



## **Constructing the Illustration of Space: from Belle Époque to Modernism** **A comparative analysis on charts of Michael G. Mulhall,** **Willard C. Brinton and Otto Neurath**

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Modernism has often drawn on substantial advancements from the time of the Belle Époque and, on occasion, taken credit for them. A primary example can be found in the realm of architecture and urbanism.

While the second wave of industrialization triggered high freight traffic on new seaways and the expansion of railway networks world-wide, the Belle Époque also paved the way for the Modern city. Urban sprawl in the industrialized nations at the end of the 19<sup>th</sup> century resulted in the tearing down of city walls and the construction of the first public transportation systems within the city. These advancements mirrored a new social climate and the demand for an increase in workers' rights. However, it was not until after the First World War that buildings and infrastructures took shape, which did not only strive to make the worker's life more efficient, but also added substantial quality to it.

A similar phenomenon can also be detected when researching the illustration of spatial phenomena. Although people concerned with the construction of information via images have always been dedicated to making knowledge more accessible, Modernism marked a major breakthrough: it was within it, that diagrams finally became an intellectual device available to everyone.

Thus, it was in the beginning of the 19<sup>th</sup> century that a confluence fostered the increase of information by graphic means. A printing technology became available to accommodate the cost-effective reproduction of charts, which led to the popular use of graphics in research and teaching.

Therefore, the foundations were laid, when in the beginning of the Belle Époque, Michael G. Mulhall's *Dictionary of Statistics* appeared (1884), which included ten diagrams to illustrate social facts along with a vast amount of statistics. His book sold widely and popularized the usage of diagrams in other publications. The broad distribution of such diagrams, however, did not always result in successful illustration of information, since many of them were confusing and lacked proper structures.

For this reason, in 1914 Willard C. Brinton began to collect maps and diagrams, ranging from hard fact statistics to advertising and cartooning, in his book *Graphic Methods for Presenting Facts*. The goal of the publication was to broach the subject of graphic legibility, as Brinton believed that only if the science of chart-making was taken seriously that images would contribute in constructing knowledge for a broad audience.

This general outline on the evolution of graphic information is necessary to set the scene for a comparative analysis in how diagrams came to illustrate space in the time of the Belle Époque, and subsequently during Modernism. This is exemplified in detail, especially when comparing diagrams from Willard C. Brinton's *Graphic Methods for Presenting Facts* (1914) and a selection of Otto Neurath's quantitative maps (circa 1928).

Although it was one of Neurath's great achievements that he developed a coherent vocabulary and a syntax in the domain of picture statistics, I would argue that Brinton's examples, deriving from the time of the



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Belle Époque, superseded Neurath's approach in the sense that they were not only illustrations of facts, but also planning devices. On the other hand, they were still directed toward an audience of specialists.

The construction of spatial information reached a new height in 1937, when Neurath created the first map that combined his method of illustrating facts, with distinct spatial information, and therefore allowed it to become an operative device.

This map foreshadowed the criteria that still determine a vast industry today: the making tourist maps and city plans. But this map also stood at the beginning of a trajectory in urbanism and planning: the diagram in search of design proposals.

In a contemporary context, the Dutch architect Rem Koolhaas is an expert in illustrating spatial interconnections, because he works with both kinds of diagrams: (Brinton's) operative tools and (Neurath's) neutral ways of communication. When asked why he drew on these historic precedents of representation today, he answered that by using them, he wanted to make a statement. "A statement, that there was once clarity, but the clarity is currently gone."

One might wonder if Mulhall, Brinton and Neurath thought similarly about their work.

**Biography**

Sophie Hochhäusl is a PhD student at Cornell University's History of Architecture and Urban Development program. In the beginning of May she defended her Masters essay, which was dedicated to the mapping activities of Otto Neurath. In 2008 she received a Masters degree in architecture from the Academy of Fine Arts in Vienna. The Masters project in architecture treated 110 of housing subsidy in Vienna in form of an exhibition, which was later displayed by the Viennese Architecture Centre.

Sophie Hochhäusl's publications include a booklet of teaching materials for high- schools on the architectural achievements of Red Vienna and children's book on architecture.