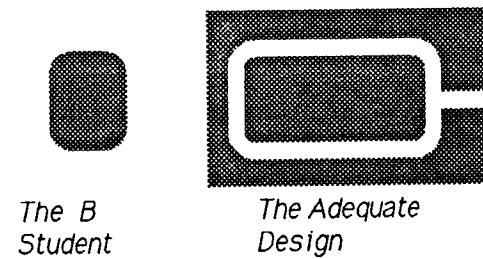
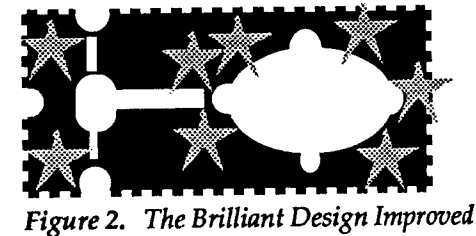
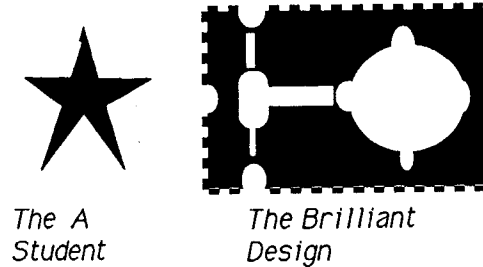
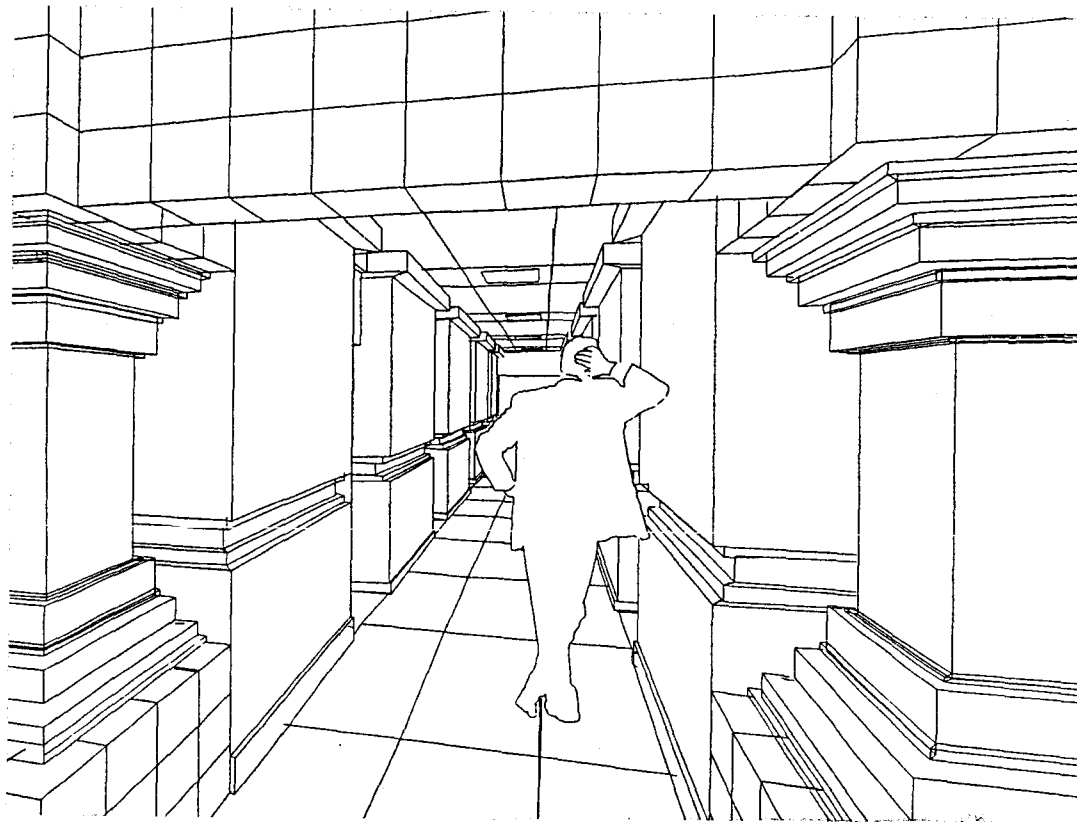


Figure 1. Do Design Principles improve the resulting design? Or do the inherent skills of the designer continue to be the determining factor in successful Law Office Facility design?



**Figure 4. The End.**  
*Perspective from design by Gray Mitchem*

### Usefulness:

The thesis behind the method described in this report is that design guidance in the form of design principles is one way to facilitate a more informed, enlightened and stimulating design process. The assumption is that this will lead also to an improved design product.

This method also provides better and more opportunities for the facility management staff to become a better client. The design principles are written in the client's language; a better informed client can then become a more active participant in the programming, design and construction process. A better client can, and should, monitor at each phase the design's development. This includes not only easily quantifiable factors such as number of rooms, construction time, costs, and the like, but also insures that the more abstract goals are being operationalized and satisfied by the solution. This entire booklet strives to bring these less apparent design principles to the forefront, and to include them in the dialogue between client and the facility designer.

### Summary

These examples exhibit a more informed design process which has higher probability of addressing critical issues in the context of Law Offices. The design principles give the reader and user--owner, facility manager, staff members and others on the client's side-- clear and ambitious goals for their environment. They also give the architect and designer challenging requirements without inhibiting their creative process.