THE MYTH OF THE TAYLORIST OFFICE

Since the mid-1990s there have been thousands of references in books, articles, blogs and posts that refer to the influence of 'Taylorism' on office design. And the term is used mostly in a pejorative manner, reflecting the popular perception that FW Taylor introduced 'time-and-motion' principles into the office; leading to office workers being arranged like production lines.

He is caricatured as having a singular focus on production efficiency, and even of having influenced industrial production thinking in Nazi Germany and the Soviet Union. However, these are either gross over-simplifications of the truth or historically inaccurate. Here is a new perspective on Mr Taylor, aka, the founder of scientific management, and an alternative explanation of why our office buildings look like they do.

Who was Taylor? Frederick Winslow Taylor (1856-1915) was born in Germantown, Philadelphia, into a wealthy, highly educated and liberal-minded Quaker family. His father was a lawyer and graduate of Princeton, and his mother an abolitionist and feminist. Following a three-year 'Grand Tour' of Europe, Frederick enrolled into the highly respected Phillips Exeter Academy in New Hampshire. However, his health was poor and despite passing the Harvard entrance examination, he left Exeter prematurely. After several months of recuperation, and in his eighteenth year, he chose a vocation in engineering, joining Ferrell and Jones. Despite his social background and obvious intellectual strengths, Taylor followed the pure and principled nature of his upbringing and started his new vocation as a humble pattern maker's apprentice. On completing his apprenticeship in 1878, Frederick moved to the Midvale Steel Company to take a post as a machinist.

Taylor became a consulting engineer aged 37, often making enemies in the companies where his methods resulted in job losses aimed at increasing efficiency. His most important client became the Bethlehem Iron Company, but following various disputes with the management, he left in 1901. This was to be his last job. His most famous published work, *The Principles of Scientific Management*, [1] in 1911 was based on transcripts of talks given long after leaving employment. He caught influenza in 1915 while on a speaking tour and died the day after his 59th birthday.

Beyond specialist academic papers, Taylor's *Principles* remained largely ignored for the thick end of eight decades. Then, in the 1990s, his scientific management thinking was resurrected and used as a general explanation for much that was bad about contemporary office design. However, I argue here that Taylor's scientific management was not responsible for key traits in office design, and that the explanation for these instead lies in a socio-cultural context.

Why is the concept of 'Taylorism' misplaced? There are at least four reasons why the prevailing doctrine about the role of Taylorism in office design is misplaced. First, Taylor's work was on the factory floor, not in the office; his influence on office processes was modest to say the least. Despite countless references to the long

shadow of 'Taylorist planning' in office workplaces, and while recognising Taylor's role as the founder of scientific management, it was in fact his followers who developed his thinking brought the discipline to corporate offices.

Secondly, in his evidence before a Special House Committee in 1912, Taylor stated categorically that scientific management was not about holding a stop watch to a worker, and called for a complete mind shift by management. He showed a concern for workplace harmony (between workers and bosses), which could be nurtured, he argued, through more equal responsibilities and opportunities for workers to suggest improvements to conditions and processes (a little like European workers' councils).

Thirdly, the design template for the US office – deep, regular floorplates, factory-style layouts and strong management – was laid down before Taylorism was popularised. The Table shows a sample of tall buildings delivered in America up to the point at which Taylor published his *Principles*. Taylor was not yet twenty years old when the Tribune and Western Union buildings were completed in 1875, and all of the listed buildings were completed *before* Taylor published his seminal work in 1911. This single fact discounts Taylor and scientific management as the key driver of office workplace design and layout.

The rise of skyscrapers in America, 1870-1911

Building	City	Built	Height (m)
Equitable Building	New York	1870	43
Western Union Building	New York	1875	70
Tribune Building	New York	1875	79
Boreel Building	New York	1879	30
Montauk Block	Chicago	1882	39
Mills Building	New York	1882	47
Temple Court	New York	1883	45
Counselman Building	Chicago	1884	44
Pullman Building	Chicago	1884	49
Home Fire Insurance	Chicago	1885	44
Tacoma Building	Chicago	1889	50
World Building	NYC	1890	94
Monadnock Building	NYC	1893	60
Reliance Building	Chicago	1894	61
Manhattan Life Insurance	NYC	1894	106
American Surety Building	NYC	1896	103
Park Row Building	NYC	1899	119
New York Times Tower	NYC	1905	220
Singer Building	NYC	1908	187
Metro Life Insurance	NYC	1909	213
Bankers Trust Building	NYC	1911	164

Finally, it is arguable that scientific management failed to be adopted widely in the US and barely at all in Europe. Some large US manufacturers adopted scientific management but it was by no means universal. Nazi Germany and the Soviet Union post-dated Taylor's death by around two decades, and despite some records of French factories adopting scientific management there is precious little evidence

elsewhere. Certainly, there is meagre evidence of London office-based organisations adopting the rigours of scientific management. Even the Larkin Building in Buffalo (pictured), often used as an icon of the Taylorist office, was completed in 1904 – over a decade before scientific management was first practiced in offices, and then by Taylor's followers rather than the man himself. Frank Duffy was thus incorrect to state that

> *Taylorism was the dominant management philosophy when the office as a building type was created, so the particular values that Taylor emphasised – order, hierarchy, supervision, depersonalisation – became an integral part of the architecture of those initial, pioneering, turn-of-the-century North American buildings.* [2]

The Larkin Building, Buffalo, 1904

Scientific management in offices None of the above is to deny that scientific management was influential; but rather that its influence has been misunderstood, particularly the notion that it was singularly influential in office design and the production line style layouts of offices.

Taylor's early disciples included Henry L Gantt (1861-1919), he of the eponymous charts, who published *Work, Ways and Profits* (1910) and *Organising for Work* (1919); Harrington Emerson (1853-1921) who published *The Twelve Principles of Efficiency* (1912) and C Bertrand Thompson (1882-1969) who published *The Theory and Practice of Scientific Management* (1917). Thompson had a particularly lofty view of his and others' endeavours:

> *The substitution of a basis of scientific law and principles for guesswork or tradition reminds one strongly of August Compte's theory of progress from*

> *the theological, through the metaphysical to the positive or scientific state of thought.* [3]

But all of this work related to factories. The first tentative steps to transfer scientific management from factory to office were taken by Morris Llewellyn Cooke (1872-1960), who first met Taylor in 1903. He set up his own consultancy business in 1905, applying scientific management to printing and publishing and office firms, continued his version of scientific management in quiet obscurity.

By far the biggest impact of scientific management in the office was made by William H Leffingwell (1876-1934), author of numerous articles and two very long books: *Scientific Office Management* in 1917 [4] and the mammoth 800-page *Office Management; Principles and Practice* in 1925. [5] Note the dates: much later than Taylor and far too late to influence the modern office design template.

Leffingwell was born in Oxford County, Ontario to Wendell Phillips and Mary Catherine Leffingwell, both Americans. He was trained as a stenographer and throughout the 1920s, he was a key figure in the Taylor Society. In his 1917 book, Leffingwell was clear in distinguishing his work from that of Taylor.

> *many businessmen, after analysing the remarkable results secured by applying Fredrick W. Taylor's system of scientific management in factories, have asked whether or not similar betterments could not be obtained in offices with the system. Their questions can now be answered, for the main principles of the Taylor system have actually been adapted and applied in office work*. [6]

Leffingwell was near evangelical in his belief that office management was the way forward; he just needed to convince managers that it would improve their bottom line. In the preface to *Office Management* (1925) he demonstrated clearly that he saw himself as being on a mission, to advance Taylor's legacy, and to bring 'the word' to a broad audience of professionalising business managers:

> *a pressing need exists for a thorough understanding on the part of business men in general, and office managers in particular, of the fundamental principles underlying the work of that pioneer of scientific management, the late Frederick Winslow Taylor …. I have attempted in this work to explain the scientific basis of office procedure … I am not aware that any writer has previously attempted this task.* [7]

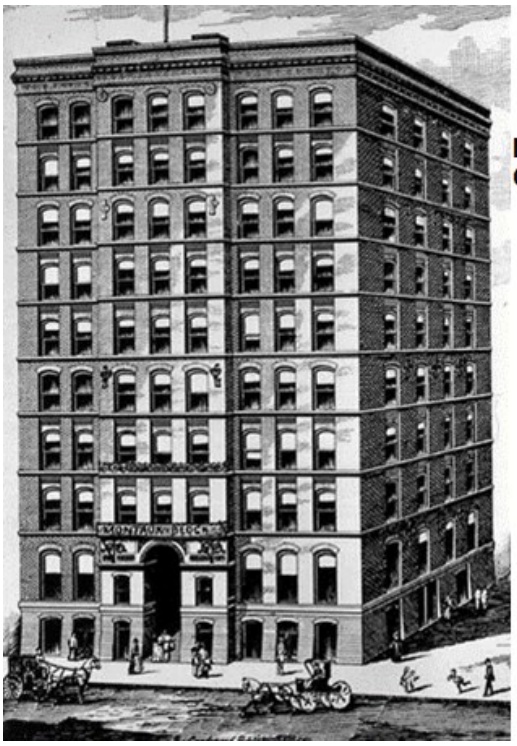
Leffingwell and his contemporaries were more concerned about business process than they were about the layout of the space. The latter was determined by street patterns, plots and construction techniques; there is precious little evidence of scientific management influencing office design.

Whatever the American experience with scientific management, it seems that barely none of the thinking or practice landed on European shores. The rise of the corporation and the explosive growth in white collar work in the US in the latter decades of the nineteenth century contrasted strongly with the European experience. Scale of operation was undoubtedly a factor for its broader uptake in the

USA – enterprises in Europe remained typically smaller and less capital intensive that in America – but there were also socio-cultural factors at play.

The rational and cultural explanation The plain fact is that American and European office buildings originated and evolved at different times and were separately influenced – in their basic layout – by different factors. These can be summarised as 'rational' and 'cultural'.

The Montauk building in Chicago (1882) and the Child & Co Bank building in London (1880) exemplify the rational and cultural traditions, respectively. The first was built on a new site, to a large scale, with repetitive design features and standardised components; it was organised internally for efficiency and to maximise output. The Child & Co building was created for a family business steeped in tradition; its domestic scale and design reflect cultural context in contrast to the rationality of the Montauk building.



Montauk Building, Chicago, 1882 (left)
Child & Co, London, 1880 (right)

The emergence and growth of the modern corporation in the later years of the nineteenth, and the early years of the twentieth century, both in America and Europe, led to remarkable changes in the office – as a place and as an activity. However, the fact that by the turn of the century, European offices had already been evolving for two centuries while American offices really only got going two decades before, led to American and European offices evolving in very different ways.

In short, the American experience was revolutionary: rapid, transformative and entirely new: new buildings for a new age. The American corporation evolved in a very short space of time and, crucially, without the baggage of centuries of evolution expressed in the social complexity of master and servant, of social class or of rank.

Most significantly, buildings were laid out on the famous grid iron pattern, maximising building depth, and planning efficiency as well as optimising building economics. They were a rational response to a situation with no historical baggage bearing down on its expression. All this was done before Taylor or Leffingwell had any influence.

By contrast the rise of corporatism in Europe was evolutionary: taking place incrementally over a long period of time; weighed down by heavy socio-cultural baggage. The European buildings were loaded with cultural context, reflecting the values of the family businesses that occupied them; they were residential in scale and design; they were inefficient but they were personal. Even as the new century dawned, most predated the typewriter; they were arranged to reflect social status and business role; the furnishings gave a domestic feel.

It was these differences that would characterise rational American and cultural European buildings through to the late-twentieth century. London had to wait for its first rational buildings until the late-1980s with Broadgate's groundscrapers and then the high rise version at Canary wharf.

It is therefore somewhat problematic to suggest that Taylor had such a major and long-lasting influence on architecture and design in both America and Europe. The rational approach to building design co-evolved with America's industrial complex before Taylor was active, and the basic template of its office buildings was determined more by land economics and construction innovation than by any management theory. And indirectly, the office tradition in the US carried none of the two centuries' worth of socio-cultural baggage hard-wired into European offices.

Why is this important? Because, as we move on from the pandemic, the trends in office work and workplace design that it accelerated are likely to draw more from the cultural tradition than from the rational tradition.

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