Distributed Workplace for Facebook. Inc: a new office typology for the 21st century workstyle

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Distributed Workplace for Facebook, Inc
a new office typology for the 21st century workstyle

Haotian Liu    Advisors: Ramona Albert, Jonathan Solomon
The 8-year-old world’s largest social network company Facebook has just opened its engineering branch in New York City in early 2012.

Although Facebook has not revealed the exact number of the engineers they would hire, based on the previous case in Seattle, where the number of Facebook engineers grew from 3 to 90 in 18 months, we can certainly expect a significant presence in the city soon to arrive.

Currently these engineers are working in the same place with the sales and the recruiting teams in a typical non-inspiring New York City office building on in 335 Madison Ave.

under-utilization

21st century office
We are now at a critical junction in history where we desperately need to redefine [workplace] so that it can better accommodate the lifestyles of today’s workers.
A Brief History of the Workplace Typology

Evolution of Office Layout

- **Taylorist** early 1900s
- **Original Bürolandschaft** 1920s
- **Corporate America** 1950s
- **Büroniederlassung** early 1950s
- **Action Office** 1960s
- **Cubicle Farm** 1980s
- **Cells**
- **Casual**
In the pre-modern era, the scale of business was often small, and there wasn’t much of a distinction between business ownership and management. Typically, offices were usually a room inside the owner’s house or other estates.

In the late 19th century, due to the separation of ownership and management, and the increase in the mental labor, more of these offices were grouped together and became a distinct type of building. The first skyscrapers appeared.
Taylorist Layout

[early 1900s]

Large open plan, rows of standardized desks laid out in a fashion that resembled factories was a widespread image for an American office at the beginning of the 20th century. This type of office arrangement owes its inception mostly to the economist Frederick Taylor and his highly influential work *The Principles of Scientific Management*, thus it is often referred to as the Taylorist Layout.

**Story | Causes**

**Scientific Management**

Frederick Taylor (1856-1915)

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**Socioeconomic**
The growth of the “paper-industry” led to the expansion of white-collar workers. In addition, the division of labor into repetitive tasks required less comprehensive skills from the workers. In result, both the status and the wage of the clerks have dropped considerably. Thus, the individual need such as privacy was probably treated as afterthoughts

**Health**
The wellness of the employees and the office hygiene were factors of office design at the time; however, in Taylorist ideals, such concerns were generally for the purpose of profitability. Even in the notoriously delightful example—the Larkins Building—the employees access to the lounges were deliberately limited.

**Management**

Influenced by the scientific management principles, which believed that the specialization of workers in repeated tasks increases efficiency, the clerical work at the time period was modeled after the factory assembly line. Therefore, the organization of the office and its circulation pattern was highly comparable to the factory. Furthermore, in order to monitor the individual productivity, the work of the clerks needed to be permanently in view, which required no privacy and separation between each workers.

Example

[Larkins Building, Frank Lloyd Wright, Buffalo, 1906]
Unlike the beginning of the 20th century, the office workers in the mid-century were much less dependent on their employers due to having social legislations such as unemployment compensation and limitations on arbitrary discharge as their leverages. As a result, the authority of management became more limited.

Management

Soon as the managers realized that their downward and lateral dependencies (managers’ reliance on workers below as well as on other departments) are crucial for achieving organizational goals, the attitude of management began to see a shift from “reductive” to “developmental”. In other words, the expectations for more collaborative contribution to work started to take over the traditional hierarchical chain of command. Therefore, the need to increase face to face communication and flexibility in management grew rapidly.

Health

Instead of everyone taking break at the same time, employees were able to do so at their own desired time. Quickborner Team introduced the idea of Pausenraum, or break area that were easily accessible by everyone.

Socioeconomic

Originated in Germany in the early 1960s by the labor organization consultant Quickborner Team, the aim of Bürolandschaft was to increase communication and work-flow efficiency within the office—qualities that traditional cell- offices were insufficient to provide. The arrangement of the desks were determined by careful studies of the work-flow as well as the communication patterns. From this point on, the separation between interior and exterior in office design became a common practice. In other words, the architects became more interested in the built form alone, a mentality that are carried through till today.

Bürolandschaft

Despite the chaotic appearance, Bürolandschaft was a genuinely sophisticated system of office organization. Originated in Germany in the early 1960s by the labor organization consultant Quickborner Team, the aim of Bürolandschaft was to increase communication and work-flow efficiency within the office—qualities that traditional cell- offices were insufficient to provide. The arrangement of the desks were determined by careful studies of the work-flow as well as the communication patterns. From this point on, the separation between interior and exterior in office design became a common practice. In other words, the architects became more interested in the built form alone, a mentality that are carried through till today.

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Example
(Friedrich Doele Building, Walter Henn, Munich, 1961)

Work-flow studies by Quickborner Team shown here as a typical example.

Images Sources: Top and bottom-left: Progressive Architecture; Bottom-right: Action Office
Introduced by the US furniture maker Herman Miller Inc. in 1968, Action Office II designed by Robert Propst was often referred to as the prototype of today’s cubicle. Driven by a beautiful vision, the individualized work spaces and the self-supporting partitions of AO II were sought to improve the deficiencies of the open plan office while maintaining flexibility and communication. Intended by Propst, the planning principle of AO II modules was similar to Bürolandschaft—a system based on work-flow and communication. However, varying from Bürolandschaft, Propst had more emphasis on the physical product itself, which he believed could enable workers to work more efficiently and happily.1

Socioeconomic Retrospectively, there is no surprise that the Action Office was designed in the US. Although Bürolandschaft gained rapid success in Western Europe in the early 60s, the businessmen in the US were reluctant to adapt due to their long-established favor for the rectilinear and mechanical office aesthetic. Rather than having furniture laid out in a chaotic formation guided by the invisible work pattern, the visual order and privacy provided by Action Office and similar products were more suitable solutions for the American open plan offices in the late 60s.2

2. ibid. 
4. "Chaos as a System", p.169


Action Office

[Robert Propst, USA, 1968]

Example

[Action Office II, Robert Propst, USA, 1968]
Socioeconomic Right around the time Action Office II was introduced, the economic structure in the US was undergoing a dramatic change. Outsourcing many industrial production works to less developed countries, the size of American industrial labors has decreased significantly in the 70s and 80s; the sectors of white-collar and service workers, on the other hand, had its growth. Another essential factor for the cubicles’ rapid success was the Treasury’s new rules of asset depreciation in the 60s—furniture was established to have much shorter depreciation period than building improvements; furthermore, the real estate price at the time was rising. As a result, attempting to fit a growing number of white-collars into limited office space while having quick cost recover, cubicles turned out to be a convenient solution.

Management Cubicle farms do not exist without its opposite—private executive offices. Matching with its spatial implication, which is to fill the space between private offices and other areas, the cubicles provided an efficient solution for those who were not high enough in the organization to enjoy private offices but at the same time deserved some degree of privacy.

Not long after the first introduction of Action Office II, the system was exploited in a way far less noble than Propst’s original intention. Seas of compact, uniform cells rapidly spread across office buildings since the 70s and soon became an office standard which is still commonly used today.

<table>
<thead>
<tr>
<th>Layout</th>
<th>Story / Causes</th>
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<tbody>
<tr>
<td>[1970s]</td>
<td>(not born to be evil)</td>
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1. Le Blanc, Paul
2. Schlosser, Julie
3. Goldberger, Paul
Post Cubicles

work is produced, stored, and transferred through tangible media. Most of the work and communication is done within the same building. People collaborate only through physical communication.

Conclusion: Assumptions of Current Workplace Design
Distributed Workplace
Knowledge workers are those whose primary tasks are non-routine problem solving using non-linear creative thinking. The resources needed for their work are primarily the knowledge of their own as well as of their colleagues.
Reinhardt, Wolfgang; Schmidt, Benedikt; Sloep, Peter. “Knowledge Worker Roles and Actions—Results of Two Empirical Studies” Knowledge and Process Management, Volume 18 Number 3 pp 150–174 (2011)
Day of a software engineer

Hill, E Jeffrey; Hawkins, Alan J; Ferris, Maria; Weitzman, Michelle. "Finding an extra day a week" Family Relations. Jan 2001.
Google NYC, City within a City

Cost: $1.9 billion
providing perks is a way of control masked by a false sense of freedom.
New Facebook HQ in Menlo Park, CA as proposed by Frank Gehry
Traditional Management Structure

Managers

Employees

Facebook Management Structure & Feedback Cycle
Project Teams: Start-ups within the Larger Organization

“War Rooms”
Conclusion
References


Hill, E Jeffrey; Hawkins, Alan J; Ferris, Maria; Weltman, Michelle. “Finding an extra day a week” Family Relations. Jan 2001.


Reinhardt, Wolfgang; Schmidt, Benedikt; Sloep, Peter. "Knowledge Worker Roles and Actions—Results of Two Empirical Studies" Knowledge and Process Management, Volume 18 Number 3 pp 150–174 (2011)


Whitnah, Tom. "What is one work day of an engineer at Facebook like?" Quora. http://www.quora.com/Facebook-Engineering/What-is-one-work-day-of-an-engineer-at-Facebook-like