

ie[®]

DRIVEN BY DESIGN

CLAUS EN KAAN ARCHITECTEN
 Boompjes 55
 3011 XB Rotterdam
 Telefoon 010 - 2060000
 Telefax 010 - 2060001

CKR 137 42-44

Building - From concept to completion ... and more



UPPER DECK

UPPER DECK



The Middle Ground

• Text by Bronwyn Burns

– Dutch Embassy in Mozambique

Designing a consulate building is a task far harder than most, especially when bringing first world architecture to a developing environment.



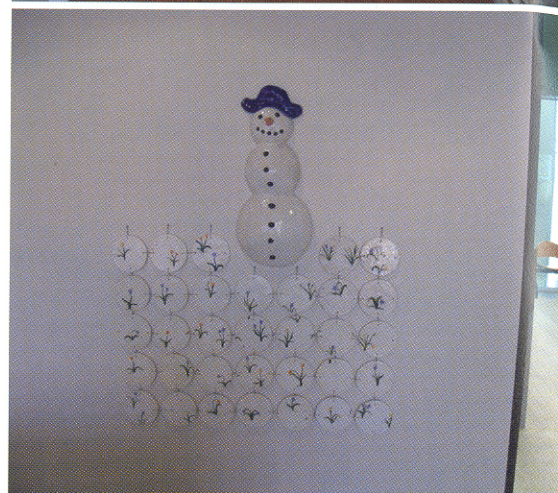
There are only eleven countries in the world that are poorer than Mozambique, and just twelve that are richer than the Netherlands. When Dutch architects Claus en Kaan Architecten were approached to build a representative embassy in Mozambique, this was the challenging contrast that needed to be resolved on an architectural level.

wooden fence, encircling the embassy in a band of vertical pillars, reflects a conscious decision not to isolate the embassy from its environment. It allows the courtyard and, behind it, the transparent façade under the veranda to be intriguingly visible from the street.

The practical and economic structural design dictated much of the layout with offices on the garden side, a middle zone for amenities and a double-height circulation and access area on the north façade linking the spaces of the mezzanine and ground floors.

The embassy opens up to the cooler south with a double-volume foyer whose roof has a large opening covered with canvas, providing shade from the sun but allowing the breeze to blow through.

Beyond the foyer, the chancery is made up of three zones. Immediately behind the sunlit north



Although the embassy is quite unlike any other building in Maputo, it is far from complex and certainly not excessive. Envisaged as a rough concrete monolith out of which a section has been cut, the embassy opens up in an L-shape, placing the entrance at the meeting point of the two angular buildings. Where the building has been cut open, it is fronted by a veranda of steel framework and glass façades.

The embassy's simplicity is maintained in the use of commonplace natural materials: wood for the boundary fence and concrete for the structure. The



Engineers of choice on the construction of the Dutch Embassy in Maputo



SPOORMAKER & PARTNERS
MECHANICAL & ELECTRICAL CONSULTING ENGINEERS

Tel: (012) 663-3125
Fax: (012) 663-1960

Client: Ministry of Foreign Affairs; Real Estate
Abroad Department; The Hague
Architect: Claus en Kaan Architecten
Quantity Surveyors: Pentad Quantity
Surveyors Pty Ltd
Construction Consultants: Pieters Bouwtechniek
Delft BV, Delft; SKC Engineers, Pretoria; Carlos
Quadros, Maputo
Mechanical and Electrical Consultants: DGMR;
Spoormaker and Partners
Structural Physics Consultants: DGMR Raadgevend
Ingenieurs BV, Arnhem
Construction Management: SIP Project Managers
(Pty) Ltd, Johannesburg

façade lies a concourse with two wooden double staircases, arranged one behind the other. Both on the ground floor and the first storey, the central zone contains functional areas such as the library, meeting rooms, the archives and all the service areas.

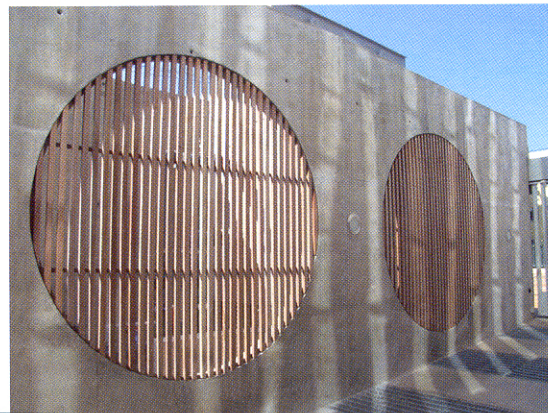
It took a full six years to complete the project, with the conceptual design beginning in March 1998. Pulled together by a team from three different countries, communication was a challenge. With the realisation that the project was not being managed effectively during the design phase, SIP Project Managers were appointed to manage the construction period from early 2003 until the Embassy's completion in March this year.

Ingeniously, SIP sent a Portuguese speaking experienced project manager from their Johannesburg office as a full time, site-based co-ordinator. Project manager, Jose Haa Sao's function was to provide a formal conduit to the designers by way of daily contact with the architects in Rotterdam and the other consultants based in Delft. "The information transfer between the architects based in Rotterdam and the consultants based in Delft, Maputo and Gauteng was very intense throughout the structural phase, and frenetic during the finishing stage of the project. It was a case of



SIP Project Managers (Pty) Ltd

Tel: (011) 233 6800
Fax: (011) 233 6843



controlled chaos for most of the project," says Collin Rothschild of SIP.

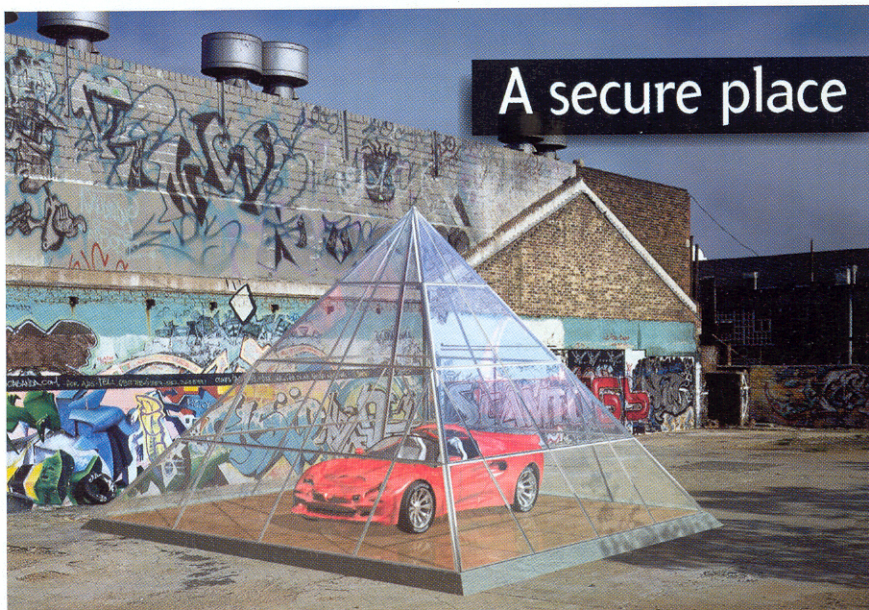
The majority of the specialist work such as the air conditioning, electrical installation, security & surveillance, lift installations, shopfitting, specialist ceilings, and reception area, were executed by South African sub-contractors. Unusually, only a nominal amount of specialist materials were imported from Europe.

"It was an exciting project to be involved in because of the international diversity within the team," says Henk Spoormaker of Spoormaker and Partners. "What I enjoyed most was the challenge of the air conditioning solution which was a developed between DGMR and Spoormaker." The whole system was located in the ground floor ceiling serving both the ground and first floor. A full mock up was constructed with the help of TROX in South Africa and the results captured on a digital movie clip and forwarded to DGMR which compared the results with computer generated air flow patterns.

As security was an integral part of the building's design, one remarkable aspect of this project was the use of nearly 30 tons of glass. Quantity surveyors, Pentad, worked with L&D to install thick bullet resistant BRG double glazed windows, each weighing an immense 300kg and spanning 3000 x 900mm in size.

Despite it being a small building, with a gross volume of 7696 m3, a rather large amount of concrete was used! "With a flat concrete roof and primarily concrete frame, over 2 000m³ of concrete and almost 230 tons of steel were used for the structure," says Anthon Botha of Pentad.

Verdict: Despite its dishevelled appearance, Maputo is a city of vibrant and varied architecture and the Dutch Embassy has added a new element to this.



Choose the superior strength and impact resistance of SmartGlass to protect yourself against intruders, wherever you live or work. SmartGlass performance glass solutions meet stringent safety standards, provide superior insulation and improve energy efficiency. You are also assured of outstanding quality because SmartGlass is installed by a network of accredited partners and backed with a comprehensive guarantee.



For more information about SmartGlass or to get in touch with a Certified SmartGlass Partner, please call 0860 695 695 or visit www.smartglass.co.za



DUTCH EMBASSY – MAPUTO



... quite unlike any other building in Maputo



PENTAD
QUANTITY SURVEYORS (PTY)LTD
Tel: (011) 548-4000
Fax: (011) 465-1439



Tel: (011) 618-1512
Fax: (011) 618-1563