

PROJECT  
**Kolenkit housing,  
Amsterdam**



**Architects**  
Wingender Hovenier  
and Korth Tielens  
**Location**  
Amsterdam  
**Completed**  
2011 – 2012

**By Hugh Strange**

A recently completed development at Kolenkit, Amsterdam, comprises six new residential buildings designed by the Dutch offices of Wingender Hovenier and Korth Tielens. They follow the line of the existing streets, providing shared internal gardens and courtyards, as well as a series of new transitional spaces between the public pavement and the private buildings.

The ensemble is very much part of the existing grain of the neighbourhood; leafy streets and well-scaled masonry structures providing an image of a coherent city.

The four blocks closest to the canal, which have been designed by Wingender Hovenier, house standard accommodation, both subsidised rental and owner-occupied. They are raised a half level to provide a semi-underground car park, in the process, forming a plinth with stepped access on the street side that allows the raised, but visually connected, relationship common to traditional Amsterdam housing.

The two blocks furthest from the water are constructed using

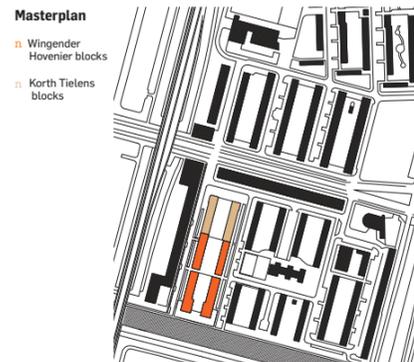
the same brick and have been designed by fellow Amsterdam practice Korth Tielens. They house a mix of accommodation with level access requirements, providing for the elderly and the disabled, among others. Deck access, provided on the garden side of the blocks, was an integral part of the client brief.

Wingender Hovenier and Korth Tielens worked closely together through the scheme's design development stage within a shared masterplan, resulting in a number of common elements that allow one to see more clearly their differing approaches to the expressive potential of brick construction. Both schemes have the same general massing, use the same speckled beige brickwork and are both characterised, in different ways, by an impression of solidity. In addition they share the same reinforced concrete frame construction. Here, however, the two schemes part company; in some measure as a result of the differences in their accommodation, but also due to alternative attitudes to tectonic expression.

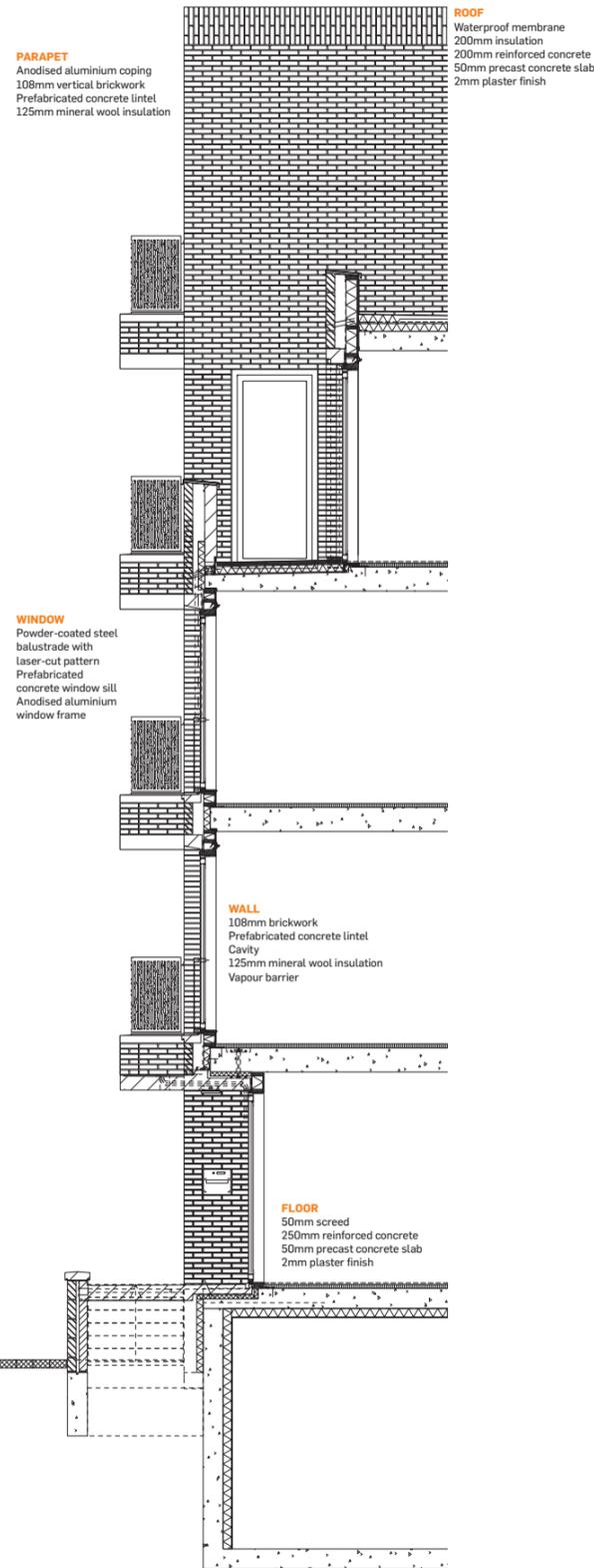
In the four blocks designed by Wingender Hovenier, the variety of dwelling units is subordinated to the expression of the building as an urban block with a regular rhythm of fenestration.

Floor-to-ceiling windows are set between brick piers whose reveals vary, angling back to a lesser or greater extent, over

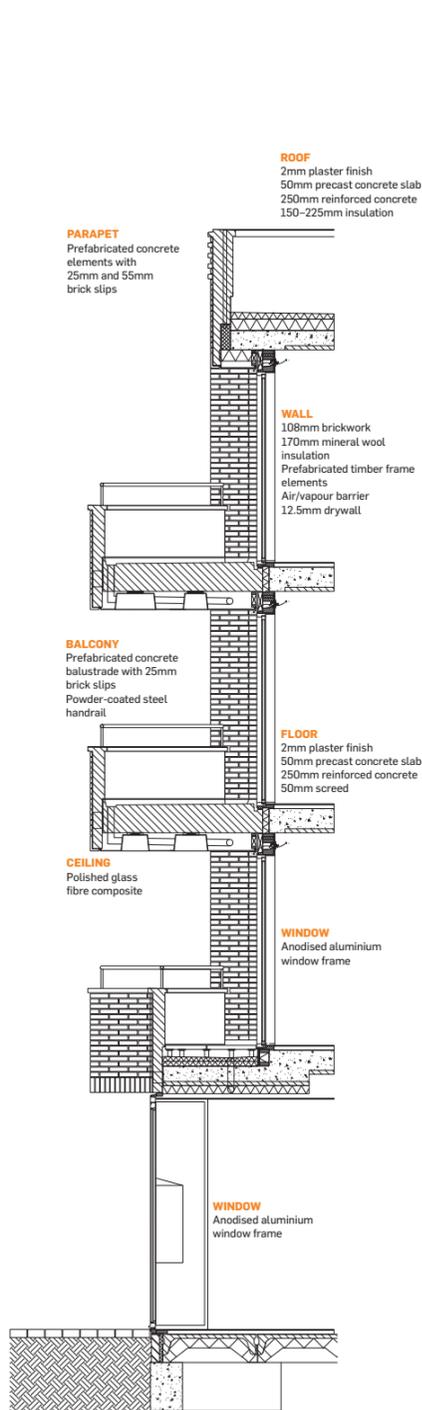
**Wingender Hovenier's four blocks are closest to the canal in a leafy neighbourhood.**



**WINGENDER HOVENIER FACADE DETAIL**



**KORTH TIELENS FACADE DETAIL**



In Wingender Hovenier's design, the load-bearing aspect of the external leaf is readily understood.



In contrast, the brickwork of Korth Tielens' blocks, with their street-facing balconies, can be clearly read as cladding.

**Q&A**  
**JAN PETER WINGENDER**

The co-founder of Wingender Hovenier on the practice's research into brick facades and its impact on his own designs

**You are soon coming to the end of a three-year research project titled Tectonics in Contemporary Brick Architecture. What drew you to this project?**

We started in the profession in the early 1990s and to us the use of brick felt very self-evident. Only after some years we noticed that we were part of a generation that in retrospect "rediscovered" brick.

We also became increasingly aware of the "resistance" of the material. Through the simple act of stacking, there are constructive and technical limitations to what you can do.

We enjoyed this resistance because it forced us to become more precise in how to use the material and what tectonic expressions could be achieved.



Wingender: deeper insight.

Another reason we started this research was the immense change in use. Up to the 1950s bricks were applied for almost all parts of a building: foundations, constructive walls, vaults, facades. Even a lot of infrastructural projects were in brick. By the early 1990s most of that was over. Brick became solely cladding, but still carried

the connotations of its historic use. With the introduction of insulation in cavity walls, the separation between the construction of buildings and facades has become definitive.

The introduction of insulation triggered a whole series of technical "innovations" such as expansion joints, steel supports and the integration of prefabricated elements (mainly lintels), causing a brick facade to become a very hybrid construction.

In its application as cladding, brick still has its own constructive "logic". The traditional connotation of tectonics as the expression of the inner construction of a building overlaps with this, causing the application to become even more delicate. I noticed that other architects

started to develop design strategies to deal with this situation but that very little was written and reflected upon.

The generous offer of the Amsterdam School of Arts/ Academy of Architecture to carry out research on "design and material" made it possible to start the project.

**What is the historical and geographic scope of the research?**

We mainly focus on the period after 1994. This was the year the Piraeus Building of Hans Kollhoff and Christian Rapp was finished. It marked the appreciation of brick by a wide audience. We limit our research to the Dutch situation, although we also cover the extension of the Bluecoat in Liverpool by Big

and the gallery building in Marktberdorf by Bearth & Deplazes.

We wanted to compare the strategies developed by architects within similar building codes and construction practice for reasons of precision. Although the "examples" are limited in time and geography I think the general observations and the deeper insight into Dutch practice will be interesting to a wider international audience of architects, scholars and others interested in the contemporary use of the material.

**What is the format of the research and what topics are covered?**

We started with a comparative analysis of 19 projects. All the

facades were redrawn based on the construction drawings. These 3D models made it possible to compare the facades in unique drawings at the junction of technique and design.

After this we invited architects to write essays on their experience with brick, and interviewed architects and urban planners. To this group we added a historical perspective on the development of the Dutch post-war development of city planning, the development of brick production and a critical analysis on the tectonic aspect.

The last part of the research was embedded in the curriculum of the academy. We experimented with studio models in which the act of making/construction forms the inspiration of a design process.

The research also covers an analysis of these studio/ educational models.

**What are the key tectonic positions that became apparent through the study?**

The problem remains that the term tectonic has various definitions. If we understand it as the term that speaks about the overlap between technique and design, the key position of interesting projects is the point in design where both — the technical limitations and the artistic intentions — cannot be separated anymore.

If we understand the term as the expression of construction, interesting positions are found where both the expression of the main construction of a building and of the cladding seem to



Wingender's research looks at the period after the 1994 Piraeus Building by Hans Kollhoff and Christian Rapp.

PHOTO: ED TOLER

merge. They oscillate between the tectonics of construction and the tectonics of cladding. In both understandings of tectonic the notion of elegance comes to mind. Not in the sense of an elegant dress — which a brick facade essentially is — but elegance as in a mathematical formula or scientific proof: the point where form and content cannot be separated anymore.

**The practice's completed work has been predominantly of brick construction. How has the research project informed your own thinking and the projects you are working on?**

It is, of course, impossible to separate a research project from one's own practice. It has been at times also a painful

self-investigation into our own projects and intentions.

The influence on our own work will most likely stretch out over quite some time, given the simple fact that the design and construction of buildings is a relatively slow process. We actually enjoy this slowness because it offers us the time to digest the notions and ideas that came out of the research projects. The first shift I notice in our own work is a more open view towards the ambivalent character of brick as cladding that, for example, can be found in the textile and even decorative potential of the material.

Wingender's research will be published as a book, *An Exact Material*, by Architectura & Natura, Amsterdam, later this year.



Shared internal gardens and spaces have been introduced.

the building's floors.

The load-bearing aspect of the external leaf of masonry has a rational structural logic that can be readily understood: precast concrete lintels, sills and balconies clearly support brickwork such that the overall architectural expression is comprised, additionally, of known constructional elements.

The two blocks designed by Korth Tielens have access decks facing the development's inner courtyard, while long balconies that become the primary architectural element are placed facing the street, their soffits decoratively formed in cast concrete. In part, as a response to the requirement to support the decks and balconies from the structural frame, and in part as an expressive preference, the brickwork here is clearly read as cladding. In contrast to the Wingender Hovenier scheme, openings are formed whose size could only be permitted by the existence of a concrete frame behind: the support structures screened by brick header courses. A line of brick piers provides a suggestive, rather than literal, grand structural order.

**Tectonic understanding**

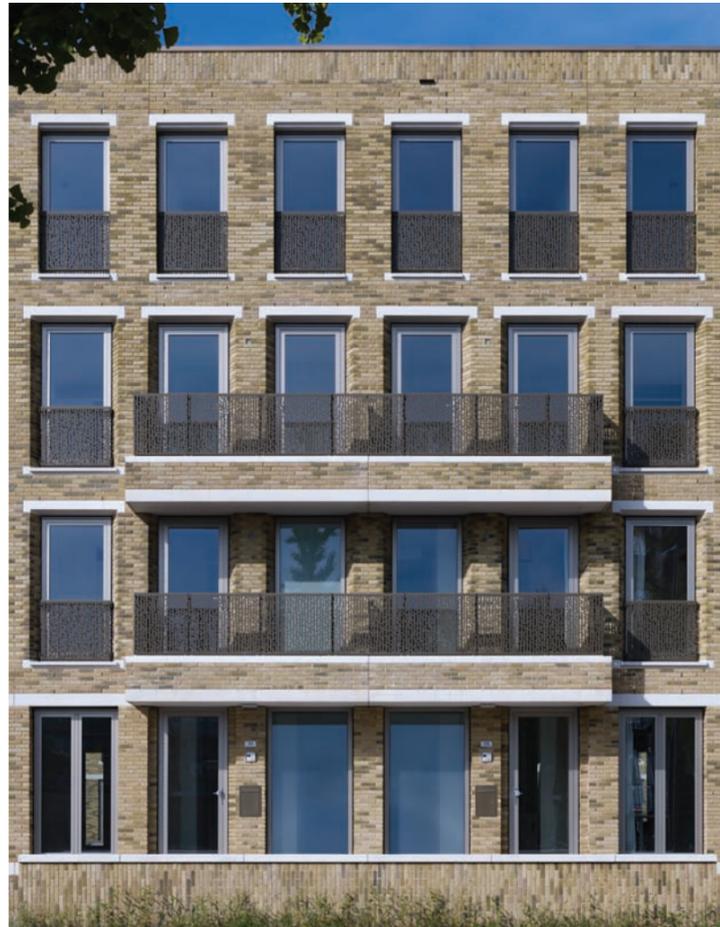
The Kolenkit housing is of particular interest in the context of the research project *Tectonics in Contemporary Brick Architecture* currently being conducted under the professorship of Wingender Hovenier's Jan Peter Wingender at the Academy of Architecture in Amsterdam.

Part of the remit of the brick research is an objective analysis into the tectonic implication of the masonry cavity wall. On the one side, the study presents the strategy of load bearing, as exemplified by Wingender Hovenier's work at Kolenkit, where the independent character of the two leaves is emphasised.

Although the appearance of the Wingender Hovenier scheme gives little visible evidence that the construction is fundamentally different to that of a 19th-century European urban housing block, the buildings in fact offer the very legitimate expression of a tectonic understanding of the cavity wall that places emphasis on the independent nature of the external leaf.

The alternative strategy, evident in Korth Tielens' scheme, is one of brick dressing. Here the dependence of the outer brickwork skin on the structure behind is made clear, and the existence of a supporting frame behind is readily understood as the only way such a facade could stand up. This approach demands an engagement with the inherent problems of architectural expression relating to the incorporation of expansion joints and steel brackets within a masonry elevation.

Inherent in the two architects' strategies is the difference in scaling within the buildings' facades. The scale of the construction component, the length of a standard lintel for instance, enforces a human scale on the load-bearing elevations of the Wingender Hovenier buildings.



Angles of reveals are varied on the facade of Wingender Hovenier's blocks.

PHOTOS: STEFAN KELLER

**Inherent in the two architects' strategies is the difference in scaling within the blocks' facades**

On the other hand the structural freedom permitted by the brick dressing, evident in the elevations of the Korth Tielens buildings, has allowed and perhaps encouraged, a heroic scaling that relates instead to the overall mass of the urban block.

The constructional legibility of the Kolenkit buildings demonstrates, within the context of a humane and mature urbanism, the central issue of the academic

study: the questioning of the loose and ambiguous relationship between external and internal masonry leaves that is intrinsic to contemporary construction, but that has to date not been as directly addressed as an issue of fundamental architectural importance.

**PROJECT TEAM**

**Architects**  
Wingender Hovenier Architecten;  
Korth Tielens Architecten

**Client** VOF Kolenkitbuurt Zuid, Rochdale Projectontwikkeling  
**Urban design**  
Andries Geerse  
**Landscape architect**  
DS Landschapsarchitecten  
**Art (fences)** Baukje Trenning  
**Engineer**  
Bouwadviesbureau Strackee  
**Contractor**  
Bouwbedrijf MJ de Nijs en Zonen, Warmenhuizen  
**Services engineer** Nieman