

WORDS ELEANOR MOMBERG PHOTOGRAPH ELSKE KRITZINGER

# A GREEN LEGACY

Oliver Tambo is being honoured through a heritage and cultural precinct in Wattville that showcases extensive green construction techniques.

**T**he OR Tambo Education and Narrative Centre in Benoni is not just a dedication to one man's life's work. Its main purpose is to educate children and adults about caring for the environment, while encouraging sustainable living, and providing jobs and recreational facilities on the banks of the Leeupan. A key aspect is also attracting international and local visitors to Ekurhuleni, in much the same vein that Soweto has managed.

Jaco Burger, Ekurhuleni Metropolitan Municipality's project manager on the endeavour, said despite the initial idea being a park development with environmental education benefits, the idea to merge the environmental education centre with OR Tambo's legacy followed a council decision to honour his contribution to South Africa and the ANC.

The project also includes an outdoor amphitheatre and five multi-purpose arts and crafts workshops for local artists. A caretaker's cottage has been constructed as a sustainable construction show house, while the influence of the Highveld landscape and pan were used as design influences and supported by the use of natural materials.

Tunde Oluwa, project architect and director of Odyssey Architects SA, said earlier this year the project utilised traditional construction methods, making it unique in many ways and a contributor to the education of the green architecture industry in South Africa.

The indigenous techniques used include rammed earth, straw bale and cob walls, thermal mass flooring, an evaporative cooling system, green roof and Trombe wall technology (a sun-facing wall which absorbs heat during the day and slowly releases it into the room at night).

Green consultant Andy Horn of Eco Design Architects and Consultants came on board at a late stage. He worked as advisor on many issues, including the rerouting and transformation of the sewage system from the normal council system to a biogas production system that now supplies gas, for example, to the stoves on the property.

Horn's expertise on natural building methods was also extensively utilised. Besides teaching members of the local community natural building methods, he advised and assisted in the making of mud bricks, straw bale construction repairs and plastering, erecting rammed earth walls, utilising non-toxic steel, polished flooring instead of epoxies, water saving toilets, and more sustainable timber and rock sources for the development, as well as rainwater harvesting.

"We set up processes and did training and advising so they could do it more green. It was a learning curve for everybody in terms of construction methods and a project of that scale was also a challenge for us," he said. He also advised on the reuse of grey water – an aspect that will be addressed during the second development phase.

Johan Barnard of Newtown Landscape Architects, who had managed the consulting team and the Ekurhuleni Metro contract, said the first phase of the project was nearing completion, with delays being caused by the sourcing of specialised fittings. This included blinds, additional sunshades, a wet wall that needed to be imported and the introduction of additional seating in the environmental education and narrative centres.

Barnard said the first phase of the project was completed by the end of October 2011 at a cost of R45 million. The second phase started in April 2012 and involved not only the upgrade of sidewalks, but a lot of work at the Tamboville graveyard.

"This involves the general environmental upgrade of the sidewalks. The graveyard and the path to the graveyard are being finished off," he said, pointing out that the gravesite had not been very well managed and many of the graves did not have proper gravestones. "The tender for R8 to R10 million to upgrade the gravesite, install new gravestones with the correct spelling of names, as well as new fencing and expansion of the parking area at the graveyard, is still out," he said.

The R50 million phase three is planned to start in July 2013 and is expected to take just over a

year to complete.

"The department of housing is formalising a part of the squatter camp and others who live there are to be relocated. The eastern edge of the Leeupan will be largely preserved, and so the western side will be for recreation and other developments," said Barnard.

Ekurhuleni Metro spokesman Sam Modiba said now that the construction phase had been completed, the municipality's sport, heritage, recreation, arts and culture department was in the process of obtaining artefacts for the OR Tambo Narrative Centre. "None of the existing artefacts has been moved from the Benoni museum to Wattville yet."

While the centre has been completed, it is not yet operational. The Metro was investigating ways of making the development more viable and was considering appointing a facilities management company to run the centre.

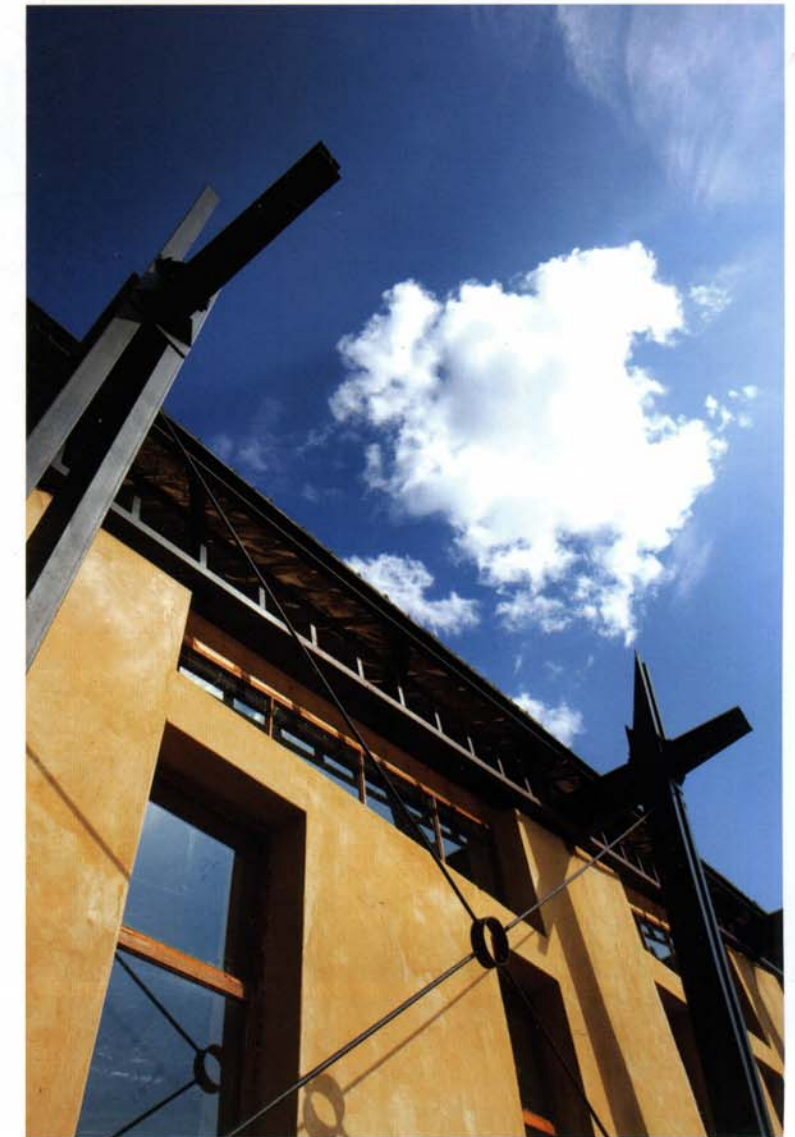
Modiba added the tenders for the upgrading of Tame Street and Mamakele Street would be awarded before the end of the year, with a contractor expected to start work by January 2013. A budget of R10 million had been set aside for phase two of the development, for which Newtown Landscape Architects had been appointed as consultants.

The Metro has yet to secure funding for phase three – the development of the Leeupan regional park. The Gauteng Department of Agriculture has indicated that will be investing in a one hectare vegetable tunnel as their contribution in phase three. "We are still in negotiations with the Gauteng Department of Agriculture, but if all goes well, we could have construction of the vegetable tunnels as early as February 2013," said Modiba.

Despite the centre not yet being operational, the spin-offs already include the province's willingness to construct the vegetable tunnel to assist in feeding the local community and the construction of the biggest solar farm in Gauteng next to the centre (opened in October 2012).

This development has contributed to a mind change within the Metro on green building, with a one-day workshop being planned by the municipality's department of environmental resource management to "outline development strategies for the incorporation of 'green development ideas' in future projects", concludes Modiba. ◉

\* The full feature appeared on p52 in the April - May 2012 issue.



## SOURCEBOOK

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**Wastewater treatment** Biobox 012 803 7272 www.biobox.co.za

**Bio remediation** Avantu Solutions 011 803 1361 www.avantu.com

**Earthworks** Odoko Civils 0860 263 656 www.odoko.co.za

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