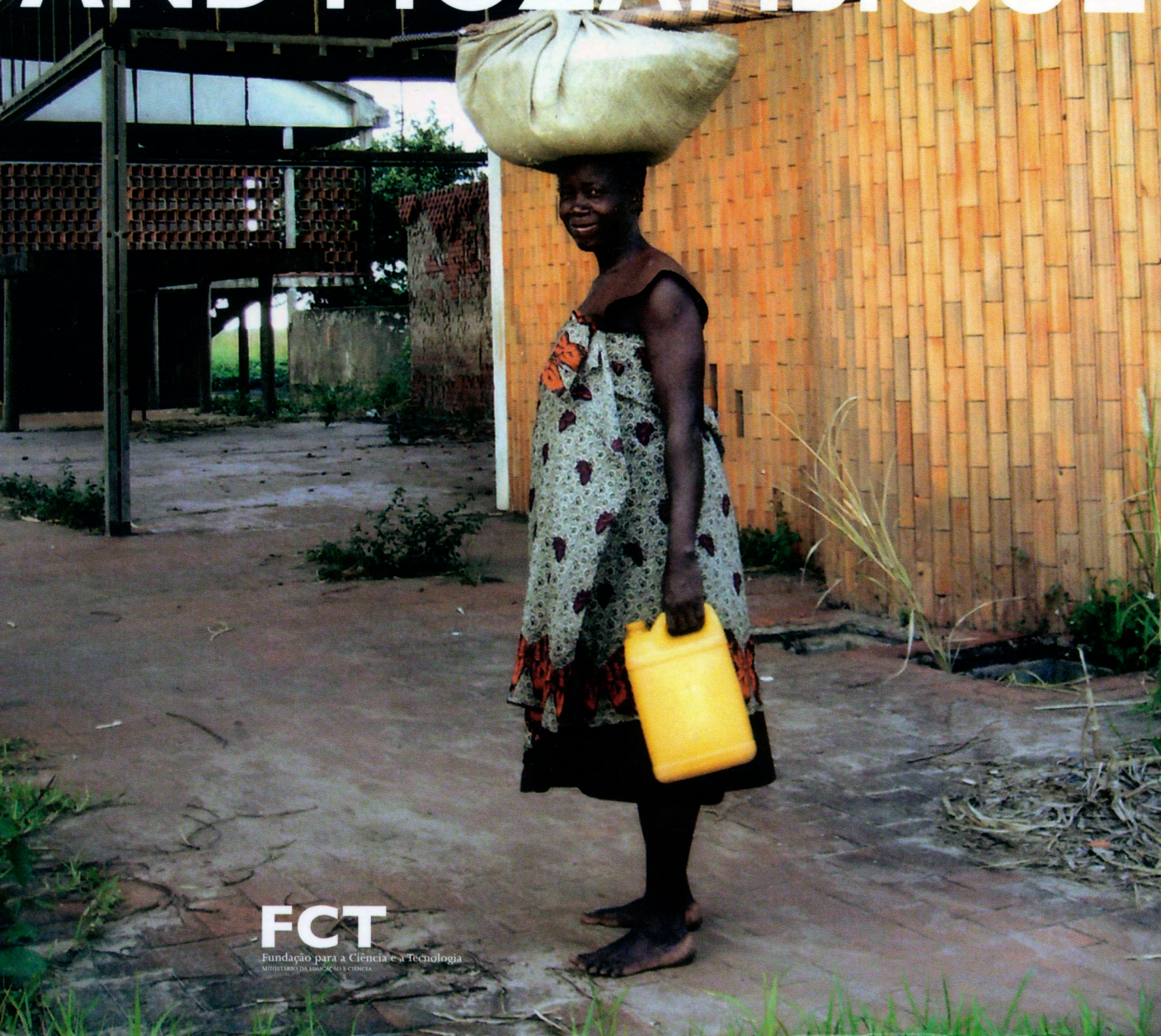


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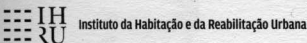
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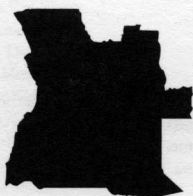
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ESTRELA VERMELHA HIGH SCHOOL

A Paradigm of Mozambican School Architecture of the Third Quarter of the 20th Century

Maputo, 1960

The plan for *Estrela Vermelha* High School (former *Governor Joaquim de Araújo* Elementary and Technical School) in Lourenço Marques, current Maputo, arises from an evolutionary process of Mozambican schools of modern architecture initiated with the Manga Primary School, in the city of Beira (1952), designed by João Aires (1921-2001) at the Service of Public Works, in Lourenço Marques. This project will be developed by typologies for primary schools from the middle 50s and by the project for technical schools of Nampula (1959-1963), Quelimane (1960-1963) and Inhambane (c. 1960-1963), all of them designed by Fernando Mesquita at the same official bureau.

The first known drawing for *Estrela Vermelha* High School dates from 30th January 1960, albeit the majority of process elements were drawn from February till April of the following year. The design was then developed and complemented with further elements, of which we know some drawings dated from September 1961 and February 1963. The building process began in 1962 and the opening ceremony, chaired by the province governor general, took place on 7th February 1963.

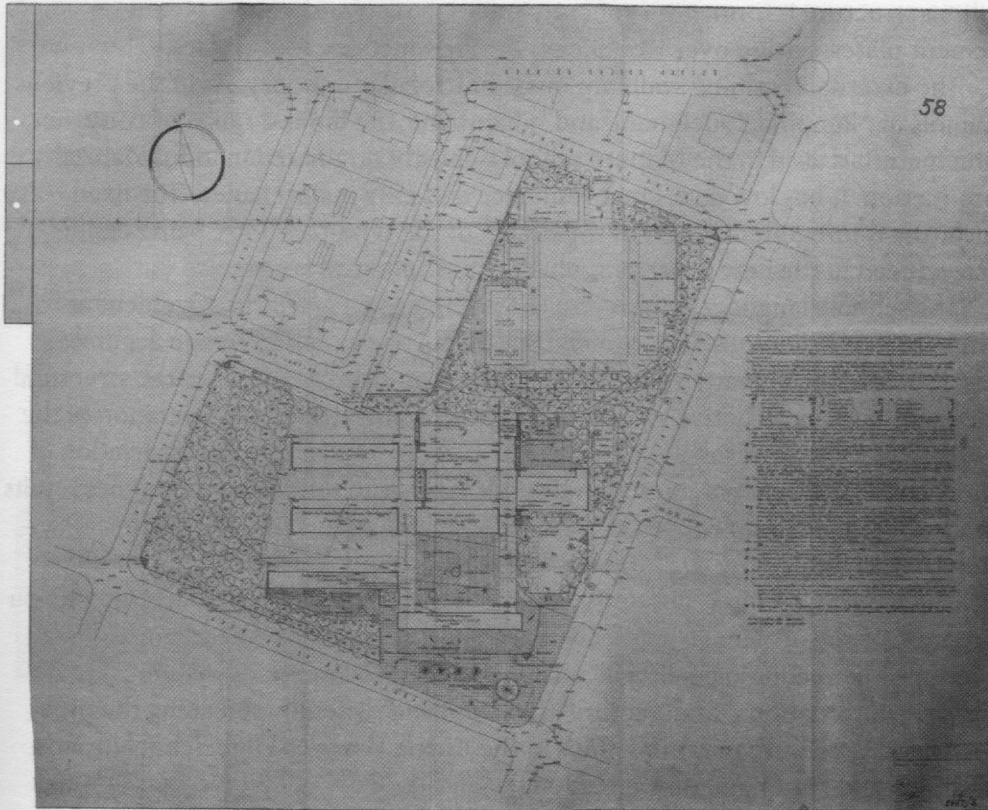
The school is located in Alto-Maé neighborhood, on an allotment resulting from the association of two plots separated by the Agostinho Neto Avenue (former *31 de Janeiro* Street), limited by the orthogonal arteries of the city's urban fabric. The main entrance in the compound and the secondary accesses for pedestrians, bicycles and cars are opened into these roads.

The deployment of the building complex was defined on a general plan synthesizing the main components of the project: the type elements that contain the program and its references on the drawings, the earthworks and its level marks, the design of the school outer spaces, of the surrounding sidewalks, and of the afforested and gardened arrangement of the entire compound. This last component was under a detailed landscape definition creating a protective mass of vegetation evolving a school in a park. According to the values previously tested



**View on Alto Maé, EWV,
Maria Manuel Oliveira, 2012**

**General Plan, project - January
1961, CDIPAD, ref. I3502,
Elisiário Miranda, 2011**



in technical schools of Nampula, Quelimane and Inhambane, the Maputo school buildings are deployed over an orthogonal matrix, conventionally disposed aligning to cardinal points, autonomous from the plot boundaries or the surrounding urban grid. As the former schools, this deployment is based on a tree form scheme: the layout of this school relies on two communication galleries on North-South orientation, in which different modules having different functions and their circulation areas are inserted, the later disposed on East-West orientation. Exterior playground patios interleave these school several modules, settled on different parcels levels and with distinct settings, as a result of the adaptation of the orthogonal compositional matrix to a sloping ground. A vast space up North, where the sports zone is located, is left open and free of constructions.

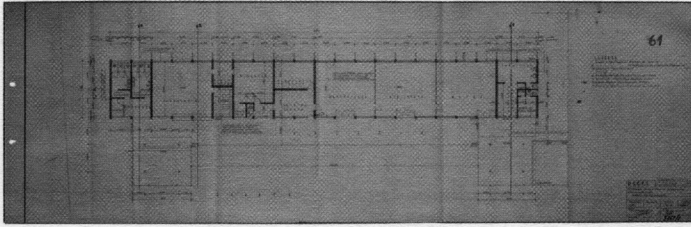
The program of this technical elementary school for mixed boys and girls attendance, corresponding to the 5th and 6th grades of education, was the one with larger dimension and complexity amongst all the technical schools that were built in this period: it was dimensioned for 1000 students, capacity rapidly exceeded in the following years. The program complexity of the school is reflected on the diversity and dimension of its type-elements: two shelters for bicycles, two covered playgrounds, eight pavilions with different functions, a swimming pool, several sports camps and athletics running tracks.

The dimensioning of the supporting structure of all pavilions and galleries relies on the repetition and multiplication of base modules used before in other school buildings. The structure of the galleries is composed by porticos made of tubular *pilotis* on which lie transversal beams supporting concrete slabs. The pavilions structure is formed by concrete pillars, beams and slabs, covered by wavy cement plates, setting over wood joists or tilted metallic roof trusses.

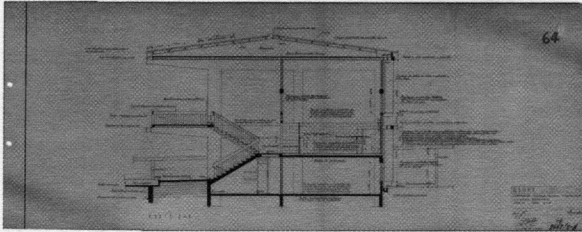
The external retaining walls are made of irregular masonry. As in the previous schools of Nampula, Quelimane and Inhambane, the limited range of construction materials used in the Maputo school is mostly originated in industrialized production. It has low cost, great resilience and easy maintenance. The fixed furniture is integrated as part of the design of the type-pavilions, being easily reproduced in the new situations where these buildings are used.

The school's language, referred to the international Modern Movement architecture, is accomplished through the control of the design by the accurate resolution of the climatic adaptation, by the modular expression of the structural elements and constructive systems and by the methodological association of the type-elements that resolve the functional program. The empirical association of these later elements, volumes with distinct forms and functions, sometimes results in leaning or overlapping articulations, creating moments of architectural tension that never destroy the formal unity of the whole.

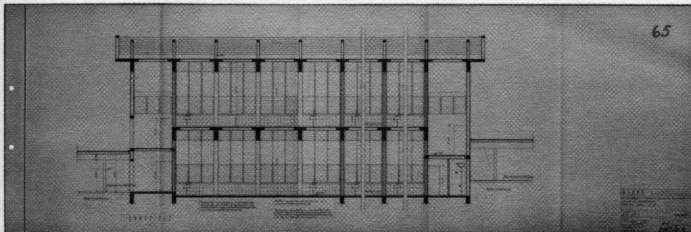
The modern architecture of the buildings from the official school construction program of the provincial general government, financed by the II Foment Plan, produced by technologically advanced industrialized methods, synchronized with the international architecture of its time and disseminated along the province major cities urban fabrics, finds in the *Estrela Vermelha* High School its most complex and paradigmatic expression.



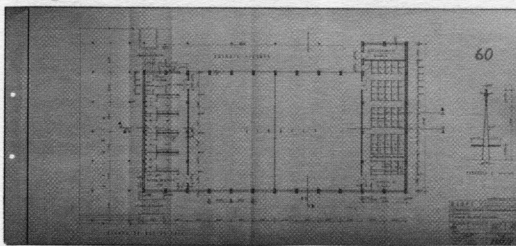
Administration, ground floor plan, project - March 1961, CDIPAD, ref. I3502, Elisiário Miranda, 2011



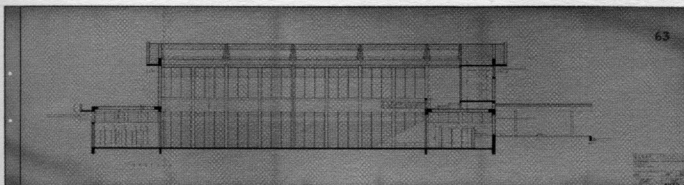
Gymnasium, ground floor plan, project - March 1961, CDIPAD, ref. I3502, Elisiário Miranda, 2011



Gymnasium, section by A, project - March 1961, CDIPAD, ref. I3502, Elisiário Miranda, 2011



Drawing classrooms, section by D-D, project - March 1961, CDIPAD, ref. I3502, Elisiário Miranda, 2011



Drawing classrooms, section by E-E, project - March 1961, CDIPAD, ref. I3502, Elisiário Miranda, 2011

The design of these schools will constitute the basis of the projects for Joaquim Romero Commercial School in Porto Amélia, current Pemba (1968), for Commander Augusto Cardoso Technical and Elementary School in Vila Cabral, current Lichinga (1964-1965), for *Almirante Gago Coutinho* High School in Nampula (1969), and for *João de Azevedo Coutinho* High School in Quelimane (1969), among other school projects produced by the Service of Public Works. On the other hand, the project for the Polana High School (former *D. Ana da Costa Portugal* High School) in Maputo (c.1970), designed by João José Tinoco and José Forjaz outside the Service of Public Works, maintains the same layout rules and the same compositional skeleton of the previous designs by Fernando Mesquita, but with a sense of unity and a new brutalist expression of all the components.

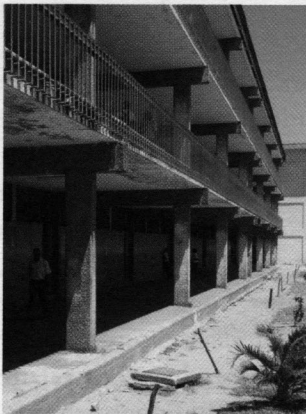
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**Drawing classrooms pavilion,
South side,
Elisiário Miranda, 2009**



**Drawing classrooms pavilion,
South side,
Elisiário Miranda, 2009**



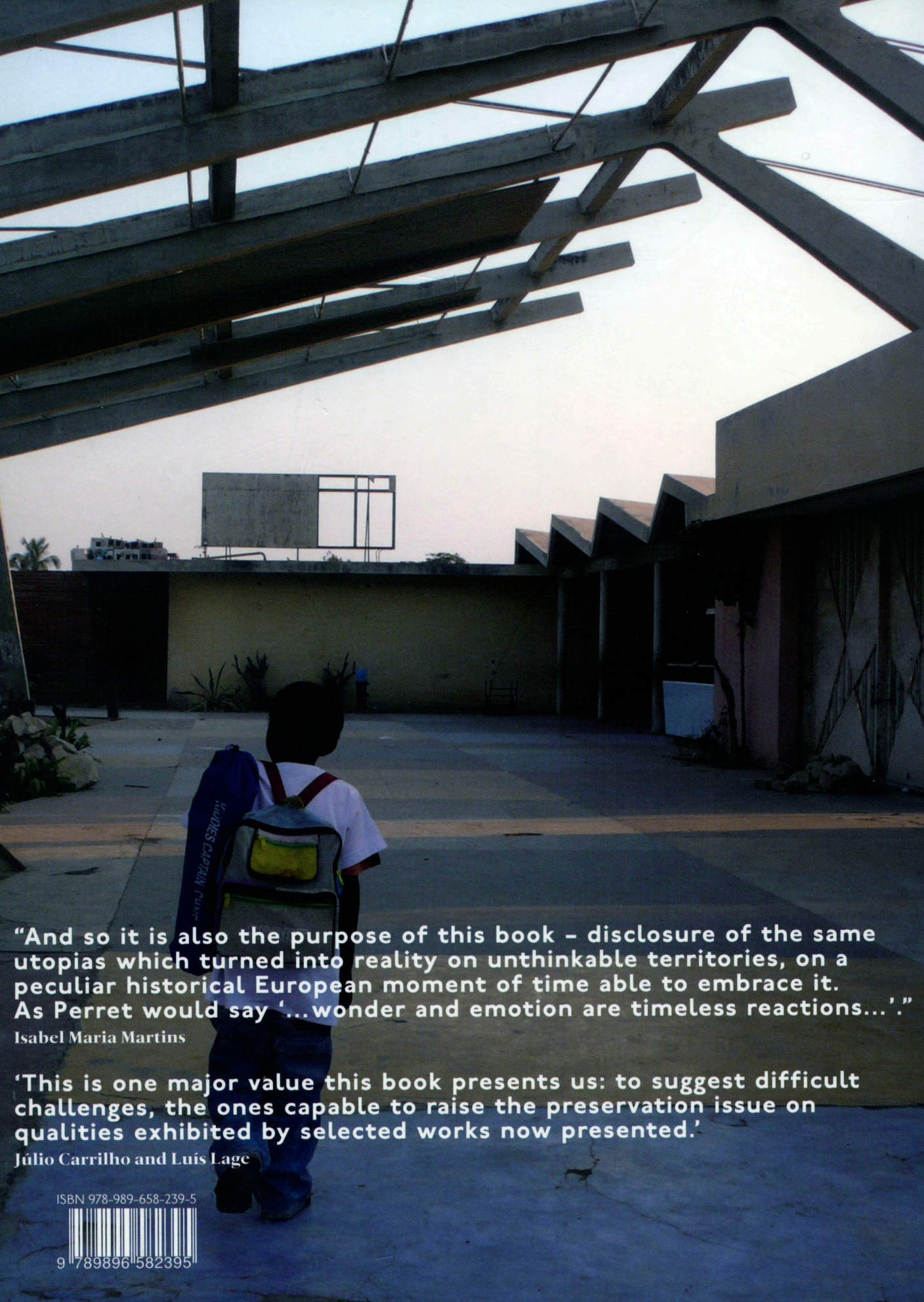
**Drawing classrooms pavilion,
North side,
Elisiário Miranda, 2009**

**Gallery and administration pavilion,
Elisiário Miranda, 2009**

INDEX OF ABBREVIATIONS

AA	Architectural Association	FAPF	Faculdade de Arquitectura e Planeamento Físico (Faculty of Architecture and Physical Planning)
AFCG	Calouste Gulbenkian Foundation's Archive	FAUP	Faculdade de Arquitectura da Universidade do Porto (Faculty of Architecture of the University of Oporto)
AFCML	Lisbon City Hall's Photo Archive	FAUTL	Faculdade de Arquitectura da Universidade Técnica de Lisboa (Faculty of Architecture of the Technical University of Lisbon)
AHCGD	Historical Archive of Caixa Geral de Depósitos	FCPPA	Frente Comum Popular das Populações de Angola (Common People Populations of Angola)
AHM	Historical Archives of Maputo	FDLA	Frente Democrática para a Libertação de Angola (Democratic Front for the Liberation of Angola)
ANP	Associação Nacional Popular (National Popular Action)	FIHUAT	Fédération Internationale pour l'Habitation, l'Urbanisme et l'Aménagement des Territoires
ARA	Acção Revolucionária Armada (Armed Revolutionary Action)	FIUL	Fundo de Investimento do Ultramar (Fund for Overseas)
ASP	Associação Socialista Portuguesa (Portuguese Socialist Action)	FMI	Fundo Monetário Internacional (International Monetary Fund)
AVAC	Aquecimento, Ventilação e Ar Condicionado Heating, Ventilation and Air Conditioning	FNLA	Frente Nacional de Libertação de Angola (National Liberation Front of Angola)
BIRD	Banco Internacional para Reconstrução e Desenvolvimento (International Bank for Reconstruction and Development)	FPLN	Frente Patriótica de Libertação Nacional (Front of National Liberation)
BNU	Banco Nacional Ultramarino	FRAIN	Frente Revolucionária Africana para a Independência Nacional (African Revolutionary Front for National Independence)
CAD	Computer Aided Design	FRELIMO	Frente de Libertação de Moçambique (Liberation Front of Mozambique)
CCTA	Comissão de Cooperação Técnica na África (Commission for Technical Cooperation in Africa South of the Sahara)	FUMO	Frente Unida de Moçambique (United Front of Mozambique)
CDIPAD	Centro de Documentação do Instituto Português de Apoio ao Desenvolvimento (Documentation Center of Portuguese Institute for Development Support)	GAU	Gabinete de Arquitectura e Urbanismo (Office of Architecture and Urbanism)
CDUA	Centro de Documentação de Urbanismo em Arquitectura (Documentation Centre of Urban Planning and Architecture)	GAUD	Gabinete de Arquitectura, Urbanismo e Decoração (Office of Architecture, Urbanism and Decoration)
CEA	Comissão Económica para África (Economic Commission for Africa)	GEU	Gabinete de Estudos e Urbanização (Studies Office and Urbanization)
CMM	Conselho Municipal de Maputo (Maputo City Council)	GRAE	Governo da República de Angola no Exílio (Republic of Angola in Exile)
CMP	Câmara Municipal do Porto (City Council of Oporto)	GUC	Gabinete de Urbanização Colonial (Office of Colonial Urbanization)
CML	Câmara Municipal de Luanda (City Council of Luanda)	GUU	Gabinete de Urbanização do Ultramar (Office of Overseas Urbanization)
CMQ	Conselho Municipal de Quelimane (Quelimane City Council)	HPIP	Heritage of Portuguese Influence/Património de Influência Portuguesa
CODA	Concurso para Obtenção de Diploma de Arquitecto (Competition for Getting Diploma of Architect)	ICAT	Iniciativas Culturais Arte e Técnica (Cultural Initiatives Art and Technique)
COMERO	Comité Revolucionário de Moçambique (Mozambique's Revolutionary Committee)	ICRA	Instituto de Ciências Religiosas de Angola (Institute of Religious Sciences of Angola)
CONCP	Conferência das Organizações Nacionalistas das Colónias Portuguesas (Conference of Nationalist Organizations of the Portuguese Colonies)	IFHTP	International Federation for Housing and Town Planning
CTT	Correios, Telégrafos e Telefones (Posts, Telegraphs and Telephones)	IIVA	Instituto de Investigação Veterinária de Angola (Veterinary Institute of Angola)
CV	Curriculum Vitae	INE	Instituto Nacional de Estatística (Statistics Portugal)
DETA	Divisão de Exploração dos Transportes Aéreos (Exploration Division of Air Transport)	IPHS	International Planning History Society
DGEMN	Direcção Geral dos Edifícios e Monumentos nacionais	IST	Instituto Superior Técnico
EBAL	Escola de Belas Artes de Lisboa (School of Fine Arts of Lisbon)	JCETS	Junta das Construções para o Ensino Técnico e Secundário (Board of Construction for Technical Education and Secondary)
EBAP	Escola de Belas Artes do Porto (School of Fine Arts of Oporto)	LEA	Laboratório de Engenharia de Angola (Angola's Engineering Laboratory)
EFTA	European Free Trade Association	LNEC	Laboratório Nacional de Engenharia Civil (National Laboratory of Civil Engineering)
EGAP	General Exhibition of Fine Arts	MAC	Movimento Anti-Colonial
EPUL	Empresa Pública de Urbanização de Lisboa (Urbanization Public Company of Lisbon)		
ESBAL	Escola Superior de Belas Artes de Lisboa (School of Fine Arts of Lisbon)		
ESBAP	Escola Superior de Belas Artes do Porto (School of Fine Arts of Oporto)		
EWV	Exchanging Worlds Visions		

MANU	(Anti-Colonial Movement) União Nacional Africana de Moçambique (Mozambique African National Union)	RTP	Rádio e Televisão de Portugal (Radio and Television of Portugal)
MFA	Movimento das Forças Armadas (Armed Forces Movement)	SAAL	Serviço Ambulatório de Apoio Local (Ambulatory Service Local Support)
MINA	Movimento pela Independência Nacional de Angola (Movement for Angola's National Independence)	SEDES	Associação para o Desenvolvimento Económico e Social (Association for the Economical and Social Development)
MOPHM	Ministério das Obras Públicas e Habitação de Moçambique	SNBA	Sociedade Nacional de Belas Artes
MPLA	Movimento Popular de Libertação de Angola (Popular Movement for the Liberation of Angola)	SPAN	Serviço do Património Histórico e Artístico Nacional
MRAR	Movimento de Renovação da Arte Religiosa (Religious Art Renovation Movement)	SPIUA	Secção Portuguesa da União Internacional dos Arquitectos (Portuguese Section of the International Union of Architects)
MRPP	Movimento Reorganizativo do Partido do Proletariado (Reorganized Movement of the Party of the Proletariat)	TAP	Transportes Aéreos Portugueses
MUD	Movimento da União Democrática (Democratic Union Movement)	UDENAMO	União Nacional Democrática de Moçambique (National Democratic Union of Mozambique)
MUNAF	Movimento de Unidade Nacional Anti-Fascista (Anti-Fascist National Unity Movement)	UEM	Universidade Eduardo Mondlane (Eduardo Mondlane University)
NATO	North Atlantic Treaty Organization	UIA	União Internacional dos Arquitectos (International Union of Architects)
OA	Ordem dos Arquitectos	UN	United Nations
ODAM	Organização dos Arquitectos Modernos (Modern Architects Organization)	UNAMI	União Nacional para Moçambique Independente (African Union of Independent Mozambique)
OUA	Organização da Unidade Africana (Organization of African Unity)	UNESCO	United Nations Educational, Scientific and Cultural Organization
PAIGC	Partido Africano da Independência da Guiné e Cabo Verde (African Party for the Independence of Guinea and Cape Verde)	UNITA	União Nacional para a Independência Total de Angola (National Union for the Total Independence of Angola)
PCP	Partido Comunista Português (Portuguese Communist Party)	UPA	União das Populações de Angola (Union of Angola's Peoples)
PDA	Partido Democrático de Angola (Democratic Party of Angola)	UPNA	União das Populações do Norte de Angola (Union of the Populations of Northern Angola)
PIDE	Polícia de Investigação e Defesa do Estado (International and State Defence Police)	USA	United States of America
PLUA	Partido da Luta Unida dos Africanos de Angola (United Party for Struggle of African Angola)		



“And so it is also the purpose of this book – disclosure of the same utopias which turned into reality on unthinkable territories, on a peculiar historical European moment of time able to embrace it. As Perret would say ‘...wonder and emotion are timeless reactions...’.”

Isabel Maria Martins

‘This is one major value this book presents us: to suggest difficult challenges, the ones capable to raise the preservation issue on qualities exhibited by selected works now presented.’

Júlio Carrilho and Luís Lage

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