Architectural Histories

Boller, G. 2024. The African Projects of Pier Luigi Nervi's engineering office. *Architectural Histories*, 12(1): pp. 1–5. DOI: https://doi.org/10.16995/ah.11171



The African Projects of Pier Luigi Nervi's engineering office

A review of Micaela Antonucci and Gabriele Neri, *Pier Luigi Nervi in Africa: Evoluzione e dissoluzione dello Studio Nervi*, 1964–1980. Rome: Quodlibet Studio, 2021, 264 pages. ISBN: 9788822906083.

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Micaela Antonucci and Gabriele Neri's book offers the first overview of the projects that Pier Luigi Nervi's Italian engineering office designed for and built in postcolonial African countries between 1964 and 1980. Through a detailed description of major works, the text shows how the "Nervi system" gradually became a stylistic language that no longer addressed the relationship between architectural and structural forms, a relationship that Nervi's well-known projects highlighted.

Keywords: Pier Luigi Nervi; reinforced concrete; history of engineering; African countries; postcolonial history

This newly published book by Micaela Antonucci and Gabriele Neri focuses on the built and unbuilt projects for the African continent designed by the office of the Italian engineer Pier Luigi Nervi between 1964 and 1980. During this time span, Nervi's office signed almost forty building contracts. The authors relay stories that have been neglected by architectural historians. Their compendium of design proposals, consulting work, and professional collaborations highlights projects other than his best-known European and American ones.

The main sources of the book are materials stored in Nervi's Rome, Florence, and Parma archives. However, additional papers from private and public archives and interviews with Nervi's collaborators provide a comprehensive description of the

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process behind the buildings. Antonucci and Neri enrich these accounts by drawing connections between the architecture and economic, political, and cultural events of the time. Studio Nervi did not merely engineer buildings in Africa but played a political and diplomatic role there that the authors unveil through numerous anecdotes that they have plucked from letters between the Italian office and local stakeholders.

The book title might be misleading, as it suggests that Nervi was the sole creator of these African structures. But the book itself reveals how the hierarchical structure of Nervi's office progressively became one of the crisis factors leading to its dissolution in the early 1980s. The operational organization of Studio Nervi could not compete with the more decentralized nature of American engineering companies which were composed of specialised groups that made extensive use of computers. It is no coincidence that just when he started to lose contracts in Europe and the United States Studio Nervi began working on projects in Africa and the Middle East. The authors highlight how the change of geographical focus was not only linked to the increasingly important role of Nervi's sons Antonio and Vittorio (both architects) and Mario (engineer), along with that of multiple other collaborators in the office, but also with the construction market in general. The handcrafted aspect of Nervi's approach, which soon became outdated in Europe and the USA owing to the development of advanced technologies reducing site

operations, was still appropriate in the African context. The advanced technological expertise level of Nervi's working methods in the office and on construction sites compared to that of African engineers and architects at the time allowed Studio Nervi to increase its commissions. The same happened in post—war Italy, where Nervi had a few competitors in terms of engineering expertise. Using the complex relations established in the framework of Nervi's African projects as an example, Antonucci and Neri describe the progressive evolution of the engineering profession in the 1970s.

In the first chapter, they provide an extensive overview of the different projects and buildings that Studio Nervi worked on in African countries between 1964 and 1980. The major projects were in South Africa and in the Republic of Côte d'Ivoire; others were in Algeria, Egypt, Kenya, Libya, and Nigeria. Extensive archival documentation in the form of letters, plans, and photographs, together with an exhaustive study of existing literature, help to illuminate the complexity of the interactions between the office and the social, economic, and political events.

The second chapter, written by Micaela Antonucci, looks at the first commission that Studio Nervi received in an African country, the one for a new exhibition hall in Cape Town. Antonucci traces the project's trajectory from the initial discussions between Nervi and the city council to its realization as the world's largest reinforced concrete groined vault with precast elements and reconstructs the dynamics between local and Italian actors throughout the design process.

The third chapter, authored by Neri, focuses on the role the 16 projects Studio Nervi undertook in the Republic of Côte d'Ivoire in the 1970s played in the construction of a symbolic urban image of the postcolonial country. Neri also highlights the changes in the hierarchy of Studio Nervi after Nervi stepped down for health reasons and argues that the firm sought to achieve acknowledgment of its contribution in the local professional network by trying to set up a branch office, Studio Nervi Afrique, that never officially materialized.

The authors draw attention to the ribbed floor slabs, pillars with variable cross-sections, prefabricated elements in ferrocement, and umbrella-like columns that made Nervi's design stand out. However, in the African projects the so-called "Nervi's system" became a stylistic language that supplanted the original relationship established between form and forces. The formal references to famous European examples both helped to make the Italian engineer's design proposals recognisable and to indicate that these newly established African countries adhered to Western canons of modernity. The numerous examples the authors provide elucidate this development. Due to the progressive departure from the constructive honesty that had characterised the office's design approach at the outset, the design quality of the projects described

in the book is lower than that of Nervi's more famous structures. However, the authors do show how these design proposals reflect Studio Nervi's procedures in terms of office organisation, management of the construction process, and professional and diplomatic relations. The book documents the building processes of globalization without overlooking the African contexts, explaining how Studio Nervi managed to adapt itself to the local economic, political, and professional contingencies.

The two case studies covering South African and Republic of Côte d'Ivoire projects help illuminate the progressive change in the organisation of Nervi's office and in the overall approach to the design of structures. However, the projects are presented as independent events tied to specific social, economic, and political conditions in the two countries, which results in an account that overlooks a more comprehensive understanding of how Nervi's construction knowledge circulated across these countries and beyond the single built works. Given that the Nervi system was used as a stylistic language in the late projects of the Italian engineering office, a more thorough study across the different national experiences would have enriched the discussion of such practices and the account of local peculiarities. Additionally, Studio Nervi was not the only firm active in African postcolonial countries. A more detailed discussion of the other numerous engineering and construction companies engaged in projects on the continent would have elucidated Studio Nervi's place and how Nervi's modus operandi was different.

The authors, nevertheless, shed light on a less-known side of Nervi's work for the first time, creating an opportunity for further investigations.

Competing Interests

The author has no competing interests to declare.