THEORY STUDIES: ARCHETYPICAL WORKPLACE PRACTICES IN CONTEMPORARY INTERIOR DESIGN

A Thesis

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ABSTRACT

This thesis focuses on identifying, classifying and naming of unnamed workplace archetypes in contemporary interiors that are derived from reiterative historical designs. The study is a component of the Intypes (Interior Archetypes) Research and Teaching Project established in 1997 at Cornell University. An Intype is an ideal example of a historically determined design strategy from which similar models are derived, emulated or reiterated.

The modern office develops in the late 19th century and has demonstrated significant design evolutions throughout its short history, spanning little over one century. While much research has been done on the design of workplace environments, there exists a large disconnect between the study of workplaces from a management or environmental psychology perspective and a purely aesthetic or stylistic perspective. Additionally, a comprehensive knowledge of workplace design strategy is rarely integrated into professional practice, nor is it part of most design curriculums.

This study creates a typology of the professional design practices of workplace environments. The study identifies and documents workplace design strategies that are repeated through time. A vocabulary for teaching and comparative analysis is created through this study and offers practice-based research in the hopes of encouraging greater design discourse and criticism in academia as well as professional practice.

Ten workplace Intypes are discussed in this thesis. Five previously identified Intypes are reexamined and applied to the workplace setting – Slat, Frame, Marching Order, White Box, and Light Seam. Five new workplace-specific Intypes were identified and named – 1 Bar 2, Face to Face, Incubate, Pompidou, and Dual Desk. Each typology was examined through a comprehensive survey of primary and secondary sources and describes a practice's characteristics traced back historically. Most of the Intypes trace back to the mid-20th century when office spaces began receiving significantly more attention in trade publications. One Intype, Marching Order, may be traced back to the earliest days of modern office design. All identified Intypes remain relevant in current workplace design practice.

The workplace Intypes developed in this thesis encompass numerous aspects of the office environment including material, lighting, object, and spatial applications.

In addition to this thesis, Workplace Intypes will be disseminated through the free and open website – www.Intypes.Cornell.edu – a web-based research and teaching site that makes design history and contemporary practice accessible to academics, professional and students.

BIOGRAPHICAL SKETCH

Shuqing Yin is a native of Union City, California. Inspired to study design during a trip to Rome during her pre-teen years, she graduated with a Bachelor of Science in Design and Environmental Analysis from Cornell University in 2009. Under the guidance of Professor Jan Jennings, she pursued her graduate studies, focusing on the design of workplace environments. She hopes to bring her passion for workplaces into the professional field of Interior Design.

To Hard Work.

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CHAPTER 1

INTRODUCTION

1.0 The Study

The focus of this thesis research is the development of a series of workplace archetypes for the on-going Intypes (Interior Archetypes) Research and Teaching Project. Initiated in 1997 at Cornell University, this project creates a typology of contemporary design practices that are derived from reiterative historical design that span time and style and cross-cultural boundaries. These Intypes identify contemporary design practices that have not been named, thereby providing designers with an interior, history, and contemporary design-specific vocabulary.

This study will examine workplace interior environments by summarizing discourses about patterns, typologies, practices and/or paradigms in contemporary design usage and provide a comprehensive argument about various precedents in workplace design. This research is an original study that draws from primary source materials. The research protocol is systematic and comprehensive and explores primary source material from trade journals.

Chapter 1 Organization

This chapter includes (1.1) an introduction and premise of the study; (1.2) a history and/or brief overview of workplace design; (1.3) a description of the Intypes Research and Teaching Project; (1.4) methodological and theoretical approaches; (1.5) a general literature review; (1.6) analysis and summary of findings; (1.7) conclusion of the study.

Thesis Organization

The first chapter is followed by ten chapters of Intypes – both previously named Intypes that have been re-examined from a workplace practice type perspective as well as newly named Intypes. Each Intypes chapter constitutes an argument for a particular archetypical practice, with a description of each type, its development traced through time summarized by a photographic sequence of examples of its application, and finally, with an analysis of the workplace practice's use and effect. Each Intypes chapter includes a literature review specific to chronological development of the Intype.

1.1 Introduction and Premise of the Study

Significance of the Study

In North America in 2008, more than fifty percent of employees worked in offices.[1] This is a drastic increase from a mere five percent in 1900.[2] In little over a decade, the design of the workplace environments have undergone numerous evolutions - from the rigid and hierarchical offices of the first half of the 20th century to a movement towards "nurturing"[3] workplace environments that broke down physical barriers in order to facilitate communication and teamwork to today's push for more "idea-driven"[4] environments, where business owners seek to identify strategic means of designing their workplaces in order to optimize their corporate culture and productivity.

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[1] David Walters. "Workplace and the New American Community," in *Future Office: Design, Practice, and Applied Research*, ed. Chris Grech and David Walters (New York: Taylor and Francis, 2008), 42.
[2] Walters, *Future Office: Design,* 42.
[3] James S. Russell, "Form Follows Fad," On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 60.
[4] Russell, "Form Follows Fad", 70.

There exists a strong disconnect in the research done on workplace design. A great deal of literature has been published focusing on workplaces from a facilities planning or environmental psychology standpoint. Other sources focus on the interior design of workplaces but emphasize the aesthetic and stylistic applications of design within offices. This thesis examines recognized and published workplace design examples taken from significant architectural and interior design trade journals and seeks to integrate and bridge the gap between Interior Design and Facilities Planning points of view in the planning and design of workplace environments.

Implications of the Study

Within the first decade of the 21st century, a great deal has changed in terms of the design and perception of workspaces. With the shift in how people view corporate culture as perceived through media and entertainment in television shows such as *Friends* or *Sex and the City*, the workplace is being reinvented as being "hip and cool, particularly as a place to live and work in the flexible rhythm".[5] Now, more than ever, there is a need for greater understanding and research of the design elements found in the workplaces that millions of people inhabit each and every day. The study recognizes the need for a design-based study of the workplace. The study will result in the identification, definition and description of workplace and office design practices that have not been named.

[5] Walters, *Future Office,* 42.

Parameters of the Study

This study was restricted to the examination of workplace environments from 1880 to the present day, constituting the history of the modern office. Research was based on published examples of office interiors in primary trade magazines as well as secondary sources. The research topic sought to extend beyond purely aesthetic or stylistic design interventions within workplaces and, instead, integrate the role of human behavior and environmental psychology with the design of physical office spaces.

1.2 A Brief History of Workplace Design

Precursor to the Modern Office

While the existence of offices trace back for quite some time, office buildings were not constructed until the 1880s. Prior to this time, spaces dedicated to the completion of work were typically small rooms within a larger house. Images from ancient castles or monasteries showed rooms where medieval monks worked on manuscripts.[6] In the 19th century, the historic office grew from a single space in a residence into taking up all the rooms within the house. Eventually, neighborhoods became populated with houses dedicated to office spaces, creating the earliest business neighborhoods.[7]

By 1880, a demand for buildings that were designed to solely accommodate business uses increased as converted dwellings could no longer meet specific business needs. Offices required a higher concentration of spaces and proximity to other businesses within the same geographical area. The earliest

[6] John Pile, Second Book of Offices (New York: Whitney Publications, 1969), 12.
[7] Pile, Second Book of Offices, 12.

office buildings developed in Chicago, forming business districts. With the invention of electric elevator in 1880 by German inventor Werner von Siemens, buildings were able to meet the occupancy needs of offices and accommodate the flow of traffic.[8]

Early office buildings of Chicago and New York were laid out internally in similar fashions, with a "vast honey-comb of rooms"[9] around main circulation paths. Tenants of office buildings would rent one or several rooms and the private office itself served a very different function than the executive offices to be found decades later. For these early sole proprietorships, the office was "merely an address and a place to write letters and keep books"[10] and any actual "work" that required interaction or exchange would be completed elsewhere.

1900 – 1930

The first two decades of the 20th century was a period of tremendous change in the nature of work in the United States. Factors such as dramatic increases in immigration rates and technological advances in industry led to the demand for new means of management as well as improvements in the design of physical workplaces. The concept of "white collar"[11] work develops at this time, with people switching from factory to office jobs at rapid rates. Companies that once hired only dozens of people suddenly found themselves

[8] Pile, Second Book of Offices, 14.
[9] Pile, Second Book of Offices, 14.
[10] Pile, Second Book of Offices, 14.
[11] Russell, "Form Follows Fad", 50.

managing hundreds or even thousands of employees. It is during this era that the "modern office" is first introduced.

Frank Lloyd Wright's Larkin Building (1906) was a precursor in many ways to the newfound needs and potential of the modern office. The Larkin Company, producers of a variety of soaps, perfumes, powders, and other household products required a facility that would serve the work needs of its primarily-female clerical staff. Wright was mindful of the client's needs, designing a clean, well-lighted interior that featured the first instance of an air conditioned workplace interior.[12] In order to streamline the high traffic of correspondence that poured in daily, Wright designed the interior as a machine, with "a lower-level receiving area where mail was then moved to the upper levels, then processed downward."[13] The building also provided a library, lounge, YWCA, and classroom for employee "self-improvement"[14] and to foster a sense of community within the corporation. While Wright's building echoes the foresight and detail put into the design of today's workplace environments, the Larkin Building was unique for its time and it would take several years after its construction before designers and theorists examine the same principles of workplace design to be wide-implemented in practice.

The development of the modern office was strongly influenced by the 1911 writings of Frederick Winslow Taylor, the "father of scientific management".[15]

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[12] Nikolaus Pevsner, A History of Building Types (Washington DC, Princeton University Press, 1976), 222.
[13] Pile, Second Book of Offices, 16.
[14] Pile, Second Book of Offices, 16.
[15] Daniel Nelson, Frederick W. Taylor and the Rise of Scientific Management (Madison, Wis., University of Wisconsin Press, 1980), 9-12.

Propelled by progressive-era thought, Taylor proposed theories that sought to "wean American industry from its reliance on improvisation and individual initiative and fought for rationalism in industrial methods and the centralization of authority, hierarchy, and discipline akin to that of a military organization".[16] His management theories promoted greater efficiency in production by "recording and analyzing tasks, measuring how long they took, and identifying methods that would save time and motion".[17] This translated to the physical design and layout of office spaces, determining the best organization of desks and equipment that would maximize efficiency as well as influencing the placement of office managers within a space to effectively exert a sense of hierarchy within the workplace.

Greatly influenced by the invention of the typewriter, the office of the early 20th century provided significantly more opportunities for women to enter the workplace, though limiting them to tasks deemed appropriate for females such as typing, filing, and bookkeeping. This change in workplace demographics challenged the male-defined nineteenth-century workplace as women entered male space and demanded accommodation, both physical and ideological. This led to the development of a specific gender climate that contemporaries called "separate spheres", which "distinguished between a public, male world and a private, female one".[18] In one office described by management theorist R.H. Goodell, the desks of female workers were turned away from the door to prevent them from being distracted by visitors and passing individuals.[19] This

[16] Russell, "Form Follows Fad", 53.
[17] Russell, "Form Follows Fad", 53.
[18] Angel Kwolek-Folland, Engendering Business (Baltimore, Maryland, The Johns Hopkins Press Ltd., 1994), 9.
[19] Kwolek-Folland, Engendering Business, 110.

created an arrangement that would not break the routine of female employees while still maintaining the capability of their male supervisors to watch them. This dramatic discrepancy between the statuses of genders would take decades to alleviate. Even today, there remains a struggle for women to gain complete equality within a workplace environment.

1930-1960

The planning and interior design of workplace environments of the 1930 decade was greatly influenced by the Hawthorne Studies of 1924. In an effort to gain greater understanding on ways to maximize productivity within the workplace, the Hawthorne Works company hired researchers to increase and decrease workplace illumination and measure the effect on productivity. The results were extremely inconsistent and inconclusive, with no correlation drawn between illumination and productivity. Ultimately, the researchers concluded that the "recognition by workers that they were being studied had more effect on their productivity than the environmental changes did".[20] To business owners, this result showed that the quality of the physical environment was not as important to workers as their attitudes towards work and relationships with coworkers and supervisors. Though vastly oversimplified, the interpretation of this study by the business community was that the quality of the workplace was not important. This, in a sense, acted as justification for the overly-mechanized and productivity-driven space plans of office buildings throughout the era.

[20] Russell, "Form Follows Fad", 55.

Until the 1930 decade, office buildings were generally low and most designs of towering skyscrapers, by architects like Mies van der Rohe or Walter Gropius, were never realized. The first "fully modern tower office building"[21] to be built anywhere was the Philadelphia Saving Fund Society Building. Designed by William Lescaze and George Howe in 1932, the mixed-tenancy building integrated moveable partitions for the first time in order to accommodate needs to divide space into innumerable small rooms. While such partitioning systems were technologically advanced, most skyscraper projects of the 1930s and 1940s avoided a fully flexible interior. Instead, architects created a combination of room offices along with general office space that was left open to accommodate some of the earliest open office plans, where employees sat at cubicles arranged in neat grids.[22]

The craze for industrialization and emphasis on efficiency within the workplace was only reinforced by World War II. During it and for nearly two decades after the war, American life was influenced by many unanticipated changes. In office buildings, new construction and finish materials were integrated – made possible by the technological advances made for military purposes. Also, war-time developments such as mechanical ventilation, air conditioning, and improved fluorescent lighting became necessities. It was also at this time that the traditional forms of lighting and ventilation – windows and skylights – became sealed to meet wartime blackout requirements. This regulation, along with the use of air conditioning, created a precedent that remains unchanged in the vast majority of offices today.

[21] Pile, Second Book of Offices, 16.
[22] Pile, Second Book of Offices, 16.

The war had many other impacts on the workplace. Inspired by the precision and efficiency of the military, designers incorporated the same sense of rigid and hierarchical organization within office spaces. Workplace interiors were "gridded, rationalized, and evenly serviced" to reflect the "war-era management zeitgeist".[23] Additionally, as industrial districts and downtown areas became targets of attack, office buildings underwent a dramatic decentralizing. Many research or manufacturing facilities left urban areas for safer, suburban locations. After the war, few of these facilities returned to central cities. Offices only continued to become increasingly more prevalent in suburban areas and with more space to expand, this led to the development of the first office campuses.

The post-war period of prosperity in the United States, along with developments in construction methods created tremendous opportunity for new building projects. Skyscrapers grew to new heights during the 1950 decade. Projects like Mies van der Rohe's Seagram Building sealed the image of the "corporate office tower".[24] Impressive reception spaces highlighted by banks of elevators applied a sense of prestige and status to the notion of the office building which had, until then, been merely a place where work was performed. Increasingly, architects focused on designing spaces that would promote a positive and impressive corporate image.

[23] Russell, "Form Follows Fad", 59.
[24] Pile, Second Book of Offices, 16.

1960 - 1990

A drastic shift in workplace design theory occurred in the 1960 decade in which researchers and designers reexamined the role of the environment in "nurturing better performance as the management era of human relations emerged along with the field of environmental psychology".[25] This was the first time since the Hawthorne studies that attention was given to office design in relation to staff satisfaction and performance. Analysis of group communication, team solidarity, and the role of physical proximity in the functioning of teams and groups of teams led to policies and precedents that called for "more equality among employees, less emphasis on status and authority, and greater staff voice in management decision making".[26]

It was at this time that the Quickborner Consulting Group of Hamburg, Germany introduced *burolandschaft* or "office landscapes". The Quickborner Team focused on laying out offices on the basis of close communication as well as efficient workflow. Private offices and other "badges of status"[27] were eliminated altogether. The rigid grid arrangements in offices were abandoned in favor of a fluid layout with curving lines. This concept was introduced to the American market in 1967 in the office design of Du Pont's Freon Products Division offices in Wilmington, Delaware. The system received widespread criticism for its "lack of privacy, the noise and distractions endemic to the office's openness, and the lower status conveyed by the lack of a private office".[28]

[25] Russell, "Form Follows Fad", 60.
[26] Russell, "Form Follows Fad", 60.
[27] Russell, "Form Follows Fad", 60.
[28] Russell, "Form Follows Fad", 60.

American offices quickly were able to integrate some of the Quickborner Team's principles into a more affordable and ordered system. This created a market for "systems furniture"[29] in which highly flexible combinations of desks and dividing panels were integrated into an open office environment. Workstations were flexible and customizable, took up less space, and were cheap to build. Herman Miller's earliest system, the Action office, was based on a five-foot hexagonal module. In the late 1960s and throughout the 1970 decade, other companies like Steelcase and Haworth introduced their own lines of systems furniture, creating a competitive market that would permanently change the environments in which people worked.

Beginning in the latter half of the 1970 decade, a change occurred in the real estate market, with businesses coming to view office buildings as a profit-making asset in its own right. Instead of "erecting buildings that reflected community commitment, corporate values, or the needs of business process"[30], the real-estate market delivered a completely generic product produced at lowest first cost as to maximize ultimate sale value. The floor plan shape and size of the American office building became rigidly proscribed nationwide. Architects found it challenging to propose client-specific designs due to budgetary restraints and innovation diminished greatly. The office environments of the 1980s were very much prescriptively designed and while a series of "prestige" projects were denoted by the "elaborateness of materials applied to the lobby and the complexity of the build crown"[31], the buildings

[29] Russell, "Form Follows Fad", 61.
[30] Russell, "Form Follows Fad", 60.
[31] Russell, "Form Follows Fad", 63.

were hardly differed under their neo-Deco, neo-Flemish, and even neo-Gothic skins.

1990-2010

At the end of the 1980 decade, a collapse of commercial building construction occurred, coinciding with an era of massive restructuring and downsizing in American business. Companies began to recognize the benefits that could result from the introduction of new kinds of physical spaces and the restructuring of office interiors. Businesses began paying attention to literature on building design and work methodologies being introduced by researchers like Franklin Becker of Cornell University and Francis Duffy of workplace strategy firm DEGW. This influenced the office environments of the 1990s, where designers created, and named, new types of spaces into the design of the workplace environment. Shared and flexible areas emerged in offices, trendily dubbed with names like “caves, commons, hives, and clubs”[32], though no formally established vocabulary exists in the field of workplace design.

Also in the 1990 decade, the dot com boom that occurred in the Silicon Valley of Northern California created a “strangely fertile field for workplace transformation through architecture”.[33] The personal computer industry was humbly founded in garages and basements, and when the market skyrocketed, the same alternative culture was integrated into the physical design of the hardware and software companies that stretched along the forty miles of flatland along the southwestern edge of San Francisco Bay. Design

[32] Russell, “Form Follows Fad”, 66.
[33] Russell, “Form Follows Fad”, 66.

became more important than ever, enabling the architecture of the physical workplace to reinforce a company's offbeat product-development culture. These sprawling office campuses introduced a revolutionary work environment that emphasized a youthful nature of work and abandoned strong hierarchy. Facilities within the office were provided for employee dining, exercise, relaxation, and socialization. This model has since expanded past the confines of the San Francisco Bay, influencing the design of offices around the country to be more driven by staff satisfaction and innovation.

Since the turn of the 21st century, the field of workplace design continues to evolve through the perception of the office environment as a place which fosters experimentation and support creative thought. Technology remains integral to changes in the workplace, and with an increasing number of people being able to complete their work remotely, office design must adapt once again to the changing nature of work. The role of the designer is more critical than ever in the idea-driven world of office design strategy and this trend shows no signs of slowing down in the near future.

1.3 The Intypes Research and Teaching Project

The Intypes (Interior Archetypes) Research and Teaching Project at Cornell University creates a typology of contemporary interior design practices that are derived from reiterative historical designs that span time and style and cross cultural boundaries. Intypes identify contemporary design practices that have not been named, thereby providing designers with an interior-specific, history and contemporary design vocabulary. The project also offers an innovative

approach to further design criticism and design sustainability. The Intypes Project produces a new knowledge base for the creative dimension of design. It is the first project of its kind to assemble contemporary design theory in a searchable database using primary source imagery. The key deliverable is its web site—www.intypes.cornell.edu.[34]

There are few research studies that examine how workplace interiors have been designed in terms of creating spatial experiences through color, display aesthetic, lighting, material, seating arrangement and spatial composition. There are no interpretive works or theoretical studies that have been written about interior design precedents for contemporary workplace design.[35]

1.4 Research Protocol

The Intypes Project's methodological structure produces the first typology of interior design—a grouping of design productions in which some inherent characteristics make them similar. Initially, the project derives types from the published work of designers. To discover that body of knowledge the principal investigator and graduate student researchers undertake seven different staged approaches:

1) A content review and analysis of approximately 1,100 issues of trade magazines (primary sources) and secondary source materials. Research begins with tracing a series of design practices by conducting content surveys in primary sources, such as *Interior Design*, *Architectural Record*

[34] Jan Jennings, "A Case for a Typology of Design: The Interior Archetypes Project," *Journal of Interior Design* 32, no. 3 (2007): 56.
[35] Jennings, "A Case for a Typology of Design," 49.

and *Interiors*.

2) Identifying composites of traits that typify (through time) a dominant characteristic that has been used repeatedly by designers as interior architecture or design;

3) Isolating these traits by naming and defining them and illustrating examples chronologically;

4) Preliminary development and proposal (draft stage) of specific Intypes;

5) On-site field studies to various cities to test the Intypes developed from photographs in trade magazines against built projects;

6) Revising the Intypes based on observational evidence;

7) Developing the Intypes in the web-based format.[36]

The methodological approach of the thesis is historical, theoretical, and critical. Thinking about design precedents as a continuum, or a series of replications, owes much to George Kubler's *The Shape of Time*. Kubler believes that every important work can be regarded both as historical event and as a hard-won solution to some problem. To him, every solution links to a problem to which there have been other solutions. As the solutions accumulate, a conception of a sequence forms. The boundaries of a sequence are marked out by the linked solutions describing early and late stages of effort upon a problem. In the long run, a sequence may serve as scaffolding for new design.[37] Other theorists,

[36] Jennings, "A Case for a Typology of Design," 53-55.
[37] George Kubler, *The Shape of Time: Remarks on the History of Things* (New Haven, Conn.: Yale University Press, 1962), 31-82 in Jennings, "A Case for a Typology of Design," 49.

such as Robert Maxwell approach design history similarly. According to Maxwell, the dialectic of the new and old is a complex one, “for within the new there is something of the old, which precisely renders the new recognizable; and within the old the new is already pregnant.”[38]

The structure of Kubler and Maxwell’s methodological approach proves useful for modeling interior design precedents. Some sequences of historical or theoretical solutions may come and go over time but many become so powerful that they represent continuity. The Intypes become the basis for understanding the relationship between contemporary design and historic precedents in interior design.[39]

An Intypes researcher may begin looking for design traits historically, moving to present, or examining traits from the present backwards. I used the latter approach, beginning with contemporary interiors and tracing them back in time. Initial image groupings went through many transformations throughout the process. The images collected either reinforced earlier hypotheses or led to the shifting, combining, and discarding of others. The restaurant research produced several elements categories, such as lighting, spatial arrangement, display aesthetics, and color.

The analysis of trade magazines was compared with secondary sources, such as trade books from the same period. These books were largely photographic

[38] Robert Maxwell, *Polemics. The Two Way Stretch: Modernism: Tradition and Innovation* (London: Academy Editions, 1996), 12 in Jennings, “A Case for a Typology of Design,” 48-68.
[39] Jan Jennings, “Dialectic of New and Old: Theory Investigations in Studio Design,” *Interiors and Sources* (March 2003): 74-77.

works that contained few critical or interpretive treatments. Other secondary sources, such as literature written by office design consultants and workplace researchers were helpful in grasping a deeper understanding of the theory behind workplace design.

The literature review was most productive at the primary source level, because the photographs from these sources contributed to constructing a typological category of common traits, as well as the establishment of chronological sequences.

Examination methods used to establish the identification and development of an Intype included analysis of photographs, interpretive sketches, descriptive documentation analysis, and charting a timeline.

Naming the Intypes is one of the most important parts of the research process. Intype names must mean something to those who recollect them. Cornell interior design and theatre lighting design students spontaneously recall most of the terms, because they are mnemonic. When an intype term is used without explanation or translation or gloss, it is considered an accepted part of design language. A designer in one of Gensler's offices reports that when she uses an Intype in a discussion, she hears the term being used later and in new contexts by her colleagues.[40]

For the web site, each Intype includes a definition, a graphic icon representing the Intype, the narrative description taken directly from the thesis, and an

[40] Jan Jennings, interviewed by author (Ithaca, NY), Oct. 2007.

image gallery representing chronological sequences. The research is available to be used in various ways for a variety of people.

1.5 Site Visits

A part of the research protocol involves the researcher making observational field studies in order to examine first-hand how typologies are translated into physical space as well as how print-based photographs differ from build (real) projects. For the study of workplace environments, field visits were made in Northern and Southern California as well as in New York City. Aside from being areas in which many of the most published workplaces may be found, this was to grasp a broad view of office environments in both suburban and urban locations.

In Northern California, site visits were made to several large corporate campuses including Googleplex – the national headquarters of Google. Widely published for its radically different approach to corporate culture and workplace design, the workspace integrates a vast range of amenities with a flexible environment that seeks to accommodate various work styles. Pompidou and Incubate were two workplace Intypes that could be found throughout the facility. Other technology companies like Hewlett Packard were more traditional in their interiors, with Marching Order being a common Intype found throughout.

In Southern California, site visits to older office buildings were made, including the Bradbury Building and the Bullocks Wilshire Building, allowing the

observation and analysis of how historical interiors have been adapted through time. Original finishes and architectural details have been adapted to meet contemporary needs. In many instances, these interiors are no longer utilized as workspaces. In the case of the Bullocks Wilshire Building, a school now inhabits the space that was once dedicated to office use. Also visited was the TBWA/Chiat/Day offices in Venice, California designed by Frank Gehry. This widely published workspace is well known for its innovative use of space and non-traditional work culture.

The workspaces of New York City are vastly different from the sprawling campuses of California. New York skyscrapers extend offices vertically rather than horizontally, informing a formulaic layout of workspaces dictated by the location of the building core(s). Access to natural sunlight is a particular consideration. Marching order is frequently implemented, allowing for greater density of employees on each floor. 1 Bar 2 and Face to Face were also prevalently observed. Building amenities prevalently found in Suburban campuses such as basketball courts or fitness centers are difficult to be accommodated in this urban setting due to the high demand in real estate.

Site visits enabled first-hand knowledge of how people interact within workspaces, an aspect that is lacking in publications where human activity is removed from the photographs of the spaces. Observing the implementation of workplace Intypes in physical spaces reinforced their significance in the design strategy of offices and allowed for greater understanding of how these Intypes not only affect a space aesthetically but functionally as well.

1.6 General Literature Review

The literature review describes and characterizes seminal, primary and secondary source research and offers critical observations about the sources' usefulness to this thesis. The essay is divided into two sections – primary and secondary sources. This summary of literature is general, because each Intypes chapter has a specific chronological literature.

Historians use a wide variety of sources to answer questions about the past. In their research, design history scholars use both primary sources and secondary sources. A primary source is a document or physical object which was written or created during the time under study. These sources were present during an experience or time period and offer an inside view of a particular event.

Primary sources may include letters, manuscripts, diaries, journals, magazines, newspapers, speeches, interviews, memoirs, documents produced by government agencies, photographs, audio recordings, moving pictures or video recordings, research data, and objects or artifacts such as works of art or ancient roads, buildings and tools. These sources serve as the raw material to interpret the past, and when they are used along with previous interpretations by historians, they provide the resources necessary for historical research.

Primary Sources for the Intypes Project

Interior design is temporally limited. In contract design an installation remains approximately seven years, less for hospitality design in a good economy. Therefore, design and architectural trade magazines, and the photographs that were published there, provide evidence as a longitudinal record of contract work and is considered a primary source.

Interior Design is one of the most significant trade magazines within the interior design industry. Since it began in 1932, over 1,000 issues have been published. The longevity of the magazine makes it a reliable resource in tracing and evaluating the chronological direction of design traits over time. With a reputation for illustrating professional design work of the highest caliber, *Interior Design* has helped shape the profession of interior design and continues to influence its large audience. In addition, it is the most comprehensive among publications focused on the interior, showcasing a wide range of practice areas. The majority of its issues have featured office design work, allowing for the easy identification and examination of workplace projects through time.

The publication is rich with photographs of interior design projects. In the Intypes protocol, these photographs constitute one of the most important pieces of evidence for the identification of archetypical workplace practices. Particularly helpful were the workplace design-specific issues that *Interior Design* began publishing annually, highlighting the most significant and noteworthy projects of the year.

For the purpose of this study, the greatest challenge was created by the discrepancies through decades of the most photographed and emphasized spaces within an office environment. Throughout the mid-20th century, the primary focus of published photographs in *Interior Design* was the private office and lobby areas. Much less attention was given to the general work areas and circulation spaces. In recent decades, photographs have been significantly more comprehensive in terms of capturing a vast variety of spaces within any given workplace, making the identification of Intypes more inclusive of all the elements within an interior environment.

Architectural Record is considered one of the most recognized trade magazines within the architectural industry. In publication for over 110 years, the magazine focuses on design primarily from an architectural perspective. Targeted to practicing professionals, the language used in the publication is more formal and technical, placing a greater emphasis on construction and structure in comparison to *Interior Design*.

The publication features a significant amount of workplace projects, though the projects that are selected are typically more architectural in nature and the aim is to focus on the form of spaces over the functional and behavioral implications within an interior environment. *Architectural Record* devotes a portion of each issue to a building types study, offering the opportunity for comparing similar projects in size or practice area and, compared to *Interior Design* features significantly more examples of international projects.

Interiors was a bi-monthly interior design magazine which ceased publication as a trade magazine in 2006. Now published as a shelter or lifestyle magazine, *Interiors* placed little emphasis on corporate design projects over its decades of publication. Rather, it focused on high-end hospitality, retail and residential design. The review of *Interiors* was not tremendously fruitful for the purpose of this thesis.

Secondary Sources

A range of subject matter was covered in the review of secondary sources, including books written on theory behind office design, management theory, history of office design, gender in the workplace, and furniture design. The topics covered in the literature provided additional evidence in the identification of Intypes, particularly in drawing correlations between workplace design and human-environment relations.

On the Job (2001) edited by Donald Albrecht provides a series of essays focusing on the evolution of the American workplace since the turn of the 20th century, drawing parallels between world events and technological developments to trends in the design of offices. The essays, particularly *Form Follows Function*, reviews the role of particular projects, studies, and technological developments that acted as turning points in workplace design. Writing is supplemented by historical photographs that reinforce the arguments made by the authors.

Interiors Book of Offices (1959) edited by Lois Wagner Green analyzes workplace design by space. Particularly helpful were chapters on reception,

private offices, and general offices in which historical photographs as well as hand sketches and renderings were able to provide further evidence for Intypes discussed in this thesis. Green relates the reception and lobby area directly to corporate personality, identifying the space as crucial in establishing brand image.

Frederick W. Taylor and the Rise of Scientific Management (1980) by Daniel Nelson provides a detailed chronicle of the theories of Frederick Taylor, describing how his writings were applied to the workforce and how they influenced the mechanization and streamlining of the American office. Nelson's writings also discuss reactions toward Taylor's scientific management theories, providing a broad view of how Taylor was able to influence American business even under a good deal of criticism.

Corporate Design (1983) by Roger Yee, similar to *Interior Book of Offices*, analyzes office buildings and interiors categorized by space and function. Each chapter begins with a discussion of a particular area of the office, common design attributes and strategies applied to the space and how it impacts the image of the company. Helpful sections dedicated to the discussion of lighting and wall treatments provided rationale for certain design strategies as means to impact the overall interior both functionally and stylistically.

Second Book of Offices (1969) by John Pile begins with a succinct history of office design until the 1960 decade. Critical and analytical, Pile reviews historical and contemporary design practices, creating lists of desirable

attributes within a workplace environment that optimize efficiency, productivity, as well as employee satisfaction. Pile also reviews the practice of “office landscaping”, demonstrating the positive concepts behind its design while also critiquing the problems with its execution.

Engendering Business (1994) by Angel Kwolek-Folland discusses the introduction of women into the American “white-collar” workforce and its impact on the workplace. Kwolek-Folland analyzes the separation between genders in offices that occurred for much of the 20th century, drawing connections between societal views of gender and how these views directly impacted the physical design and behavior within a workplace environment.

Workplace by Design (1995) by Franklin Becker approaches workplace design from a facilities management perspective, discussing the role of communication and social interaction as direct factors that increase the productivity and success of an office setting. Becker’s research addresses how people react to their physical environment and how adjustments in proximity and adjacency of spaces impact the workplace. Becker also introduces a lengthy vocabulary used to discuss the design of office settings that is typically not found in literature dedicated to the discussion of interior design.

Future Office: Design Practice and Applied Research (2008) edited by Chris Grech and David Walters provides a collection of contemporary essays focusing on the current role of design and the workplace. Technology and innovative design strategies are discussed as factors that could potentially

influence and change the way workplaces are designed and interpreted. The role of media is also analyzed in the perception of office environments and how the huge influx of media being presented to this generation will have a profound effect on how work is to be executed.

The Office Interior Design Guide (1994) by Julie K Rayfield gives a strong technical guide to the construction and design of the office interior. Particularly useful were Rayfield's discussions of lighting choices within workplaces and how variations in the type of bulb have a profound impact on the quality of artificial light. Rayfield also discusses HVAC systems and the functional role of ductwork and pipes, enabling a technical perspective on the effect of Pompidou within an interior.

The Successful Office (1982) by Franklin Becker provides a comprehensive guide to the various types of offices, their individual tasks and how the design of the environment may impact the user. Becker studies the role of furniture arrangements and how desks and chairs may elevate or downplay status or power within an office interior. Also important was Becker's discussion of desirable paint colors in an office, providing further evidence that White Box is a commonly found strategy in workplaces.

A History of Interior Design (2000) by John Pile gives a comprehensive review of interior design throughout history, spanning a wide range of building types. Pile's writing shows that the history of workplace design is far shorter than that of most other building types, though there is a significant amount of research that is done on the subject. Pile's chronological organization of interior design

history enables one to view the design of offices in the context of other styles and trends during the same time period.

A History of Building Types (1976) by Nikolaus Pevsner, like John Pile, provides a history of design that spans numerous building types. Pevsner focuses primarily on the architectural properties of office design, rather than the interior, and notes that there is little history to date that may be written about office design in relation to other building types.

Architecture: Form, Space, and Order (2007) by Francis D.K. Ching discusses the fundamental elements of design, enabling one to dissect buildings and interiors into basic forms and organizations. His discussion of symmetry and its role in establishing a formal organization was important in writing the effect of Face to Face and its relation to the larger physical environment.

Previous Intypes Theses by Intypes graduate student researchers at Cornell University were helpful in this study in understanding previously-identified Intypes, their origins, and how they could be applied to workplace design specifically. Each thesis title and author is credited in separate Intypes chapters within this thesis.

1.7 Facilities Planning and Management Terminology

As the Intypes Project seeks to create a contemporary vocabulary of Interior Design practices, it is important to understand and study what language is already in use in the field. Particularly relevant to workplace design is the role

of Facilities Planning and Management, a field that is too often not integrated into the design of the workplace interior but one that provides a vast body of research and literature. FPM already has an extensive vocabulary of its own to describe many design strategies of workspaces, particularly in relation to plan types. These terms are described in this section. In the identification of new workplace Intypes, these plan types were intentionally excluded as they have already been researched and established and should be integrated into the field of Interior Design as is rather than be renamed for the purposes of the Intypes Project.

Core

The core of a building is a cluster of mechanical rooms, elevators, restrooms, and other “guts” of the interior that are consolidated to maximize efficiency in building materials and construction. Particularly important in high-rise buildings, the core transports people vertically to their respective destinations and contains the majority of the plumbing and power components of the interior. Depending on a building’s footprint, multiple cores may be found in one building to meet user traffic demands. The location of the core is essential to the circulation of the interior as it is the point from which people radiate out of at the start of the day and back into at the end. The design of the core is typically the first step in the space planning of workplace interiors.

Closed Perimeter

In the vast majority of workplaces, there exists a hierarchy in the workstation sizes given to individual employees. Lower ranked employees are given smaller spaces, typically a systems furniture unit, while higher level employees

have larger workstations or private offices. Until the recent two decades, space-by-rank was the standard and the most common space layout positioned private offices along the perimeter of the building, allowing executives access to highly coveted windows and essentially “closing” off the perimeter of the building and its natural sunlight from the center of the layout. Lower level employees have their workstations arranged in this central area, illuminated only by artificial light. This arrangement is becoming increasingly discouraged as it does not provide optimal working conditions for all employees within the space.

Open Perimeter

As a solution to the problems posed by closed perimeter layouts of workplaces, the open perimeter seeks to alleviate these issues by moving open office areas and workstations to the perimeter of the building. This allows full access to sunlight across these partial height partitions. Private offices are moved to the central area and are often treated with glass walls in the direction facing the exterior of the building, allowing the natural light to still filter through into the space, creating a far more desirable working environment.

Neighborhoods

Open office environments typically lay out workstations in an organized grid, arranged in clusters separated by paths of secondary circulation. A neighborhood consists of a subdivision of a workplace – a combination of several workstation clusters along with a few private offices that function as a collaborative sub-group of the office. Neighborhoods are often designed around departments within a company. Employees work closely amongst each

other in this area and not as frequently with other neighborhoods. Each neighborhood often has access to its own small pantry area, copy room, and is in close proximity to restrooms.

Commons

This space refers to an open area typically dedicated to casual interaction for employees within a workplace setting. Lounge seating arrangements are often placed in close proximity to a shared pantry or servery area. The commons is a gathering point that typically serves several neighborhoods. It is a space where employee communication may occur and may accommodate informal meetings and collaboration.

Hub

A hub is a small space within a workplace that typically combines a copy room with a small pantry area that is able to serve the immediate needs of individual neighborhoods by being in close proximity. Hubs do not offer the same casual relaxation atmosphere of a commons space but often acts as a point of informal social interaction.

1.8 Analysis and Summary of Findings

This thesis research resulted in the identification, naming, and development of eight workplace design practices. Five previously identified Intypes were found to be significant workplace-specific strategies and their definitions were applied to the office interior: Slat, Frame, Marching Order, White Box, and Light Seam. Five new Intypes were identified: 1 Bar 2, Face to Face, Dual Desk, Pompidou, and Incubate.

Overall, it was evident that the greatest eras for the development of workplace design strategy were the 1910, 1940, 1960, and 1990 decades. In the early 20th century, industrial developments and the writings of Frederick Taylor on scientific management influenced a dramatically new workplace in the United States. World War II brought about significant technological developments and fervor for military organization that was directly applied to the office interior. In 1960, a reexamination of management theory shifted the workplace paradigm to one that fostered communication and interaction and in the late 20th century, office campuses and the computer industry created a vastly different corporate culture that continues to influence workplaces to be more idea-driven and innovative. The particular chronological sequences of each Intypes chapter discuss the evolution of Intypes through time, relating them to historical events, research, and technological influences that shaped them over time.

By categorizing the ten workplace Intypes by the spaces or elements that they effect within the interior (Table 1.1), it is reasonable to conclude that the nature of workplace design cannot focus solely on aesthetic or stylistic interventions. Each design strategy within an office interior typically has a behavioral implication that seeks to promote a more positive and successful work environment. While Marching Order, 1 Bar 2, and Face to Face act as furniture arrangements, they have a profound impact on the space they inhabit and directly dictate the behavior of the users that occupy the space, establishing or removing a hierarchical structure and implying physical or social boundaries. Material Intypes like Slat and Frame also serve functional purposes in an office, utilized for their physical qualities as well as to delineate spaces within

the larger environment. These results further emphasize the need to integrate facilities planning and management research with the interior design process in order to create strategically designed workplace environments.

Table 1.1 Workplace Intypes by Element

	Slat	Frame	Marching Order	Light Seam	White Box	1 Bar 2	Face to Face	Dual Desk	Pompidou	Incubate
Spatial/Behavioral			*			*	*	*		*
Material	*	*			*				*	
Object	*	*						*	*	
Lighting				*						
Furniture Arrangement			*			*	*			

The majority of the Intypes identified in this thesis apply to very specific spaces within workplace environments. For instance, Marching Order is implemented only in general office areas and 1 Bar 2 is found only in executive office settings. However, four workplace Intypes may be strategically utilized in a variety of spaces. As seen in Table 1.2, Slat may be applied to nearly spaces within an office interior, primarily in circulation paths but very frequently in dining, reception, and small meeting spaces or lounges. Frame, Light Seam, and Pompidou are all appropriate Intypes to be used in a variety of areas as indicated in the table below. These design practices are not only

appropriate in a range of spaces but they are all quick, affordable and simple to implement – ideal qualities in the design of workplace environments in which time and money are valuable assets.

Table 1.2 Frequency of Intypes by Space

	Slat	Frame	Light Seam	Pompidou
Circulation	***	**	***	**
General Office	*	*	**	***
Private Office	*	**		*
Conference		***	*	*
Dining	**			***
Lobby/Reception	**	**	***	
Small Meeting/Lounge	**	*	*	

* has been found
** quite common
*** most frequently found

1.9 Assessment of Research

A challenge encountered in the research of Workplace Intypes was the lack of a strong body of published work on office environments prior to 1950 in primary source materials. Images that could be found were typically focused on documenting executive offices and lobby areas, making it difficult to gain a

comprehensive view of workplaces throughout the decades. In published literature that focuses on the first half of the 20th century, the greatest emphasis is placed on the architecture of office buildings, with little information or imagery given on the interior. With the rapidly changing nature of office environments, the majority of historical office interiors are no longer in existence as older buildings have undergone adaptive re-use renovations.

In the instance of identifying and analyzing White Box in office settings, the black and white photographs in publications made it difficult to distinguish the colors of wall treatments and accurately determine the effect of White Box in the physical space. Additionally, earlier publications of trade magazines provided little writing or description of design intentions but rather focused on identifying the furniture featured in the photographs.

Due to time constraints and conflicts, I was unable to visit Chicago and view first-hand the sites of the earliest office buildings and neighborhoods. This could provide tremendous insight in understanding the spatial experience within early office buildings, how these historical buildings have been integrated in the modern landscape of Chicago, and also how the interiors have been re-designed to cater to the needs of their current tenants.

For future research, I would recommend taking a closer look at workplace design for the more mobile worker. While this thesis focused on the design of physical office spaces, more people find themselves working remotely or traveling from place to place. This has influenced the development of informal or temporal work environments within cafes, hotels, and even airports. This

trend has gained momentum in the past decade and may provide opportunities for unique and innovative design interventions that meet the needs of a new era of workplace design.

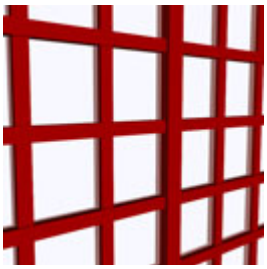
Conclusion

In taking a typological approach to naming workplace design strategies, this study introduces new vocabulary to the field of workplace research. With the rest of the body of Intypes research, this study is able to create opportunities for more idea-driven design practice that is fundamentally rooted in historical precedent. Workplace Intypes may translate directly into professional practice, where corporate design remains one of the largest markets for design, facilitating easier and more accurate communication of design concepts and strategies within firms. For students, this study will hopefully communicate the depth of thought and body of knowledge required to create truly successful workplace environments. The history of an Intype not only addresses how a design practice has evolved through time but it also reminds us to be mindful of how the practice should be applied in the future.

As a relatively new field of study, workplace design could strongly benefit from a well-established, comprehensive vocabulary. This research adds to the workplace design vocabulary and encourages criticism and discourse of the topic.

CHAPTER 2

FRAME



Definition

Frame describes an interior partition consisting of a clearly articulated frame.

Application Definition

In an office interior, Frame is most often an immovable interior partition of wood or metal, typically attached to the floor and ceiling planes of a space.

Description

Frame was identified as an archetypical practice in the Intypes materials study as a movable, lightweight partition designed to divide the interior.[41] The concept takes root in traditional Japanese house design (15th to 16th century) in which shoji, a "latticework wooden frame with panels of translucent rice paper, formed the initial boundary separating exterior gardens from the interior".no paragraph Twentieth century architect Walter Gropius characterized a shoji as an "interceptor panel" that provides "complete flexibility of exterior and interior walls".

In the workplace, Frame has been interpreted variously, although it retained many of the properties and intentions of the original shoji. In corporate spaces Frame became an immovable interior partition, and some Frames acted as sliding doors. However, the same latticework design remained, often in wood or metal. The Frame itself was painted or finished in a manner that incorporated itself into the design of the rest of the space. Unlike traditional shoji, these contemporary interpretations of Frame were more

[41] Elizabeth M O'Brien, "Material Archetypes: Contemporary Interior Design and Theory Study" (M.A. Thesis, Cornell University, 2006), 30-31.

substantial in size – in length and height as well as depth, and weight—heavier than a shoji screen—giving the perception of having structural integrity. Still “devoid of unnecessary ornamentation” in its aesthetic, the modern use of Frame in offices no longer emphasizes adjustability and flexibility in use.

Frame proved a useful device for in lobbies and corridors to separate sub-spaces within a larger area without using up much square footage or blocking visual access between spaces. Shoji-inspired screens were often used to delineate the boundaries of conference rooms. “The walls consist of a basic frame, sometimes constructed using metal or wood studs, clad with a translucent material, typically glass or acrylic. Large sliding doors sometimes grant access to the inner space. The clearly articulated framework helps establish an organizing principle, while the translucent cladding gives a greater feeling of openness while still providing the necessary level of privacy. Although less common, some screens omit the translucent cladding material entirely. The open framework divides space but permits almost complete visual access”.[42]

In the 1960 decade when the concept of open plan offices began to rise in popularity, the problem of creating private or semi-private spaces arose. Designers sought solutions that would encourage spaces to remain as open as possible, but would create the required amounts of privacy needed for

[42] O’Brien, Material Archetypes, 34.

some office or conference areas.[43] The incorporation of Frame into the office environment provided a desirable solution to this problem.

One interpretation of Frame was as an acoustical screen, but these presented several new issues. The height of the screens fell above or below site lines; tall screens ultimately served the same function as walls and limited the open quality of the office space while shorter screens provided insufficient visual and acoustical privacy. Also, movable acoustical screens needed to be able to stand on their own, typically requiring a slight curvature in the screen as well as feet at each end and one at the center[44], resulting in an aesthetically undesirable and functionally subpar design.

Effect

Frame provides many positive problem-solving attributes. Visual access and communication is easily achieved through the inherent latticework design. Privacy is controlled through the elimination or use of cladding. Frosted glass panels, or other translucent materials, support the greatest visual and acoustical privacy. Panels in Frame are prevalent in executive conference rooms or private offices where users demand optimal enclosure and privacy without a sense of an impenetrable barrier. Transparent glass or acrylic panels provide significant acoustical privacy, but allows visual communication between the two spaces that Frame divides. This is applied in instances where it is desirable for users to visually access conference or meeting areas to engage in the interactions and work that is being

[43] John Pile, Open Office Planning (New York: Watson-Guptill Publications, 1978), 109-19.
[44] Pile, Open Office Planning, 119.

accomplished within. This semi-privacy also indicates that the nature of the tasks being completed behind a Frame is not highly classified, as the Frame does not provide a completely secure space.

The elimination of panels altogether allows for both visual and acoustical transaction, but serves to delineate space and to indicate a transition in function or purpose. This is seen most often in lobby spaces where a Frame separates the reception desk from a seating or waiting area. The two spaces have two different functions which are subtly separated by the Frame, but a strong line of visual and acoustical connection remains open. By changing Frame's size and material, it is possible to create a balance that meets many of the privacy requirements of any given space. Additionally, if Frames are not integrated into an architectural space, they are easy replaceable.
The grid pattern of the Frame introduces a proportional system to the interior and creates order and rhythm utilized to reinforce a sense of strong visual organization. The proportional system used in Frame, however, is often inconsistent with the proportional system of the architectural space. This characteristic may be traced back to the Katsura Imperial Villa, which German architect Bruno Taut observed to have stringent standards of measurement, but proportions that were "never applied schematically".[45] Architect Walter Gropius observed that "the use of movable partitions and window frames makes the proportions extremely variable".[46] This has certain implications about spatial order. Too much variability in proportional

[45] Bruno Taut, excerpt from *Nippon. Japan Seen through European Eyes* in *Katsura Imperial Villa*, ed. Virginia Ponciroli (Milan: Electraarchitecture, 2004), 335.
[46] Walter Gropius, "Architecture in Japan" in Katsura Imperial Villa, ed. Virginia Ponciroli (Milan: Electraarchitecture, 2004), 353.

systems, from Frame to windows to ceiling tiles, could result in a chaotic interior. Designers must be conscious of balancing “a sequence of patterns in space”[47] to create a sense of order.

Chronological Sequence

Frame emerged in offices prior to 1960, not as partitions, but as a two-dimensional wall panel in which the wooden mullion was emphasized. In David Millard’s 1959 office design for Miniature Precision Bearings, Incorporated, a clearly articulated wooden Frame structure was applied directly on drywall.[48] **Figure 2.1** At this point in Frame’s development there is no strong strategic connection to traditional shoji aside from the use of thick wooden edges.

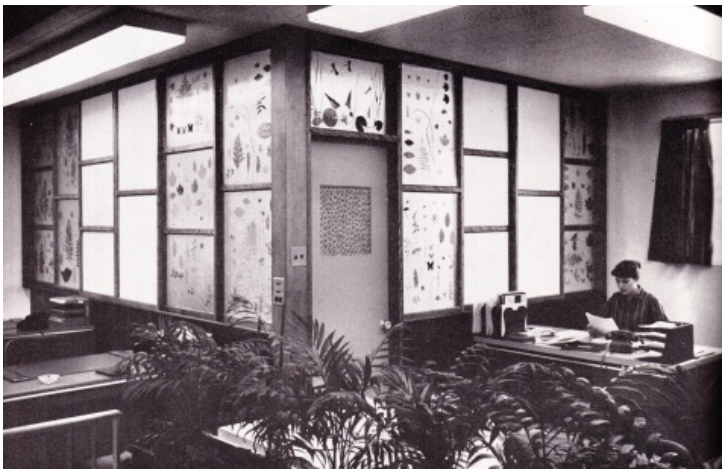


Figure 2.1
Miniature Precision Bearings, Inc. [1959] Dave Millard; Rye, NY in Anonymous, “Offices,” *Interior Design* 30, no. 10 (Oct. 1959): 184; PhotoCrd: Guy Gillette-Lensgroup.

[47] Gropius, Katsura Imperial Villa, 355-76.
[48] Miniature Precision Bearings, Inc. [1959] Dave Millard; Rye, NY in Anonymous, “Offices,” *Interior Design* 30, no. 10 (Oct. 1959): 184; PhotoCrd: Guy Gillette-Lensgroup.

In the 1960 decade free-standing acoustical wall panels rose and fell in popularity. The Early innovators, Quickborner Team of Hamburg, Germany, developed the concept of *burolanschaft* or “office landscaping”. Their concept of a completely open office space involved the elimination of floor to ceiling partitions. As a solution that would create an easily modified plan without major reconstruction, acoustical panels were implemented as the “walls” within an office.[49] As demonstrated in the E.I. du Pont de Nemours & Company headquarters (1967) in New York City, several acoustical panels joined together could create a substantial barrier and delineate the boundaries of offices and conference rooms.[50] **Figure 2.2** While office landscaping promoted collaboration and flexibility in a manner that had been unprecedented, the movable panels proved to be insufficient in creating spaces within the overall environment that provided adequate acoustical or visual privacy when needed.

[49] Anonymous, Office Landscaping (New York: The Business Press, 1969), 14.
[50] E.I. du Pont de Nemours & Co. [1967] Quickborner Team; Wilmington, DE in Anonymous, *Office Landscaping:* 69; PhotoCrd: Alexandre Georges.

Figure 2.2
E.I. du Pont de Nemours & Co. [1967] Quickborner Team; Wilmington, DE in Anonymous, *Office Landscaping:* 69; PhotoCrd: Alexandre Georges.

By the 1970 decade, however, Frame, became firmly entrenched as an interior partition solution within the office environment. Its distinctively latticed wooden structure clad with translucent panels echoed the traditional shoji. The movable partition was almost a direct translation, only re-engineered with materials suitable for an office environment, as seen in John Crews Rainey Associates' 1974 workplace design for Heidrick & Struggles.[51]

Figure 2.3 Functionally, however, the Frame in the Heidrick & Struggles headquarters, paid homage to shoji - expanding from floor to ceiling and secured along a track for easy movement that would open or close the entryway to the conference space within. This design solution solved many of the privacy concerns of acoustical panels while maintaining adequate flexibility within the plan of the office.

[51] Heidrick & Struggles Headquarters [1974] John Crews Rainey Associates; New York, NY in Anonymous,, "Heidrick & Struggles," *Interior Design* 45, no. 4 (Apr. 1974): 114; PhotoCrd: Alexandre Georges.

Figure 2.3
Heidrick & Struggles Headquarters [1974] John Crews Rainey Associates; New York, NY in Anonymous, "Heidrick & Struggles," *Interior Design* 45, no. 4 (Apr. 1974): 114; PhotoCrd: Alexandre Georges.

Late into the 1970 decade and through the 1980s, Frame began its evolution from a literal translation of the shoji. Frames found in workplaces became increasingly more stationary and eventually become integrated into the architecture of the space, no longer reading as an object within the interior. The beginnings of this change can be found in Alexandra Stoddards' 1979 design of the Tod Williams & Associates office in New York City.[52] **Figure 2.4** The Frame was secured to the floor, and although it did not reach the ceiling plane, it kept a sense of openness. The panels also changed, no longer limited to the translucent shoji, but evolving into opaque ones that eliminated visual connection between the two sides of the Frame.

[52] Tod Williams & Associates [1979] Alexandra Stoddard, Inc.; New York, NY in Anonymous, "Cabins in the Sky," *Interior Design* 50, no. 9 (Sep. 1979): 232; PhotoCrd: Mark Ross.

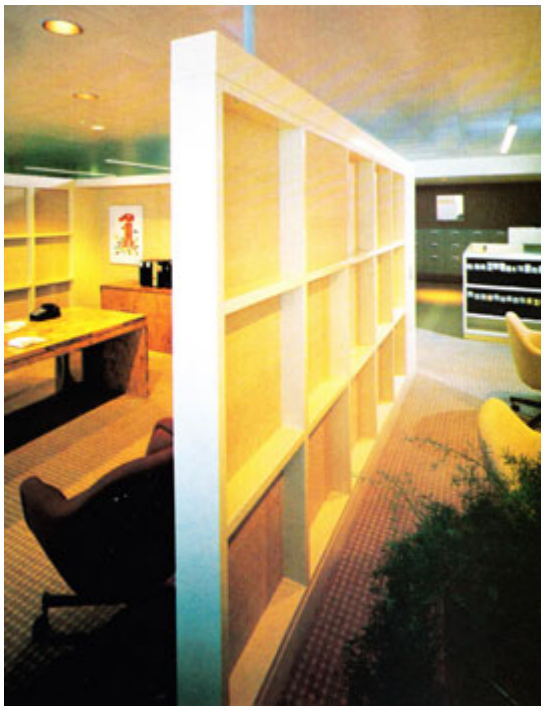


Figure 2.4
Tod Williams & Associates [1979] Alexandra Stoddard, Inc.; New York, NY in Anonymous, “Cabins in the Sky,” *Interior Design* 50, no. 9 (Sep. 1979): 232; PhotoCrd: Mark Ross.

By 1986, as demonstrated in the offices of Solomon Equities, Frame became increasingly more integrated into the wall construction of the interior, fixed onto the floor and connected to the drywall extending from the ceiling.[53]

Figure 2.5 The Frames were stationary, but rather became a substitute for a wall itself. The translucent panels allowed some light filtration and opened up the space, while acoustically and visually securing the conference room. The repetition of multiple Frames connected edge to edge reinforced the spatial order and rhythm established by the grid structure.

[53] Solomon Equities [1986] Herman Smith-Millerl New York, NY in Jerry Cooper, “Solomon Equities,” *Interior Design* 57, no. 5 (May 1986): 231; PhotoCrd: Paul Warchol.

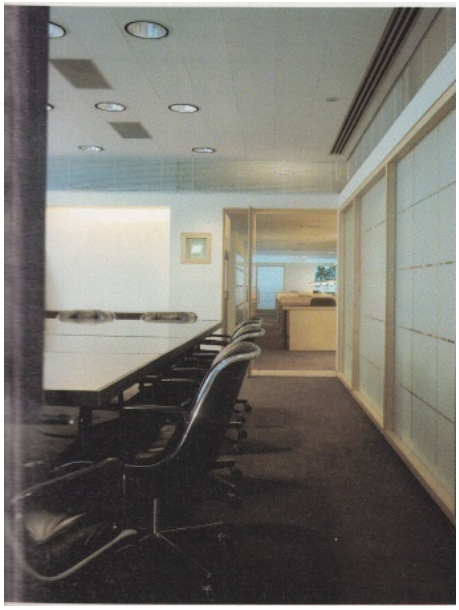


Figure 2.5
Solomon Equities [1986] Herman Smith-Millerl New York, NY in Jerry Cooper, "Solomon Equities," *Interior Design* 57, no. 5 (May 1986): 231; PhotoCrd: Paul Warchol.

Also during the 1980s, workplaces began exploring a more casual culture and open layout, integrating some of the concepts introduced by office landscaping, but shaping them to cater to specific needs of the company. Prior to this decade, Frame had been applied only to conference spaces or along circulation paths. Frame began to be utilized as partitioning walls to private offices, such as those for the Johnson, Johnson & Roy office in Dallas.[54] **Figure 2.6** As facades, Frame broke down a hierarchical barrier between executives and the rest of the staff, facilitating greater communication across ranks and promoting increased productivity.

[54] Johnson, Johnson & Roy [1989] Hermanovski Lauck; Dallas, TX in Mayer Rus, "Johnson, Johnson & Roy," *Interior Design* 60, no. 8 (Jun. 1989): 288; PhotoCrd: James F. Wilson.

Figure 2.6
Johnson, Johnson & Roy [1989] Hermanovski Lauck; Dallas, TX in Mayer Rus, "Johnson, Johnson & Roy," *Interior Design* 60, no. 8 (Jun. 1989): 288; PhotoCrd: James F. Wilson.

Experimentation with the scale, color and materials of Frame was common in the 1990 decade. Designers manipulated the proportions of the grid, "stretching" the once-strict square into rectangular panels, and rather than adhering to the typically thin construction of Frame, designers played with the thickness of the partitions. It is during this period that panels were left completely open, rather than filled with a material. In the 1994 design of Fair, Isaac, and Company's office in San Rafael, California, a Frame separated the reception area from the waiting area. The Frame, constructed from a sheet of metal and painted vibrant colors, acted as partition, as well as a sculptural element within the space.[55] **Figure 2.7** In the same year, HCA Partners designed Frames for the American World Trade Center in Moscow,

[55] Fair, Isaac and Co. [1994] Richard Pollack; San Rafael, CA in Edie Cohen, "Soft-Com," *Interior Design* 65, no. 9 (Sep. 1994): 164; PhotoCrd: John Sutton.

Russia. **Figure 2.8** These Frames, distributed within the lobby space, were substantially thick, a trait not found in the designs of previous decades.[56]

Figure 2.7
Fair, Isaac and Co. [1994] Richard Pollack; San Rafael, CA in Edie Cohen, "Soft-Com," *Interior Design* 65, no. 9 (Sep. 1994): 164; PhotoCrd: John Sutton.

[56] American Trade Center [1994] HCA Partners; Moscow, Russia in Edie Cohen, "HCA Partners," *Interior Design* 65, no. 9 (Sep. 1994): 187; PhotoCrd: Peter Paige; Concrete Incorporated [2001] Specht Harpman; New York, NY in Henry Urbach, "Top Deck," *Interior Design* 72, no. 5 (May 2001): 273; PhotoCrd: Michael Moran.

Figure 2.8
American Trade Center [1994] HCA Partners; Moscow, Russia in Edie Cohen, “HCA Partners,” *Interior Design* 65, no. 9 (Sep. 1994): 187; PhotoCrd: Peter Paige.

From 2000 to 2010, applications of Frame occurred in a variety of designs, materials and locations within an office setting. Many workplaces of this period utilized Frame as a fixed partition that allowed customization of privacy. In the Hillier-designed Turkiye Is Bankasi Headquarters (2001) in Istanbul and the Concrete Incorporated offices, Frames came full circle back to traditional shoji, appearing as lightweight and serving only as a screen.

Figure 2.9

Figure 2.9
Turkiye Is Bankasi [2001] Hillier-New York; Istanbul, Turkey in Monica Geran, “Ottoman Empire,” *Interior Design* 65, no. 9 (Sep.1994): 280; PhotoCrd: Paul Warchol.

Figure 2.10
Concrete Incorporated [2001] Specht Harpman; New York, NY in Henry Urbach, “Top Deck,” *Interior Design* 72, no. 5 (May 2001): 273; PhotoCrd: Michael Moran.

In the offices of Concrete Incorporated, Frame is integrated into the wall panels, encasing panels of glass to create the effect of floor to ceiling windows. **Figure 2.10**

CHAPTER 3

LIGHT SEAM

Definition

Light Seam is a gradient of light that defines a continuous edge of illumination between perpendicular architectural planes.

Application Definition

In a Workplace Environment, Light Seam is a typically short gradient of light that defines a continuous edge of illumination between perpendicular architectural planes, most often found in circulation or transitory spaces.

Description

In the history of workplace design, a Light Seam was sometimes called a "Strip Fixture". Julie Rayfield in Office Interior Design Guide, described Strip Fixture as "multiple sockets located in linear housing that could be open or enclosed. Open housing was normally used when the source was hidden, as in a recessed ceiling cove".[57]

In a workplace setting, the use of Light Seam is most commonly found in transitory or circulation spaces where a recessed cove detail conceals fluorescent light fixtures, allowing for a gradient of light to illuminate a vertical plane. The gradient is typically short, appearing as a "fuzzy line of light"[58] that outlines the edge where vertical planes met horizontal ones. Long corridors, as well as lobby areas within offices, benefits from the use of Light Seam as a method of creating visual interest and promoting a positive corporate image.

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[57] Light Seam was identified as an Interior Archetype in two previous studies: 1) Leah Scolere, "Theory Studies: Contemporary Retail Design" (MA Thesis, Cornell University, 2004), 109-12; 2) Joanne Pui Yuk Kwan, "Theory Studies: Archetypical Artificial Lighting Practices in Contemporary Interior Design" (MA Thesis, Cornell University, 2010), 146-47. Julie K Rayfield, The Office Interior Design Guide: An Introduction for Facilities Managers and Designers (New York: John Wiley & Sons, 1994), 182-83.

[58] Kwan, "Theory Studies," 151.

Through the use of Light Seam, a continuous edge of illumination was created on the vertical wall planes either where the plane meets the ceiling, or the floor. This is sometimes accomplished through the use of Infinite Wall, a cove detail whereby one plane is pulled back from its perpendicular partner that extends beyond the sightlines. Concealed lighting washes an architectural element from its edges, creating an illusion of infinite extension". The vertical plane is washed with light and the ceiling or floor plane edge that extends to meet the vertical wall is outlined, creating definition to the form of the architecture. The use of Light Seam creates "the perception of the ceiling plane that pulls away from the wall, imparting a sensation of floating. There is an ethereal quality to the lighting effect and a strong awareness about floor and ceiling planes. Light Seam becomes an element in spatial experience, because it makes one question how the ceiling is supported".[59]

This study analyzes the use of Light Seam, the effects and behavioral implications on an office setting, its evolution as a reiterative practice in workplace design, and its uses as a workplace design strategy. Lighting is a critical aspect of workplace design, because it "affects office aesthetics and employee motivation". It is also a "design element, creating a sense of volume, form, and shape. Lighting is also an art form with the potential to create drama and response: to excite, to motivate, and to please".[60] As a Workplace design strategy Light Seam embodies all these characteristics; it is practical, aesthetic and capable of creating a dramatic and evocative environment. As an indirect

[59] Scolere, "Theory Studies," 109-12.
[60] Julie K Rayfield, The Office Interior Design Guide: An Introduction for Facilities Managers and Designers (New York: John Wiley & Sons, 1994), 182-83.

light source, Light Seam creates a softer wash of light on vertical wall planes than is achieved by wall sconces or ceiling–fixed downlighting. The level of light in Light Seam emulates the soft quality of natural light, a preferable effect that may improve worker satisfaction and productivity.[61]

As with any building type, the design of workplace interiors comes hand in hand with a company's brand, image and status. Lighting can be a key element in this aspect of design as it serves two purposes – "to illuminate a task and to establish a mood". Mood influences one's perception and spatial impression. In most office settings, "the higher the level of illumination, the less cerebral the task, and therefore the lower the status".[62] This level of lighting would be most typical above cubicles or workstations. However, Light Seam is often used in spaces such as lobbies which often act as the point of "first impression" given to a visitor. It provides a softer lighting that elevates the perceived status of a space, and in turn, the corporate image. Light Seam is equally desirable in terms of facilities management and maintenance. The recessed cove of most Light Seam installations allows for the easy housing of fluorescent lamps. Fluorescent fixtures became the ideal choice for an office, because they were economical, available in a range of shapes and sizes, and lasted much longer than the standard incandescent fixture.[63] However, fluorescent lamps of the past created "a very cool white light that was not used where aesthetics or color rendition were critical".[64] The indirect quality of Light

[61] Rayfield, The Office Interior,, 182.
[62] Roger Yee, Corporate Design (New York: Interior Design Books, 1983), 216.
[63] Rayfield, Office Interior, 182.
[64] Roger Yee, Corporate Design, 216.

Seam, however, partially explains the widespread popularity of Light Seam as a corporate design strategy prior to the 1990 decade[65].

The most common practices in corporate design are 1) the use of Light Seam where a vertical plane meets the edge of the ceiling plane, or 2) where the vertical meets the floor plane. Of these applications, the gradient of the light that is cast is typically short and spans between a few inches to a foot. The emphasis is the sharp backlit edge that accentuates the meeting of the planes and appears to dissolve the solid mass of the wall. The strip of light can be found both on flat planes as well as ones where the light turns the corner, curving with the plane.

Effect

When a Light Seam is at the top of a wall, it makes the ceiling appear as if it were floating, but it will cause the seam to appear less dense, more penetrable, and it will appear to rise, giving an impression of the space opening outward. On the other hand, the bottom part of the wall will appear dense, less penetrable and have a sinking motion, giving an impression of secure solidity. The tonal effect created by light on the wall aligns with, and reinforces, our recognition of “down” as the direction of gravity, belonging to ground and earth, and “up” as the direction of openness and freedom from gravity, belonging to the realm of sky and air.[66] The overall appearance of the

[65] Kwan, “Theory Studies,” 161.
[66] Kwan, “Theory Studies,” 149.

walls is that of secure solidity and proud stature".[67] This effect produces a desirable quality in workplace design.

In instances where Light Seam is placed on the floor, "light travels up the wall. The contradiction between the tonal implications of the walls with our perception of gravity creates a tension in which weight presses down on a floating floor. The experience is that of instability".[68] This stark difference created by reversing the direction of light automatically draws attention to the light source. In instances where this technique is applied in a corporate setting, it is most common to find Light Seam on the floor where the floor plane meets the bottom edge of an isolated and raised spatial volume (see the Intype Incubate). These volumes are typically settings of conference rooms or gathering spaces, and a Light Seam illuminating the bottom edge draws attention to the architecture of the form and communicates the notion that the space is unique and important.

Chronological Sequence

During the 1970 decade and into the early 1980s, energy crises heavily influenced the use and design of lighting in architectural spaces. It was during this time that fluorescent sources became popular due to their energy efficiency and "color-rendition".[69] In office environments, where energy efficiency is a major budgetary consideration, Light Seam was an affordable design element that could elevate the perceived quality of the space. In the

[67] Thomas Thiis-Evensen, Archetypes in Architecture (Oslo: Norwegian University Press, 1987), 133.
[68] Kwan, "Theory Studies," 155.
[69] Mark Major, Jonathan Speirs and Anthony Tischhauser, Made of Light: the Art of Light and Architecture (Basel: Birkhauser, 2004), 9.

lobby of Roure Bertrand Dupont, Inc. (1974), a Light Seam washed down the curvilinear walls of a dropped ceiling in a drum-like form,[70] defining the edges of the waiting area. **Figure 3.1** Viewed from the outside, "the structure supporting the drum was hidden, and the element that was lightened by the wash of light seemed to float within the ceiling opening".[71]

Figure 3.1
Roure Bertrand Dupont, Inc. [1974] Kahn & Jacobs; Teaneck, NJ in Anonymous, "Roure Bertrand Dupont, Inc.," *Interior Design* 45, no. 4 (Apr. 1974): 123; PhotoCrd: Norman McGrath.

In the Prudential Insurance Company office (1976), Light Seam was employed along the wall behind a row of secretarial workstations.[72] **Figure 3.2** This example illustrates Light Seam's capability of transforming simple materials into a visually interesting element. The textured wood paneling of the wall

[70] Roure Bertrand Dupont, Inc. [1974] Kahn & Jacobs; Teaneck, NJ in Anonymous, "Roure Bertrand Dupont, Inc.," *Interior Design* 45, no. 4 (Apr. 1974): 123; PhotoCrd: Norman McGrath.
[71] Reception Area, Roure Bertrand Dupont [1974] Kahn and Jacobs; Teaneck, NJ in Anonymous, "Roure Bertrand Dupont, Inc." *Interior Design* 45, no. 4 (Apr. 1974): 123; PhotoCrd: Norman McGrath.
[72] Prudential Insurance Company [1976] Daroff Design; Woodbridge, NJ in Anonymous, "Prudential's Eastern Home Office," *Interior Design* 47, no. 11 (Oct. 1976): 116; PhotoCrd: Tom Crane.

interacted with the gradient of light that shone down from behind the soffit, creating the unexpected effect of water trickling down the wall.

Figure 3.2
Prudential Insurance Company [1976] Daroff Design; Woodbridge, NJ in Anonymous, "Prudential's Eastern Home Office," *Interior Design* 47, no. 11 (Oct. 1976): 116; PhotoCrd: Tom Crane.

Light Seam is able to effectively highlight a plain wall and relieve the monotony of long spans of walls.[73] In the office of Brobeck, Phleger and Harrison (1980), a wood-clad wall, lit by Light Seam from above, emphasized the grain of the wood.[74] **Figure 3.3** The effect also increased the perceived height of the wall, expanding the space to feel larger.

[73] Kwan, "Theory Studies,", 159.
[74] Brobeck, Phleger and Harrison [1980] Gensler; San Francisco in L.W.G., "Elegantly Explicit," *Interior Design* 51, no. 5 (May 1980): 222; PhotoCrd: Jaime Ardiles-Arce.

Figure 3.3
Brobeck, Phleger and Harrison [1980] Gensler; San Francisco in L.W.G., "Elegantly Explicit," *Interior Design* 51, no. 5 (May 1980): 222; PhotoCrd: Jaime Ardiles-Arce.

Alhough most examples of Light Seam used white light, some experiments have been done with the integration of color light into coves. In a public relations company's reception area (1987) architect Riero Sartogo concealed fluorescent tubes to project a gradient of blue light onto the ceiling plane of the space.[75] **Figure 3.4** The blue echoes the paint color of the walls, creating the overall effect that the blue plane lightens in weight as it reaches toward the ceiling, resulting in a sense of openness and airiness.

[75] PR Agency [1987] Riero Sartogo; Rome, Italy in Edie Cohen, "Roman Views," *Interior Design* 58, no. 7 (May 1987): 276; PhotoCrd: Anonymous.

Figure 3.4
PR Agency [1987] Riero Sartogo; Rome, Italy in Edie Cohen, “Roman Views,” *Interior Design* 58, no. 7 (May 1987): 276; PhotoCrd: Anonymous.

In the 1990 decade, Light Seam’s prevalent use was to highlight a single, drywall plane. The biggest benefit of this strategy was its ability to create visual interest in a very simple and unadorned space without requiring a big budget or significant maintenance costs. In the Apple offices by Simon Martin-VegueWinkelstein Moris (1990), the walls of the space were uniformly painted beige.[76]. **Figure 3.5** A Light Seam along the back wall of the space drew attention in that direction, emphasizing the presence of an area for seating. In the HypoVereinsbank offices in Manhattan (1999), the highlighted wall plane was painted a vibrant yellow color that contrasted with other planes in the

[76] Apple [1990] Simon Martin-Vegue Winkelstein Moris; San Jose, CA in Edie Cohen, “Apple Computer,” *Interior Design* 61, no. 6 (Apr. 1990): 193; PhotoCrd: Chas McGrath.

space.[77] **Figure 3.6** Light Seam added another layer of emphasis to the wall and drew attention to the artwork featured on it.

Figure 3.5
Apple [1990] Simon Martin-Vegue Winkelstein Moris; San Jose, CA in Edie Cohen, “Apple Computer,” *Interior Design* 61, no. 6 (Apr. 1990): 193; PhotoCrd: Chas McGrath.

[77] HypoVereinsbank [1999] Gerner Kronick + Valcarcel; New York City in Abby Bussel, “Grid City,” *Interior Design* 70, no. 1 (Jan. 1999): 137; PhotoCrd: Paul Warchol.

Figure 3.6
HypoVereinsbank [1999] Gerner Kronick + Valcarcel; New York City in Abby Bussel, “Grid City,” *Interior Design* 70, no. 1 (Jan. 1999): 137; PhotoCrd: Paul Warchol.

In the decade from 2000 to 2010, designers integrated Light Seams with wall planes of unique textures, colors and materials. In the HBO-Los Angeles office (2005), Light Seam created an ethereal quality along a long corridor as its gradient of light gleamed on a highly textured wall.[78] **Figure 3.7** The wall plane appeared to evaporate the closer it came to the light source, until the wall ultimately disappeared into the ceiling plane.

[78] HBO [2005] HLW; Los Angeles, CA in Edie Cohen, “Outside the Box,” *Interior Design* 76, no. 2 (Feb. 2005): 156; PhotoCrd: Benny Chan/Fotoworks.

Figure 3.7
HBO [2005] HLW; Los Angeles, CA in Edie Cohen, “Outside the Box,” *Interior Design* 76, no. 2 (Feb. 2005): 156; PhotoCrd: Benny Chan/Fotoworks.

In the United States Census Bureau office (2006), Light Seam isolated a wood-paneled cube as an independent object within the space.[79] **Figure 3.8**

[79] US Census Bureau Office [2006] SOM; Maryland in Laura Fisher Kaiser, “Let the Numbers do the Talking,” *Interior Design* 77, no. 14 (Nov. 2006): s20; PhotoCrd: Eduard Hueber/Archphoto.

Figure 3.8
US Census Bureau Office [2006] SOM; Maryland in Laura Fisher Kaiser, "Let the Numbers do the Talking," *Interior Design* 77, no. 14 (Nov. 2006): s20; PhotoCrd: Eduard Hueber/Archphoto.

In many workplace environments, corridor walls act as a gallery to display works of art on a white surface. When Light Seam is applied on such walls, the white surfaces reflect a great amount of light, creating "the most drama from concealed lighting". The artwork is highlighted through this integration of Light Seam with a White Box environment and the user is transported to an "ultra-space"[80] that functions separately from the rest of the office environment. HLW International designed a New York City law office in 2009 in which a slightly wider than usual hall and Light Seam were effectively combined into a gallery space.[81] **Figure 3.9**

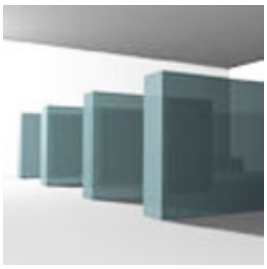
[80] Brian O'Doherty, White Cube: The Ideology of the Gallery Space (Berkeley, Cal.: University of California Press, 1986), 35.
[81] Law Firm [2009] HLW; New York City in Judith Davidsen, "The Discovery Process," *Interior Design* 80, no. 7 (May 2009): 187; PhotoCrd: Eric Laignel.

Figure 3.9
Law Firm [2009] HLW; New York City in Judith Davidsen, “The Discovery Process,” *Interior Design* 80, no. 7 (May 2009): 187; PhotoCrd: Eric Laignel.

From 1970 to 2010 the archetypical practice of Light Seam proved to be a practical and an effective lighting strategy for workplace design.

CHAPTER 4

MARCHING ORDER



Definition

Marching Order, a sequence of repeating forms organized consecutively, one after another, establishes a measured spatial order.

Application Definition

In the workplace Marching Order organizes the placement of interior furnishings, such as desks and file cabinets.

Description

Found prevalently in open plan offices, Marching Order spatially subdivides a vast open area. Through the uniform and stationary orientation of individual desks and file cabinets, as well as the placement of computers, chairs, and task lamps, a Marching Order creates modules that are offset from each other by a uniform distance[82], emphasizing the regularity of the arrangement and communicating strong messages of how one should circulate throughout and interact within the space.

Effect

In the history of workplace design, private offices have been associated with power, while in the open plan office those who “only have furniture” were perceived to be at a lower rank. Therefore, Marching Order has strong implications about the status and work roles of those who inhabit each workstation or desk. The repetition of each unit symbolically gives the

[82] Leah Scolere, “Theory Studies: Contemporary Retail Design” (MA Thesis, Cornell University, 2004), 59.

impression of a space where “no one has a permanent office”; each individual is tasked to complete work of similar nature, and may be easily replaced.[83]

Nevertheless, Marching Order plays a positive role in workplace design. The organization that Marching Order establishes reflects business values, and a foundation for an optimally efficient workspace. In The Second Book of Offices, John Pile stated that the “desire for stability, repeatability and reliability” within an office setting helps “abstractions to become more tangible”.[84] In fact, Pile argues in favor of the principles behind a Marching Order regulation, stating that “geometric order is a basic human need desired in any planned situation – people instinctively try for such order in furniture arrangement in their homes and expect to find it in offices. The human inclination to build on grid-iron plans with rectilinear box forms is actually more a matter of convenience to draftsman, surveyor and builder than the result of any real thought or philosophy. If irregular arrangement is functionally better, formal arguments against it cannot stand up.”[85]

The “irregular arrangement” Pile referenced was the 1960-era German development of the “office landscape” or “Burolandschaft”.[86] Angled, curved, and unpredictable arrangements of office furniture within these office landscapes were widely implemented, but subsequently criticized for being aesthetically displeasing and giving the impression of being “messy, untidy

[83] Franklin Becker, The Successful Office (need city, Massachusetts: Addison-Wesley Publishing Company, 1982), 24.
[84] John Pile, Second Book of Offices (New York: Whitney Publications, 1969), 9.
[85] Pile, Second Book of Offices, 261.
[86] Pile, Second Book of Offices, 262.

and chaotic".[87] Aesthetics aside, the space efficient grid allows a greater number of people to inhabit a particular space than would be possible with a more free-form arrangement. The predictability and regularity that Marching Order imposes upon an office environment remains the archetypical standard for a functionally optimal workplace.

The history of a Marching Order design strategy traces back to 20st century strategies of Frank Lloyd Wright's designs for the Larkin Building and the Johnson Wax building. In both contexts, Wright used a grid to organize open spaces for multiple employees, and he also designed specialized office furniture that folded for easy maintenance, but limited user movement.[88] A significant factor in Wright's development of furniture for a Marching Order was the inherent repetition of the furniture: all workstations were the same. This "high degree of standardization" remains integral to a Marching Order strategy as it is the "result of office demand of efficiency and economy…and a desire for easy interchangeability of the products".[89] Furniture design innovators and manufacturers, such as Knoll and Herman Miller, strived to offset the sterility and monotony of workstation design by incorporating more surfaces and shelving units for employee personalization. This strategy aimed to improve employee satisfaction on the micro level without compromising the organization of the macro environment in which the Marching Order commands the attention of viewers, with the furniture coordinating to create visual modules that comprise repetition.

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[87] Pile, Second Book of Offices, 262.
[88] Stanley Abercrombie, excerpt from *Office Supplies: Evolving Furniture for the Evolving Workplace* in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 85.
[89] Pile, Second Book of Offices, 153.

Chronological Sequence

The turn of the 19th century marked poignant changes in the American job market as people began to shift from their factory jobs into "white collar" professions. The rise in professional positions was rapid, increasing from 750,000 people in "professional service" jobs in 1860 to 4,420,000 in 1910.[90] The nature of work changed completely, switching from manual labor to clerical responsibilities at a desk. The design of offices evolved quickly to meet this change in the fundamental nature of work in America.

In early office environments Marching Order comprised the foundation of space planning as seen in ; the Larkin Building by Frank Lloyd Wright. **Figure 4.1a** Hired to build a structure to house the "ever-expanding clerical staff", Wright "presaged the shift to white-collar work", introducing a new way of viewing the workplace and creating one of the earliest corporate environments.[91] Larkin's famous atrium space included clerical staff (nearly all women) who sat at desks arranged in Marching Order. Their superiors sat at desks along the two flanking edges of the space in positions, elevated enough to supervise their subordinates. **Figure 4.1b** In addition to orderliness Marching Order was believed to increase the speed of communication from person to person.[92]

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[90] Donald Albrecht, On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 18.
[91] Larkin Building [1906] Frank Lloyd Wright; Buffalo, NY in James S. Russell, "Form Follows Fad," n the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 25; PhotoCrd: Anonymous.
25.
[92] Albrecht, On the Job, 25.

Figure 4.1a
Larkin Building [1906] Frank Lloyd Wright; Buffalo, NY in James S. Russell, "Form Follows Fad," in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 49; PhotoCrd: Anonymous.

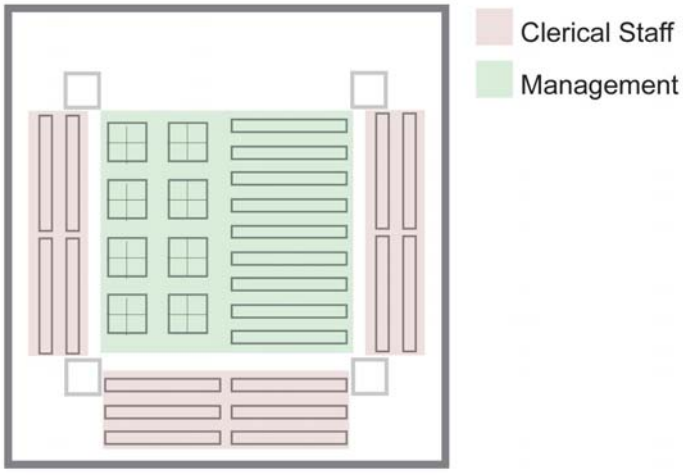

Figure 4.1b
Office layout of Larkin Building showing clerical staff workstations in the central atrium, flanked by management seating.

The term “white collar” was coined in 1919 by social critic Upton Sinclair, signifying a “new stratum of capitalist worker” and a “seismic shift” in the American labor force.[93] The 1910 decade was one of tremendous development of the newly established office settings. Technology and industrialization prompted the development of the Modern Efficiency Desk in 1915. **Figure 4.2**

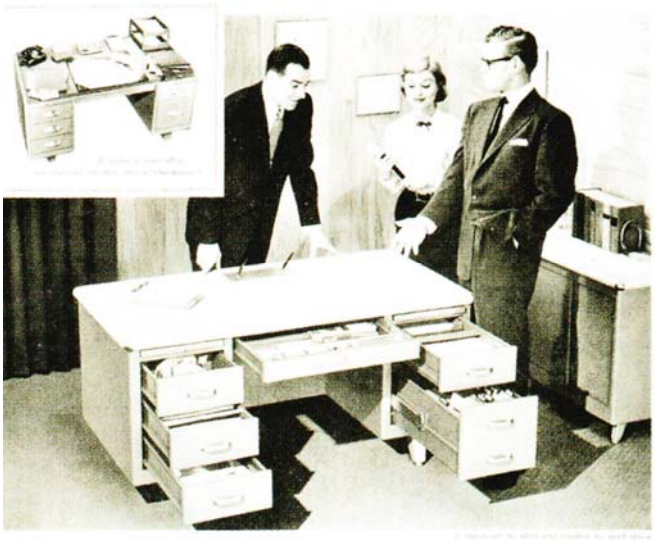

Figure 4.2
Modern Efficiency Desk [1915] Anonymous; Chicago, IL in Donald Albrecht, On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 24; PhotoCrd: Anonymous.

A table with three shallow drawers, the desk banished the privacy previously afforded by roll-top desks. The Modern Efficiency Desk gained immediate popularity with managers, because they could easily survey employee working

[93] Albrecht, On the Job, 25.

habits; also employees could not overlook or lose papers.[94] Not surprisingly Modern Efficiency Desks were arranged in Marching Order. In "orderly rows, they symbolized the era's obsession with factory life, standardization and rational science. This was the period of Frederick Taylor's treatise on scientific management and Ford Motor Company's development of the assembly line based on Taylor's studies."[95] Marching Order proposed a way to maximize supervision and, ultimately, the efficiency of office procedures from "typing to rubber stamping".[96]

Figure 4.3
Sears, Roebuck and Company [1913] Anonymous; Chicago, IL in Donald Albrecht, On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 24; PhotoCrd: Anonymous.

World War II solidified the office's image as a "corporate barrack".[97] Public sentiment embraced rigid hierarchy in workplaces as it mirrored military organization. Marching Order perfectly reflected the transition of "khaki-clad

[94] Lee Galloway, Covering Organization, Arrangement, and Operation with Special Consideration of the Employment, Training, and Payment of Office Workers (New York: Ronald Press Co., 1919), 89-90.
[95] Daniel Nelson, Frederick W. Taylor and the Rise of Scientific Management (**city name,** Wis., University of Wisconsin Press, 1980), 9-12.
[96] Nelson, Frederick W. Taylor, 12.
[97] Albrecht, On the Job, 25.

soldiers morphing into gray-flanneled businessmen" in the office.[98] When offices increased in spatial footprints, the neat rows of desks multiplied as well. Organizations found that "people worked efficiently in serried ranks of desks with few traditional amenities or architectural embellishments".[99] **Figure 4.4a** Frank Lloyd Wright's S.C. Johnson Administration Building (1939) reflected this attitude, with its interior "lily pad" columns establishing a measured spatial order on a grid; work desks conformed to the same rationale.[100] **Figure 4.4b**

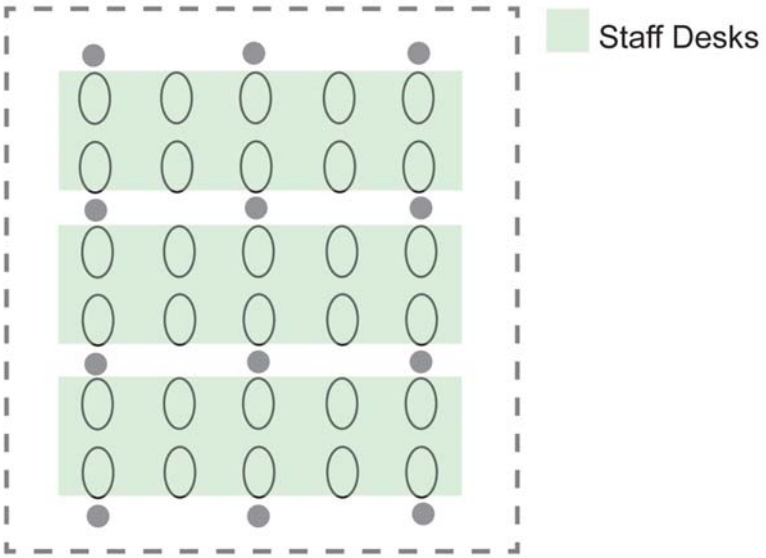

Figure 4.4a
Typical Johnson Wax Administration Building staff desk arrangement (Marching Order) reflecting "barrack" style office configurations of the era.

[98] Russell, On the Job,49.
[99] Russell, *Form Follows Fad*, 49.
[100] S.C. Johnson Administration Building [1939] Frank Lloyd Wright; Racine, WI in Stanley Abercrombie, "Office Supplies," in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 84. PhotoCrd: Anonymous.

Figure 4.4b
S.C. Johnson Administration Building [1939] Frank Lloyd Wright; Racine, WI in Stanley Abercrombie, "Office Supplies," in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 84. PhotoCrd: Anonymous.

For nearly two decades post-World War II (1945), organizations believed that "the gridded, rationalized, evenly serviced, and totally flexible nature of the architectural workspace perfectly reflected the war-era management zeitgeist".[101] In order to maintain a corporation as a "well-oiled machine", employees needed to be "adaptable and interchangeable".[102] The sense of anonymity and interchangeability of units within a Marching Order satisfied this need.

However, this era also saw the increased attention and interest paid to creating healthier working environments. Adequate lighting, acoustics and air quality became a part of the office design repertoire as they were

[101] Russell, Form Follows Fad, 50.
[102] Russell, Form Follows Fad, 50.

acknowledged to be contributing factors to an optimal workplace. In the 1952 Lever House offices by Skidmore, Owings & Merrill, Marching Order remained integral to the layout of the space, but employees were located adjacent to perimeter strip windows, maximizing exposure to natural light.[103] **Figure 4.5**

Figure 4.5
Lever House [1952] SOM; New York City in Andrew Yang, "Living History," *Interior Design* 77, no. 14 (Nov. 2006): s11; PhotoCrd: Ezra Stoller/ESTO.

During the 1950 decade many examples of Marching Order occurred in corporate interiors, many located in hallways. The secretarial corridor in the executive offices of the Columbia Broadcasting System features the Knoll Planning Unit aligning three desks, one behind the other. Although *Interiors* characterized the space as "handsome" a secretary's frontal view was of the back of the secretary in front of her.[104] A neatly arranged corridor in the offices of Tower Fabrics housed a line of desks, one behind the other, as "working

[103] Lever House [1952] SOM; New York City in Andrew Yang, "Living History," *Interior Design* 77, no. 14 (Nov. 2006): s11; PhotoCrd: Ezra Stoller/ESTO.
[104] Lois Wagner Green, ed., Interiors Book of Offices (New York: Whitney Library of Design, 1959), 39

areas" for salesmen.[105] The desks were small, as was the working surface; a telephone and an in/out box on each desktop limited the amount of work surface.

Burolandschaft or Office Landscape originated in the 1960 decade in Germany and was quickly adopted into the American and European design vocabulary.[106] **Figure 4.6** Office landscaping broke away from the notion of the office setting as a "military organization" and focused on the potential for workplaces to be "nurturing environments". Researchers began to analyze methods of communication among groups, the development of team solidarity, and the role of physical proximity in the function of teams and groups of teams. Marching Order was abandoned completely in favor of curves, diagonals, and clusters in the organization of workstations. The Office Landscape concept was revolutionary in that it sparked dialogue in the interior design profession after "years of having nothing to discuss".[107]

[105] Green, Interiors Book, 107.
[106] Space Plan, Du Pont Corporation [1963] Quikboorner Team; Wilmington, DE in James S. Russell, "Form Follows Fad," in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 60.
[107] Pile, Second Book of Offices, 9.

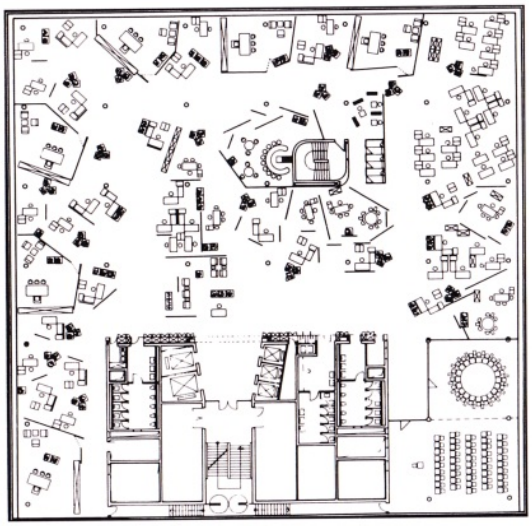

Figure 4.6
Space Plan, Du Pont Corporation [1963] Quikboorner Team; Wilmington, DE in James S. Russell, "Form Follows Fad," in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 60.

Burolandschaft quickly attracted criticism, however, "derided for its lack of privacy, the noise and distractions endemic to the office's openness, and the lower status conveyed by the lack of a private office". American designers retained some of the concepts introduced in office landscaping and "reworked the curvilinear informality into something cheaper and more ordered", In 1963 *Interior Design* published a space plan and photographs of Burnham and Company's office, providing solid evidence that Marching Order had returned to the workplace.[108] **Figure 4.7a and 4.7b**

[108] Burnham and Company [1963] JFN Associates; New York City in Anonymous, "Space Planning on a Big Scale," *Interior Design* 34, no. 4 (Apri. 1963): 165; PhotoCrd: Allen Lieberman.

Figure 4.7a
Burnham and Company [1963] JFN Associates; New York City in Anonymous, “Space Planning on a Big Scale,” *Interior Design* 34, no. 4 (Apri. 1963): 165; PhotoCrd: Allen Lieberman.

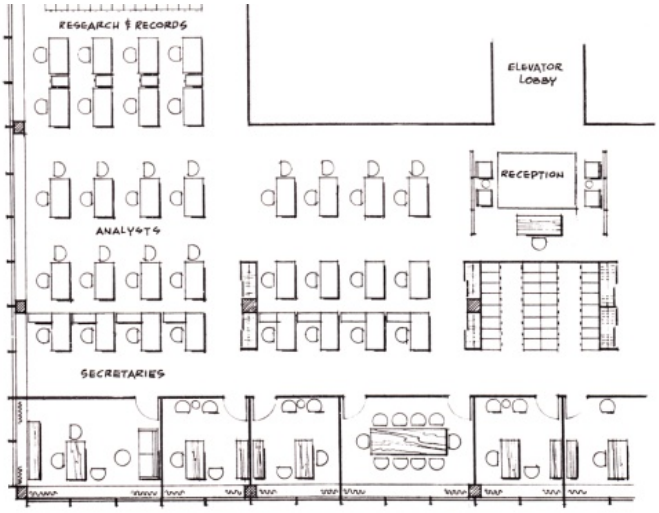

Figure 4.7b
Space Plan, Burnham and Company [1963] JFN Associates; New York City in Anonymous, “Space Planning on a Big Scale,” *Interior Design* 34, no. 4 (Apri. 1963): 165; PhotoCrd: Allen Lieberman.

In the reconceptualization of the open office environment, Systems Furniture was developed. An early system like Herman Miller’s Action Office of 1968

was based on a five-foot module that established a sense of repetition and rhythm that produced Marching Order.[109] **Figure 4.8** The system allowed for highly flexible combinations of desks and dividing panels. Each workstation could be extensively customized, demounted and reconfigured.

Figure 4.8
Photograph, Herman Miller Action Office [c1968] Herman Miller Archives

Open Plan offices and Systems Furniture dominated the 1970 decade. Business owners noticed how workstations were more space efficient, cheaper to build, and more easily rearranged than conventional layouts. Other office furniture manufacturers, such as Steelcase and Haworth, began producing their own versions of Systems Furniture. The popularity of modular office furniture grew tremendously in this decade and through the years would "evolve into the regimented ranks of cubicles familiar to white collar workers today".[110] The partitions, dismountable shelving units and cabinets of the workstations of the Swett & Crawford offices of 1974 provided workers with

[109] Photograph, Herman Miller Action Office [c1968] Herman Miller Archives
[110] Russell, Form Follows Fad, 62.

their own working territory while retaining Marching Order within the overall space.[111] **Figure 4.9**

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Figure 4.9
Swett & Crawford [1974] SLS Environetics; San Francisco, CA in Anonymous, "Swett & Crawford," *Interior Design* 45, no. 4 (April 1974): 120; PhotoCrd: Anonymous.

By the 1980 decade, the Cubicle became the desired office furniture module throughout workplace environments. The panels of these early workstations grew in height, creating enclosures that provided optimal privacy for workers but still allowed for flexibility and reconfiguration. In the Wang Labs (1982) cubicles were lined up, adhering to a strict Marching Order in order to be optimally space efficient.[112] **Figure 4.10**

During the 1980s designers also conceptualized the workplace as an Urban Metaphor.[113] Integrating a variety of other spaces, aside from "the gridded

[111] Swett & Crawford [1974] SLS Environetics; San Francisco, CA in Anonymous, "Swett & Crawford," *Interior Design* 45, no. 4 (April 1974): 120; PhotoCrd: Anonymous.
[112] Wang Labs Office [1982] SCR Design Corporation; New York City in Anonymous, "Computer Character," *Interior Design* 53, no. 3 (March 1982): 182; PhotoCrd: Mark Ross.
[113] Russell, Form Follows Fad, 62.

layout of open plan cubicles", catered to a range of work activities. Common areas, Showcase Stairs from one level to another, and features like fountains and pools, all contributed to an environment that would emulate the "casual encounters people might have walking down a city street".[114] By promoting the dissemination of ideas in this concept, business owners believed that the overall quality of work completed would increase. In the example of Wang Labs, much of the space was occupied by a Marching Order of cubicles dedicated to individual work. However, the office also integrated casual meeting alcoves and lounge areas along the periphery of the building to provide for the social aspect of the working environment.

Figure 4.10
Wang Labs Office [1982] SCR Design Corporation; New York City in Anonymous, "Computer Character," *Interior Design* 53, no. 3 (March 1982): 182; PhotoCrd: Mark Ross.

[114] Russell, Form Follows Fad, 62.

By 1990, companies became increasingly more conscious of new needs of their work environments. To create greater employee satisfaction, designers introduced bigger and better dining and recreation facilities into workplaces, as well as shared lounge and collaboration spaces. With these spaces requiring much of the square footage occupied by the Marching Order of cubicles and workstations, the concept of Benching became a popular space saving solution. **Figure 4.11a** Tightly arranged workstations along a single long Bench allowed employees sufficient personal space to complete their given tasks. Marching Order remained, although it changed from being a repetition of entire cubicles or desk units to the order created by chairs, cabinets, and even computers. The Murphy & Durieu office (1990) used the Benching concept.[115] **Figure 4.11b** A long uninterrupted work surface was broken by a linear series of chairs; in this case, the chairs provided Marching Order. This reiteration of Marching Order was more subtle than previous concepts; rather than seeing a row of high partitions, order occurred at the height of the chair back.

[115] Murphy & Durieu [1990] Searl Design Inc.; New York City in Monica Geran, “Murphy & Durieu,” *Interior Design* 61, no. 7 (May 1990): 258; PhotoCrd: Peter Paige.

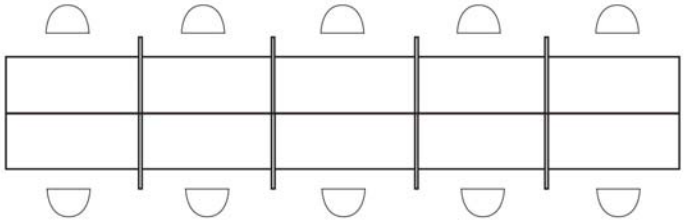

Figure 4.11a
Example of “Benching” configuration showing seats along a shared bench with minimal partitions to separate individuals. Many benching layouts do not incorporate partitions of any kind.

Figure 4.11b
Murphy & Durieu [1990] Searl Design Inc.; New York City in Monica Geran, “Murphy & Durieu,” *Interior Design* 61, no. 7 (May 1990): 258; PhotoCrd: Peter Paige.

From 2000 to 2010, the office design culture proved to be erratic, moving in new directions at the same time. With the influence of consultants dedicated to idea-driven office design, businesses found that “their success depends on collaboration between employees and clients and that their work environment needs to foster that interaction”.[116] More businesses, like Authentic Entertainment (2009) based in Burbank, California, created “homelike work environments”[117] for e relaxation, sharing ideas, and creativity.[118] **Figure 4.12**

Figure 4.12
Authentic Entertainment [2009] Lorcan O’Herlihy Architects; Burbank, CA in Edie Cohen, “Garden Party,” *Interior Design* 80, no. 7 (May 2009): 86; PhotoCrd: Douglas Hill.

During the course of modern office design the “desire for stability, repeatability and reliability” remained integral to many Open Plan offices. Walled cubicles were replaced by dynamic modular workstations. No matter the concept, however, Marching Order remains a significant practice in what is now a complex network of spaces within office settings.

[116] Russell, Form Follows Fad, 72.
[117] Russell, Form Follows Fad, 72.
[118] Authentic Entertainment [2009] Lorcan O’Herlihy Architects; Burbank, CA in Edie Cohen, “Garden Party,” *Interior Design* 80, no. 7 (May 2009): 86; PhotoCrd: Douglas Hill.

CHAPTER 5

SLAT

Definition

Slat describes screens composed of regularly spaced thin strips of material, typically wood, oriented in either a horizontal or vertical direction.

Application Definition

In the workplace Slat typically appears as a non-structural partition, often in circulation areas, or as an additive aesthetic (decorative) element.

Description

In terms of materiality, Slat is “lightweight and easily constructed as a screen composed of thin strips of wood evenly spaced along a frame in either the horizontal or vertical direction”.[119] Slat shares similarities to the interior archetype Frame, but Frame results in a grid pattern while Slat is linear in one direction only. Openings between each slat or strip of wood are integral to its design and function.

In a workplace environment, Slat is found in two different applications. The first and most common is the use of Slat as a non-structural partition. In offices, Slat partitions are prevalently found along circulation spaces, acting as a boundary or separating entity between spaces of differing functions. These circulation-oriented Slats are found in a variety of heights, although most are either floor to ceiling or floor to above eye level. It creates a barrier, either straight or curved, that is visually and acoustically penetrable, but one is unable to physically cross the boundary that Slat produces.

[119] Elizabeth M O’Brien, “Material Archetypes: Contemporary Interior Design and Theory Study” (MA Thesis, Cornell University, 2006), 20-21.

The second application of Slat is its use as an additive aesthetic element that is applied either directly to a vertical plane or offset from a vertical plane by only several inches. This use of Slat has no functional implications, but rather optimizes the color, texture, and depth of the wood to create visual interest on large and otherwise unembellished wall planes.

Effect

The use of Slat as an interior partition delineates boundaries while still allowing for both visual and acoustic transaction between spaces. This is useful in distinguishing paths of circulation within an office space, or creating small alcoves where employees may retreat. The arrangement of the Slats interacts with light "in surprising ways"[120] and the level of transparency can be controlled by "adjusting the space between vertical [or horizontal] sticks".[121] "Moving through these slatted spaces, the regular pattern does not become monotonous; rather, one's perception is continuously adjusting to shifting views and the play of light and shadow".[122]

The application of Slat directly on, or slightly removed, from a planar surface adds an aspect of dimensionality to an otherwise untreated wall. This results in a visually interesting spatial element that demonstrates how "simple materials and building techniques can create surprising and complex effects".[123] Slat produces this effect without compromising the need for efficiency and

[120] O'Brien, "Material Archetypes", 23.
[121] Raul A. Barreneche, New Museums (London: Phaidon Press Limited, 2005), 136-43.
[122] O'Brien, "Material Archetypes", 23.
[123] O'Brien, "Material Archetypes", 23.

economy within a business. Slat is comprised of lightweight, standardized parts made possible by milling technology that allows for control and accuracy of cutting lumber to standard dimensions. This modularity and regularity is desirable in an office setting for both an orderly aesthetic as well as a cost-cutting design solution.

As a material Slat is rooted in a home aesthetic to signify a warm interior and where wood graining also becomes a visual component. The appearance of the wood slats themselves provides a soft and natural quality to the interior reminiscent of window frames or a stairway banister—a strong contrast to the typically hard and manufactured look of a workplace.

Chronological Sequence

Examples of Slat within the workplace emerged in the 1960 decade as a visual element directly applied to the wall. In a law office designed by Bill Boydston in 1961, Slat was located behind a sofa in three panels.[124] **Figure 5.1** Slat was attached to the wall, creating the illusion of windows at the far wall of the room. The resulting private office has a residential aesthetic where Slat is more "a device for the expression of the occupant's personality"[125] than a functional aspect of the space.

[124] McConnel, Valdes & Kelley [1961] Bill Boydston; Puerto Rico in Anonymous, "Remodeled Law Office," *Interior Design* 32, no. 9 (Sep. 1961): 132; PhotoCrd: Conrad Eiger.
[125] John Pile, Second Book of Offices (New York: Whitney Publications, 1969), 65.

Figure 5.1
McConnel, Valdes & Kelley [1961] Bill Boydston; Puerto Rico in Anonymous, "Remodeled Law Office," *Interior Design* 32, no. 9 (Sep. 1961): 132; PhotoCrd: Conrad Eiger.

Milton Glazer, the designer of the lobby in the Security Life & Trust Company's North Carolina office (1964),, applied Slat from floor to ceiling at relatively large intervals and on more than one wall plane.[126] **Figure 5.2** From afar, the application read as if it were wallpaper, creating repetition and rhythm within the interior. The wooden Slats related to the ceiling which appeared to be clad in horizontal slats. The vertical ones also gave the wall dimensionality and visual interest, thereby creating an opportunity for shadows and unique lighting.

[126] Security Life & Trust Co. [1964] Milton Glaser; North Carolina in Anonymous, "Offices," *Interior Design* 35, no. 4 (Apr.1961): 161; PhotoCrd: Ben Schnall.

Figure 5.2
Security Life & Trust Co. [1964] Milton Glaser; North Carolina in Anonymous, "Offices," *Interior Design* 35, no. 4 (Apr.1961): 161; PhotoCrd: Ben Schnall.

Another example of Slat applied as a wall treatment was the double-height office space of the Canadian Imperial Bank of Commerce (1964) designed by Ernest Rex.[127] **Figure 5.3** In this instance, thin sticks placed close together run the full height of the wall, emphasizing the verticality of the plane. The dark wood also creates an engaging texture that contrasts with the flat ceiling and floor planes.

[127] Canadian Imperial Bank of Commerce [1964] Ernest GH Rex; Montreal, Canada in Anonymous, "Office Design Competition," *Interior Design* 35, no. 5 (May 1964): 143; PhotoCrd: Anonymous.

Figure 5.3
Canadian Imperial Bank of Commerce [1964] Ernest GH Rex; Montreal, Canada in Anonymous, “Office Design Competition,” *Interior Design* 35, no. 5 (May 1964): 143; PhotoCrd: Anonymous.

In the 1970 decade, there were many published examples of Slat as an aesthetically pleasing solution to conceal systems, such as radiator grills and HVAC. In the conference room of Romanek-Golub & Company (1977), Slat was applied to the ceiling plane, masking the mechanical system above it, while retaining the ability to circulate air throughout the space.[128] **Figure 5.4**

[128] Law Office [1977] Robert Kliment; New York City in Anonymous, “Two by Two,” *Interior Design* 48, no. 7 (Jul. 1977): 123; PhotoCrd: Laura Rosen.

Figure 5.4
Romanek-Golub & Company [1977] Norman De Haan Associates, Inc.; Chicago, Illinois in Anonymous, “Easygoing Expansion,” *Interior Design* 48, no. 7 (July 1977): 95; PhotoCrd: Anonymous.

In a law office designed by Robert Kliment in New York City, Slat wall paneling extends from floor to 6’10” tall, thus creating a datum at that height and lowering the perceived height of the ceiling to a more human scale. **Figure 5.5** Slat is translated from the wall to the detailing of the reception desk, acting as a strong visual element within the space.

Figure 5.5
Law Office [1977] Robert Kliment; New York City in Anonymous, “Two by Two,” *Interior Design* 48, no. 7 (Jul. 1977): 123; PhotoCrd: Laura Rosen.

The first examples of Slat being utilized as a freestanding interior partition emerged in the 1980 decade. In the office Mario Botta designed for Gottardo Bank, , three panels of narrow Slats were placed side by side, essentially creating a folding screen.[129] **Figure 5.6** This intervention subdivides an employee dining facility, creating sections of semi-privacy while allowing enough visual transparency to maintain the perception of an open and spacious interior.

[129] Gottardo Bank [1989] Mario Botta; Lugano, Switzerland in Stanley Abercrombie, “Banca del Gottardo,” *Interior Design* 60, no. 11 (Aug.1989): 142; PhotoCrd: Peter Mauss/ESTO.

Figure 5.6
Gottardo Bank [1989] Mario Botta; Lugano, Switzerland in Stanley Abercrombie, "Banca del Gottardo," *Interior Design* 60, no. 11 (Aug.1989): 142; PhotoCrd: Peter Mauss/ESTO.

In the 1990 decade, Slat remained a commonly used strategy in workplace design. During this era designers endeavored to integrate work and play, and they found more creative ways to manipulate Slat. Architect Clive Wilkinson exploited scale within the TBWA/Chiat/Day offices in Los Angeles.[130]. **Figure 5.7** Cladding the exterior walls of the largest conference room in the building, a scaled-up use of Slat extends from the floor to the twenty-foot high ceiling. The treatment crossed large windows to create a uniform wall treatment while still allowing light to filter through into the room.

[130] TBWA/Chiat/Day [1999] Clive WIlkinson; Los Angeles, CA in Edie Cohen, "It Takes a Village," *Interior Design* 70, no. 4 (March 1999): 131; PhotoCrd: Benny Chan/Fotoworks.

Figure 5.7
TBWA/Chiat/Day [1999] Clive WIlkinson; Los Angeles, CA in Edie Cohen, “It Takes a Village,” *Interior Design* 70, no. 4 (March 1999): 131; PhotoCrd: Benny Chan/Fotoworks.

From 2000 to 2010, Slat became an increasingly popular design element within workplace environments, particularly as an interior partition located along a circulation space. In the Los Angeles offices of HBO, a curved Slat partition created a small sitting area at the intersection of two main paths of circulation.[131] **Figure 5.8** This area offered an opportunity to casually meet or interact with people. Slat did not provide acoustical or visual privacy, but rather it simply delineated the boundaries of the space, separating it from the corridor.

[131] HBO [2005] HLW; Los Angeles, CA in Edie Cohen, “Outside the Box,” *Interior Design* 76, no. 2 (Feb. 2005): 159; PhotoCrd: Benny Chan/Fotoworks.

Figure 5.8
HBO [2005] HLW; Los Angeles, CA in Edie Cohen, “Outside the Box,” *Interior Design* 76, no. 2 (Feb. 2005): 159; PhotoCrd: Benny Chan/Fotoworks.

In the same office, Slat provided a boundary between a circulation path and the lobby space by creating a barrier between the public space (the lobby) and the private interior workspace which cannot be accessed unless permission is given.[132] **Figure 5.9** However, visual access between the two spaces promoted greater awareness of all aspects of the workplace environment.

[132] Cohen, “Outside the Box,” 159.

Figure 5.9
HBO [2005] HLW; Los Angeles, CA in Edie Cohen, “Outside the Box,” *Interior Design* 76, no. 2 (Feb. 2005): 159; PhotoCrd: Benny Chan/Fotoworks.

In the first decade of the 21st century, Slat contributed to the design of many LEED (Leadership in Energy and Environmental Design) accredited interiors. The use of recycled wood, or rapidly renewable resources such as bamboo, contributed to additional LEED points.

Figure 5.10
Caltran [2009] AC Martin; Marysville, CA in Edie Cohen, “Green-lighting Green Design,” *Interior Design* 80, no. 7 (May 2009): 245; PhotoCrd: Art Gray.

The Caltran office in Marysville, California (2009) received a LEED Silver New Construction rating, and its interior featured many examples of Slat. Among these was a back wall of the lobby area in which various types of wood slats were pieced to create a dynamic, woody wall treatment, while celebrating sustainability through the repurposing of wood.[133] **Figure 5.10**

[133] Caltran [2009] AC Martin; Marysville, CA in Edie Cohen, “Green-lighting Green Design,” *Interior Design* 80, no. 7 (May 2009): 245; PhotoCrd: Art Gray.

CHAPTER 6

WHITE BOX

Definition

White Box is an undecorated space with white walls, white ceiling, and continuous neutral floor. It is a kind of non-space, ultra-space, or ideal space where the surrounding matrix of space-time is symbolically annulled.

Application Definition

White Box in an office interior is comprised of painted white gypsum walls, a white gypsum or acoustical tile ceiling, and seamless neutral floor of hardwood or carpet tile.

Description

The archetypical practice, White Box, has been identified in museum, retail, boutique hotel, house, and now, the workplace.[134] Characterized by white wall and ceiling planes and a continuous neutral colored floor, the space itself becomes a homogenous entity, no longer differentiated into floor, ceiling, and walls. White Box is a space that "begins losing its geometric characteristics until it is converted into a non-ultra space".[135]

In an office environment, White Box is most prevalent in general office spaces and large conference rooms where a large number of people use and inhabit the same area on a daily basis. White Box is often the "container" for open

[134] Joori Suh. "Theory Studies: Contemporary Museum and Exhibition Spaces" (M.A. Thesis, Cornell University, 2003), 94-98; Mijin Juliet Yang. "Theory Studies: Contemporary Boutique Hotel Designs." (M.A. Thesis, Cornell University, 2005); Leah Scolere, "Theory Studies: Contemporary Retail Design" (M.A. Thesis, Cornell University, 2004); Marta Raquel Mendez, "Theory Studies: Archetypical Practices of Contemporary House Design" (MA Thesis, Cornell University, 2008), 129-31.

[135] Brian O'Doherty, White Cube: The Ideology of the Gallery Space (Berkeley, CA:University of California Press, 1986), 35.

office plans where furniture and workspaces are arranged systematically along a grid (see the Intype Marching Order | Workplace).

Effect

The use of White Box in a corporate setting is dependent upon the type of work conducted within the office. In The Successful Office, Professor Frank Becker identified three types of workplaces: the creative office, the administrative office, and the client-oriented office. Many times, all three types of spaces may be found within a larger workplace environment. White Box is most often used in an administrative setting where "the sharp roller-coaster-like bursts of energy and intensity found in creative offices are rarer," and comfort "tends to be downplayed. In the administrative world, efficiency means order and organization".[136] From behavioral and productivity standpoints, White Box, with its lack of ornamentation or visual variety reinforces a sense of "order" that is desirable. A common topic of discussion in contemporary workplace design is the concept of personalization as a key to a comfortable and inspirational environment. In a space where dozens of people share a common area, one's own desk or activity space are the only places where personalization are likely to occur. Researcher Thomas Hine posits in On the Job that "Office workers actually prefer their workplaces to be devoid of strong color. They like neutrality, perhaps because they recognize that if a strong taste is expressed in the space, it won't be theirs. More likely, it will be that of

[136] Franklin Becker, The Successful Office (city name: Mass.: Addison-Wesley Publishing Company, 1982), 134-36.

a top executive who confuses his own quirks with the personality of the entire company."[137]

Beginning in the 1980s when behavioral research indicated that white walls were harsh on the eyes,[138] and were "not always understood as human friendly,"[139] the White Box paradigm shifted slightly in both retail and the workplace.[140] Designers introduced a single plane that was treated with an accent color, texture, or Billboard (Intype) with visual content that contributed to the branding of a specific corporate environment. Nevertheless, for the greater part of the 20th century, White Box was a standard practice in the design of offices, perhaps more prevalent than designers would acknowledge, since "those deciding which office designs were published had a natural bias against visual neutrality, and the designs remembered are likely to be those in which a strong executive is actively trying to use design to shape culture".[141] Becker stated that "White walls cannot be beat, but painting one wall as an accent wall a relatively bright color will add life to a room without becoming overpowering".[142] Ultimately, however, White Box's inherent neutrality is an inoffensive and safe color choice in a setting in which hundreds of people inhabit on a daily basis.

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[137] Thomas Hine, excerpt from "Office Intrigues: The Interior Life of Corporate Culture" in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 140.
[138] Julie K Rayfield, The Office Interior Design Guide: An Introduction for Facilities Managers and Designers (New York: John Wiley & Sons, 1994), 182-83.
[139] Mendez, "Theory Studies", 131.
[140] Leah Scolere. "Theory Studies: Contemporary Retail Design" (M.A. Thesis, Cornell University, 2004), 30.
[141] Thomas Hine, excerpt from *Office Intrigues* in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 140.
[142] Becker, The Successful Office, 46.

Chronological Sequence

The Modernist movement introduced the White Box in residential and the art museum, and it also became a major design strategy in the workplace. During the period of time after WWI, American architecture embodied the beliefs that "rational thought, economy and functionality" were integral to transforming society. Architects believed that "rational designs could best be produced through mechanization, yielding efficient, somehow machine-made buildings".[143] With the development of the International Style architects broke away from traditional building styles and focused on volumes that depended greatly upon the "intrinsic elegance of materials, perfection, and fine proportions as opposed to applied ornament".[144]

This post-war sentiment, combined with the influence of the International style, was evident in the workplace designs of the era. White Box interiors reflected the demand for minimalist, unadorned architecture while simultaneously adhering to the rigid formality and "military organization"[145] required by business owners in respect to the design of their office buildings. In the Philadelphia Savings Fund Society Building (1932) designed by Howe & Lescaze, rows of work desks were encased by White box, creating a neutral setting that was not visually distracting. **Figure 6.1**

[143] Marian Moffett, Michael Fazio, and Lawrence Wodehouse, Buildings Across Time (Singapore, McGraw Hill, 2004), 475.
[144] Moffett, Buildings Across Time, 475.
[145] Donald Albrecht, excerpt from *Introduction* in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 25.

Figure 6.1
Philadelphia Savings Fund Society [1932] Howe & Lescaze; Philadelphia, PA in Donald Albrecht, On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 24; PhotoCrd: Anonymous.

The International Style continued to influence the workplace design through the 1940 and 1950 decades, with White Box as a standard element within the office. Greater spans of curtain walls in skyscrapers transformed buildings into glass shells which brought a tremendous amount of natural light into the interior, as evidenced in the Skidmore, Owings & Merrill design of Lever House (1952). **Figure 6.2** White Box reflects natural light, creating a brighter and more desirable work environment where there is much less need for harsh and poor quality overhead lights.

Figure 6.2
Lever House [1952] SOM; New York, NY in Donald Albrecht, On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 24; PhotoCrd: Anonymous.

By the 1960 decade, the post-war mentality of orderly, strictly hierarchical designs began to give way in favor of more worker-friendly environments that were intended to create a nurturing and supportive workplace. White Box remained a widely used design strategy, but bare white walls become increasingly adorned with works of art or other elements of visual interest. In a lounge space in the American Republic Insurance Company offices (1965), a White Box waiting area was accented with large paintings and the ubiquitous trpical plant helped to make white walls less stark.[146]. **Figure 6.3**

[146] American Republic Insurance Company [1965] SOM; Des Moines, Iowa in John Pile, Second Book of Offices (New York, Whitney Publications, 1969): 224; PhotoCrd: Ezra Stoller.

Figure 6.3
American Republic Insurance Company [1965] SOM; Des Moines, Iowa in John Pile, Second Book of Offices (New York, Whitney Publications, 1969): 224; PhotoCrd: Ezra Stoller.

The Colt Industries office by the Eggers Partnership (1971) provides a small case study of the use of White Box in various spaces, including a long corridor.[147] In the corridor, a neutral carpeted floor. **Figure 6.4** White walls and ceilings reflected the artificial light from ceiling fixtures, allowing the space to achieve a glowing quality. A white wall provided an indistinct background for wooden furniture. The Eggers Partnership also used accent elements, such as a lacquered, dark color door.

[147] Colt Industries [1971] Eggers Partnership; New York, NY in Anonymous, "Colt Industries, Inc.," *Interior Design* 42, no. 10 (Oct. 1971): 140; PhotoCrd: Gil Amiaga.

Figure 6.4
Colt Industries [1971] Eggers Partnership; New York, NY in Anonymous, "Colt Industries, Inc.," *Interior Design* 42, no. 10 (Oct. 1971): 140; PhotoCrd: Gil Amiaga.

In the 1980 decade, designers transformed White Box offices into semblances of art museums. For the Anaconda Company (1980) SOM conceived White Box lobby that included three museum display strategies.[148] The first was a White Box. The second included a series of *vitrines* set on white pedestals for the display of objects. Third, on the opposite wall, objects were r placed in a *niche,* accented by a Light Seam (Intype). In creating the lobby as gallery, SOM's design goal was to impress the visitor with Anaconda's interest in art and culture. **Figure 6.5**

[148] Anaconda Company [1980] SOM; Denver, CO in R.P., "Anaconda Tower," *Interior Design* 51, no. 5 (May 1980): 212; PhotoCrd: Jaime Ardiles-Arce.

Figure 6.5
Anaconda Company [1980] SOM; Denver, CO in R.P., "Anaconda Tower," *Interior Design* 51, no. 5 (May 1980): 212; PhotoCrd: Jaime Ardiles-Arce.

Eber, Hannum and Volz adopted a similar museum aesthetic for the Highlands Energy Corporation office (1983).[149] **Figure 6.6** Spaced in a Marching Order down a corridor, conference rooms were treated as objects worthy of museum display; each room was set on a museum *plinth*, as if the room was art. As employees or visitors walked down the hall, they viewed the empty room or an inhabited room, as if all were high art, to a Marching Order.

[149] Highlands Energy Corporation [1983] Eber, Hannum & Volz; San Francisco, CA in J.G.T., "Architectural Enlightenment," *Interior Design* 54, no. 4 (April 1983): 183; PhotoCrd: Colin McRae.

Figure 6.6
Highlands Energy Corporation [1983] Eber, Hannum & Volz; San Francisco, CA in J.G.T., "Architectural Enlightenment," *Interior Design* 54, no. 4 (April 1983): 183; PhotoCrd: Colin McRae.

White Box in the 1990 decade contintued in popularity, as it was implemented in spaces of varying sizes. In larger, volumetricareas, however, White Box produced a more dramatic effect. In the entry lobby of the Prudential Insurance Company (1991), White Box extended to the double height ceilings.[150] Whitewas also applied to the Showcase Stair and interior columns. **Figure 6.7** With a uniformly white canvas, one's attention was drawn to the sculptural forms of the architecture itself.

[150] Prudential Insurance Company [1991] Daroff Design; Fort Washington, PA in Karen Maserjian, "Right Angles," *Interior Design* 62, no. 1 (Jan. 1991): 133; PhotoCrd: Wolfgang Hoyt.

Figure 6.7
Prudential Insurance Company [1991] Daroff Design; Fort Washington, PA in Karen Maserjian, “Right Angles,” *Interior Design* 62, no. 1 (Jan. 1991): 133; PhotoCrd: Wolfgang Hoyt.

In the offices of Ian Schrager Hotels (1999), the client requested a workplace that provided a range of spaces to suit work needs while simultaneously being able to showcase his collection of designed objects. **Figure 6.8** The interior landscape of “white-painted, high and low partition walls create a series of compressed and expanded spaces. This organization also allows for the prominent display of furniture as art. Space is used as a frame in which objects are the center of attention”.[151]

[151] Ian Schrager Hotels [1999] Gwathmey Siegel & Associates; New York, NY in Abby Bussel, “King of the Hill,” *Interior Design* 70, no. 11 (Sept. 1999): 181; PhotoCrd: Michael Moran.

Figure 6.8
Ian Schrager Hotels [1999] Gwathmey Siegel & Associates; New York, NY in Abby Bussel, “King of the Hill,” *Interior Design* 70, no. 11 (Sept. 1999): 181; PhotoCrd: Michael Moran.

From 2000 to 2010, examples of White Box continued to be implemented in new and creative ways. A change in color also occurred. In previous decades, off-white color was typical, but since 2000, the popular choice became bright, pure white. There were also manipulations of the wall plane, from a plain plane as a gallery wall, to sculptural forms. Such was the case in the TBWA/Chiat/Day offices by Clive Wilkinson (2001).[152] White rectangular forms were stacked to create interior partitions. **Figure 6.9**

[152] TBWA/Chiat/Day [2001] Clive WIlkinson; New York, NY in Edie Cohen, “Shipshape,” *Interior Design* 72, no. 5 (May 2001): 327; PhotoCrd: Benny Chan.

Figure 6.9
TBWA/Chiat/Day [2001] Clive WIlkinson; New York, NY in Edie Cohen, "Shipshape," *Interior Design* 72, no. 5 (May 2001): 327; PhotoCrd: Benny Chan.

Neil M. Denari Architects utilized the White Box treatment for the offices of Endeavor (2005), applying it in the largest conference room, as well as in the open plan workspace.[153] **Figure 6.10a** The open plan space demonstrated a trend begun about 1980 in White Box reiterations. White walls were interrupted by a single plane of bright color as an accent**. Figure 6.10b** The accent plane typically featured a company's brand identity in graphics, such as a Billboard (Intype) or mural. Bright colors and graphics broke up White Box's pristine white uniformity.

[153] Endeavor [2005] Neil M. Denari Architects; Los Angeles, CA in Edie Cohen, "Name in Lights," *Interior Design* 76, no. 2 (Feb. 2005): 188, 190; PhotoCrd: Benny Chan/Fotoworks.

Figure 6.10a
Endeavor [2005] Neil M. Denari Architects; Los Angeles, CA in Edie Cohen, “Name in Lights,” *Interior Design* 76, no. 2 (Feb. 2005): 190; PhotoCrd: Benny Chan/Fotoworks.

Figure 6.10b
Endeavor [2005] Neil M. Denari Architects; Los Angeles, CA in Edie Cohen, “Name in Lights,” *Interior Design* 76, no. 2 (Feb. 2005): 188; PhotoCrd: Benny Chan/Fotoworks.

Although designers manipulated the White Box through its decades of use, by the end of the 2010 decade, it remained the dominant reiterative practice for workplace spaces. Although White Box has been questioned in terms of sustainability, its widespread use and longevity suggests that it is firmly entrenched culturally and will not likely be replaced.

CHAPTER 7

1 BAR 2

Definition

1 Bar 2 describes a formal furniture arrangement in executive offices consisting of an executive chair that sits across a desk (a barrier) from two guest chairs. 1 Bar 2 delineates the status between the executive and those who sit on the other side of the table.

Description

1 Bar 2 is a distinct area within an executive office setting. The setting in which executives "devote their time to the special tasks of communication by written word, telephone and face-to-face conversation" is not "the factory, the laboratory or the showroom" but the office.[154] In line with the "formula office for the current era", the traditional composition features a desk or table (the Bar) at which an executive sits in a swiveling, substantially sized manager's chair. On the other side of this desk, facing the executive's seat is two typically stationary guest chairs that disallow freedom of movement for its user. While the size, quality, style and design of the desk and chairs vary, the formula in which they are arranged is inflexible in its organization and firmly established historically as an interior archetype in the corporate office.

Effect

The arrangement of chairs and desk determine that "no matter how 'comfortable' an executive office, there is always the knowledge that herein resides a person of influence - the deeper the desk, the more formal the

[154] John Pile, Second Book of Offices (New York: Whitney Publications, 1969), 12.

conversation across it will be. The higher and plusher the chair, the more throne-like it seems. Some executives put their visitors in chairs with lower seats (denoting lower status), or seats that are uncomfortable, or difficult to move or get up from, while the executive tilts and swivels and controls in comfort".[155] An important aspect to this effect is that 1 Bar 2 places full control in the hands of whoever inhabits the executive chair. The arrangement communicates that guests are occupying someone else's territory and should behave accordingly. In a business setting, this is a very significant advantage for the executive, as Professor Frank Becker explains that "Power is determined by your physical surroundings, but it is also a function of who lays claim to the area. Meeting with people on your home turf makes a difference. You feel stronger, able to fight harder, and more willing to defend yourself. We do not give up all these characteristics when we cross some magical boundary from our turf to the next person's, but we tend to be less effective. A major advantage of home turf is that it gives you the ability to control what goes on in it. Generally, the more business you can conduct in your own office, at your own desk, the more effective you will be."[156]

For an executive whose job is to "make significant decisions for their companies and organizations"[157], the establishment of power and the advantage of "home turf" enables s/he to smoothly run an organization, gain the full attention of anyone with whom they meet, and exert influence. An

[155] Roger Yee, Corporate Design (New York: Interior Design Books, 1983), 216.
[156] Franklin Becker, The Successful Office (need city, Massachusetts: Addison-Wesley Publishing Company, 1982), 24.
[157] Pile, Second Book of Offices, 12.

employee who is promoted to a 1 Bar 2 office setup signals an immediate and symbolic elevation in status.

While much has changed in past decades, the corporate world remains a male-dominated establishment in society[158]. The implementation of 1 Bar 2 provides the necessary boundary that establishes the types of relationships between men and women in the workplace. It heavily influences how gender is perceived in the office, either reinforcing stereotypes of gender hierarchy or creating the impression of a more progressive work environment where the female executive takes control.

The successful balance of gender relations within an office remains a challenge but may be dramatically influenced by the arrangement of furniture, and in this case, by 1 Bar 2. “If you are a male and interact with females frequently, some type of barrier, or at least a clear boundary, in a seating arrangement is desirable, especially at first meeting or when you do not know the other person very well. A square desk is better than a round desk, and sitting behind a desk is better than sitting at a sofa. If you are a female, whether you interact mostly with men or with women, you will be seen as more powerful and authoritative if you sit behind the desk rather than at a conference table or conversational seating area. This is particularly important on first contact.”[159]

[158] Pile, Second Book of Offices, 12.
[159] Franklin Becker, The Successful Office, 25.

While the relative difference in power is inherit in the formal organizational composition of 1 Bar 2, alterations to the selection of furniture tends to control the degree of contrast to meet the particular needs of executives, as the “right table shape can affect your leadership or your participation in groups”[160]. The bigger the table, the greater the separation between executive and guests becomes, creating the impression that the executive is more important; the executive’s placement is intimidating to those sitting across the table barrier between them. The selection of a standard rectangular desk is perceived as a more impenetrable barrier than if a less substantial table were used. In some examples of 1 Bar 2, a glass table separates the executive from visitors, diminishing the perceived distance between the two sides. In other examples, an oval table replaces the traditional desk. Its curved edges are a stark contrast to the typical sharp right angles and “de-emphasizes the hierarchical structure further yet”.[161] The careful design and selection of elements strongly influences the quality of office environment, creating a “strong impact on how others asses you, including their impressions of your competence, credibility, and openness”.[162]

Chronological Sequence

In the late 1950 decade when furniture manufacturers like Herman Miller began marketing new concepts in office furniture design, the notion of the executive office was introduced into the design vocabulary. For the first time in workplace design history, executives worked in completely separate spaces from the rest of the staff, and with this, the nature of their work began to evolve

[160] Franklin Becker, The Successful Office, 25.
[161] Yee, Corporate Design, 216.
[162] Franklin Becker, The Successful Office, 25.

as well. Executives spent much of their work days meeting with employees and clients or communicating with them by telephone. Operating out of their private offices, 1 Bar 2 allowed executives to complete decision making tasks of this nature, placing them in the position of power across a physical barrier from their guests.

Since the introduction of 1 Bar 2 into executive office in the 1950s, the formula for the furniture arrangement took about a decade to establish itself. Early on, photographs and illustrations indicate that only one chair was located across the desk from a director. Sometime in the 1960 period, two chairs were added, and the practice has remained consistent since then. While the furniture selection varied dramatically by workplace culture, functionally the executive chair consistently remained unique, capable of swiveling, and set on castors for easy movement while the guest chairs are stationary.

In 1959 Lois Wagner Green claimed that "because of the tremendous amount of research" that has gone into office design in the United States, most of the examples in the *Interiors Book of Offices* were American.[163] One instance was the spacious corner office of the chairman of the executive committee of CIT Credit Corporation that was equipped with "specially designed furniture."[164] **Figure 7.1** The ensemble consisted of an executive desk of Macassar ebony, a side unit topped with dark travertine, a leather executive chair with a high back and arms, and one upholstered side chair. The remainder of the large

[163] Lois Wagner Green, ed., *Interiors Book of Offices* (New York: Whitney Library of Design, 1959), 61.
[164] Green, *Interiors Book*, 61.

room featured a sitting area with a long credenza and two matching upholstered side chairs.

Figure 7.1
Office, CIT Credit Corporation [c1958] Eleanor Le-Marie, Percy C. Ifill, Charles W. Ball, Sanford Hanauer, Interior Design; Harrison & Abramovitz, Architects; New York City in Lois Wagner Green, ed., *Interiors Book of Offices* (New York: Whitney Library of Design, 1959), 61.

A rendered space plan of the offices of two principal executives of *Life* magazine featured offices separated by a conference room. **Figure 7.2** Each office contained a 1 Bar 2 configuration. A rendered perspective of the office of *Sports Illustrated* publisher illustrated a 1 Bar 2. “The desk may be used as a conference table for formal meetings while the sofa at the other end of the room may be used for informal discussions.”[165] **Figure 7.3**

[165] Green, *Interiors Book*, Plates IX and X, bet. 92-93.

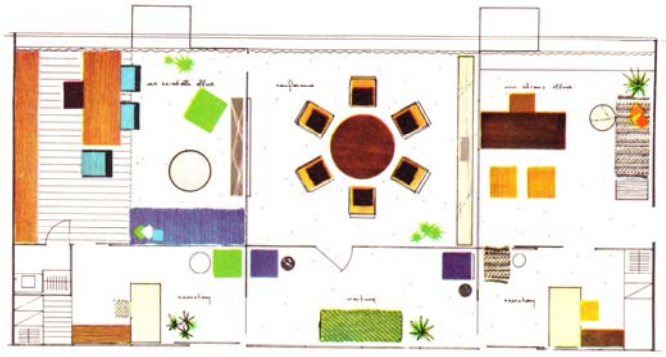


Figure 7.2
Space Plan, Executive Offices, *Life* Magazine [1959] Harrison of Harrison, Abramovitz and Harris New York City; in Lois Wagner Green, ed., *Interiors Book of Offices* (New York: Whitney Library of Design, 1959), plate IX bet. 92-93.

Figure 7.3
Perspective, Publisher's Office, *Sports Illustrated* [1959] New York City; Wallace Harrison of Harrison, Abramovitz and Harris in Lois Wagner Green, ed., *Interiors Book of Offices* (New York: Whitney Library of Design, 1959), plate X bet. 92-93.

Designers strategically utilize the “bar” to determine the desired type of interaction and communication of status. . In the 1960 office of Republic Carloading and Distributing Corporation by David Wider Associates, the desk implied a more formal interaction; it had a solid base that does not allow the guests to see through the desk.[166] **Figure 7.4** This front panel of the desk came to be called a “modesty panel”, a panel incorporated into any of various things for the purpose of concealment, *especially* one placed across the front of a desk to conceal the legs of the person seated at it.[167] This desk type created an impenetrable barrier that was made wider by the surface of the desk that expanded much farther out than the footprint of the base. This increased distance between the two sides of the “bar” emphasized the power of the executive over his guests.

[166] Republic Carloading and Distributing Corporation [1960] David Wider Associates; New York City in Anonymous, “Offices,” *Interior Design* 31, no. 4 (Apr. 1960): 171; PhotoCrd: Ernest M. Silva.

[167] The *Oxford English Dictionary* indicates that the first published use of the term Modesty Panel was in 1967 in M. Pegler’s Dictionary of Interior Design, 292. **Modesty panel**, a panel of metal, wood, plastic, or cane which is set at the exposed end of a pedestal or kneehole-type contemporary desk.

Figure 7.4
Republic Carloading and Distributing Corporation [1960] David Wider Associates; New York City in Anonymous, "Offices," *Interior Design* 31, no. 4 (Apr. 1960): 171; PhotoCrd: Ernest M. Silva.

"The design of the office by gender and class continued through the 20th century. The problem of office management in the 1960s was to create an illusion of equality while preserving hierarchies. Therefore, most workplaces continued a formal setting. The 1961 print advertisement for Hille Office Desks illustrated three types of desks: "There's a Status desk for non-stop directors; for dedicated young executives and for pretty typists."[168] **Figure 7.5** The status desk for an executive had a solid front panel, but the young executive desk had file drawers on both sides, but an open panel so that legs could be seen. The typist desk had one file drawer and an open front panel. A female typist would have been conscious of keeping her legs together during the workday, because the open panel offered her no privacy.

[168] Adrian Forty, *Objects of Desire* (New York: Pantheon Books, 1986), 149.

Figure 7.5
Adrian Forty, *Objects of Desire* (New York: Pantheon Books, 1986), 149.

Designers, however, strategically manipulated 1 Bar 2 to cater to individual needs and interactions. In contrast to the Republic Carloading and Distributing Corporation office, a private office in the Security Life & Trust Company's 1964 North Carolina headquarters featured a visibly less massive desk.[169] **Figure 7.6** The surface of the desk rested on two side panels. The modesty panel was removed. Also, the desk's curved top n decreased the perceived distance between executive and guests and diminished a sense of hierarchy; the resulting organization was more informal than a desk with a solid panel.

[169] Security Life & Trust Co. [1964] Milton Glaser; North Carolina in Anonymous, "Offices," *Interior Design* 35, no. 4 (Apr.1964): 161; PhotoCrd: Ben Schnall.

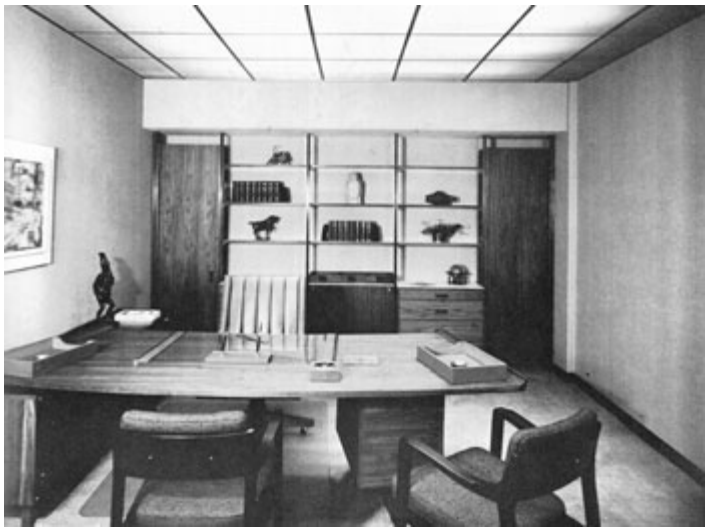


Figure 7.6
Security Life & Trust Co. [1964] Milton Glaser; North Carolina in Anonymous, "Offices," *Interior Design* 35, no. 4 (Apr.1964): 161; PhotoCrd: Ben Schnall.

In 1965 Dunbar, a contract furniture manufacturer since 1911, moved to a suburban campus with a court oriented layout. The company's reputation for elegance dated to the early 1930s when Edward J. Wormley created the design formula that pulled the company out of the depression. Wormley's executive office furniture from 1956 to 1966 was particularly successful. Roger Sprunger, Dunbar's interior designer in Berne, Indiana, coordinated with Wormley in New York City. The designers retained the 1 Bar 2 configuration for a Sale Manager's office, pairing the "magnificent #880 walnut desk with upward-curling edge & black leather semicircle inlaid into top" with the #929 chair with black leather and caning.[170] **Figure 7.7**

[170] Anonymous, "Practicing What They Preach," *Interiors* vol.#126, no. 1 (Jan. 1966): page #; PhotoCrd: Wesley Pussey.

Figure 7.7
Anonymous, “Practicing What They Preach,” *Interiors* vol.#126, no. 1 (Jan. 1966); PhotoCrd: Wesley Pussey.

Herman Miller introduced the precursor of the modern executive office in 1949. The design by George Nelson featured a table rather than a desk.[171] **Figure 7.8** This prototype, however, did not find its way into corporate offices until the 1970 decade. During this period an increased number of companies gravitated away from the executive desk (and certainly one with a solid front panel) in favor of a table. A table had little or no storage capacity, implying that an executive spent his or her time talking on the phone or in conversation with others. A table was intended to foster a more casual interaction between an executive and guests.

[171] Adrian Forty, *Objects of Desire* (New York: Pantheon Books, 1986), 148.

Figure 7.8
Adrian Forty, *Objects of Desire* (New York: Pantheon Books, 1986), 148.

In the 1973 Koffler Stores' corporate office in Ontario, Canada, a Parsons table acted as the "bar."[172] **Figure 7.9** The barrier became thin and open, rather than the thick and closed desk of the early twentieth century.

[172] Koffler Stores [1973] Art Shoppe Ltd.; Ontario, Canada in Anonymous, "Koffler Stores Corporate Headquarters," *Interior Design* 44, no. 10 (Oct. 1973): 156; PhotoCrd: Roger Jowett.

Figure 7.9
Koffler Stores [1973] Art Shoppe Ltd.; Ontario, Canada in Anonymous, “Koffler Stores Corporate Headquarters,” *Interior Design* 44, no. 10 (Oct. 1973): 156; PhotoCrd: Roger Jowett.

Late in the 1970 decade, hard right-angle tables disappeared in favor of a softer look provided by tables with rounded corners on the work surfaces. An executive office within the Swiss Banking Corporation utilized an oval worktable.[173] **Figure 7.10** This table is also smaller than most examples of 1 Bar 2, especially those from previous decades. Additionally, both the executive chair and guest seats were made of leather, creating a sense of similarity and, thus, equality between executive and guest.[174]

[173] Swiss Banking Corporation [1978] SLS Environetics; New York City in Anonymous, “Swiss Bank Corporation,” *Interior Design* 49, no. 9 (May 2005): 207; PhotoCrd: Alexandre Georges.
[174] Franklin Becker, The Successful Office, 54.

Figure 7.10
Swiss Banking Corporation [1978] SLS Environetics; New York City in Anonymous, "Swiss Bank Corporation," *Interior Design* 49, no. 9 (May 2005): 207; PhotoCrd: Alexandre Georges.

Beginning in 1980, the desks of 1 Bar 2 undergo further change through the introduction of glass surfaces. The transparency of the glass work top created very little barrier between the executive and the guests. The executive lost the sense of having his own private territory, giving him the same level of power as the guests who sit across from him.[175] As seen in the Solomon Equities office, the glass topped table with thin metal legs breaks down the barrier, the bar that divided the two groups.[176] **Figure 7.11** In this example, the use of the Knoll Flat Bar Brno Chair gave visual weight to the visitors side of the bar. **Figure 7.12** The Brno is much more formal in character than the Pollock Executive Chair which was "scaled for comfort."[177]

[175] Franklin Becker, The Successful Office, 25.
[176] Solomon Equities [1986] Henry Smith-Miller; New York City in Jerry Cooper, "Solomon Equities," *Interior Design* 57, no. 5 (May 1986): 233; PhotoCrd: Paul Warchol.
[177] Knoll Brno Chair: http://www.knoll.com/products/product.jsp?prod_id=556; Pollock Executive Chair: http://www.knoll.com/products/product.jsp?prod_id=410&flag=cat&cat_id=7 (Accessed July 2010)

Figure 7.11
Solomon Equities [1986] Henry Smith-Miller; New York City in Jerry Cooper, “Solomon Equities,” *Interior Design* 57, no. 5 (May 1986): 233; PhotoCrd: Paul Warchol.

Figure 7.12
Left: Flat Bar Brno Chair [1930] Mies van der Rohe; Knoll; Right: Pollock Executive Chair [1965] Charles Pollock; Knoll

From 1990 to 2010, 1 Bar 2 remains a popular configuration for executives and those who are in conference with him or her. Throughout this period, designers have altered the design of the barrier and the conference chairs to suit the aesthetic and functional needs of various corporate cultures. 1 Bar 2 remains a substantially defining factor. In the Baker & Botts offices of 1990, a parsons table separates executive from guest. It is a more casual desk selection though Brno Chairs are utilized as guest chairs, denoting more formal behavior. **Figure 7.13**

Figure 7.13
Baker & Botts [1990] Gensler; Dallas, TX in Monica Geran, “Offices,” *Interior Design* 61, no. 7 (May 1990): 268; PhotoCrd: Toshi Yoshimi.

In the Esquire offices by Francois de Menil (1994), not only does the class desk indicate more casual interaction, the featured guest seating swivels. **Figure 7.14** This gives the guests more flexibility and range of movement, indicating more informal discourse over the “bar”.

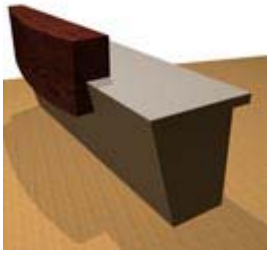
Figure 7.14
Esquire [1994] Francois de Menil; New York City in Edie Cohen, “Francois de Menil,” *Interior Design* 65, no. 9 (Sep. 1994): 199; PhotoCrd: Paul Warchol.

Figure 7.15
Lever House [2005] Skidmore, Owings, + Merrill; New York City in Raul Barreneche, “History in the Making,” *Interior Design* 76, no. 11 (Sep. 2005): 271; PhotoCrd: Jimmy Cohrssen.

The same can be found in the newly renovated Lever House building where swiveling Eames chairs have been selected. **Figure 7.15**

CHAPTER 8

DUAL DESK



Definition

Dual Desk is a bi-functional furniture unit used in reception areas. Comprised of a standing height element for the visitor and a sitting-height work surface for the receptionist, Dual Desk also differentiates public (lobby) area from private (office) space.

Application Definition

In workplace design, Dual Desk developed using two contrasting materials juxtaposed or conjoined. Dual Desk that physically and symbolically separated public from private space.

Description

Dual Desk satisfies the "desire for good appearance" by creating a focal point in a corporate lobby space, greeting visitors and staff with a "monumental form in space".[178] The two unique material elements are combined in a manner that expresses the individuality of each while creating a functional unit that "works for both the seated receptionist and the standing visitor"[179] The two materials are distinct, typically with one industrial and the other hand-crafted, such as wood paired with metal or painted gypsum contrasted with stone.

Effect

Dual Desk in the workplace is often executed as a substantial sculptural form that communicates the desired image of a corporation. Architecturally, the lobby is often "dictated by circumstances" and is left out of the hands of a

[178] Roger Yee, Corporate Design (New York: Interior Design Books, 1983), 58.
[179] Yee, Corporate Design, 58.

designer. In these cases Dual Desk acts as an installation or an intervention in the lobby setting in which the designer regains full control.[180] Dual Desk communicates to the visitor that she or he has “reached his destination without making verbal inquiries”.[181]

Physically and symbolically Dual Desk creates a boundary, serving as “an intermediary between two environments”, separating the lobby as a public front-space where anyone may enter, from the private back-space, the office, a secure environment which one must gain permission to enter.[182]
Metaphorically the inherent nature of two dissimilar materials reinforces the two contrasting functions and spaces created by Dual Desk.
Arrival at an office for a first visit produces a series of first impressions with the receptionist’s desk among the first points of focus. The reception desk is an opportunity for the company to project its desired image while serving a functional requirement.[183]

Chronological Sequence

There are few examples of Dual Desk prior to 1970. Some kind of desk existed, but in architectural and interior design trade magazines, Dual Desk rarely appears in photographs. The first mention occurred about 1970 with descriptions about a "standing height/sitting height" desk.

[180] Daab GMBH, Lobby Design (Spain: Loft Publications, 2006), 4.
[181] John Pile, Second Book of Offices (New York: Whitney Publications, 1969), 37.
[182] John Pile, Second Book of Offices, 37.
[183] John Pile, Second Book of Offices, 37.

Prior to 1970, reception desks were simple in construction, often an orthogonal unit made of a single type of wood with little embellishment or detail. In many instances, the reception unit was not built-in, but simply a free-standing desk at which the secretary would work and greet visitors. The most common materials found within workplace environments were wood, some metal, and walls finished with paint or plaster.

Dual Desk was introduced into the workplace in the 1970 decade as strictly rectangular forms, but there was exploration of designers in terms of new materials and construction methods. In the Texasgulf offices (1976) in Houston, Texas, an early example of Dual Desk constructed of two materials, wood and a blue laminate.[184] **Figure 8.1** The blue laminate created an exterior shell to the desk; the wood construction provided a private work surface for the receptionist. As was common with many examples of Dual Desk in the 1970s, the material used to construct the “private” space was often used on the floor and walls of the space, integrating object and room.

[184] Texasgulf [1975] H.M. Keiser Associates; Houston, Texas in Anonymous, “The Houston Offices of Texasgulf,” *Interior Design* 47, no. 6 (June 1976): 124; PhotoCrd: Richard Payne.

Figure 8.1
Texasgulf [1975] H.M. Keiser Associates; Houston, Texas in Anonymous, "The Houston Offices of Texasgulf," *Interior Design* 47, no. 6 (June 1976): 124; PhotoCrd: Richard Payne.

A similar integration of floor-to-desk was used in the offices of Tod Williams & Associates (1979).[185] **Figure 8.2** The same wood used for the hardwood floor created the millwork of the "back," the private half of the Dual Desk. A white, geometric form sat atop the wooden half, creating the "front" of the desk. The contrasting materials, colors and assembly of the desk established a clear distinction between the guest side and the personnel side.

[185] Tod Williams & Associates [1979] Alexandra Stoddard, Inc.; New York City in Anonymous, "Cabins in the Sky," *Interior Design* 50, no. 9 (Sept. 1979): 227; PhotoCrd: Mark Ross.

Figure 8.2
Tod Williams & Associates [1979] Alexandra Stoddard, Inc.; New York City in Anonymous, "Cabins in the Sky," *Interior Design* 50, no. 9 (Sept. 1979): 227; PhotoCrd: Mark Ross.

Designers of Dual Desks of the 1980 and 1990 decades experimented with a wide range of materials and shapes. The desks of this era were significantly more sculptural and dramatic in contrasting materials than the previous decades. For example, in the lobby of the offices of Rathe Productions (1989), the Dual Desk contrasted in colors and materials.[186] A dark wood was juxtaposed against a faux light-colored stone. **Figure 8.3** The stone half of the desk was anchored on both sides by large battered half-columns that reinforced the image of the reception desk as a "monument" in space.[187]

[186] Rathe Productions [1989] Lee Stout; New York, NY in Monica Geran, "Rathe Productions," *Interior Design* 60, no. 12 (Sep. 1989): 223; PhotoCrd: Elliot Kaufman.
[187] Yee, Corporate Design, 58.

Figure 8.3
Rathe Productions [1989] Lee Stout; New York, NY in Monica Geran, “Rathe Productions,” *Interior Design* 60, no. 12 (Sep. 1989): 223; PhotoCrd: Elliot Kaufman.

In a Studios Architecture office design for Varet Marcus & Fink (1993), Dual Desk demonstrated another, bolder juxtaposition of contrasting materials.[188]

Figure 8.4 A stone back met a brushed metal front; a natural material was placed adjacent to an industrial one. This Dual Desk illustrates the experimentation with geometry that occurred at that time, breaking away from the orthogonal in favor of organic forms for the façade.

[188] Varet Marcus & Fink [1993] STUDIOS; Washington D.C. in Edie Cohen, “Studios,” *Interior Design* 65, no. 6 (Jun. 1993): 170; PhotoCrd: Paul Warchol.

Figure 8.4
Varet Marcus & Fink [1993] STUDIOS; Washington D.C. in Edie Cohen, "Studios," *Interior Design* 65, no. 6 (Jun. 1993): 170; PhotoCrd: Paul Warchol.

In 1990 the Americans with Disabilities Act (ADA), held required the accommodation of guests in wheelchairs. Designers either adjusted the height of Dual Desk or made some other modifications. In the example of the Esquire offices (1994) in Manhattan, the traditional "front and back" design of Dual Desk remained, with a painted grey standing height element connecting to the seated height wooden desk at which the receptionist worked.[189] **Figure 8.5** To accommodate ADA accessibility, the wooden desk extended out to the side, creating a wheelchair height portion of the desk.

[189] Esquire [1994] Francois de Menil; New York, NY in Edie Cohen, "Francois de Menil," *Interior Design* 65, no. 9 (Sep. 1994): 196; PhotoCrd: Paul Warchol.

Figure 8.5
Esquire [1994] Francois de Menil; New York, NY in Edie Cohen, “Francois de Menil,” *Interior Design* 65, no. 9 (Sep. 1994): 196; PhotoCrd: Paul Warchol.

Since 2000, another shift occurred in the design of Dual Desk. Natural forms were abandoned almost completely in favor of minimalist, rigid rectilinear forms. Lobby spaces were predominantly designed to be sleek and polished. The design of Dual Desk followed a relatively regular formula in which two rectangular forms of contrasting materials were fused, but not completely integrated, as demonstrated in the law offices of Kirkpatrick & Lockhard(2001).[190]. **Figure 8.6**

[190] Kirkpatrick & Lockhard, LLP [2001] Lehman-Smith + McLeish; Pittsburgh, PA in Monica Geran, “Facing the Future,” *Interior Design* 72, no. 5 (May 2001): 274; PhotoCrd: Jon Miller, Hedrich-Blessing.

Figure 8.6
Kirkpatrick & Lockhard, LLP [2001] Lehman-Smith + McLeish; Pittsburgh, PA in Monica Geran, “Facing the Future,” *Interior Design* 72, no. 5 (May 2001): 274; PhotoCrd: Jon Miller, Hedrich-Blessing.

Figure 8.7
Paul Hastings [2008] Foster and Partners; London, England in Edie Cohen, “London Calling,” *Interior Design* 79, no. 7 (May 2008): 298; PhotoCrd: Eric Laignel.

Figure 8.8
Zune L.A. [2009] mc3; Los Angeles, CA in Edie Cohen, “In Tune with Zune,” *Interior Design* 80, no. 7 (May 2009): 78; PhotoCrd: Benny Chan.

The same conceptual design of Dual Desk was observed throughout the remaining decade; exemplars include the offices of Paul Hastings, as well as the headquarters of Zune L.A,[191] featured dark wood contrasts with light gypsum. **Figures 8.7 and 8.8** Dual Desk as an archetypical practice in workplace designs continued unabated through 2010.

[191] Paul Hastings [2008] Foster and Partners; London, England in Edie Cohen, “London Calling,” *Interior Design* 79, no. 7 (May 2008): 298; PhotoCrd: Eric Laignel; Zune L.A. [2009] mc3; Los Angeles, CA in Edie Cohen, “In Tune with Zune,” *Interior Design* 80, no. 7 (May 2009): 78; PhotoCrd: Benny Chan.

CHAPTER 9

FACE TO FACE

Definition

Face to Face is a formal furniture arrangement in which two lounge chairs are aligned to face two other lounge chairs or a sofa for conversation or waiting. With or without an area rug, the composition defines a spatial area.

Application Definition

In the workplace, Face to Face describes a seating arrangement in the reception waiting area in which four identical lounge chairs are arranged with two on either side of a low table, directly facing each other.

Description

Within an office environment, the first space encountered upon entry is the reception and lobby area, and. within this area in close proximity to the reception desk is a visitors' waiting area comprised of seating, as well as circulation space through which visitors and staff pass constantly.[192] The Face to Face practice is "suitable for lobbies, waiting areas and executive office conversation areas, including some designs of great elegance".[193]

Effect

In large lobby spaces that typically feature high ceilings and an open floor plan, Face to Face successfully defines s a space within a larger space. The four corners of the chairs help to delineate the edges of the seating area. This implied edge is often reinforced by the presence of an area rug that further emphasizes a spatial edge.

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[192] John Pile, Second Book of Offices (New York: Whitney Publications, 1969), 37.
[193] Pile, Second Book of Offices, 37

An important formalist aspect of Face to Face is its inherent symmetry, "reserved for significant or important spaces within an organization".[194] The Face to Face arrangement communicates appropriate behavior for visitors. Upon entering the lobby space, visitors recognize the configuration without signage or verbal instructions, and important aspect of intuitive wayfinding. Face to Face signals a transitory space, not one intended for casual or lively conversation. [195]

Chronological Sequence

By the middle of the 20th century designers began to plan the workplace to be a "nurturing"[196] and supportive work environment where socialization and interaction took place. With this evolution in the perception and design of office spaces, the lobby became a prominent aspect of the workplace. As executives moved into private offices, the nature of their work changed, requiring a great deal of one-on-one interaction with guests, clients, and job applicants. The lobby was not only where the company made its first impression on guests, but also where they would wait. About this time Face to Face became a design strategy for the corporate lobby, and photographs of lobbies were incorporated in published articles in trade magazines. Numerous configurations of seating arrangements within office settings could be found at this time, typically several chairs and a sofa. Its arrangement was ideally suited for the behavioral patterns within lobbies.

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[194] Francis D.K. Ching, Architecture: Form, Space, and Order (New York: John Wiley & Sons, Inc., 1996), 330-37.
[195] Pile, Second Book of Offices, 37-39.
[196] James S. Russell, excerpt from "Form Follows Fad" in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 60.

During the 1950 decade Face to Face became firmly established as a reiterative practice in lobbies and reception rooms of large corporate firms. In the example of Smith Barney & Company (1959), Face to Face was located at the center of the lobby, and in close proximity to the reception desk.[197] Four identical chairs were placed facing each other, with a low table located centrally for all four users. The effect delineated the boundaries of the waiting are, a space within a space. **Figure 9.1** This archetypical practice changed very little throughout time, differing only in the selection of the chairs and the presence or lack of an area rug.

[197] Smith Barney & Company [1959] Maria Bergson Associates; New York, NY in Anonymous, "The Well Integrated Office," *Interior Design* 30, no. 5 (May 1959): 87; PhotoCrd: James Vincent.

Figure 9.1
Smith Barney & Company [1959] Maria Bergson Associates; New York, NY in Anonymous, “The Well Integrated Office,” *Interior Design* 30, no. 5 (May 1959): 87; PhotoCrd: James Vincent.

The Modernist reception room for the nonprofit foundation, the Carnegie Endowment for International Peace, contained little furniture, a wood paneled wall, a white plaster ceiling, a brass “bush” sculpture by Henry Bertoia and a few “real” plants.[198] **Figure 9.2** Florence Knoll and the Knoll Planning Unit established Face to Face as the organization for seating—one three seat-sofa faced two Barcelona chairs. A Barcelona Table, designed in 1930 by Mies van der Rohe, was located centrally between the seats. The spacing between the couch and chairs was too wide for a conversational grouping.

[198] Lois Wagner Green, *Interiors Book of Offices* (New York: Whitney Library of Design, 1959), 17.

Figure 9.2
Carnegie Endowment for International Peace [1959] Florence Knoll, The Knoll Planning Unit, Interior Design; Lois Wagner Green, Interiors Book of Offices (New York: Whitney Library of Design, 1959), 17; Photocrd: Anonymous.

In 1957 SOM designed an innovative high-rise building in Tulsa, Oklahoma—the Warren Petroleum Building. **Figure 9.3** It was the first to incorporate a double glass wall, and it also used a tinted glass-shading device at the head of the exterior light of glass to reduce heat and glare. Warren Petroleum's reception room was also the building's lobby, because the building housed only one client. SOM, who was also responsible for the interior design of the Warren building modeled the lobby on its firm's lobby.[199] **Figure 9.4** In both instances, Face to Face was the exemplar. SOM chose a Barcelona chair as the only type of lounge seating. In Warren Petroleum, three Barcelona chairs faced three Barcelona chairs. In SOM's office, two Barcelona chairs faced two Barcelona chairs; a Barcelona Table was placed at the center of the configuration. In 1964 designer Milton Glaser also organized four Barcelona

[199] Lois Wagner Green, *Interiors Book of Offices* (New York: Whitney Library of Design, 1959), 18-19.

chairs in a Face to Face arrangement, divided by a low glass coffee table, in the lobby of the offices of Security Life & Trust Company (1964),[200] **Figure 9.5**

Figure 9.3 & Figure 9.4
Warren Petroleum Building [1957] SOM, Interior Design; SOM, Architect; Tulsa, OK in Lois Wagner Green, Interiors Book of Offices (New York: Whitney Library of Design, 1959), 18, 19; PhotoCrd.: Ezra Stoller

[200] Security Life & Trust Co. [1964] Milton Glaser; North Carolina in Anonymous, "Offices," *Interior Design* 35, no. 4 (Apr. 1964): 161; PhotoCrd: Ben Schnall.

Figure 9.5
Security Life & Trust Co. [1964] Milton Glaser; North Carolina in Anonymous, "Offices," *Interior Design* 35, no. 4 (Apr. 1964): 161; PhotoCrd: Ben Schnall.

The Barcelona Chair was designed by Mies van der Rohe and Lilly Reich for the German Pavilion of the International Exposition of 1929. The provenance of the chair made it an icon of modernism. The chair was manufactured in the United States and Europe in limited production from the 1930s to 1953 when Knoll began production. In 1977 the Museum of Modern Art acquired it for its collection. Barcelona chairs were an exceedingly popular choice within office lobbies and reception rooms. The chairs widely regarded as a status symbol, because of their history, and they are among the highest priced contract office chairs. The Barcelona Chair, low to the floor, and deep and wide in the seat placed one in a reclined position, suggesting a lounge chair. However, the lack of arms and materials (leather and chrome or stainless steel), suggest a rigid,

formal manner of sitting that is appropriate to a corporate lobby. The symmetry of Face to Face also reinforced a formal arrangement.

The lobby of the International Cellulose Company had a different approach in its interpretation of Face to Face. Designed in 1964 by Donald W. Thompson, the architect selected armchairs with lumbar support, inviting guests to sit fully back in the chair.[201] The chairs' wooden arms and legs, and the wooden table in the center of the configuration suggested a casual, residential setting appropriate to the 1960 decade. In the International Cellulose lobby, however, the lounge chairs appear crowded into a small space; the chairs' backs cannot be seen. **Figure 9.6**

Figure 9.6
International Cellulose Company [1964] Donald W. Thompson Jr.; Chicago, IL in Anonymous, "Office Design Competition," *Interior Design* 35, no. 5 (May 1964): 145; PhotoCrd: Anonymous.

[201] International Cellulose Company [1964] Donald W. Thompson Jr.; Chicago, IL in Anonymous, "Office Design Competition," *Interior Design* 35, no. 5 (May 1964): 145; PhotoCrd: Anonymous.

In large lobbies Face to Face was executed in multiples to fill the space and meet the higher-traffic needs. In the Atlanta's Trust Company office (1974), two arrangements of Face to Face were placed next to each other.[202] **Figure 9.7** The single area rug that for both arrangements implied the boundaries of the entire "waiting space" while the inherent properties of Face to Face delineate the two separate subspaces that serve the same function. The sharp right angles of the armchairs emphasized the corners of the square space.

Figure 9.7
Atlanta's Trust Company [1974] Alan L. Ferry Designers, Inc.; Atlanta, GA in Anonymous, "Atlanta's Trust Company Bank," *Interior Design* 45, no. 1 (Jan. 1974): 102; PhotoCrd: Alexandre Georges.

[202] Atlanta's Trust Company [1974] Alan L. Ferry Designers, Inc.; Atlanta, GA in Anonymous, "Atlanta's Trust Company Bank," *Interior Design* 45, no. 1 (Jan. 1974): 102; PhotoCrd: Alexandre Georges.

An area rug reinforces the sitting/waiting space, delineated it from circulation. In some cases, a rug expanded this territory, as evidenced in the lobby of Southeast Bank's office (1976) in Orlando, Florida.[203] **Figure 9.8** The tan armchairs rested on a blue rug that extended several feet out from each edge of the Face to Face arrangement. Visitors stepping from the polished stone floor onto the blue expanse of rug were given a strong visual indication that they are entering a different area entirely.

Figure 9.8
Southeast Bank [1976] William Bergeson; Orlando, FL in Anonymous, "Southeast Bank of Orlando," *Interior Design* 47, no. 9 (Sep. 1976): 149; PhotoCrd: Hedrich-Blessing.

[203] Southeast Bank [1976] William Bergeson; Orlando, FL in Anonymous, "Southeast Bank of Orlando," *Interior Design* 47, no. 9 (Sep. 1976): 149; PhotoCrd: Hedrich-Blessing.

In 1982 mid-century modern furniture remained a popular choice within lobbies. Barcelona chairs were used In an office designed by Skidmore, Owings & Merrill (1982),[204]but Le Corbusier's Grand Comfort armchairs also found their way to the lobby. **Figure 9.9** These chairs had a rich history, made an artistic statement, and were contract-quality to withstand high traffic to last for many years.

Figure 9.9
Unidentified Office [1982] SOM; Paris, France in Monica Geran, "Just the Basic Luxuries," *Interior Design* 53, no. 5 (May 1982): 231; PhotoCrd: Jaime Ardiles-Arce.

The boundaries of Face to Face are most obvious with chairs that have straight edges and right angles as part of their design. Curved-back armchair

[204] Unidentified Office [1982] SOM; Paris, France in Monica Geran, "Just the Basic Luxuries," *Interior Design* 53, no. 5 (May 1982): 231; PhotoCrd: Jaime Ardiles-Arce.

designs, like the ones in the offices of Price Waterhouse (1989) were less prevalent in office lobbies,[205] because they were not as effective in delineating space. **Figure 9.10**

Figure 9.10
Price Waterhouse [1989] Feinberg Associates; New Jersey in H. Durston Saylor, "Price Waterhouse," *Interior Design* 60, no. 7 (May 1989): 224; PhotoCrd: H. Durston Saylor.

The Face to Face practice continued relatively unchanged from 1990 to 2010.While the strategy was a standard fixture in most lobbies, designers worked closely with clients to select chairs that reflected the company's desired public image. Gensler chose deep blue upholstery for armchairs in Society Bank's office (1994), in Cleveland.[206] The rich color contrasted the

[205] Price Waterhouse [1989] Feinberg Associates; New Jersey in H. Durston Saylor, "Price Waterhouse," *Interior Design* 60, no. 7 (May 1989): 224; PhotoCrd: H. Durston Saylor.

[206] Society Bank [1994] Gensler; Cleveland, OH in Monica Geran, "Gensler & Associates," *Interior Design* 65, no. 4 (Mar. 1994): 99; PhotoCrd: Nick Merrick/Hedrick-Blessing.

wood paneling and neutral tones throughout the rest of the space to impress patrons with a stable, somber atmosphere worthy of a bank. **Figure 9.11** Conversely the office of D.H. Burnham (2001), while adopting a similar color palette, was perceived to be much lighter, because of a large window.[207] The outside panels of the beige upholstered armchairs were dark wood panels. The credenza was also made of the same wood, but it also appears lighter, because of thin metal legs. **Figure 9.12**

Figure 9.11
Society Bank [1994] Gensler; Cleveland, OH in Monica Geran, "Gensler & Associates," *Interior Design* 65, no. 4 (Mar. 1994): 99; PhotoCrd: Nick Merrick/Hedrick-Blessing.

[207] D.H. Burnham [2001] Lehman-Smith + McLeish; Pittsburgh, PA in Monica Geran, "Facing the Future," *Interior Design* 72, no. 5 (May 2001): 275; PhotoCrd: Jon Miller, Hedrich-Blessing.

Figure 9.12
D.H. Burnham [2001] Lehman-Smith + McLeish; Pittsburgh, PA in Monica Geran, “Facing the Future,” *Interior Design* 72, no. 5 (May 2001): 275; PhotoCrd: Jon Miller, Hedrich-Blessing.

The origins and execution of Face to Face have always been about waiting in a corporate setting in a formal seating condition. There is every indication that the practice will continue unabated for many years.

CHAPTER 10

INCUBATE

Definition

Incubate is a shared spatial unit that is isolated from a larger environment. It serves as a transitory office or small meeting area where conversation occurs and ideas develop.

Application Definition

Workplace design depends on Incubate as a transitory, shared space for collaborative work sessions or meetings. In corporate offices, Incubate has little or no aesthetic connection to the larger environment it inhabits.

Description

In the workplace Incubate fulfills the need to provide “some small, closed door private rooms not assigned to any individual, but available to anyone as needed” for productivity and teamwork.[208] The space is typically fully or primarily enclosed and may be constructed from a variety of materials, often taking on a range of shapes and sizes. Depending on the desired amount of enclosure, both visually and acoustically, materials range from a textile stretched on a wire frame, an all glass box, or common sheetrock walls. , The shape of the volume itself may be orthogonal or round and may appear freestanding or fixed to the floor plane, depending on the desired sense of permanence.

[208] John Pile, Open Office Planning(New York: Watson-Guptill Publications, 1978), 135.

Effect

In a large open planned office, Incubate is a necessary intervention in order to provide "special spaces for conferences and meetings".[209] Rather than meeting at desks or cubicles where privacy is minimal, Incubate provides a dedicated space for work and collaboration where people converge. Incubate is flexible and can be tailored to a particular office's needs. These spaces are located in areas where a large number of people may access them and share the spaces as needed.[210] Since Incubate has little aesthetic connection to the larger space it inhabits, its visual prominence within an environment draws attention to it, increasing people's awareness of its presence and, ultimately, promotes more frequent usage.[211]

Incubate finds it origins in the office landscapes of the 1950s and 1960s in which the solution to conference room needs were met by piecing together curved acoustical panels to create enclosures for semi-private spaces.[212] These acoustical panels proved to be insufficient as they did not provide enough privacy to users. The inherent flexibility of the roll-away panels' design was criticized as impractical and underutilized.

As it is implemented today, Incubate provides open plan offices with the enclosed teamwork spaces they demand, while leaving the level of privacy under the control of the designer and client. Often, Incubate may be found in several locations within a single workplace, each varying in size and degree of

[209] Pile, Open Office Planning, 135
[210] Pile, Open Office Planning, 29.
[211] Inside.com [2001] Specht Harpman; New York City in Henry Urbach, "Outside.in," *Interior Design* 72, no. 3 (May 2001): 133; PhotoCrd: Michael Moran.
[212]Pile, Open Office Planning, 173.

enclosure, to best suit the variety of meeting needs. For spaces which require privacy for noisy or sensitive subject meetings, a more substantial design, typically of drywall with a user-controlled door, is ideal. In these instances, Incubate may be affixed to the floor or ceiling plane, but as it is not adjacent to any other rooms within the office, appears to be freestanding and independent. For a more casual solution, fabric “pods”, glass panels or curtains are commonly utilized materials and levels of enclosure may vary as well.

Chronological Sequence

The first attempts at creating an independent enclosed space was with the development of office landscapes in which acoustical panels played a large role in the creation of semi-private spaces within the open landscape of the office. The panels would be rolled into position with their curved design enabling circular enclosures to be easily formed. In 1963 SOM designed an open office plan for the Weyerhaeuser Company and used the panels.[213] A photograph taken from a ladder illustrated a visual cacophony of workstations with the intrusion of the circular cells. **Figure 10.1** The panels failed to provide adequate acoustical privacy, and the uniform appearance of the panels did not effectively differentiate one space from another. The panels also created difficulties in wayfinding. They were not well liked by employees for shared meeting spaces, resulting in their underuse.

[213] Weyerhaeuser Company Office [1963] SOM, Tacoma, WA in John Pile, Open Office Planning, (New York: Watson-Guptill Publications, 1978):135; PhotoCrd: Anonymous.

Figure 10.1
Weyerhaeuser Company Office [1963] SOM, Tacoma, WA in John Pile, Open Office Planning, (New York: Watson-Guptill Publications, 1978):135; PhotoCrd: Anonymous.

Early examples of the evolution of Incubate may be found in the 1970 decade, when acoustical panels were abandoned in favor of more permanent solutions. In the ASID (American Society of Interior Designers) office renovation of 1975,[214] Incubate dominated a large portion of the small space. Placed in the center of the space, it became a focal point. In plan view, it appears to overwhelm the space, but a photograph illustrates that two planes consisted of full-height glass walls. **Figure 10.2** The other two sides consisted of wood paneled walls. The enclosed space was brightly lit from recessed lights in the ceiling, making it glow in relation to the remaining space. Its effect was similar to the archetypical practice Scene Seen, a condition of a glass box in which the artificially lit interior becomes a scene for outsiders to view. Acoustical privacy was probably not ideal; although the space consisted of

[214] ASID Office [1975] Mary Jean Kamin and Michael Gohmin, Chicago, IL in Anonymous, , "Large Demands, Small Space," *Interior Design* 46, no. 12 (Nov. 1975):109; PhotoCrd: Hedrich-Blessing.

four full-height walls and a door, all the surfaces were hard. Nevertheless, SOM's design for the ASID office certainly would have garnered attention, perhaps welcoming personnel to engage in the activities occurring within.

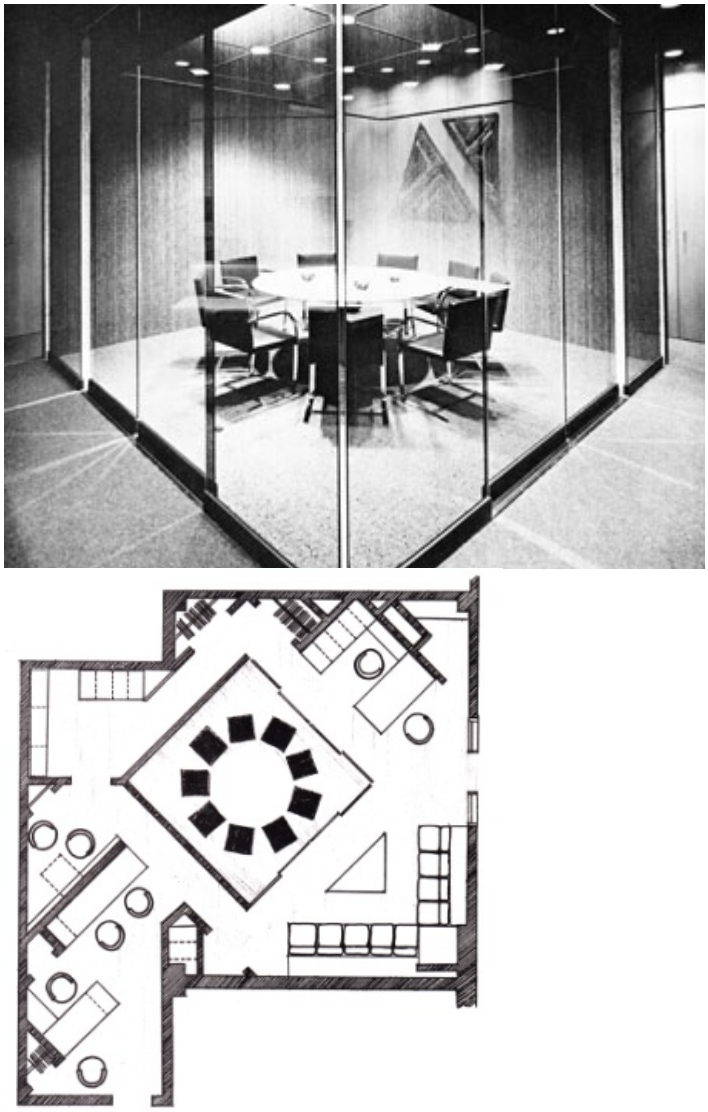

Figure 10.2
ASID Office [1975] Mary Jean Kamin and Michael Gohmin, Chicago, IL in Anonymous, , "Large Demands, Small Space," *Interior Design* 46, no. 12 (Nov. 1975):109; PhotoCrd: Hedrich-Blessing.

In the 1980 decade, developments in technology and more advanced methods of construction allowed for cheaper means of producing curved panels of glass to be used as interior walls. Echoing the circular spaces formed by the acoustical panels of the 1950s and 1960s, Incubate in this time period took on a circular footprint, creating a space that could be viewed from any angle. Placed strategically in an area where circulation paths met, these glass-enclosed examples of Incubate attracted attention to the interior of the space. An exemplar is the 1982 Bank of America offices by Robinson Mills & Williams office in San Francisco.[215] **Figure 10.3** Incubate was strategically located to be visible from the lobby area, as well as the employee workstations, perhaps emphasizing the importance of collaboration within the workplace.

[215] Bank of America Headquarters [1982] Robinson Mills & Williams, San Francisco, CA in R.P., "Permanent Flexibility," *Interior Design* 53, no. 3 (Mar. 1982):185; PhotoCrd: Charles White.

Figure 10.3
Bank of America Headquarters [1982] Robinson Mills & Williams, San Francisco, CA in R.P., "Permanent Flexibility," *Interior Design* 53, no. 3 (Mar. 1982):185; PhotoCrd: Charles White.

While the circular footprint of Incubate was common in the 1980 decade, levels of transparency varied from case to case. In the example of Solomon Equities (1986), designed by Henry Smith-Miller, Incubate provided a private workspace where employees could to work alone or in a small group.[216] **Figure 10.4** Its circular shape also comprised a focal point, attracting the attention of passers-by and alerting them to the presence of an alternative work area. Its painted-white gypsum construction provided visual and acoustical privacy.

[216] Solomon Equities [1986] Henry Smith-Miller, New York, NY in Jerry Cooper, "Solomon Equities," *Interior Design* 57, no. 5 (May 1986): 232; PhotoCrd: Hedrich-Blessing.

Figure 10.4
Solomon Equities [1986] Henry Smith-Miller, New York, NY in Jerry Cooper, "Solomon Equities," *Interior Design* 57, no. 5 (May 1986): 232; PhotoCrd: Hedrich-Blessing.

Examples of Incubate in the 1990 decade reflected "efforts in enhancing dynamic architectural forms in minimalist interiors"[217] through the integration of architectural space with color lighting effects. In the offices of the marketing and sales research company A.C. Nielsen (1991), Incubate was a glass box that was flooded from the inside with color light, a new means of calling attention to its significance in the context of the office's White Box interior.[218]

Figure 10.5 This transformation of an interior by manipulating and varying colored light over time on a single plane or incorporated throughout the entire spatial envelope is named Chameleon, an archetypical practice in

[217] Joanne Pui Yuk Kwan, "Theory Studies: Archetypical Artificial Lighting Practices in Contemporary Interior Design" (MA Thesis, Cornell University, 2010), 161.
[218] A.C. Nielsen Office [1991] GHK, Banonockburn, IL in Andrea Loukin, "A.C. Nielsen," *Interior Design* 62, no. 11 (Aug. 1991): 107; PhotoCrd: Marco Lorenzetti/Hedrich-Blessing.

transformative interiors.[219] When Incubate in the A.C. Nielsen office was uninhabited, it became an object of light art effects.[220]

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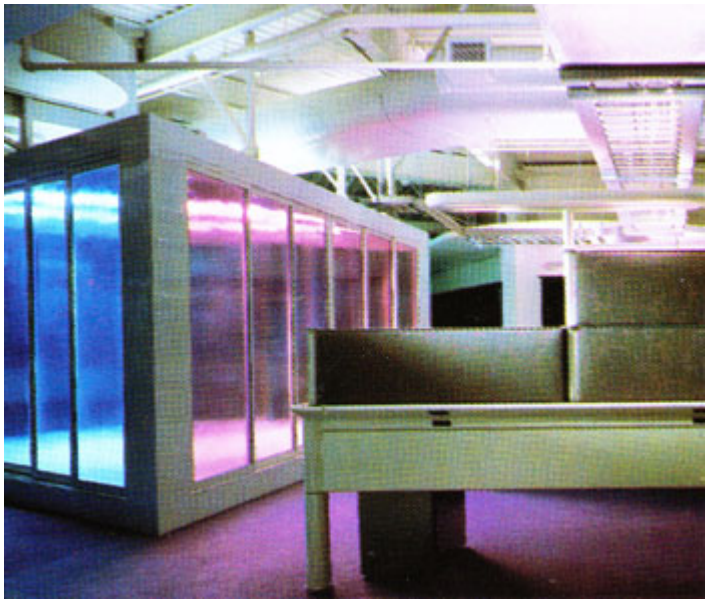


Figure 10.5
A.C. Nielsen Office [1991] GHK, Banonockburn, IL in Andrea Loukin, "A.C. Nielsen," *Interior Design* 62, no. 11 (Aug. 1991): 107; PhotoCrd: Marco Lorenzetti/Hedrich-Blessing.

In the late 1990s, organizational psychologist Jonathan Ryburg documented a broad movement in "restructuring American businesses toward a high-context work culture of frequent meetings, greater socialization, and lowered hierarchies."[221] Business owners wanted environments that provided adequate conference spaces that would not be perceived as intimidating or formal, but

[219] Erin Lee, "Theory Studies: Contemporary Archetypical Practices of Transformative Interior Design," (M.A. Thesis, Cornell University, 2010).
[220] Gregor Janson and Peter Weibel, eds. *Light Art from Artificial Light: Light as a Medium in 20th and 21 Century Art* (Ostfildern, Deutschland, Hatje Cantz, 2006), 26.
[221] James S. Russell, excerpt from *Form Follows Fad* in On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 66.

rather projected a casual work culture of collaboration and creative thinking. The offices of Smith New Court (1994) featured an example of Incubate as both a functional meeting room, as well as a sculptural object in space.[222]

Figure 10.6 Architect Alan Gaynor introduced saturated and contrasting colors in Smith New Court's Incubate in order to break away from the sterility of uniformly painted white walls. He also introduced curved planes back in the office to contrast the sharp right angles.

Figure 10.6
Smith New Court [1994] Alan Gaynor, New York City in Monica Geran, "Alan Gaynor," *Interior Design* 65, no. 7 (Jul. 1994): 136; PhotoCrd: Paul Warchol.

[222] Smith New Court [1994] Alan Gaynor, New York City in Monica Geran, "Alan Gaynor," *Interior Design* 65, no. 7 (Jul. 1994): 136; PhotoCrd: Paul Warchol.

The 2000 decade witnessed the greatest increase in the use of Incubate in workplace environments. Popular across offices of all disciplines, Incubate enabled designers to create unique and truly “designed” moments within a larger space. While most office settings could not avoid the use of standardized workstations and finishes to optimize economy and efficiency, the integration of Incubate provided an opportunity for intervention in terms of colors, materials, and lighting effects. Large, tubular structures were popular, such as Inside.com’s 2001 office designed by Specht Harpman.[223] **Figure 10.7** The designers created a blue room sphere constructed of drywall paneling. A sliding door allowed for privacy, and a single globe illuminated the structure from within. Like the vast majority of examples of Incubate, the structure seemed permanent, but its removal could be accomplished quickly, with minimal indication of its prior existence left within the space.

[223] Inside.com Office [2001] Specht Harpman; New York, NY in Henry Urbach, “Outside.In,” *Interior Design* 72, no. 3 (May 2001): 133; PhotoCrd: Michael Moran.

Figure 10.7
Inside.com Office [2001] Specht Harpman; New York, NY in Henry Urbach, "Outside.In," *Interior Design* 72, no. 3 (May 2001): 133; PhotoCrd: Michael Moran.

Incubate could be integrated into the architecture of a space at various levels of immovability. While many extended from floor to ceiling, physically anchored to the space, there are some instances of Incubate that were placed on a plinth or platform. The Valentine Group (2001) in New York City moved its headquarters to a 6,000 square foot former factory building. **Figure 10.8** The client envisioned a space that would retain the "raw and industrial"[224] integrity of the factory while creating flexible areas that would meet the small company's needs. With the entire office laid out in distinct "zones" of activity, Incubate became a space within a space, an intervention for the adaptive use

[224] Valentine Group [2001] MR Architecture + Decor; New York, NY in Julia Lewis, "Art & Industry," *Interior Design* 72, no. 3 (May 2001): 148; PhotoCrd: Martyn Thompson.

project that defined the area dedicated to conferences and meetings. Elevated slightly from the ground, Incubate allowed the original architecture of the building to retain its integrity while meeting the functional needs of the company.

Figure 10.8
Valentine Group [2001] MR Architecture + Decor; New York, NY in Julia Lewis, “Art & Industry,” *Interior Design* 72, no. 3 (May 2001): 148; PhotoCrd: Martyn Thompson.

Similarly, in the offices of Grip Limited in Toronto, architect Johnson Chou elevated Incubate from the floor, incorporating a Light Seam in the gap the elevation created. **Figure 10.9** The impression is that the Incubate unit hovered above the floor like a space ship. In this case, Incubate constituted a singular semi-transparent White Box with bright lighting, furnished with a round

conference table and white Panton Chairs (1960). Two of Incubate's sides were glass, the internal one, and an external one.

Figure 10.9
Grip Limited [2006] Johnson Chou; Toronto, Canada in Tim Mckeough, "Inspiration on Tap," *Interior Design* 77, no. 12 (Dec. 2006): 254; PhotoCrd: Tom Arban.

The use of soft materials as cladding for Incubate became increasingly more popular in the 2000 to 2010 period. As demonstrated in the offices of Grip Limited (2006) and Team Detroit (2008), textile provided a lightweight space perceptually and physically.[225] Stretch (an Intype) is a tensile structure made from stretched fabric, spandex or lycra, with reinforced edges and fastened with hooks, cables, and anchors provided a malleable construction method,

[225] Grip Limited [2006] Johnson Chou; Toronto, Canada in Tim Mckeough, "Inspiration on Tap," *Interior Design* 77, no. 12 (Dec. 2006): 252; PhotoCrd: Tom Arban;Team Detroit [2008] Gensler; Detroit, Michigan in C.C. Sullivan, "Big Bang Theory," *Interior Design* 79, no. 7 (May 2008): 308; PhotoCrd: Christopher Barrett/Hedrich-Blessing.

particularly for organic forms. Moreover, Stretch in lycra, provides, depending on lighting conditions, either a transparent and translucent wall. **Figures 10.10 and 10.11**

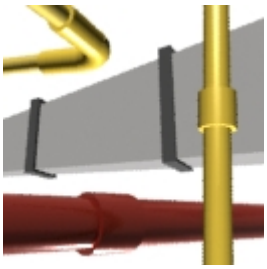
Figure 10.10
Team Detroit [2008] Gensler; Detroit, Michigan in C.C. Sullivan, “Big Bang Theory,” *Interior Design* 79, no. 7 (May 2008): 308; PhotoCrd: Christopher Barrett/Hedrich-Blessing.

Figure 10.11
Grip Limited [2006] Johnson Chou; Toronto, Canada in Tim Mckeough, "Inspiration on Tap," *Interior Design* 77, no. 12 (Dec. 2006): 252; PhotoCrd: Tom Arban.

In effect, Incubate became a Soft Room, another Intype, a space enclosed on two or more of its sides with soft hanging materials, typically draped textile, instead of solid walls.

CHAPTER 11

POMPIDOU



Definition

Pompidou, like its namesake building (Pompidou Center), intentionally exposes structural and mechanical systems in interior spaces. These elements are left in an original raw state, or painted, either uniformly a neutral color, or with certain ducts or pipes a bright accent color.

Material Application Definition

Pompidou expresses a high tech aesthetic of exposed industrial and structural materials, such as steel, glass and aluminum, as well as mechanical systems.

Workplace Application Definition In the workplace Pompidou is confined typically to an unfinished ceiling of exposed ducts, pipes, steel beams, pre-cast concrete tees or coffers and is typically used for adaptive use projects, as well as in smaller offices, circulation spaces, and public areas, such as cafeterias, where the absorption of noise is a low priority.[226]

Description

Ceilings are important factors in an office environment's ability to "provide services" and "can considerably affect the degree of flexibility of planning".[227] Typical ceiling treatments in workplace environments include suspended ceilings, drywall, and plaster. There are numerous advantages and disadvantages of all three, but the general desired effect is to create a polished and orderly interior while concealing the structure of the building itself. Pompidou removes this layer of intervention, which "opens up a ceiling

[226] Roger Yee, Corporate Design (New York: Interior Design Books, 1983), 216.
[227] John Pile, Open Office Planning (New York: Watson-Guptill Publications, 1978), 109-19.

and adds a sense of sculpture".[228] The curvilinear, interlacing forms of the ductwork draw interest and create change and variation on one major plane of the interior. The resulting aesthetic is that of an industrial space. Typical offices that demonstrate this Intype embrace a corporate culture that is more casual and unconstrained by the need for the rigidity and formality of finished ceilings. In the workplace Pompidou is rare in new construction projects. It is more commonly found in examples of adaptive use workplace environments which contrast a new interior with a pre-existing internal structure. In terms of sustainability, Pompidou replaces the customary and costly suspended ceiling. In 2010 Pompidou remained a commonly found strategy within offices whose work focuses primarily on the creative arts, because its inherent "unfinished" quality created an environment with few intrinsic behavioral rules.

Chronological Sequence

The workplace adaptation of Pompidou began in the 1970 decade when the Georges Pompidou Center (1971-1976) turned the architecture world upside down by celebrating the exposed skeleton of the mechanical system rather than concealing it within the structure. **Figure 11.1** Originally the Pompidou systems were color coded according to function, but many of the bright tubes were painted white in the 2000 decade. Nevertheless, Pompidou also revolutionized workplaces transforming small offices and spaces within corporate offices.[229]

[228] Yee, Corporate Design, 216
[229] For a 19th century history leading to Pompidou, see Pompidou | Material http://www.intypes.cornell.edu/expanded.cfm?erID=114

Figure 11.1
Pompidou Center [1976] Richard Rogers & Renzo Piano ; Paris, France in Anonymous, “Planned Economy,” *Interior Design* 46, no. 4 (Apr.1975): 147; PhotoCrd: Carmine .Bilardello.

Early applications of Pompidou did not optimize the use of color in the ceiling, but rather treated the exposed structure in a uniform neutral color, sometimes leaving ductwork in its original aluminum state. The introduction of color treated exposed systems as artistic elements. Painted ducts or beams provided a “pop” of color, interjecting a sense of whimsy in the office, and furthering the impression of a low-keyed ambiance.

There is evidence that prior to the construction of Pompidou Centre an industrial aesthetic of the “raw state” of exposed pipes and systems was already underway in adaptive use and other preservation-driven projects. For example, the 1975 renovation of Ford & Earl’s own New York City office, an adaptive use project, consisted of exposed beams and pipes were painted glossy white to complement the aluminum enclosures of air-conditioning ductwork. **Figure 11.2a and Figure 11.2b** The project resulted in a

juxtaposition of newly built gypsum walls contrasted with the exposure of the pre-existing ductwork above. The several reflective surfaces produced a sense of luminosity but did not disrupt the glare-free light level".[230] Glossy white pipes and beams, along with unfinished aluminum ducts, softly reflected light emanating from fixtures dropped from the ceiling and illuminated the studio space.

Figure 11.2a
Ford & Earl Design Associates Office [1975] Ford & Earl Design Associates; New York City in Anonymous, "Planned Economy," *Interior Design* 46, no. 4 (Apr. 1975): 147; PhotoCrd: Carmine Bilardello.

[230] Ford & Earl Design Associates Office [1975] Ford & Earl Design Associates; New York City in Anonymous, "Planned Economy," *Interior Design* 46, no. 4 (Apr. 1975): 147; PhotoCrd: Carmine Bilardello.

Figure 11.2b
Ford & Earl Design Associates Office [1975] Ford & Earl Design Associates; New York City in Anonymous, “Planned Economy,” *Interior Design* 46, no. 4 (Apr. 1975): 147; PhotoCrd: Carmine Bilardello.

In another example, Stanford University’s 1978 office design project converted a former basketball arena into the Architecture and Planning Department’s personnel workspace. **Figure 11.3** The ceiling and steel structure were sprayed-off white to create a more polished aesthetic while still exposing and celebrating the original structure and the truss ceiling. Massive ducts were painted cardinal red, tying back to the University’s official color with their “curves contrasting against the angular steel structure”.[231] This adaptive re-use project paid homage to the historical campus building by retaining its architectural integrity, but the project re-purposed the space for a dramatically different function.

[231] Stanford University Architecture Department Personnel Offices [1978] Barry Brukoff; San Francisco, CA in Anonymous, “Open Planning in Sheer Space,” *Interior Design* 49, no. 5 (May 1978): 205; PhotoCrd: Jeremiah O. Bergstad.

Figure 11.3
Stanford University Architecture Department Personnel Offices [1978] Barry Brukoff; San Francisco, CA in Anonymous, “Open Planning in Sheer Space,” *Interior Design* 49, no. 5 (May 1978): 205; PhotoCrd: Jeremiah O. Bergstad.

Examples of Pompidou during the 1980 and 1990 decades were found in new construction projects rather than adaptive re-use. In the latter half of the 1980 decade when the dot-com boom emerged in California’s Silicon Valley., new types of workplace campuses developed, particularly on the west coast where land was abundant. Office campuses offered a dramatic change from those within skyscrapers, as they were capable of large facilities for dining, recreation, and employee socialization spaced out over the landscaped site. As California companies expanded at extraordinarily fast rates to catch up with consumer demand, designers used the Pompidou treatment, because an interior could be finished quickly and efficiently.

This evolution ushered in a dramatic change in workplace culture. Corporate campuses fostered a casual work environment. Office culture was regarded as a life style in which Employees were given spaces and resources to explore their preferred work styles. Designers were charged with creating spaces that would optimize worker satisfaction.

Pompidou was implemented within corporate campuses as they often consisted of low, warehouse-like facilities whose interior was then subdivided into the various required spaces.[232] Within these corporate campuses, Pompidou was found most prevalently in public spaces intended for socializing or interacting. Apple Inc. headquarters in Cupertino, California (1986) featured a brightly colored maze of ductwork woven into a structural framework. **Figure 11.4** The impression was that of a play structure within the office setting**.**

[232] James S. Russell, “Form Follows Fad,” On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 60.

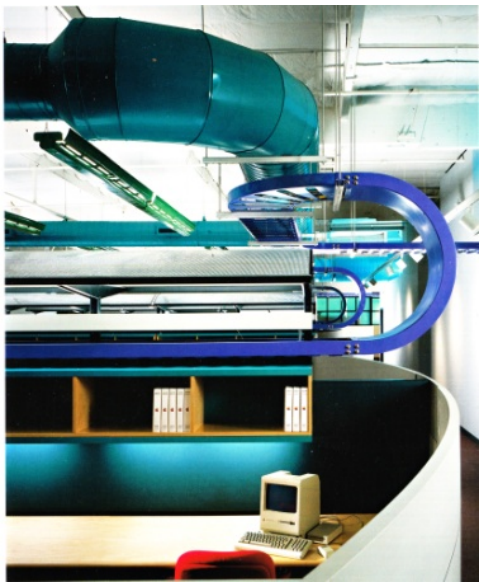


Figure 11.4
Sears, Roebuck and Company [1913] Anonymous; Chicago, IL in Donald Albrecht, On the Job: Design and the American Office, ed. Donald Albrecht (New York: Princeton Architectural Press, 2000), 60; PhotoCrd: Anonymous.

In Silicon Graphics' Bay Area office/headquarters (1990) a Pompidou ceiling was featured in a common area utilized for dining and informal meetings. **Figure 11.5** The ductwork, painted purple, created a sculptural element on the ceiling plane, while creating an informal setting for collaboration. The dining facility in the Caltran office in Marysville, California (2009) features ductwork in its original aluminum finish, adding a metallic element to the space. **Figure 11.6** Pompidou was an appropriate design strategy within these spaces, because the work culture promoted an environment of social interaction and a forum for employee communication.[233]

[233] Silicon Graphics [1990] Studios Architecture; San Francisco, CA in Edie Cohen, "Silicon Graphics," *Interior Design* 61, no. 6 (Apr. 1990): 171; PhotoCrd: Paul Warchol.

Figure 11.5
Silicon Graphics [1990] Studios Architecture; San Francisco, CA in Edie Cohen, “Silicon Graphics,” *Interior Design* 61, no. 6 (Apr. 1990): 171; PhotoCrd: Paul Warchol.

Figure 11.6
Caltran [2009] AC Martin; Marysville, CA in Edie Cohen, “Green-lighting Green Design,” *Interior Design* 80, no. 7 (May 2009): 245; PhotoCrd: Art Gray.

Between 2000 and 2010, the application of Pompidou was common and widespread. It remained popular within office renovations, such as that of the Holly Hunt Collection Design Studio (2001) in which the loft’s “raw, industrial character” was celebrated while enabling the firm to cut down on the budget by nearly a half of what they would have paid for a more “polished” interior. **Figure 11.7** At this point in Pompidou’s evolution the exposed skeleton was no longer left in its original raw state, independent from the rest of the workplace. Pompidou, as an aesthetic, required thoughtful planning to incorporate it into the overall conceptual design of the space. In order to create a simple shell, the architects for Holly Hunt “worked hard to clean up” the skeleton, leaving only beams and pipes whose rhythm “guided the division of space and gave

way to natural niches".[234] Columns, beams, and slabs were sandblasted prior to construction to further create a sense of texture, contrast, and unity within the interior.

Figure 11.7
Holly Hunt [2001] Piotrowski + Ecker; Great Plains, NY in Julia Lewis, "Warehouse Proud," *Interior Design* 72, no. 5 (May 2001): 290; PhotoCrd: Jon Miller, Hedrich-Blessing.

The 2000 to 2010 period also brought about the widespread application of Pompidou in Asian countries. With the influence of western design in Asia, many workplaces adopted the "warehouse aesthetic" of Pompidou, a tremendous change from traditional Eastern design practice. In contemporary Asian workplace design, Pompidou was finished with all-white paint to create a White Box or White-Out interior.

[234] Holly Hunt [2001] Piotrowski + Ecker; Great Plains, NY in Julia Lewis, "Warehouse Proud," *Interior Design* 72, no. 5 (May 2001): 290; PhotoCrd: Jon Miller, Hedrich-Blessing.

Figure 11.8
On Media [2008] Heehoon D&G; South Korea in Anonymous, “Heehoon D&G,” *Interior Design* 79, no. 7 (May 2008): 326; PhotoCrd: Lee Soonshim.

Figure 11.9
Saatchi & Saatchi [2009] Red House China; Beijing, China in Aric Chen, “Shout It Out,” *Interior Design* 80, no. 7 (May-2009): 205; PhotoCrd: Zhiyi Zhou.

In the On Media office (2008) in South Korea, Pompidou was utilized throughout the space and finished uniformly in a natural white color.[235] **Figure 11.8** In Saatchi & Saatchi in Beijing, a large conference space incorporated Pompidou as part of a White Out interior in which the ceiling and wall planes disappear.[236] **Figure 11.9**

[235] On Media [2008] Heehoon D&G; South Korea in Anonymous, "Heehoon D&G," *Interior Design* 79, no. 7 (May 2008): 326; PhotoCrd: Lee Soonshim.
[236] Saatchi & Saatchi [2009] Red House China; Beijing, China in Aric Chen, "Shout It Out," *Interior Design* 80, no. 7 (May-2009): 205; PhotoCrd: Zhiyi Zhou.

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