

## Indian Ocean islands

# KZ-NIA



KZ-NIA JOURNAL SPONSORED BY



Journal of the KwaZulu-Natal Institute for Architecture

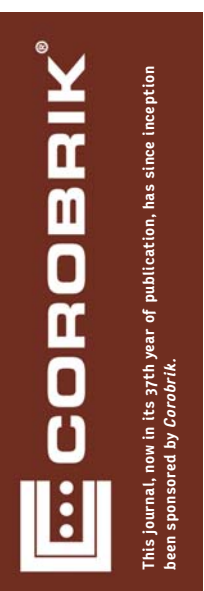
KZ-NIA JOURNAL SPONSORED BY







**KZ-NIA Journal • Issue 3/2012 • Vol 37 • ISSN 0379-9301**  
**Editorial Board:** Nina Saunders (Chair) • Patricia Emmett • Ivor Daniel • Kevin Lloyd • Paul Mwikila • Tsidi Moahloli • Andile Ncapai • Deborah Whelan • **Editor** Walter Peters • **Assistant** Janet Whelan • **Design** Maria Criticos  
 Published by the KwaZulu-Natal Institute for Architecture, 160 Bulwer Road, Glenwood, Durban 4001  
 Telephone: (031) 201-7590 • Fax: (031) 201-7586 • E-mail: info@kznia.org.za • Website: www.kznia.org.za  
 © Copying of any material from this Journal is encouraged, provided the author and the Journal of the KwaZulu-Natal Institute for Architecture are acknowledged.



## KZ-NIA News

### ■ 2012 KZ-NIA Conference: New Paradigms

The fifth educational conference hosted by KZ-NIA held at Docklands hotel, Point, on Friday and Saturday, 26th and 27th October, carried the theme *New Paradigms* and attracted 16 presentations and some 150 attendees. Special focus fell on Open Architecture, an alternative and distance learning programme leading to the registration of professional architects. Keynote speakers were John Stevenson, Principal Lecturer in the professional programmes in the School of Architecture, Oxford Brookes University and Director of the RIBA Examination in Architecture for office-based candidates, and Rajeev Kathpalia, director and trustee of the Vastu Shilpā Foundation for studies in research and environmental design based at Ahmedabad, India, founded by the late Dr Balkrishna Doshi.



From left to right: Rodney Harber, conference co-organiser, John Stevenson, Rajeev Kathpalia, and fellow conference organiser and KZ-NIA-President, Kevin Bingham.

### ■ KZ-NIA Regional Committee 2013-14

At the AGM held on Tuesday, 2nd October, the following members were elected to the Regional Committee: Joanne Lees, Jodi Davis-Harber, Kyria van Soelen, Lauren Haiden, Lindsay Napier, Mayuri Bhana, Melissa Wilkins, Mpho Selepe, Richard Stretton, Ruben Reddy, Sikhumbuzo Mtembu and Kevin Bingham.

At the subsequent Committee meeting, Kevin Bingham was elected President, and Jo-Anne Lees and Ruben Reddy as Vice-Presidents. In addition, the following members were co-opted with portfolio-specific functions: Trish Emmett, UIA International Liaison; Rodney Harber,

Open Architecture and Global Studio Liaison; Ivor Daniel, Premises; Walter Peters, KZ-NIA Journal, and Nina Saunders, immediate Past-President.



**Kevin Bingham is KZ-NIA-President 2013-14. Durban born, Kevin holds qualifications from both Natal Technikon and University as well as a UKZN higher degree. Before his decade-long tenure at Natal/ UKZN 1997-2007, Kevin had**

### ■ In Memoriam

KZ-NIA Journal has learned with regret of the death of members **Clem Vernon** (1938-2011) and John Coote of Vryheid (1933-2012), **Mahommed Seedat** of Durban (1949-August 2012), and architect-engineer **Mike Dyer** of Pietermaritzburg (1927-November 2012).

From a set distance, the profile of Nelson Mandela reveals itself in the cluster of steel bars.

### ■ Mandela Capture Site

To commemorate the 50th anniversary of the capture of Nelson Mandela on 5th August 1962, a new memorial was unveiled opposite the actual capture site with marker designed by Interplan Architects (see KZ-NIA 71/2004) on the R103 between Howick and Lions River.

The new sculpture consisting of a cluster of fifty vertical steel bars, each of 10m height and charcoal in colour, is representative of imprisonment. On descending the path

symbolic of the 'long walk to freedom', lined with trees bearing the names of negotiator, courageous, statesman, leader, prisoner, comrade and character, from a distance of 35m the profile of the face of the famous political prisoner Mandela is recognised. The sculpture was designed by Marco Cianfanelli of Culture Mechanics of Johannesburg, and the site including the museum by Jeremy Rose of Mashabane Rose Architects, Johannesburg.

### ■ Afri Woman Architect of the Year

At a function held in London on 20th April, Natal graduates Cindy Walters and Michal Cohen together won the inaugural Afri Woman of the Year prize hosted by the Architects' Journal.

The jury's citation reads "Exemplary work, by two exemplary women, at an exemplary practice". Wow! –Editor

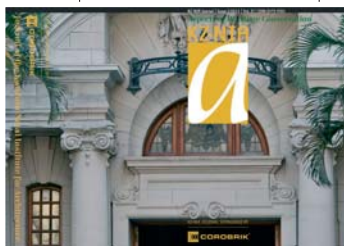
**UK-based practice of Walters & Cohen commenced after Cindy and Michal won the competition for KZNSA Gallery in Durban in 1994.**



### ■ 2012 AfriSam-SAIA Awards for Sustainable Architecture

KZ-NIA members have fared well in winning one Award of two in each category. Vele Secondary School in Gogogo village of Vhembe district, Limpopo, won for East Coast Architects an Award in the category 'built works' while Asiye eTafu-leni's Inner-City Cardboard recycling project won for Richard Dobson Architects an Award for 'social significance'

Photograph: Angela Buckland



maintenance as it is about the provision of new facilities. Over the years a number of National Monuments and buildings of merit took precedence over the iconic City Hall due primarily to budgetary constraints, but the grand old dame's day finally arrived. The largest maintenance/restoration project ever attempted by the City of Durban was given the go-ahead in 2005.

Though originally intended to be completed for the 2010 Soccer World Cup and its own centenary, logistical delays dogged the programme at every turn. In addition internal incidents provided their share of challenges to all stakeholders.

The building obviously had to remain functional during the process, but a minor fire in the roof, disgruntled staff, being selected to "star" in a TV series and being forced to halt work during the actual Soccer World Cup, all played their part. A number of these challenges led to placing the Civic Precinct under the management of the Priority Zone team (under the Architecture Department), which has led to vast improvements to the surrounding landscape, monuments and general ambience.

**José Gomes** Senior Manager: Architectural Maintenance, eThekweni Municipality City Architects Department

## EDITORIAL — INDIAN OCEAN ISLANDS

# Mauritius and Madagascar

Islands may be insular but they cannot exist in a vacuum. The islands off the East Coast of Africa are no different from most other islands off a major continent. They are all influenced by the greater body and in this case Africa. However as much as they are moulded by the greater body they have unique characteristics and requirements of their own.

The editorial committee is always looking for interesting magazine issues which will be an asset to the magazine and contribute to a better understanding of architecture.

I had visited Madagascar in the '90s and was intrigued by the architecture and the response to the cultural history and unique microclimate and ecology of the island.

In the 21st century the islands off the East Coast of Africa have grown dramatically as a world tourist destination, as a habitat for the indigenous people, the colonial expatriates and those wanting to escape to the island life.

The islands include: Madagascar, Reunion, Mauritius, Seychelles, Zanzibar. Maldives, Bazuruto, Mozambique Island.

What we asked the contributors to look at was:

- How the unique beauty of the island contributed in some way to make their project different from doing work in their home land. Did the history of the island plus its indigenous or settled population influence their project in any way?
  - What were the challenges of building on the islands and designing for the special circumstances where traditional modern building materials and construction are not available or achievable?
  - What were the requirements of the international architectural fraternity and SAIA as well as client's requests for the participation of foreign architects to be linked to some way of benefiting skilled professionals and artisans in the local populace?
  - How does the future of architecture in terms of the global issues of global warming (rising sea levels and changing climates,) global financial crises (tourist market drop off), political issues of independence and alignment with influential parties which may affect the present income of the islands, affect the architectural future of the islands?
- We invited all members of the KZ-NIA and those who had studied here to submit articles. Unfortunately the response was not as good as hoped. Many architects had done some work which had not come to fruition or they were not happy with the current

state of documentation in terms of the quality required.

To conclude, it is interesting to see how the challenge of the limitation of available building materials influenced the design solutions in the residential and resort architecture, the importance of maintenance in the choice of materials especially in commercial projects, and how the client-architect relationships led to buildings which were very specific to the client's needs or how the distance between the architect's base and the project, did not always allow them to control the product to its final fruition.



Kevin Lloyd, Guest Editor

After a decade in KwaZulu-Natal with TJA, Kevin Lloyd commenced independent practice in 2002 specialising in residential and resort architecture. An avid traveller and regular contributor of Travel Diaries to this Journal, Kevin has also guest edited issues on the South Coast (2/1990) and on Estate Architecture (2/2007). –Editor



The world's fourth largest island, **Madagascar** (1600km long and 580km wide) with its minor adjacent islands was a French colony, 1896-1946,

before gaining complete independence in 1960 as the Malagasy Republic. Antananariva is the capital and other than Malagasy the *lingua Franca* is French.

The pear-shaped island of **Mauritius**, only 61km long and 47km wide, gained independence in 1968 but remains a member of the British Commonwealth. Port Louis is the capital and the *lingua Franca* is Creole, a French patois.



## 2011-12 Corobrik-SAIA Awards of Merit & Excellence



ABOVE: Awards jurors with incoming SAIA office bearers. Juror and 2011-12 SAIA-President Fanuel Motsepe, 2013-14 SAIA-President Sandile Ngonyama, academic Awards juror Philippa Tumubweinee of the University of the Free State, 2013-14 SAIA Vice-President Nina Saunders, and Corobrik Awards sponsor representative Peter Kidger.

At a function held at the Cape Town Waterfront on Friday, 14th September, KZ-NIA members landed two of the three Commendations; three of the 28 Awards of Merit; and two of the eight Awards for Excellence. Considering KZ-NIA members had submitted 8 entries, having five nationally acknowledged is a commendable outcome indeed.

Commendations were made for Gottlieb Distribution Centre at Riverhorse Valley by

Elphick Proome Architects Inc and the Swimming Pool at Clermont by eThekweni Municipality, City Architects' Dept. Awards of Merit went to The Folie at Gowrie Farm, Nottingham Road, by Design Workshop: SA; while Concierge Boutique Hotel at Greyville Village by Architecture Fabrik with Don Albert & Partners and Investec Regional Head Office at Umhlanga by Elphick Proome Architects Inc additionally landed

Awards for Excellence. To the Award of Merits tally by KZ-NIA members should be added the Nike Football Training Centre, Soweto, in which Ruben Reddy Architects collaborated. The jury comprised SAIA-President Fanuel Motsepe, academic juror Philippa Tumubweinee of the University of the Free State, eminent person and fashion designer David Tlale, and Corobrik Awards sponsor representative Peter Kidger.

BELOW: Investec Regional Head Office at Umhlanga landed a 2012 Corobrik SAIA Award for Excellence for Elphick Proome Architects Inc, the second for the practice following that of 2008 for EPA Studio at Westway, see KZ-NIA 2/2011 and 3/2008 respectively. In the photograph, Corobrik Chairman Peter du Treu and George Elphick receiving the Award on behalf of Elphick Proome Architects Inc.

The jury concluded that "...Investec building makes what would be a stoic highbrow environment, human and spiritually uplifting".



Concierge Boutique Hotel and Freedom Café, Greyville Village, Durban, landed an Award for Excellence for Architecture Fabrik and Don Albert & Partners. Receiving the Award from Corobrik Chairman Peter du Treu, were Chantal Pieterse and Martin Kluger.

The jury was taken by the "...space generated through this interpretation of refurbishment, combined with its flawless alternative construction approach..." which they deemed "...a rare achievement [and] an event in urban space worth experiencing, enjoying and re-living".

### SAIA-President & Vice-President 2013-14

At the AGM of SAIA held in Cape Town on Friday, 14th September, Sindile Ngonyama of the Border-Kei Institute of Architects was elected President for 2013-14 and Nina Saunders of KZ-NIA Vice-President. This is the 12th time a KZ-NIA member has been elected to that position. *Congratulations, Nina!*

On gaining experience in a drawing office, Sindile landed a bursary to study Architecture at UCT. In 1997 the partnership of Ngonyama Okpanum and Associates was established in East London and now has offices in Port Elizabeth, Cape Town and Johannesburg.



### SAIA Medal of Distinction

At the Awards function, Su Linning, retiring Chief Executive Officer of SAIA, was awarded a SAIA Medal of Distinction. The citation reads as follows:

#### Susara (Su) Fourie Linning

After a quarter of a century in practice, employed and as a sole-practitioner, in Pretoria, Windhoek, Mbabane and Johannesburg, Su Linning

found her true calling when in 1997 she accepted the position as Executive Officer of the South African Institute of Architects.

Understanding the needs of the profession, this architect-turned-Executive Officer set about nurturing the membership, the network which makes up the Institute and for which communication is crucial. She set up a process to involve and

integrate members for a transforming network and, despite the biennial changes in leadership, with her quiet demeanor, sharp wit and excellent memory, not only kept the Institute together but made the Institute a coherent and well-managed body that members value and enjoy being part of.

Besides her executive role, Su effectively took on the mantle of Architecture in various forums and levels and, as she could see the bigger picture, her input on behalf of the Institute is both respected and valued. Fifteen years on, Su is leaving the environment in which architects practice and interact with colleagues a better place. It will be difficult to accustom ourselves to an Institute without Su.

The Medal of Distinction is presented to Su Linning by her colleagues, the Board, regional committees and the membership at large, with affection and respect in recognition of her dedicated service in the advancement of our profession of Architecture.



The practice Field Architects landed a 2012 Corobrik-SAIA Award of Merit as well as one for Excellence for Ubuntu Centre at Zwile, Port Elizabeth, in a joint venture with John Blair Architects and Ngonyama Okpanum Hewitt-Coleman.



### 2012 Sophia Gray event

24th Sophia Gray laureate was Stan Field of Palo Alto, California, who entitled his Memorial Lecture delivered in Bloemfontein on Thursday, 30th August *For the Love of Architecture*. Stan is a graduate of UCT and of the Master Class of Louis Kahn at the University of Pennsylvania in 1967, who, after a brief interlude in Johannesburg, became an architect of note in Israel before relocating to California in 1990. In 2006, Stan was joined by his son Jess, also South African born, when together they formed Field Architecture.

The 'mini-congress' on the following day was addressed by Anthony Orelowitz of Paragon Architects, Johannesburg, Mike Louw of Cape Town, and Werner Sobek, practising German architect-engineer and simultaneously Professor of Engineering at Stuttgart and Mies van der Rohe Professor of Architecture at IIT, Chicago.



RIGHT: Mark Horner and Andrew Makin of Design Workshop:SA accepted the Corobrik SAIA Award of Merit for The Folie at Gowrie Farm, Nottingham Road, from SAIA-President Fanuel Motsepe.





## INDIAN OCEAN ISLAND—MAURITIUS

# Ramblings from the lost land of the dodo...

Working as an architect in Mauritius is, well, like Mauritius: very accessible and often completely mysterious, often exciting but also tends to the mundane, dynamic while stuck in its ways.

Mauritius is a tiny peanut of an island lost in the Indian ocean; one of the densest places on the planet, but where most people aspire to an individual family house and a surprisingly high percentage have secure tenure of their habitation.

Mauritius is at once a place of conservative markets, tending to stick with the tried and tested, suspicious of innovation, but where news of the new can spread like wildfire down the island grapevine. It is also a place of clichéd diversity: multi-ethnicity cohabiting in forced proximity, but united by national common denominators. The ominous threat of the cyclone symbolically pervades local mentality and every so often wipes the slate clean of pent up differences and ties people back to nature, and then to one another. If we traverse more than two or three seasons without a cyclone, then you can be sure of social unrest, communal disease and general rants and raves.

Then there is Creole: Six months after being recruited to work in Port Louis by one of the larger firms of the time, 15 years back, I was able to converse freely in Creole. I had notions of French from my childhood, and although unable to conduct a satisfactory conversation in French, the *patois* mix of French and English which is Creole came easily and freely. After 25 years in Durban I was able to say 'give me porridge', 'my name is', along with 'get lost' in Zulu, suddenly I could communicate freely with anyone in the land!

After two years in the capital working on hotel and waterfront projects, I could no longer stand being stuck with the other 150 thousand or so stressed

individuals fighting their way in and out of the harbour town every day, nor being stuck staring at the back of the draughtsman in front of me when the surf was firing in Tamarin bay (a rather rare and sublime occurrence).

I jumped at the chance of a contract on the west coast, the island's first gated residential 'community' on 250 acres or so of rambling golden hillside hunting ground looking south and west to one of the most amazing vista's of the island. I guess they reckoned that with my South African origins, I would know what this was about!

I established 'taktik' architects, written phonetically as in Creole, with the desire to promote climatic and contextual responses. Over the last decade I have had the chance to build some thirty odd houses, a lot of them dealing with steep and unforgiving terrain. I also spent a good few years in the hotel market, where I found the most stimulation in completely reinventing failed attempts to cash in on the tourist boom.

The last four years have been tough: I have spent at least 80% of my energy on large speculative residential projects, taking these new opportunities to heart and perhaps going beyond the call of professional duty in terms of implication, only to end up with piles of paper in the drawers as these have been shelved due to market slumps.

So now it's back to basics: weary of the spec residential market (once bitten, twice shy) we are now concentrating our energies on education, converting an old sugar company's residential estate into a mini adult education campus.

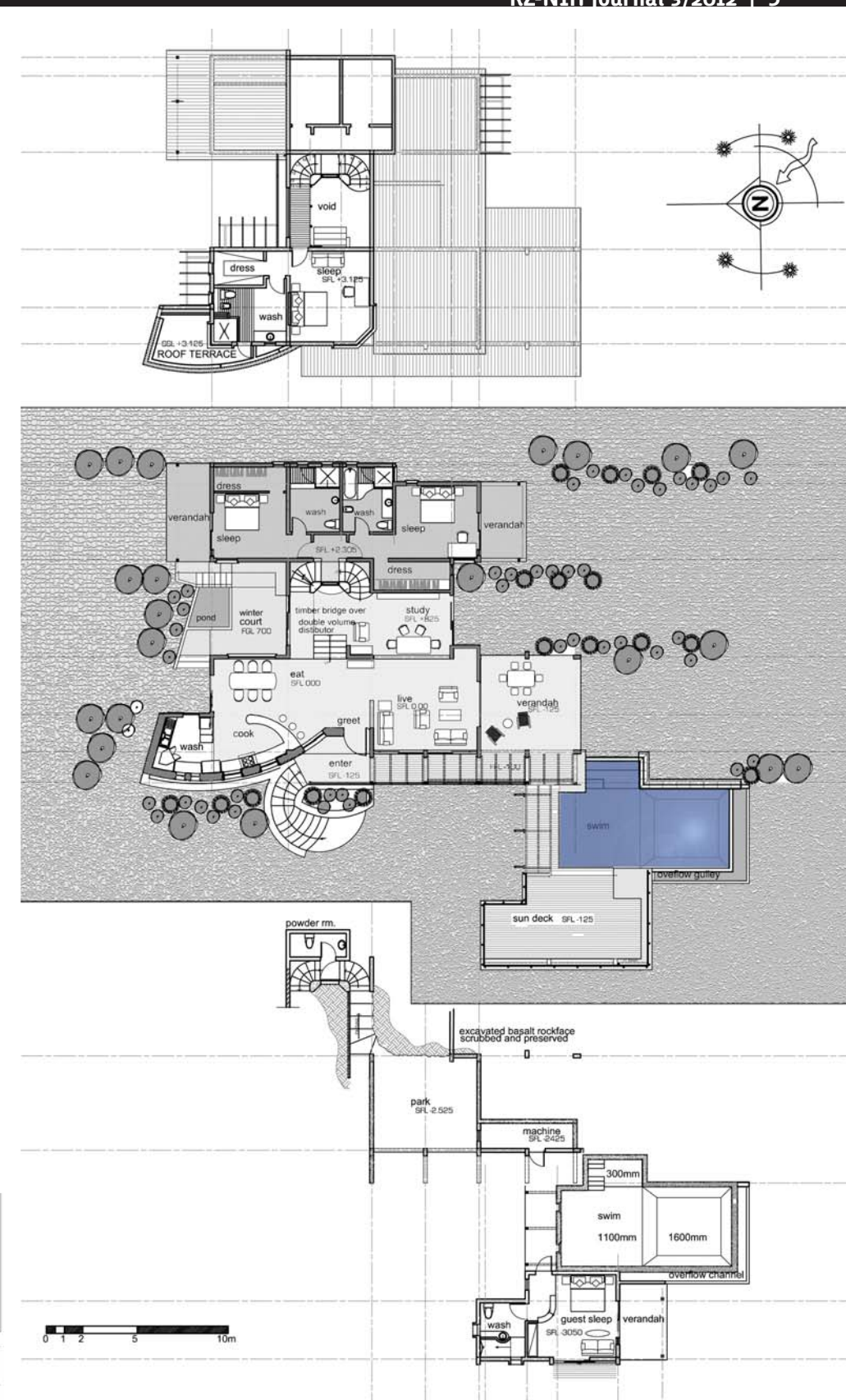
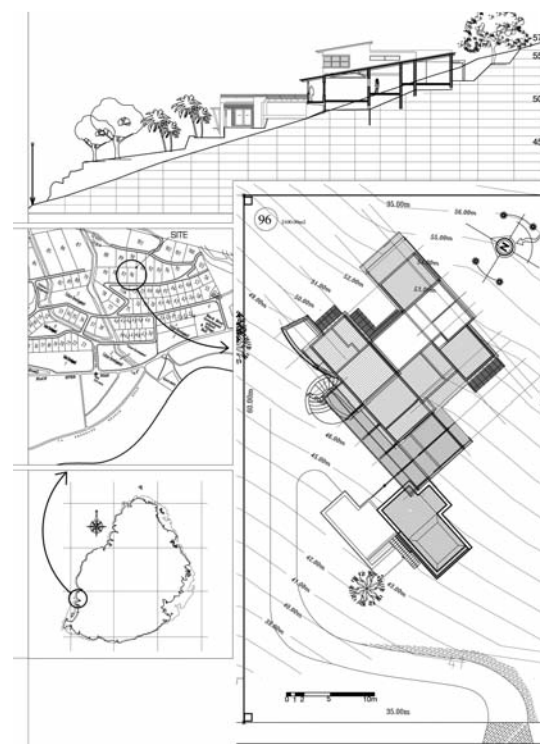
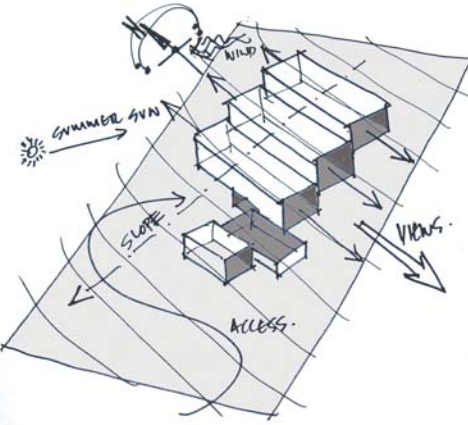
Mauritius seems to be at a bit of a wake-up call turning-point: the veneer of an upmarket dream island destination is fast wearing off. What looks like an emerald set in pristine blue as one flies in is slowly revealing itself for what it is: a green desert of cane fields slowly being eaten by an ever

advancing tide of flat concrete roofs, gated estates, shopping and office parks. Oh, make no mistake, there is still beauty and mystery and I am not saying it is too late! But then this is not really a Mauritian problem, rather a global one...and that is what I really enjoy about this little lost land of the dodo: it is a microcosmic representation of the planet.

As such, the future seems to be made of improving the lot of the middle and lower echelons of Mauritian society, too long ignored in favour of cash cows of sugar and tourism. This, however, needs to happen with a healing of the human-nature divide, and convincing people to consume less but insist on quality of environment. Kind of like the US asking China to stop polluting...

## HOUSE CABON, Plantation Marguery, Black River, West Coast, 2005

WHEN MR. C AND I FIRST visited the site, we were met with an entry slab over a stone-pitched drain giving directly onto a sheer basalt face that had been cut for the estate road. We were barely able to walk the site due to its steepness. "How the hell are we going to build a house on this, and how the hell did I buy such a piece of land" he muttered after we had made it up the site on all fours.



It came together quite easily in fact: following the north-south contours dictated a series of slim platforms stepping up the site, responding to the amazing axes of distant and close mountain and sea views in both directions. The roof was then draped as an echo of the slope down toward the west, and the platforms opened up north and south.

The materials of the house are really typical of our palette: basalt from the site making contact with the ground, sturdy timber in the local marine carpentry tradition creating a double skin for west shading and support for the roof sheeting, reinforced con-

crete frame allowing the creation of platform floors rather than sitting directly onto the mountain. There was some daring: using the guest fourth bedroom as a retainer for the pool, thus being completely out of the ground; cutting out of the basalt slope to create the driveway without need for further retaining.

All in all the resolution was simple and the budget reasonable for a site that could have proved otherwise for a heavy handed solution: we were thrilled to receive 'house of the year' 2005 from the Mauritius Association of Architects for this project!



HOUSE AGATHE, Le Morne, West Coast, 2006

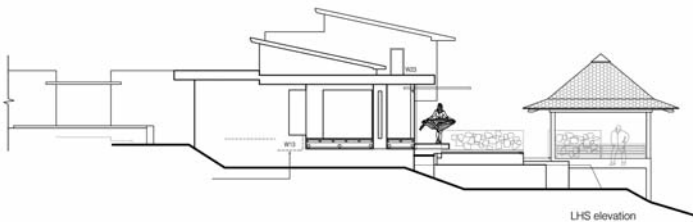


THIS HOUSE WAS COMMISSIONED by a land owner in the south west for his daughter. The layout is a fairly simple, linear split-level arrangement, with a limited palette of stone and rendered exterior, along with a deck and a shingle pavilion.

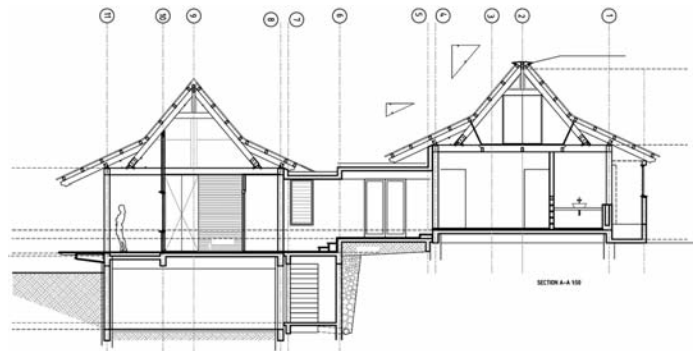
I include this as it is representative of a central concern with a series of houses, but that started perhaps with this one.

Living on the coast is about living outside, about the verandah, but in the colonial or Creole tradition the verandah is a lean-to extension of the main internal spaces, making these gloomy and potentially 'landlocked'. This house shows the idea of starting to treat verandas as outdoor rooms, rather than indoor extensions, and the idea was then to break the outdoor functions into separate rooms, and allow a simple 1.8m walkway to the front of the main room, affording required protection while maintaining contact with the exterior.

This seems to have created an exciting indoor/ outdoor living environment, aside from the mistress' three huge Cane Corso's have appropriated the outdoor pavilion, making furnishing difficult.



HOUSE SWELL, Plantation Marguery, West Coast, 2005



THE WEST COAST GETS OPPRESSIVELY HOT in summer: being on site in these conditions is extremely taxing.

An expat Frenchman involved in the local textile scene wanted a timber house. Using imported hardwoods for the structure proved to be too expensive, so the idea germinated for a steel, workshop prepared frame on a reinforced concrete basement, topped with timber trusses and roof sheeting.

The intention was to get the roof on as fast as possible, without even floors in place, so that the rest of the envelope could be produced under these in-situ shaded workshops.

The notion went swimmingly to start: six weeks saw excavation, foundation and concrete basement complete, steel structure had meanwhile been prefabricated and started being erected on site.

Then the first bug: the engineer had well detailed the reinforced concrete and steel connections, but his scope and responsibility was being quarrelled over and the steel-to-steel connections at roof level had not been adequately designed in our opinion, and the question of lateral bracing not clearly resolved. Nonetheless, the timber roof started being erected.

Second glitch: the client had raised a supply of a Malagasy hardwood that had been sleeping in a merchant's yard, but the timber was so tough and dense that none of the local sawmills would treat it. He ended up splitting it amongst three reluctant merchants and providing them with blades to produce the hefty rafters. Then when the timber went on, it was so heavy that it seemed to dominate the I beams. This quickly ensured that cross bracing issues were resolved!

I also realised that the colonials were not altogether wayward with their propensity for hipped roofs, the hip obviously presenting better bracing and less 'sail area' in high wind conditions. We converted the main platform, originally planned as a double pitch, to a hipped roof. Shooting from the hip, as it were!

Finally with the roof on the rest proceeded as planned, aside from erratic timber supply for floors and cladding. The process was exciting, if not altogether smooth, and the result is pretty cool. I am still nervous as cyclone warnings are issued, and live in dread of the morning after a whopper.

Nicolas Paturau

Taktik Architects, Mauritius

Nic Paturau studied architecture at Natal from 1987–94. On graduating he was offered a job in Mauritius and spent a couple of years working in the capital, Port Louis, before setting up on his own on the West Coast in the late 1990s. After just over a decade of practice, "Taktik Architects remains at a modest 7–10 people, and wishes to remain that way!" –Editor

INDIAN OCEAN ISLAND—MAURITIUS

# Belle Crique Private Resort, Black River

Two Durban businessmen who own a seaside property in Black River in Mauritius approached us to design six holiday apartments on their site. With the experience of having visited this part of the island as a misty memory and armed with some 'happy snap' photographs of the site, we prepared a concept design and linked up with a firm of local architects to understand the context and development controls.

Frontage and view opportunity generated the site organization with a series of slender, fringelike apartments sharing the ocean interface.



These are set in a staggered arrangement aligned with the beach control line. Identical apartments with open living spaces on grade and bedrooms on the upper level provided the optimum planning arrangement. A key spatial driver is the small central courtyard offering light and ventilation into the deep plan. Permeability and transparency were primary objectives of the design in response to both the tropical climate and ocean context.

While the holiday image of Mauritius depicts an idyllic climate, the reality is that at certain times of the year the weather conditions are extreme with regular cyclonic activity. In response to this, we proposed sliding-folding storm shutters to all veranda spaces and fenestration. These 'filter elements' to be crafted in local hardwood, serve to soften the hard modernist expression of the complex. Contrasting the white folded planes of party walls and upper roof are selected walls clad in local black volcanic stone, grounding the contemporary expression to its location.

The design solution was a 'hard-sell' to our clients who were bent on a pastiche of 'pseudo-plantation' villas. The result of design perseverance, we feared was likely short-lived as we handed the developed design to our local partners to obtain planning permission and to work with our client to bring the project to fruition. It was clear that the local firm had little influence on the client and quite honestly, we have never followed up on the outcome for fear of ruining the mental image of our six elegant contemporary apartments on the white beach of Black River! *Elphick Proome Architects Inc.*



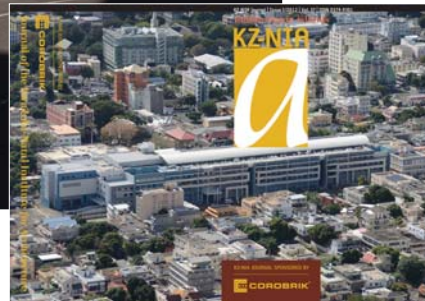


## INDIAN OCEAN ISLAND—MAURITIUS

# Jeetoo Hospital, Port Louis



COVER: Jeetoo  
Hospital in context  
of Port Louis.



Fortunately the successful tenderer generally included good quality known products from Europe and South Africa. The same principle applied to medical equipment, leading to significant challenges when specifying sophisticated medical equipment. The situation was exacerbated by the professional team being totally excluded from the adjudication process, which resulted in significant delays in the delivery of equipment, and a number of instances where unsuitable equipment was procured.

## Site

The site imposed severe restraints on every aspect of the project. Access is from a very busy road, which is a major bus route forming part of the inner city road network, producing a high level of noise and air pollution, in addition to congestion. The other three frontages are on to very narrow, primarily residential streets. The historic buildings housing the existing hospital, which were to be retained, are

to the rear of the site, dictating that the new hospital would be on the front portion. The site restrictions dictated that access for all but emergency cases would have

to be directly from the street, with the majority of patients and visitors arriving by public transport. The problem was alleviated to an extent by covering over a storm-water canal which runs along the road frontage to deal with cyclonic rains, thus permitting lay-byes to be created for buses, taxis, and private vehicular drop off.

The climate is sub-tropical cyclonic, with hot humid summers. Although cyclones are not an annual event, during the cyclone season from December to March, heavy rains accompanied by strong winds are common. Air quality in Port Louis is poor, largely due to traffic fumes from a generally badly maintained vehicular fleet. Despite the difficult conditions it was accepted that air conditioning could only be used in major clinical areas, and natural ventilation would be relied upon elsewhere.

Construction on the island is largely based on concrete frame with block infill, utilising the local volcanic rock. Dressed stone is very popular for feature walling and paving, and all stone from demolished buildings is recycled. Most other materials and components are imported, resulting in long lead times requiring great discipline in the issue of information.

## Concept

The concept evolved as a series of interconnected blocks around an atrium, with multi-level segregated

circulation by means of walkways with bridges linking across at intervals at the vertical circulation cores, all within a naturally lit and ventilated space which provides protection from the extremes of the climate. A continuous roof light runs the length of the atrium, with natural light and ventilation along both sides at roof level, which gives a well lit and cool interior. Ground level provides general circulation and access for outpatients to the various clinics, whilst inpatient circulation occurs on the upper levels. The major clinical facilities required by inpatients are all located at first floor level facilitating inpatient movement away from the mass of the outpatients and public. The non-surgical wards are located on the upper levels.

The walkways, bridges, and vertical circulation cores create a powerful three-dimensional space reflecting the nature of the building, whilst the space is enhanced by the use of strong colours on the vertical elements, and large scale graphic works on the main horizontal and vertical elements. External sun-screening is provided to all windows by a series of freestanding elements creating a strong elevational pattern of light and shade, which ensures no sunlight penetration into the building whilst not impacting on the line of sight of patients lying in bed.

## Construction

Hospital services had to continue throughout without interruption, requiring a phased construction which was facilitated by the configuration of independent linked blocks. This required careful planning and a high degree of cooperation between the hospital and the contractor. A pre-qualification process was undertaken prior to tender, which



resulted in the appointment of a contractor who, whilst lacking experience of hospital construction, was well organised and adept at pre-planning, and worked closely with the professional team.

Maintenance generally is not strong in the public sector and, whilst the need to ensure relatively unsophisticated installations was accepted, problems of

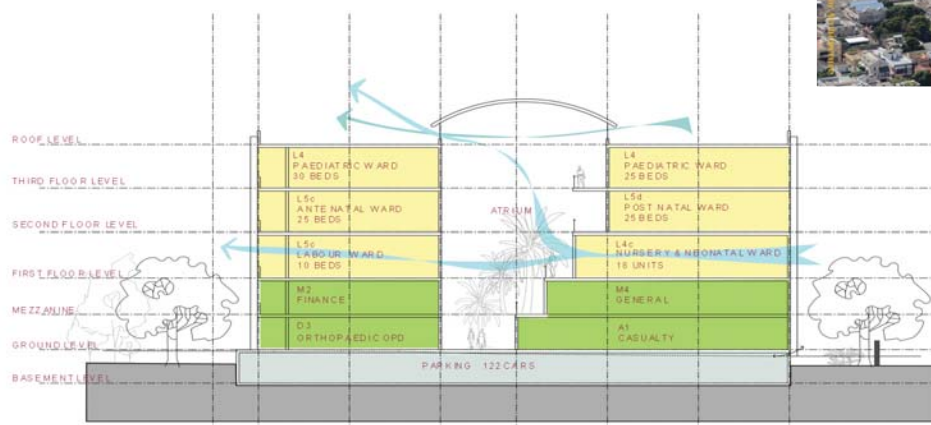
lack of maintenance have occurred. At present a maintenance contract is being negotiated with the Contractor, which will attend to the short term requirements, but long term maintenance remains a question mark.

The key to a successful project has been working with a good Mauritian professional team, which had the necessary local knowledge and expertise, and provided the permanent presence and point of contact. This was particularly important at completion and post-completion. Overall control and coordination was maintained on a daily basis through electronic communication, but travel represented a significant overhead which had to be absorbed, and was also time consuming.

All government work in Mauritius is invited by bid, thus fees are very competitive, and the general fee structure is lower than South Africa.

Kevin Bingham  
FGG Architects Inc.

**PROFESSIONAL TEAM**  
Principal Agents, Architects & Hospital Planners:  
FGG Architects Inc.  
Architects: J&A Architects.  
Equipment Specialists: Pholela Health Logistics  
Electrical Mechanical Consultants: Pro-Design Limited  
Civil Structural Consultants: Gibb (Mauritius) Ltd  
Quantity Surveyors: Ocal Ltd



The new Jeetoo Hospital project resulted from an international invitation for expressions of interest for the appointment of the professional services for the redevelopment of the Hospital. Following a shortlist of six firms from the UK, Belgium, India, Singapore, and South Africa, a team led by FGG Architects was appointed in January 2008. The bid was for total professional services, including the evaluation and specification of medical equipment.

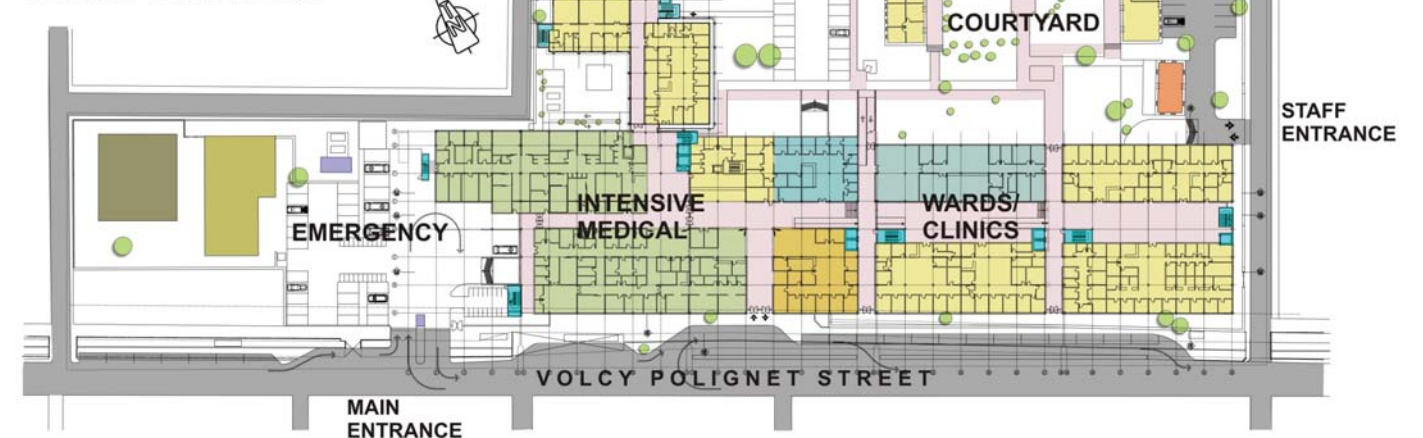
FGG assembled a team including Mauritian architects, J&A Architects, who provided local expertise and presence, with local quantity surveyors, civil structural engineers, and electrical and mechanical consultants, with a South African mechanical consultant in an advisory capacity, and a South African equipment specialist. FGG undertook the concept

design, overall and detailed planning, whilst the local architects undertook the design development and production of contract drawings.

It was necessary for FGG to gain a good understanding of the Mauritian health system, which required going beyond head office and senior personnel, to the staff at hospital level. Whilst the official language is English, the everyday language is French. The brief called for a hospital of international standard, but it was necessary to ensure that the design was appropriate to Mauritian conditions, where there tend to be fewer restrictions on access, and a greater family involvement with patients.

The Mauritian Government policy requires that everything must be measured in the contract, and no materials or components may be specified by name. This was a significant challenge when it came to specialist items, with a great risk of unknown products.

## GROUND FLOOR PLAN





## INDIAN OCEAN ISLAND—CENTRAL HIGHLANDS MADAGASCAR

# Wooden Architecture of the Royal Merina, 19th century

This article focuses on a type of wooden palace or house, known as a *tranokotona*, which was constructed by the royal Merina, the people who inhabit the central highlands of Madagascar. In Malagasy, *trano* signifies any house and the suffix *kotona* denotes a more specialized house, namely, a Merina house whose walls are constructed from vertical wooden planks (Richardson 1885). Our current knowledge about *tranokotona* is based on a combination of Malagasy and European written sources, photographs and architectural reconstructions dating from the 19th and 20th centuries. Though the Merina have not constructed *tranokotona* for more than a hundred years, the *tranokotona* has come to symbolize their deepest historical roots and ties to their ancestors both in Madagascar and abroad. During the late 18th and early 19th centuries, *tranokotona* became a powerful symbol that was practically synonymous with royal Merina culture. As a mark of status, possessing and building from wood was one of the chief ways in which certain groups of Merina made themselves politically 'permanent' as the principal rulers of Madagascar. Sumptuary laws dictated that Merina and other Malagasy from lower ranking segments of society were forbidden from building in wood.

The form of the *tranokotona*, wooden-planked walls, steeply-pitched and tall roof and crossing bargeboards or *tandrotrano* (horns of the house) that extend beyond the ridge line signify, for many Merina, ties to their south-east Asian past, real or constructed. The Merina trace their origins to far-away places across the Indian Ocean from which their ancestors migrated to Madagascar about one-thousand years ago. During the first half of the 19th century, as social and political circumstances changed in central highlands Madagascar, *tranokotona* continued to be the backbone for most royal Merina architecture even though the scale of the wooden palatine architecture was dramatically transformed.

Before turning to the architecture, some historical background is in order, especially the central role of King Andrianampoinimerina (r. ca.1783-1809) in the formation of the kingdom and strong association between *tranokotona* and royal Merina identity. According to the historian Pier Larson (2000), Merina ethnic identity appears to have grown out of early 19th century political allegiances to the King.



Fig. 1: View to the south towards Antananarivo from the royal hilltop enclosure (*rova*) of Ambohimanga. The combination of hills and small villages slightly elevated above verdant rice fields is typical of the landscape of Madagascar's central highlands. Photograph of 1997.

Today, he is celebrated among the Merina as the founder of the unified Merina kingdom. Prior to his reign, for 200 years the central highlands had consisted of several small kingdoms, some competing with one another and others loosely integrated. The name the King coined for himself was a compound word consisting of *andriana* (sovereign, noble) at the *po* (heart) of *Imerina*. He began using *Imerina* and *Merina* in public addresses (*kabary*) as a vehicle for drawing his disparate subjects together under a single polity and sovereign, and identifying that allegiance with a specific place. Memories of Andrianampoinimerina's extraordinary gifts as a poet, an orator of proverbs, historian and his role as a master communicator have been passed down to generations of Merina for whom the King remains an ancestral hero.

The printed source of many of these memories is the *Tantaran' ny Andriana eto Madagascar* (commonly translated as 'Histories of Kings'), a monumental collection of Merina oral traditions (mostly royal) recorded by the Jesuit missionary François Callet during the mid-19th century. The *tranokotona*, as it was described in and interpreted through the *Tantara*, became an expression of the

sovereign's status over his subjects. The continual process of coupling the great orations of the founder King Andrianampoinimerina with extant wooden architecture (and reconstructions over time of those structures) provided the *tranokotona* with 'permanence' through its association with Merina historical traditions. Through the wooden palace's ties to early Merina kings and the unification of the Merina kingdom, it came to embody the essence of what it meant to be a member of an elite group of Merina. The uniqueness and privilege associated with their wooden architecture continued to be articulated by European scholars and British missionaries, such as London Missionary Society (hereafter LMS) missionary-artisan, James Sibree.

Around 1783, after overthrowing one of his chief rivals, Andrianampoinimerina was declared king of Ambohimanga. Located twelve miles north of Antananarivo (the future Merina capital), Ambohimanga was a densely forested hill with a royal enclosure (*rova*) and palaces (*lapa*) located on a site at the top. From the rova at Ambohimanga, there is a spectacular view over rice field to the south towards Antananarivo (Fig. 1). The hill stands out among others due to its excellent natural

Fig. 2: West façade with entry portal (right) of King Andrianampoinimerina's palace at Ambohimanga. "Here lived and reigned the great King Andrianampoinimerina" is written in Malagasy and French on the white plaque. Several exterior features, e.g. the wide wooden planks, exterior dark brown paint, wooden shingles, lip at the base of the roof, short red "tandro-trano" and iron tie member just to the left of the window, result from numerous reconstructions during the 20th century. Photograph of 2008.

fortification. By the early 1790s the King conquered another hilltop settlement known as Antananarivo. The topography and location of Antananarivo had key advantages over Ambohimanga. First, the royal enclosure (*rova*) at Antananarivo was built on top of a much taller and more expansive hill; hence, it was easier to protect from invaders and there was plenty of space for expansion. Second, Antananarivo was at the heart of vast, well-irrigated rice fields (now called the Betsimihatra plains) which were originally the marshes and flood plains of several rivers.

As an outstanding example of a *tranokotona*, a mid-20th-century reconstruction of Andrianampoinimerina's palace at Ambohimanga survives today as one of the chief symbols of Merina kingship and the birthplace of the unified Merina kingdom (Fig. 2). The palace's height (approximately 9.144m from the ground) and vertical exaggeration are its most striking features. The verticality of the building and the importance of height were key architectural features used to visualize the authority of the king. Given the connection between height and status in royal Merina society, it seems likely that royal dwellings were elevated to some degree from the ground plane. The massing and uniformity of materials, ranging from the dark brown *palissandre* wood of the façade to the tall roof, further augment the



imposing character of the palace and of the king. The combination of scale, verticality and rare materials, together with the long *tandrotrano*, set the palace apart from any other. Aesthetically, *tandrotrano* provide the gable with a strong profile and shadow at this juncture, making the gables visible from afar.

The plan of the palace (9.1 x 7.6m) is quite a bit larger than the *tranokotona* inhabited by other elite Merina. The single entry to the palace is located on the right side of the west façade. In traditional Merina architecture, openings exist primarily on the west and north façades, but never on the east façade. For a variety of symbolic reasons (e.g. the north-east corner of the house is its most sacred space and is associated with royalty and esteemed ancestors) and functional explanations (the main winds originate

from the south-east), the east façade is treated as a solid wall without portals or fenestration. This traditional building practice is still found in the highlands (Fig. 3). Three tapered pillars (*andry*, the central *andry* is square) extend more than 7.62m to the tie and ridge beams (Fig. 4). The height of the pillars, walls and roof make them highly susceptible to toppling over due to horizontal forces, especially wind. Tying the three main rafters into the posts and walls by means of a truss system reduces this potential structural failure. Symbolically, the *andry* represents the place – the still point of the house – where all the forces converge as well as the central position from where the sovereign rules over his subjects. This tradition of the central pillar symbolizing the centrality and power of the sovereign continues to be expressed in contemporary Merina culture. Since the *andry* is dug into the smoothed earthen floor, the pillar also forms a symbolic and physical connection to the portions of the diurnal cycle that remain unseen, namely those marking the periods of darkness which exist

symbolically underground out of the reach of light.

To enter the palace it is necessary to step up onto a round stone, step over a wooden threshold (approximately 620mm high) and step down onto another round stone and then again onto the smooth earthen floor. The sense of arrival is heightened by the verticality of the interior space which is further enhanced by the tall pillars (*andry*). Once your eyes adjust to



Fig. 4: Central pillar (*andry*). Interior of King Andrianampoinimerina's (1745 – 1809) wooden palace at Ambohimanga, central-highlands Madagascar. Ambohimanga, which was the King's seat of power, became the royal Merina capital once he unified the kingdom towards the end of the 18th century. The portrait of the King hangs on the pillar. The hearth is in front of the pillar and eating and drinking containers are shelved along the wall behind the pillar. Photograph of 1994.

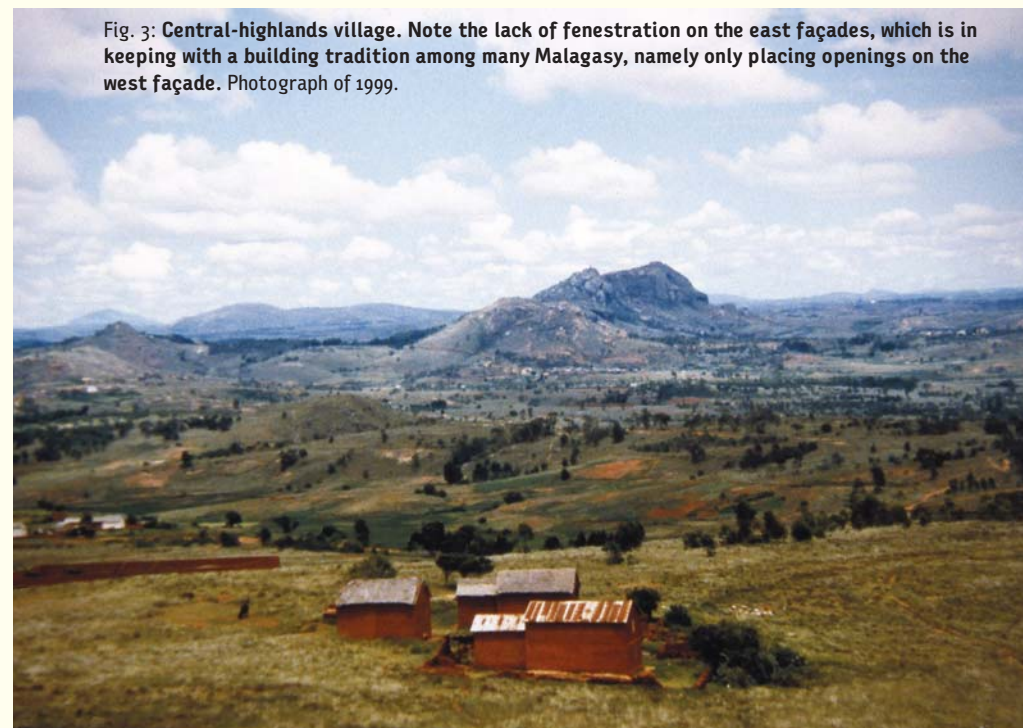


Fig. 3: Central-highlands village. Note the lack of fenestration on the east façades, which is in keeping with a building tradition among many Malagasy, namely only placing openings on the west façade. Photograph of 1999.



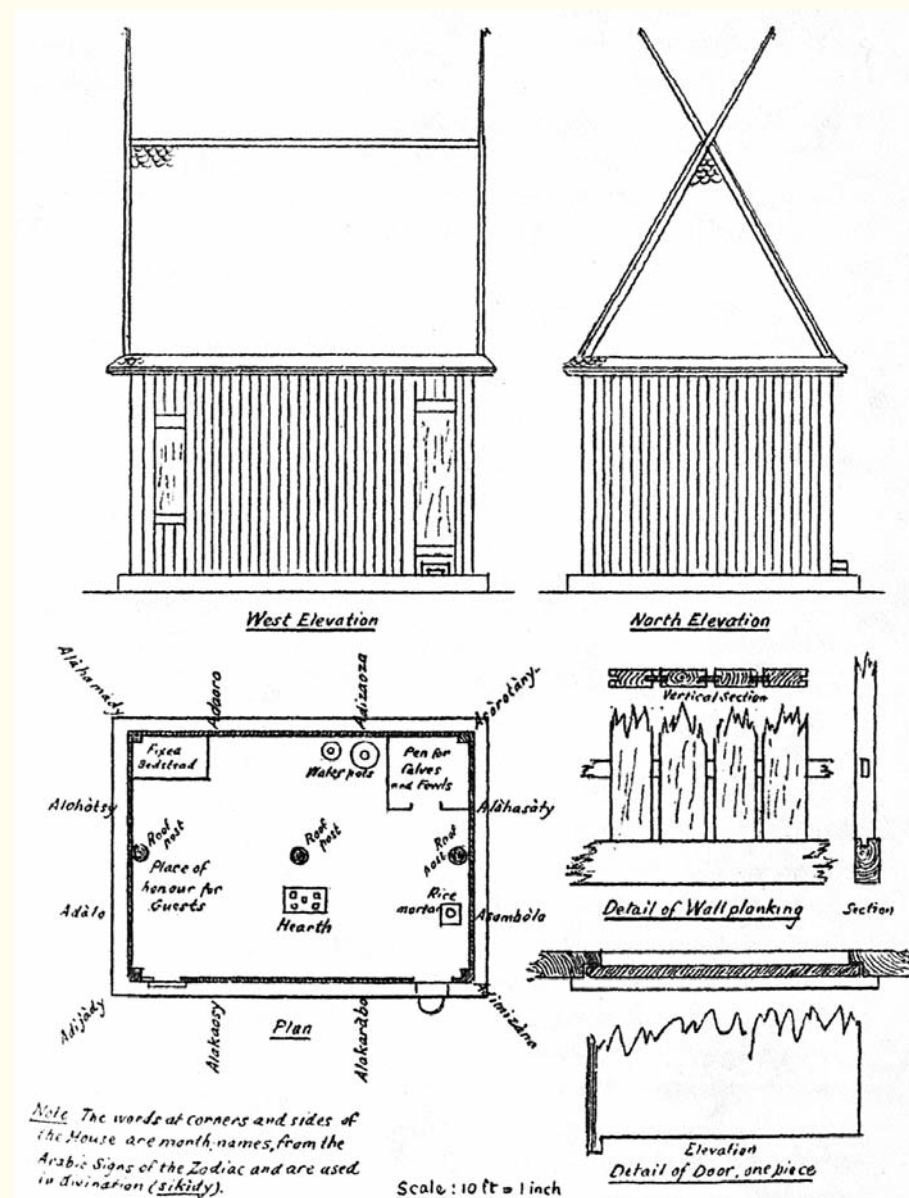


Fig. 5: Tronokotona house type. Sibree's plan is labeled according to the twelve major periods of *vintana* (commonly translated as "destiny"). The 28-day lunar cycle begins with the first and most important month, Alahamady, which is located in the auspicious northeast corner of the house. The ensuing months and days progress in a clock-wise direction. Source: *A Naturalist in Madagascar*, James Sibree (1915), Plan/elevation.

the darkness of the interior, there is an immediate awareness of the elegant arrangement of hundreds of pieces of wood into a complete form. The structural solutions (tall posts and mortise-and-tenon system) destined to deal with the forces of the *tranokotona* provide solidity to the mass of assembled wood.

A principal sign of royal status was the various species of hardwoods used to construct *tranokotona*. Most generally, wood and vegetal materials were associated with the living, whereas stone and earthen materials were closely connected with dead ancestors. Though the Merina rarely inhabited masonry structures until the last quarter of the 19th century, this material was an equally important way in which the Merina made themselves permanent. Stone was used to build the foundations of *tranokotona* and for highlands funerary architecture. For the Merina and other Malagasy, stone is far from being an inert material. Stones remind individuals of their connection to others, past events and ancestors by

means of their powerful physical and metaphorical associations. Among the most important motivations for the construction of architecture (both stone and wooden) in Madagascar, is the Malagasy concept of *hasina* (most often translated as 'sacred efficacy'), which is imbued with mystery and involves sacred forces, power and blessings, each of which is universal and particular. Through *hasina* ancestral connections are maintained by means of activities such as working the land, building and maintaining houses and tombs and cattle sacrifice. For the Merina and other Malagasy peoples, *hasina* exists in the trees, rocks, water and earth that are used as building materials. Whether occurring naturally or in architecture, if these materials are cared for and not ignored, they are potentially beneficial for the living as sources of power.

One of the earliest and most widely circulated drawings (Fig. 5) of a *tranokotona* was published in LMS missionary-artisan, James Sibree's *A Naturalist in Madagascar* (1915). Sibree's drawing, includes a

plan, elevations and sections, and provides a wealth of information about the materials, construction and spatial aspects of a *tranokotona*. Because the *tranokotona* is single-storied, relatively small and has no fenestration on the east façade or in the gable, the house that Sibree chose to represent probably dates from the early to mid-19th century, however, the shingles suggest a slightly later period. The publication of Sibree's drawing probably had a dual purpose: first, documenting, with the aim of preserving, an almost extinct house type; and second, signaling to Europeans at home the progress that the Merina had made in their construction techniques as a result of the missionaries' 'civilizing' role of eventually introducing bricks to Madagascar during the 1860s.

Sibree's plan illustrates a fundamental design principle used while planning a *tranokotona*, namely a system of *vintana* (commonly translated as 'destiny'). Based on twelve signs of the zodiac and 28 stations of the moon, *vintana* is a prime example of the enduring influence of Islamic culture in highland Madagascar since *vintana* has its origins in Arab astrology and numerical systems. *Vintana* is a power that influences every aspect of life. The anthropologist Jorgen Ruud writes, "to oppose the *vintana* power is something impossible and unthinkable" (Ruud 1960, p. 27). The *vintana* system is used throughout Madagascar, but the particular ways in which it is fashioned and interpreted vary considerably from one region to another. The concept of *vintana* is difficult to grasp because events or actions both determine and are determined by it. *Vintana* is the means by which future actions and events are planned and ordered, for example, planting rice, timing the preparation of a building site, or spatial ordering of a plan. The timing and spatial ordering of other types of structures, for example, corrals, tombs and the layout of a royal enclosure (*rova*), have to comply with a system of *vintana*. At the same time, the precise occurrence of life events, such as birth, circumcision and marriage, determine an individual's *vintana*. The concept is given additional vitality by virtue of *vintana*'s "deep" historical associations since, according to the *Tantara*, it was practiced by the ancestors.

During the planning phase of a house, a system of *vintana* is mapped onto the floor plan of a *tranokotona*. The rectangular plan is divided into 'imaginary' parts, which can be 'read' or 'thought' as the twelve months of the year, the 28 parts of a lunar month and 24 hours of a day. Each corner is attached with three days; the remaining sixteen days of the 28-day lunar month are distributed among the four walls (four per wall). Accordingly, months, days and hours share specific points on the rectangular plan. The organization of a house plan based on *vintana* necessitates having corners because they mark precise points in a cycle of *vintana* and transitional areas from one *vintana* to another. As a point of juncture between two *vintana*, a corner can acquire more than one quality. The four months marked at each corner are called the *renyvintana* (*vintana* mothers). The remaining eight months (two per wall) are called the *zana-bintana* (*vintana* children). According to Ruud, a 'mother' at

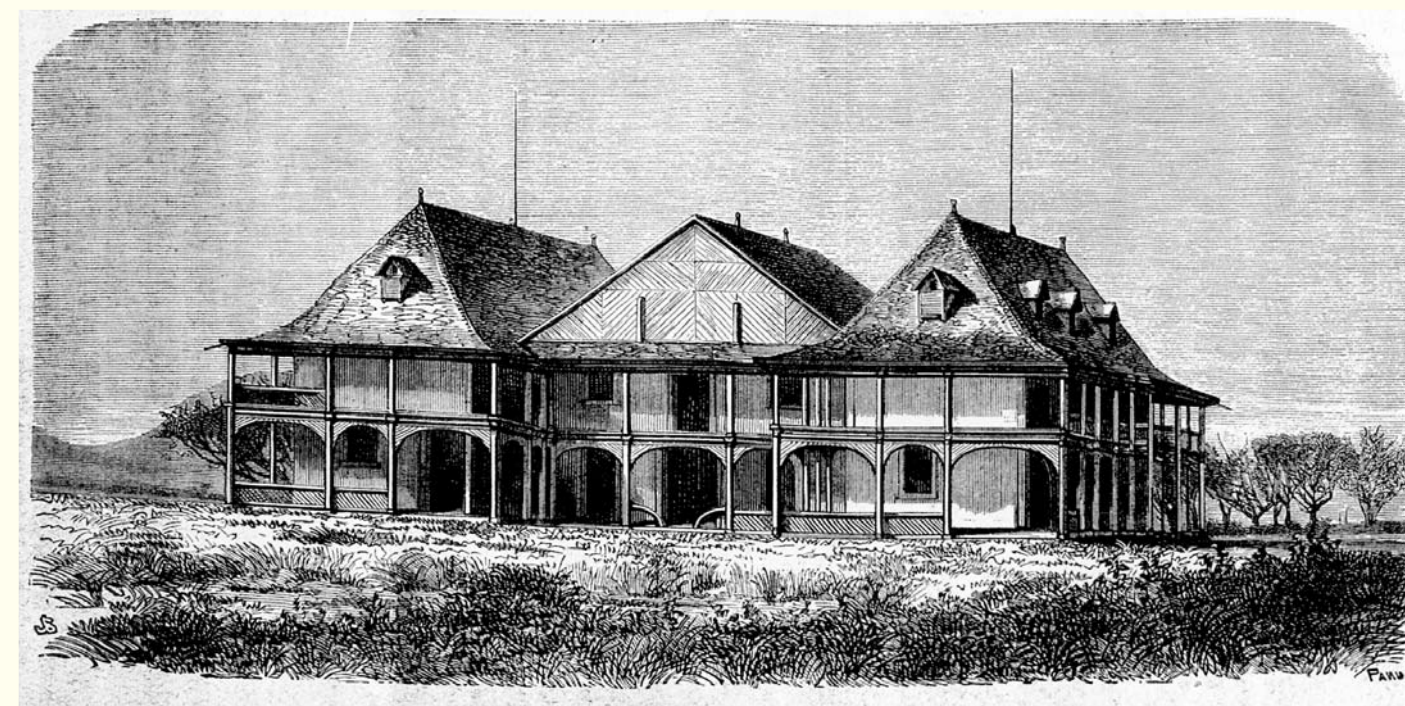


Fig. 6: View of Radama's Soanierana Palace. The Palace was designed and built (ca. 1824-1830) by the Mauritian carpenter Louis Le Gros. According to the *Tantara*, the Palace was not completed during Radama's lifetime. The Palace site is an excavated hill in the middle of vast rice plains to the south and west of the *rova*. Source: *Histoire de Madagascar* (1884) by Camille de La Vaissière. Engraving most likely came from a photograph (ca. 1870) of the Soanierana Palace. The Palace was destroyed by fire ca. 1995.

each corner is said to carry one 'child' on her back and hold another in her lap or arms (Ruud 1960, p. 29).

For the Merina, the first and most important month, Alahamady (a time that also bestows honor on the sovereign), is located in the highly esteemed northeast corner from which the proceeding months circulate (*rohontany*) in clockwise fashion. The northeast corner possesses the most powerful destiny and is associated with kings and nobility. The

*Tantara* makes explicit reference to the connections between *vintana* and the location of daily activities of the Merina. In this fashion, the dimensions of time (through the diurnal motion of the sun) and space (specific places in the house) are unified into a single system as the various surfaces of the house are struck with light or left in shadow. The male (and sometimes female) elders of the household sit and sleep near the northeast corner while animals are kept in the southern portion of the house.

The exclusivity of wood as a royal prerogative is found in subsequent royal Merina architecture, in particular a palace-retreat (Fig. 6), which was commissioned by King Radama I (Radama was the son of Andrianampoinimerina) and constructed by Mauritian carpenter Louis Le Gros on a small hill called Soanierana, close to the rice fields just south of the *rova*. The Government House (1803-1810) in Mauritius served as an architectural precedent for the Palace.

The building functioned as the residence and offices for the British governor of Mauritius. It had a prominent position at the head of the major street in the capital, Port Louis, and was a well-known regional landmark. The Palace has a similar footprint, verandah and roof form as the Government House, however, its interior plans, location of entrances and detailing are vastly different. The Palace's mass and volume, resulting from enormous quantities of hardwoods used for construction, was in keeping with royal Merina architectural traditions. Like *tranokotona*, the principal entrance was located on the west side, along the length of the Palace.

However, the building was a significant departure from Merina building traditions and an architectural novelty for Antananarivo. The Palace was an assemblage of three buildings (it became popularly known as the *telo-tafo*, meaning 'three roofs'), incorporating European architectural elements and

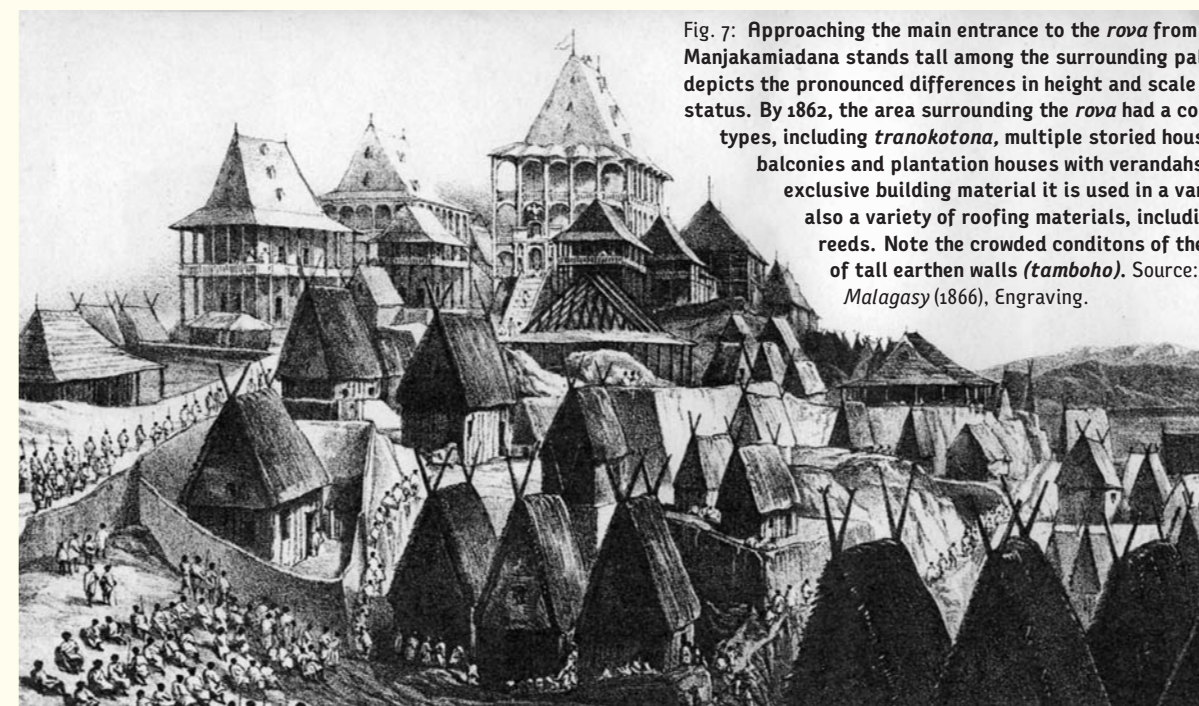


Fig. 7: Approaching the main entrance to the *rova* from the north. The Manjakamiadana stands tall among the surrounding palaces. This image depicts the pronounced differences in height and scale and their relation to status. By 1862, the area surrounding the *rova* had a combination of house types, including *tranokotona*, multiple storied houses with exterior balconies and plantation houses with verandahs. Although wood is the exclusive building material it is used in a variety of ways. There is also a variety of roofing materials, including wooden shingles and reeds. Note the crowded conditions of the capital and presence of tall earthen walls (*tamboho*). Source: *Madagascar and the Malagasy* (1866), Engraving.



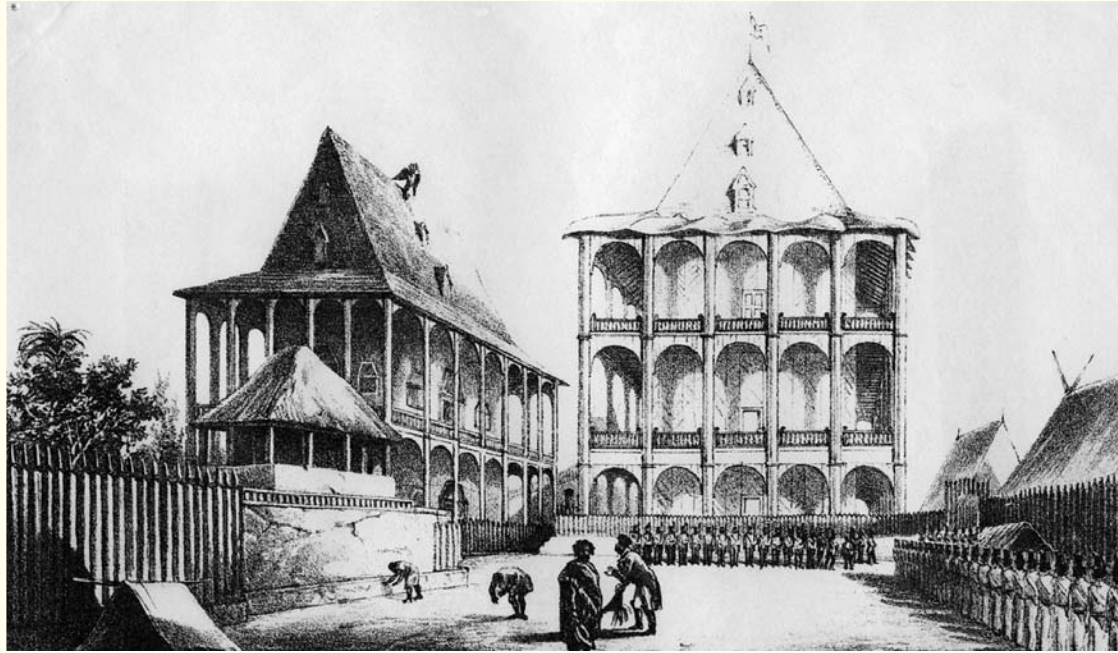


Fig. 8: View of the north court of the *Anaty rova* (interior of the *rova*) with the Manjakamiadana, Tranovola and the tomb of Radama I. Soldiers line the tall wooden fortification surrounding the court. The people near the tomb are engaged in some ancestral ritual, perhaps requesting hasina (blessings) from their ancestral king. Source: *Madagascar and the Malagasy* (1866), Engraving.

forms, for example, windows, a verandah, dormers and a hipped roof. It had an enormous plan (38m long x 30m wide and 9m tall). Despite the height of the Palace, it lacked the exaggerated vertical proportions of *tranokotona* because, like the Government House and plantation houses in Mauritius, it was laid out horizontally. The chevron or 'herringbone' (*sarendry*) pattern of the central hall demonstrated that wood was being utilized in a different manner, that is, small pieces cut evenly and assembled at angles to make a design on a façade. The new technology (saw, glue and nails) necessitated by this type of construction is another indicator of the novelty of the building, perhaps serving as a 'moniker' of the King. Finally, surrounding an entire building with a multi-storey verandah became one of the signatures of royal Merina architecture (see above Ranavalona's Manjakamiadana Palace). Besides shading the Palace from the blazing hot sun, the verandah provided a space from which the King and his court could observe and be observed during ceremonial or sporting events occurring in the outdoor spaces surrounding the Palace.

The enduring influence of the *tranokotona* and the Soanierina Palace is exemplified by the Manjakamiadana Palace ('reign in peace'), which was commissioned in 1839 by Queen Ranavalona I (r. 1828-1861 and principal wife of Radama I). The Palace was designed and constructed by Frenchman Jean Laborde (1805-1878), who shortly after being shipwrecked on Madagascar in 1831, established connections with the royal Merina and became the Queen's chief engineer and architect. Queen Ranavalona relied on Laborde's talents, whose own ingenuity and grandiosity contributed to the design and construction of a royal palace with a scale and form that not only changed the face of the *rova*, but also transformed the skyline of the capital.

The Manjakamiadana was designed as a ceremonial palace for formal receptions and national rituals and was never lived in by Ranavalona or her successors. When the Palace was completed, it was

the largest building in Madagascar and remained among the largest wooden buildings in the world until it was destroyed by fire in 1995. The Manjakamiadana dominated the skyline of the capital and was visible from almost any of its quarters. Its size (38m long by 29m wide by 36.6m high) far surpassed that of any other building on the island (Fig. 7). The combination of its enormous proportions and bright white color made it visible from any direction at distances of 24km to 32km. As the most prominent object in the landscape, the Palace marked the central position of the *rova* as the capital and the authority of Ranavalona as the Queen of Madagascar.

The Palace and *tranokotona* share rectangular plan, vertical proportions and dominant roof. If one could imagine the building without its verandah, it would appear as a colossal version of a *tranokotona*. The verandah surrounding the Palace, impressive gabled roof, and the use of wood have precedents in the Soanierina Palace. However, the Palace's magnitude transformed these architectural elements into something that was qualitatively different from their previous designs. The three principal floors of the Manjakamiadana were articulated by a three-storey verandah, which surrounded the building. Enormous wooden posts, with arches and balustrades in between, supported the verandah. Structurally, it provided necessary buttressing for the main body of the Palace, which, due to its height, was particularly vulnerable to horizontal forces, such as wind. The most unusual architectural feature of the Palace was a sharply pointed undulating roof that covered the verandah (Fig. 8). Based on pure speculation, the form of the roof may have alluded to the wings and claws of a raptor (*voromahery*) or to crocodile teeth. The verandah provided the Queen with a gallery from which to be entertained and it elevated her above European visitors as well as her palace retinue as colorful spectacles took place in the outdoor space in front of the Palace.

The Manjakamiadana had vast interior spaces consisting of three main stories and three more attic

floors. The main floors were duplicates of one another, each of which had one enormous room (about 0.34sq m) bordered by small rooms on its north and south sides. The most dramatic allusion to *tranokotona* was the huge central pillar, *andry*, (approximately 914mm in diameter) that was surrounded by four additional columns that supported the accumulated weight of the upper floors.

Coinciding with increasing numbers of court officials to manage Ranavalona's complex bureaucracy, the construction of the Palace precipitated a building boom in the quarters near the *rova*. This led directly to a dramatic increase in the density of domestic wooden architecture on the hillside surrounding the royal enclosure (Fig. 7). Until fired-brick replaced wood in the 1860s as the principal building material in Antananarivo, *tranokotona* remained the chief precedent for palatine and domestic architecture in the royal capital as Merina houses surrounding the *rova* had rectangular plans with their length oriented toward the west, dominant steeply pitched roofs and wooden building materials. *Randall Bird*

#### Sources

- Larson, P. (2000) *History and Memory in the Age of Enslavement*. Portsmouth: Heinemann.  
 Richardson, J. (1885) *Malagasy-English Dictionary*. London: Missionary Society.  
 Ruud, J. (1960) *A Study of Malagasy Customs and Beliefs*. Oslo: Oslo University.

As a scholar and architect, Randall Bird has worked on the relationship between African art, architecture and landscape, and the dynamics of colonialism. His forthcoming book is, entitled *The Majesty of Architecture in Madagascar: Transforming a Kingdom in the Central Highlands, 1820-1900*. His work has been recognized with fellowships from the Getty and Mellon Foundations and the Fulbright-Hays Program. At the School of Architecture and Planning (University of the Witwatersrand), Bird was Acting Head of School 2010-11 coordinated the M. Arch (Prof.) degree, and still teaches the history of architecture, including developments in Africa and the Indian Ocean arena.



ARCHITECTS A DECADE INTO INDEPENDENT PRACTICE

# Sakhisizwe Architects

**S**akhisizwe Architects is the result of circumstance and determination.

The Director is Khayaletu (Patrick) Mawesana, the fourth of five siblings born to a domestic worker and her truck-driver husband in Baragwanath, Gauteng, in 1976.

It was deemed best for the children that Patrick and his sisters live with their grandparents in northern KwaZulu-Natal and to attend junior school at Nqutu and high school at Nondweni, some 60km east of Dundee. Once his artistic talent had come to the fore, Patrick's teachers encouraged his participation in a competition run by *Drum* magazine, which saw him, aged 12, being proclaimed 'artist of the month'. With that accolade, he could earn pocket money drawing animals, flowers and houses.

One teacher moonlighted by preparing submission drawings for houses by civil servants who benefited from state subsidies. Patrick came across plans and specifications featured in a Sunday newspaper, studied these and acquired an A3 drawing board to follow the example of his teacher who advised him to sit a Technikon aptitude test in Durban. Eager to proceed, Patrick took the train, found his way there and sat the test. That was in 1993.

Patrick was accepted for Architecture at ML Sultan Technikon (now Durban University of Technology, ML Sultan campus) but needed to pay the registration fee of R1000, most of which, fortunately, an uncle could provide. Studies went well and Patrick soon found himself in the part-time employ of his lecturer, Len Rosenberg. Despite 'earning and learning', Patrick took the prizes for Best Student second, third and fourth years.



Thereupon FGG Architects offered him a position working on large-scale projects mostly with Don Perks as mentor. It was then that the difference between a technologist and an architect dawned

and he entered UKZN to graduate with a B.Arch degree two years later.

On passing the examination for registration, Patrick formed *Sakhisizwe* (building the nation in isiZulu), which became an independent practice in 2007. Now based in Durban-North, *Sakhisizwe Architects* has a staff complement of 16 including four architects. Despite the responsibilities, Patrick has acquired further qualifications in Project Management and Property Development, but the weekends are reserved for the family and nothing is more important than spending time with his wife Mbuso, a trained Financial Administrator, and their three children.

*Walter Peters –Editor*

#### *Sakhisizwe Architects* staff

Front, left to right: Musa Qwabe, Sibusiso Dlamini, Ndu Nene, Murray James, Patrick Mawesana, Mark Wilkins, Thando Muthwa, and Martie Barrett. Back: Ramon Sanchez Luyo, Milla Harrichunder, Megan Bott, Agas Perumall, Sibusiso Jali, Siyabonga Nzimande, Wonderboy Mhlongo, Nontobeko Mpanza, Nonhlanhla Mathabela, and Thorsten Wanoth.



# MADAGASCAR

## A Travel diary

In April-May 1994 I decided to visit the 'Red Island'. It was the time of the most important election in the history of South Africa but it was also a time when an architect could get away as work on projects had come to a go slow.

Madagascar had always fascinated me with its animals and it was a much unknown and seldom visited destination due to politics and its isolation.



The island was just starting to free itself from the Socialist past between the end of the French rule and the current time

I researched the island amongst the usual travel books and there was very limited information. I had seen a newspaper article by the photographer Patrick Squires who had visited the island the year before. He helped me to understand and prepare for the adventure ahead

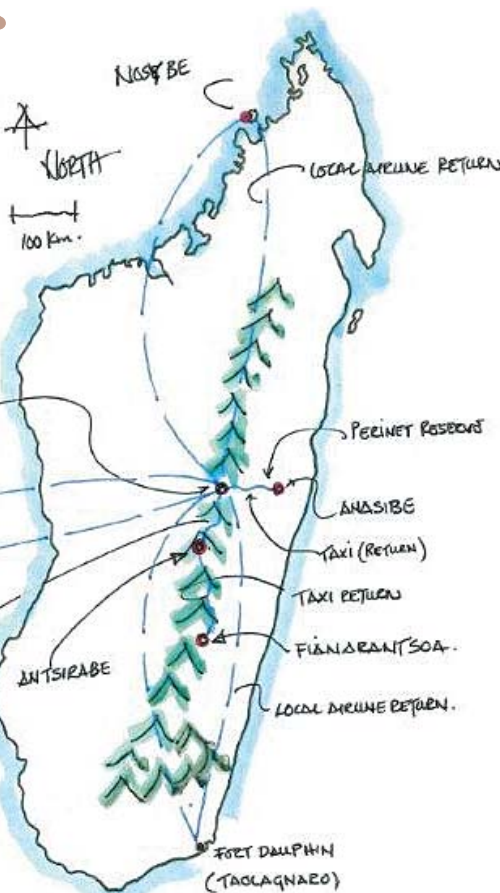
My wife Hanlie and I arrived on SAA in Antananarivo (Tana) and found a hotel close to the airport. The next day we left on a local flight to Fort Dauphin, a coastal town in the far south east of the island. This is the area of the spikey cactus desert and ring tail and dancing lemurs. In the town houses were made of local brick and concrete and also of palm tree fronds. It was interesting to see that due to the cost of cement, cement dagha was only used around openings otherwise a clay dagha was used.



This was an important port during the French control of the island with tall dark mountains in the distance the dry spiky vegetation to the one side and the temperate rain forest to the other

Seafood especially crab was great and cooked with the French flair left behind by the colonists

We flew back to Tana and travelled along the mountainous plateau running as a spine down the island. We



took a local taxi ... all Peugeots ... to Antsirabe a town next to a dark blue volcanic lake. What I found fascinating was the red brick simple rectangular box double storey houses in the farming areas. These were minimalist copies of the townhouses in the villages...also double storey but cheek by jowl and with plaster mouldings on the gables and around windows. Also decorative steel balustrading and timber fretwork and shutters. Very French colonial.

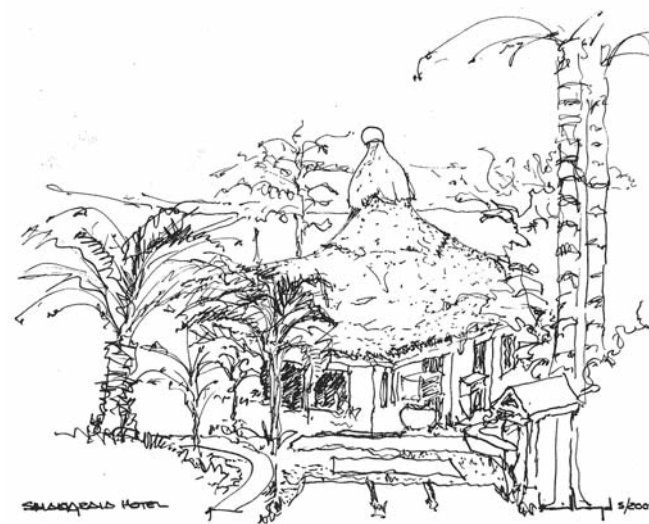
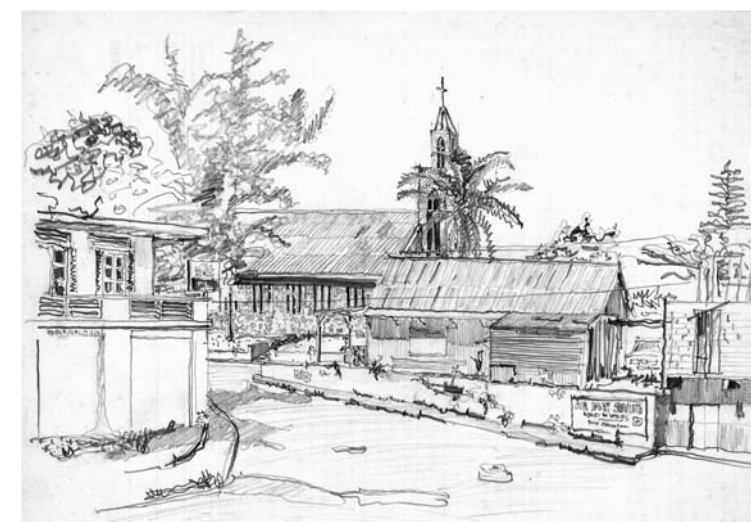


From there we took a bigger taxi to Fianarantsoa. The day we arrived was May Day and the streets and parks were full of the community with their families taking the day off. The street intersections and gardens were filled with Marxists sculptures. There was an old grand colonial Hotel and Spa in the town still in operation but very run down. The train station looked just like an old town station in France. I had hoped to take the train but the service had become very erratic. The two evenings we stayed in Hotel Diamante...very basic bathrooms but the food was very French...frogs legs. The second night we went to a Café run by French expiates and on TV was the announcement of the successful transition in South African politics and Nelson Mandela was the new president of the now ruling ANC party. The same day was also the tragic death of Ayton Senna. We had lost touch with the outside world and now we had this news in a small restaurant in the middle of the island

The taxi took us back to Tana... like Morocco the taxis are filled to

the roof irrespective of their size. The landscape is very beautiful with the red mud double storey houses set among the green rice paddies and the red mountains in the background with large basalt domes of rock in certain areas

We then took a taxi down towards the east coast with the Rain Forests in Andasibe (Pe'rinet Reserve) as our destination. The road was narrow, steep and the forests dense. The purpose was to see or hear the Indri Lemur which has an eyrie call to its mates else-



where in the forest. Madagascar is famous for its Lemurs and other wild life found nowhere else in the world. The architecture of the train station in Andasibe was now very Swiss with an A frame roof. The accommodation in the Forest was a similar A frame style chalets reminiscent of the timber cabins in USA in the early sixties.

Back in Tana after two weeks of basic local accommodation, remembering that tourism was virtually non-existent except for a few French and adventurous ecologically interested foreigners.

We planned to spoil ourselves with five days in Nosy Be' where the only real international tourism was planned for. Even here the tourist hotels needed some attention but enterprising locals had set up *chez* hotels along the beach with stand alone cottages built in palm fonds but actually very pleasant. Little restaurants lined up alongside the beaches and

the food was excellent, fresh from the sea or the land. The detail of these stalls was very well done and shows how with minimal but appropriate local materials an honest and beautiful architecture can be achieved.

The trip was incredibly economical and the locals were very friendly. Subsequent to this visit I have met people who have visited the island both as tourists and to do business. Things have changed and it is more expensive but just as intriguing.

Kevin Lloyd