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## Modern Architecture and the Scientific World Conception

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Abstract: Introduction: This paper examines the expression of 'objectivity' in architecture in the context of the post-war rejection of this concept. It aims to re-examine the question in light of the assault on truth characterizing contemporary culture and of the unassailable truth of the climate emergency. The paper analyses the search for objective truth as it was prosecuted in the Modern Movement in the early 20th century, looking at the extent to which this quest was successful in contributing to the development of a radically new, politically-informed architecture and the extent to which its particular interpretation of objectivity, limited that development. The paper studies the influence of the Vienna Circle philosophers Rudolph Carnap and Otto Neurath on the pedagogy of the Bauhaus and the architecture of the Neue Sachlichkeit in Germany. Their logical positivism sought to determine objective truths through empirical analysis, expressed in an austere formal language as part of a 'scientific world conception' which would overcome metaphysics and unverifiable mystification. These ideas, and the concurrent prioritizing of measurement as the determinant of environmental quality, became key influences in the sociallydriven architecture constructed in the 1920s and 30s by Bauhaus architects in numerous German Cities. Methodology: The paper reviews the history of the early Modern Movement and summarizes accounts of the relationship between the Vienna Circle and the Bauhaus. It looks at key differences in the approaches Neurath and Carnap took to the achievement of their shared philosophical and political aims. It analyses how the adoption of Carnap's foundationalism influenced the architectural language of modern architecture and compares, through a close reading of the structure of Neurath's 'protocol sentences,' the latter's alternative approach, speculating on the possibility that its adoption offered a different direction of travel for Modern Architecture. Findings: The paper finds that the adoption of Carnap's foundationalism, while helping Modern Architecture forge a new visual language, ultimately limited its development and is implicated in its failure to escape the very metaphysics against which it had set itself. It speculates that Neurath's relational language-based approach to the issue of establishing objectivity has its architectural corollary in the process of revision and renovation that offers new ways an 'objective' language of architecture might be developed in a manner that is more responsive to our present-day crisis. Conclusion: The philosophical principles of the Vienna Circle and the architects of the Modern Movement had much in common. Both contributed to radical historical departures which sought to instantiate a world scientific conception in their respective fields, which would attempt to banish mystification and metaphysics and would align itself with socialism. However, in adopting Carnap's foundationalism as the theoretical basis for the new architecture, Modern Architecture not only failed to escape metaphysics but arguably closed off new avenues of development to itself. The adoption of Neurath's more open-ended and interactive approach to objectivity offers possibilities for new conceptions of the expression of objectivity in architecture that might be more tailored to the multiple crises we face today.

Keywords: Bauhaus, logical positivism, Neue Sachlichkeit, rationalism, Vienna Circle

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