Spring 2013

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

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Background

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 335 Madison Ave.

Why Facebook?
Who they are and what they do.

Google’s attempt on the new office typology.

Frank Gehry’s solution for the new Facebook headquarters

Team/organization

Possible solutions for the new NYC office

References
Introduction
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** (mid-1920s)
- **Action Office** (1959)
- **Cubicle Farm** (1960s)
- **Cells** (1970s)
- **Corporate America** (1980s)
- **Casual** (late 20th century)
- **Biocentric Office** (early 21st century)
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. Therefore, office was usually a room inside the owner’s house or other estates.

In 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.
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.

**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 Larkin 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 [Larkin 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 levers. 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.
Example
(Friedrich Deckel Building, Walter Herr, Munich, 1961)

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

Images Sources: Top and bottom-left: Progressive Architecture; Bottom-right: Hookway, Branden
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 stations 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. 

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 adopt 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.

Image Sources: Top: http://pilgrimakimbo.wordpress.com
Bottom: Herman Miller Inc.
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.

Story | Causes

1. Le Blanc, Paul
2. Schlosser, Julie
3. Goldberger, Paul

Cubicle Farm

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.
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

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.

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Day of a software engineer

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
Hill, E. Jeffrey; Hawkins, Alan J.; Ferris, Maria; Weitzman, Michelle. "Finding an extra day a week." *Family Relations.* Jan 2001.
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
to accommodate personal needs & casual encounter

to facilitate individual work

to facilitate team work


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)


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