

**EARLY DRAFT**

# **THE PERSONAL WORKPLACE**

**A system of office furniture designed for  
comfort**

**VOLUME NUMBER**

**6**

**REVOLUTION IN THE CHARACTER  
OF GENERAL OFFICE SPACE**

**THE NATURE OF THE WORKPLACE**

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# 1. INTRODUCTION

The main reason for introducing The Personal Workplace is to make a major change in the comfort and efficiency of people working in offices. The long term aim of the personal workplace system is to revolutionize the entire environment we have come to know as the office.

Most American companies are now manufacturing versions of the systems developed in the 1950's.

However, after thirty years, it has now become clear that the early office systems available in the period 1960-1990, have had a number of important defects in the way that they serve people. Chief among these defects are the following:

1. People feel alienated and inhuman in their place of work.
2. The poor quality of the workplace is not merely an aesthetic matter, but goes to the root of people's working efficiency. In many cases people have to leave the office to get any real work done.
3. Work-stations are cramped and isolated, yet lack privacy when it is needed.
4. There is often relatively little group feeling. The overall quality of the group environment is extremely bad: cohesion of the office as a social institution is virtually ignored.
5. Work-stations are repetitive and box like, allowing no creativity or soul to the individual person.
6. The quality of light is terrible. It is not only not daylight, but it has a harsh softness which makes people feel utterly dissociated from themselves and their normal happy feelings.
7. Many work-stations are empty more than half the time.
8. Absenteeism is widespread, and turnover of personnel is rampant. Many people feel they have to "move on" because they cannot find satisfaction where they work. *Although this problem is of course dependent on management and*

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*work conditions, it is absolutely inseparable from the physical character of the workplace itself.*

9. Productivity is low.

10. All in all, people's satisfaction is at a low ebb. Goals of real human creativity, of being treated like a person and feeling like a person, of being in a situation whose fundamental *feeling* is profound, are entirely missing for a whole generation of American workers. The widespread assumption people have is that life begins when you get home. The 9-5 work period is a necessary evil which people struggle through, to get enough money to enjoy the few hours they have with their family.

Yet the fact is, that most human beings spend the greatest proportion of their waking lives at work, or in work-related activities.

It is imperative, that we begin a new generation of offices, in which work is a pleasure, and in which work and life are inseparable... this will not only help to solve the emotional dissatisfaction which most American workers feel. It will also increase productivity and lower costs.

## 2. INTERACTION OF HUMAN PROBLEMS AND ENVIRONMENT

From a human point of view, there is no doubt that these problems have their origins in human — that is to say, in management — conditions which exist in the workplace.

- Workers are given too little autonomy.
- They are given too little direction.
- There is not a sufficiently comfortable balance of team work and individual work, so the sense of a team is weaker than it should be, resulting in feelings of isolation for individuals.
- There is a big brother atmosphere caused by the fact that managers feel they must be watching over their workers, to make sure that they are working.
- The resulting fishbowl atmosphere discourages initiative, and lessens the sense of pride of the workers.
- Individuality is often discouraged.
- There is a fanatical preoccupation with the image of the workplace, not with the actual work, so that appearances become more important than the actual quality of work itself.
- There may sometimes be too little participation, by workers, in setting the goals or directions of the group they are working in, with a resulting loss of comprehension.
- There is a lack of emotional ease, with the absurd result that many managers now report “I do my best work away from the office”.

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These problems are management problems. Many of them are well understood by managers, or by management consultants. However, they are extremely hard to change. In some cases, the changes required to make real improvements in these problems, require innovations that seem frightening or risky to managers, and the changes are therefore slow in coming.

*But the overwhelming fact, underlying all these problems, is the fact that they are linked to the environment.*

*It is absolutely impossible to make these changes, at a management level, if the environment does not cooperate with the human changes, and support them. Most existing office environments do not support these necessary changes of management.*

There is also a growing body of evidence, which shows that the physical environment *itself* can induce these changes. That is, even though these changes appear to originate from management decisions, it is the physical environment which creates the necessary mood, and subtle human and social conditions which will allow these changes: and *that when these environmental changes are made, gradually the human changes follow suit, because the new environment encourages and helps to sustain the right kind of behavior, both on the part of managers, and on the part of workers.*

The interaction of environment and human behavior is certainly not deterministic in the narrow sense. But there is a subtle “ecological” interplay of environment and human actions, which means that the right behavior will appear, when it is released, by an appropriately made physical setting.

### **3. THE CHARACTER OF OFFICE ENVIRONMENT REQUIRED BY MANAGEMENT EFFICIENCY**

The management problems described in the previous section all hinge on questions of autonomy, creativity, dignity. In a nutshell there is a contrast between an office in which a person is expected to work like a cog in a machine, and an office which is like a privately owned business, in which a person works because he or she sees it in their own interest to work, and does it for the love of it.

Even when the right attitude exists in management, to encourage this kind of feeling among workers, the atmosphere is dependent on various key environmental variables, which show up directly as features of the office design.

**Some of the key environmental variables we have identified include the following:**

#### **Reliance On The Individual**

There is a certain sense of ease required. A feel that a person is not being watched, but is trusted. The person can leave, go for a cigarette, sit and think in a small garden, come back and work intensively, have a talk with colleagues and fellow workers... all under their own impetus.

These are subtle human matters. They cannot happen in a "fishbowl " atmosphere. They require a subtle kind of privacy, in which a persons autonomy and dignity are felt directly in the environment.

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We have found that the following characteristics have a bearing on these problems:

1. Access to outdoor space.
2. How many entrances.
3. Contiguity of different work areas to one another.
4. The number of workers in one space.

### **Project Teams And Project Rooms:**

There is growing evidence that people are not present in their offices. The office has become a kind of way-station, a place to leave things,. not really a place of work.

Several American companies have begun organizing their work in the forms of project teams — more flexible human groups which come into existence to solve a given problem, and which they melt, dissolve, and reform to in other project teams, to solve other new problems.

A person may be a member of more than one project team. And the project teams are, by definition, not permanent. A form of office building in which workstations are inflexibly arranged and fixed, is obviously at variance with this project oriented approach to management.

We have found possibilities of organizing the work area in actual physical spaces called project rooms; in these project rooms, individual workers do not have the kind of fixed relation to one workstation, but move, and group and regroup flexibly, as needs change. The workstation is then more of a temporary resting place for a given worker. People use workstations as they need, but the real unit of organization is the project area or project room, not the individual workstation.



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### **Team Work And Group Space:**

Team work. In the office landscape, and partitioned office space created by recent systems, the individual work areas are little booths which are intensely isolated. Managers are beginning to recognize that this isolation, is not always desirable.

Some firms have found it beneficial to allow workers to work in teams, around large communal tables, so that they perceive their work as team work. In such an atmosphere, the individual worker has a workstation, but the workstations are arranged with communal space and communal furniture .. and the accent is on team work, and discussion.

### **Meeting Rooms And Meeting Tables:**

There are never enough meeting rooms. For many office workers, a huge part of the workday consists of discussion , management, problem solving. The idea that workspace consists of individual workstations, with occasional meeting rooms thrown in, is entirely inadequate to meet this real pattern of work.

It is possible to conceive a type of workspace in which every workstation has its own meeting table: where it is organized more as a meeting space, than as an individual workstation. In such space, the common meeting table in each workspace, become the arena for work, with groups. Most meetings can then be scheduled in the individual workspace. On a given day, each person may go to whichever colleagues work area is chosen, and they work together to solve the problems, over the table in the office.

### **Group Cohesion.**

Experiments have found that work groups achieve a greater sense of cohesion, when the members of the group, together, lay out the workspace which they are going to use. The achieved character of each workgroup then become unique, members of the group feel identity, and work together more effectively.

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It requires a type of space in which groups can arrange their own space, without causing problems for adjacent spaces.

### **Individual Differences In Workstations.**

One of the most obvious marks of alienation in the contemporary office, is the machine-like regularity of the individual work stations. When people create their own workspace, it automatically becomes more efficient for them, and more expressive of their own individual character. The Personal workplace is designed to permit individuals to form their own work space according to their own needs.

In addition, it requires a conception of office space, in which this kind of variety and individuality, easily and comfortably fits together to form coherent wholes.

**In the following section we describe some of the spatial features of the environment which are needed to solve these various problems. The main purpose of THE PERSONAL WORKPLACE system, is to provide this kind of spatial richness and efficiency.**

## 4. A VISION OF A NEW KIND OF OFFICE

NOTE: THIS SECTION IS RATHER INCOMPLETE

To understand the new kind of office which The Personal Office advocates, and is moving towards, it is useful to start with a short description.

The following passage describes an office floor as it might be built in a large office building in Manhattan, or Chicago. The floor is assumed to be a complete floor of a building. Its dimensions are 180' by 118'. Stairs and elevators are at one end. The floor is uninterrupted, except for a few structural columns.

Within this floor, the corporation has created a small world. This world contains four departments, together with a library for all employees of the company, a recreation room, and its departmental HQ.

There are 121 employees working on this floor. They include 5 top level managers, 11 middle managers, and about 100 line employees. Most of these line employees have their own individual work-stations, which they have designed for themselves, using Personal Workplace. The groups are mainly arranged in project teams: each project team has its own project room: and a good deal of the work is done communally, around large tables which have been set up in the project rooms.

In the following sequence of drawings, we see how the space evolves over a period of two years. New projects are arranged, and new projects teams created, and new rooms are built, to make room for the new projects. At the same time, minor changes occur in existing projects areas and departments. In one case, two new offices are added. In another case a new meeting room is added. Another department shrinks by six employees.

The rearranged space is created from the existing inventory, by simply moving furniture around.

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This new vision of the larger office includes, among others, the following features:

1. Spine of commons and group areas
2. Project areas
3. Concept of rooms
4. Thick walls
5. Openings and vistas
6. Tables as fundamental centers
7. Personal variety of offices and workstations
8. Flexibility and re-use

This group of spatial features effectively determines the character of office space. Because these are the key spatial aspects of the environment which affect the emotional and subtle ecology of people's working life in the office, it is these spatial features of the environment which most directly affect the management problems described in section 2. It is therefore these spatial aspects of the environment which most directly determine the satisfaction of the people working in an office, and their relative efficiency.

### **1. SPINE OF MAJOR COMMONS AND GROUP ROOMS.**

The backbone of the office layout is a chain of rooms — big, small, intimate and public — including library, coffee shop, lunch rooms, sports, and other common working rooms. This occupies 30% of the total floor area. It creates the core of the office, and the core of human and social cohesion in the work-force.

Work is reorganized so that individual work and projects will sometimes be done in these common areas, so they also play a big part in the normal days work.

Departments and project rooms open off this spine.

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### 2. PROJECT AREAS

The relation of individual work and group work must be re-evaluated. It should be recognized that people work best in teams, and that their participation in the team work or project work of their section, works best when there is a steady flow back and forth between group work and individual work. This requires a social setting in which people can work effectively *together*, and in which they can retreat to their own space and work individually. The alteration between group work and individual work should be seen as a steady rhythm, with a cycle of minutes, hours, or days, according to the particular nature of the work. However, above all, the environment must support this steady rhythmic back and forth between group work and individual work.

In many cases work may be organized around projects instead of specific individual tasks.

In such a case each project has its own room. A room that fits the needs of the particular project, spacious, with a lot of light, the equipment necessary for the project (big tables, computers, comfortable sitting, smaller tables and so on).

Individual work supports the project work, is arranged in the project rooms as part of it. It might be a small table, or a desk, or a counter top, or a computer setup.

The center of the project room is a place where individuals get together to work on the project. A big table, a setup of computer screens, white boards pin boards and black boards.

### 3. CONCEPT OF ROOMS

A very simple idea, which is needed to re-establish normal feelings among people working, is the existence of rooms. Rooms have existed as the basic indoor work environment for most of human history. They have the capacity to allow people to regulate noise, privacy, group cohesion, according to the needs

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of the moment. The so-called office landscape is a thinly veiled form of managerial autocracy, which makes all but the most mechanical tasks harder, not easier, to perform.

The existence of rooms re-establishes human groups, and normal human feelings. The rooms, formed by a system of thick walls, which are provided with good light and penetrated by varying degrees of openings, is fundamental to the new office floor.

The system provides for work rooms instead of box-like workstations. Box like workstations enhance isolation and separation among individual workers, which then has an impact on the work. Instead, workrooms of difference sizes, where 2 to 6 people can work together, creates a more productive and intense work atmosphere.

### 4. THICK WALLS

Rooms are formed by boundaries. In order to see the rooms conceptually, it is necessary to understand the rooms as being carved out of a kind of imaginary "solid rock" of boundaries. Thus the space and volume of the boundaries is as important as the space and volume of the rooms themselves.

In physical terms, each space is created, and surrounded by some kind of thick wall. The heaviest thick walls, enclose the larger areas, and have relatively the longest life. The intermediate thick walls surround short-lived group areas. The lightest and most mobile thick walls have the shortest life, and surround individual work-stations, and the smallest and most temporary group areas.

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### 5. OPENINGS AND VISTAS

In a large office floor, individually created project rooms can easily be unpleasant. Given modern office buildings, they are often dark, badly shaped, or remote from necessary services or access.

Because of this, rooms placed on a large office floor may need an unusual degree of transparency which opens one room to the next, thus creating view, light, and a sense of connection, while preserving privacy and noise control.

The solid character of interior walls, made of heavy fire-resistant and noise-opaque material, is an essential part of the solution. These heavy walls, are coupled with a system of light interior windows, screens, half screens, openings and doors, to form a connected whole.

The quality of light inside the rooms is critical.

### 6. TABLES AS FUNDAMENTAL CENTERS

Work tables are the centers of work. Project and group rooms have a big conference table as their center, where discussions and decisions concerning work take place.

Individual offices and work stations usually accommodate a table, so that the fundamental human activity of sitting around a table with colleagues, trying to work things out, or discuss something, becomes a natural activity instead of being a preplanned scheduled meeting.

### 7. PERSONAL VARIETY OF OFFICES AND WORKSTATIONS

For group coherence to become established as a real human thing, experience shows that the members of each working group should have some say (even if modest) and play some role in the formation of that group space: this means, specifically, in the choice of location, location of boundaries, location of the



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center, and location of group working space. It is imperative that the managers or leaders of the working group have this level of control.

Each worker must be in a position to arrange his/her own work space, in a way which makes it as efficient as possible, and is suited to their own needs.

This control over work cannot be separated from control over the work environment. The individual work-station should be seen as a kind of workshop, tailored by the user, to the user's own pattern of work and need for efficiency and comfort.

### 8. FLEXIBILITY AND RE-USE

Flexibility is the keystone of the modern work-force. Work-groups and managers are continuously re-evaluating their work, moving onto new projects, and forming teams with different composition, and with different needs. The environment must be suited to these constantly changing conditions.

Although the system-furniture of the 60's, 70's and 80's claimed to be highly flexible, in fact it was relatively hard to mount and demount, often needing union carpenters or assemblers, to make changes... and the net effect was that even with the so-called flexible and modular office systems the layout of the work areas was often cumbersome and hard to change. The old rigidity gave way to a new kind of rigidity.

What is needed for a greater and more genuine sense of flexibility, is a system of easily movable furniture items, which can stand loosely, and perform different functions, after a few minutes of moving around. In simple terms what is needed is something that we might loosely call more old-fashioned *furniture*, instead of a system of partitions with work-surfaces hung off them. Old-fashioned furniture is easy to move, pleasant to use, and easy to rearrange.



## **5. ONE HUNDRED WORK-STATIONS: COORDINATION OF INDIVIDUAL NEEDS**

One of the biggest problems which faces an office manager or an office designer, is the sheer size of the human problem which arises when providing work-stations for hundreds of people at the same time. The desire to be humane and sensible, and to allow each person to fulfil his or her own special needs, suffers, because the office manager has a practical problem of coordination which is so enormous, and so time consuming. Under these conditions, office managers may be forgiven, for opting for the simple solution which gives each person the same work-station, because it is just so hard to make each work-station unique in any significant fashion.

The problem of coordinating individual needs, has two sides.

First, there is simply the problem of time. No office manager alive has enough time to listen to the special needs of every individual person, and to arrange to satisfy these needs. Individual needs can only be given special attention, if there is some semi-automated way of helping the office manager cope with all these needs.

Second, any semi-automated process which allows each person the "right" to define or lay out their own work-station, has a second potential difficulty built in — namely, that the combination of a hundred individuals, all seeking their own good, may very well impinge on the needs of the whole in unforeseen ways which may have bad effects on the office layout in the large. The possibility of this kind of effect might make coordination and coherence of the entire office work-floor well nigh impossible.

The solution to this problem depends on a computer simulation of the office floor. A process can be defined, which allows office managers to divide the office floor into work-groups, in such a way that individual group can take part

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in this process, and that conditions are built in which will guarantee the right amount of space to each group, and each worker.

Once the office managers have made a layout which allows for these matters, the individual workers can then place their individual work-stations with this the whole that has been created, and can lay out their individual work-space within the constraints they are given.

The program which allows this process, assures a coherent result, which is consistent with the size, number and area constraints imposed by the managers.

## **6. THE ROLE OF THE FACILITIES MANAGER**

The facilities manager, and perhaps his counterpart in the architecture and design profession, play a crucial role in the implementation of this program.

We hope to educate a new generation of facilities managers and architect/designers, who will not merely view their task as the simple warehouse problem, or as a problem of self aggrandizement in the design magazines — but instead, a task in which this person orchestrates the subtle interplay of human needs that go into a major office, in such a way as to allow this subtle, rich and flexible picture to emerge, in response to the needs and perceptions of the individuals working there.