

Chapter

6.1

The Building A of Radio Kootwijk—A Concrete Building from 1920, Ready for the Future

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Historical Context

The buildings of Radio Kootwijk were developed to establish independent contact with overseas foreign countries by the Dutch Government. During World War I, it became clear that independent contact was important. Therefore, in 1918 it was decided to build this facility in a remote location in the Netherlands, away from any existing cities. Since its construction, Radio Kootwijk has been at the center of radio communication for over 75 years (*Fig. 1*).

Architectural Design

After the decision by the Dutch Government in June 1918, Maria Julius Luthmann was appointed as the architect for the buildings and surrounding area. The young architect designed the buildings in coproduction with Gesellschaft für drahtlose Telegraphie Telefunken. The ground plan of the broadcasting building was prescribed by the technical installation. Besides the ground plan, the need for fire resistance was an important aspect considered in the design of the building. The new building material, reinforced concrete, was chosen for the construction. Luthmann designed the Kootwijk broadcasting building keeping in mind a previous broadcasting building, the Nauen project and used more reinforced concrete in the design (*Figs. 2 and 3*).

Structural Design

Dr. ir. Jan C. Emmen, who had graduated with specialization in reinforced concrete in 1915, was the structural engineer for this project. During the design of the broadcasting building, Jan Emmen had to incorporate the requirements of the Telefunken, which heavily influenced the final design. These requirements were: