Studio Nicoletti Associati was founded in 1957. It has delivered world-class professional design and management services. Studio Nicoletti Associati offers award winning architectural design, progressive infrastructure engineering, highly ranked project and construction management and are known for quality and professionalism. At Nicoletti, and as one of the oldest and largest firms in Rome. We can deliver total solutions to projects or form flexible work teams that can integrate into a larger team in partnering and sub-contracting roles. The studio practice expand through the core of urban and building design in Italy, Europe, Africa, USA, Middle and Far East.

**Philosophy**

Manfredi Nicoletti is a pioneer in Megastructures and in Bioclimatic Urban and Architectural Design; Expert in Architecture, Urbanism, Ecology and Environment, and a Member of the Italian Academy of Bioclimatic Architecture (ENEA), of Eurosol, and of PLEA (Passive and Low Energy Association).

He is the founder of the course "Ecological Architecture" at Rome University. His most innovative structures derive from the study of nature. Nicoletti has also published internationally various essays on architectural criticism and the urban ecosystem. His book "The Architecture of Caves", searching for the roots of architectural language, received the First International Prize by the CICA, Comité International des Critique d’Architecture.

**Leading architect**

Manfredi Nicoletti, Honorary fellow Of American Institute of Architects, graduated at Rome University "La Sapienza", Master in Architecture at the M.I.T. Massachusetts Institute of Technology - USA, PhD in Urban Design at Rome University "La Sapienza". After intense collaboration with Walter Gropius, Minorou Yamasaki and P.L. Nervi, Nicoletti opened his office in Rome.

Visiting Professor at the Rhode Island School of Design USA; Lecturer at the M.I.T. School of Architecture, Mass, USA.

Full Professor with tenure at Rome University "La Sapienza"; Vice President of the International Academy of Architecture; Member of the Russian Academy, of the Moscow International Academy and of the Académie de France d’Architecture.

**Main projects**

- **The Millenium Park – Abuja, New Capital of Nigeria, inaugurated by HM Queen Elisabeth II** - under construction.
- **The Scientific Greenhouse for Tropical Butterflies, Catania University, European Competition, 1st Prize, built;**
- **The Millenium Park – Abuja, New Capital of Nigeria, inaugurated by HM Queen Elisabeth II** - under construction.
- **The NJC & Astana Concert Hall in Instant cities, Blackdog Publishing, London 2008**
- **The Malaysian Armada in: Architecture plus n. 19, Dubai 2008**
- **The Millennium Park – Abuja, New Capital of Nigeria, inaugurated by HM Queen Elisabeth II** - under construction.
Capability and Process

Projects are delivered from concept design through detailed proposal, final proposal, tender action, to practical completion with works supervision. Projects are located worldwide. Studio Nicoletti acts as team leader and coordinator of teams made of high qualified international experts and local consultants. Projects are always a work in progress developed in accordance with client requirements.

List of major recent completed or under completion projects and their duration, size, costs, design teams:

The Nigeria National Complex, Abuja 2006-2011 (under construction)
Client: Federal Republic of Nigeria, Ministry of Culture and Tourism
170,000 sqm
Cost: € 300,000,000
Structures: RFR, Paris + Stuttgart Plants:S.E.T.R. Tractebel, Bruxelles - Coyne et Bellier, France
Acoustic: Xu Acoustique, Paris
Scenographies : TPC, London
Construction: Salini Nigeria Ltd.

Reggio Calabria Hall of Justice, Italy 2004-2010 (under construction)
European competition, first prize - WREN International Award
Client: Ministry of Justice
75,150 sqm
Cost: € 70,000,000
Structures: M. Mele
Services: ENETEC - R. Tito
Construction: Bentini spa

Astana State Auditorium, Kazakhstan 2002-2010 (under construction)
European competition, first prize
Client: Astana State
54,000 sqm
Cost: € 120,000,000
Structures: Ingegneri Associati, Rome
Services: ENETEC, Rome
Acoustics: Y. Xu - Associates, Paris
Scenography: Changement à Vue, Paris
Q.S. and consultations: Astanagorproekt, A. A. Kenzhetayev

Arezzo Courthouse, Italy 2001-2007 (built)
IAA International Award, Dedalo Minosse international award, Cappochin international award, Fassa Bortolo international award
Client: Ministry of Justice, Arezzo Municipality
25,000 sqm
Cost: € 13,456,000
Structures: M. Mele
Services: E.N.E.T.E.C.
Construction: Nembo srl

Palermo Sport Palace, Italy 1999-2001 (built)
Dedalo Minosse International Award
Client: Palermo Municipality
23,500 sqm
Cost: € 11,720,000
Structures: A. Rizzo
Coordination: L. Campagna
Services: M. Bonafede, S. Guercio
Q.S. and works supervision : E. Gentilucci

Process

The goal of the design development phase is to complete and refine the design at all scales, and to generate expressive and appropriate details that will guide the process of deciding on the techniques and technologies to be employed for fabrication and construction.

The project will be designed and coordinated in 3D by all consultants in order to gain an outstanding level of quality in both the processes of design and development. From the first design phases 3D collaboration between architects and engineers will grant the production of efficient coordinated designs.

This work is based on new technologies such as generative CAD and computer controlled fabrication in order to rationalize and coordinate data flow through the multitude of stages of architectural project. This phase consists of the production of construction documents using CAD and BIM instruments. The final phase will be the fabrication of “mock-ups” and “construction samples”. This will be done in order to get an accurate sense of how the building will be built and what its actual character will be at the 1:1 scale.

Roles

Leading architect Manfredi Nicoletti, awarded in several international competitions, will be directly involved in the design as team leader and general coordinator. Associated architect Luca Nicoletti, as an expert in direction management of high complexity projects, will be delivering and monitoring the whole project to tender construction. Senior architects from Studio Nicoletti Associati will carry out the detailed design.

By now, our office’s delegates, senior architects and junior architects, are working in Kuala Lumpur to develop our latest international competition winner project, Putrajaya Waterfront.

The Rome office currently works with international high qualified consultants, such as RFR engineering from Paris-Stuttgart, Xu acoustics from Paris, Hoare Lea and Arup from London. Also, project development involves usually international well known companies such as Permastelisa (facades), Rheinzeug (cladding), Mariotti (marbles), Poltron Frau (furnitures). Specific qualified consultants will be involved in the preliminary design process.

Studio Nicoletti aims to form a joint venture with a Melbourne based architecture office. We program to complete the schematic design in Rome and then send a team to Melbourne to work with a joint venture partner to oversee the detailed design and project delivery phases.

Local sub consultants

Mordue Engineering will act as Structural & civil engineers sub consultants.

Mordue Engineering is a Melbourne based structural and civil engineering consultancy which has been invited to join the Studio Nicoletti Associati team for this project due to their experience on local law projects such as the Royal Children’s Hospital, and their commitment to unique, innovative and highly architectural projects.

Mordue Engineering design and document using three dimensional software and have been involved recently in numerous projects where architectural structural and building services designs have been elaborated in three dimensions.

Environmentally sustainable design (ESD) local consultants who are accredited for Greenstar rating will be involved in the project from the very first stage.

Local Building surveyors will be involved to assess building compliance with the Building Codes of Australia.

Client references

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Arezzo Courthouse (2005)
Campobasso Courthouse (2007)
Tall Ship Tower, Mestre (1992)
New York Crescent Project (1978)
Calabria tower (1997)
Lamezia Airport (2007)
Methodology to carry out the assignment

Our philosophy to conceive building design is the result of an “organic growth” from a “specific context”. A context which is both the humus (the fertile soil) and the raw material of any architectural conception.

“Organic growth”: its meaning derives from our observation of natural objects, biological or mineral. Natural objects are never banal, meaningless, without an original character of their own. They have a unique completeness. Our primal concept of beauty, harmony, derives from their analysis. The structure of a leaf, of a flower, a crystal or a tree does not have any futile complications, redundancies or superfluities. Its form and consistence is the outcome of extremely rigorous and creative engineering: the most economic and harmonious effort to ensure growth, life and resistance against external forces. The only model of truly organic architecture.

Today it does not exist any more a physical “site” which could be really relevant for providing significant roots to a contemporary building. Today our intellectual multimedia concrete or virtual environment has a global dimension, overpowering the notion of a specific limited physical site or place.

By “specific context” we mean any physical or intellectual component converging upon the functional, social and symbolic values that an architectural building has to ensure growth, life and resistance against external forces. The only model of truly organic architecture.

Today it does not exist any more a physical “site” which could be really relevant for providing significant roots to a contemporary building. Today our intellectual multimedia concrete or virtual environment has a global dimension, overpowering the notion of a specific limited physical site or place.

While our observation and understanding of the natural process concerning “organic growth” and form can guide us in trying to recreate (in a metaphoric way) a similar process for conceiving our architectural buildings, our comprehension of the “specific context” to which we must give interpretation and a concrete shape is the basic raw material of our design process. Our definition of a specific context is the first basic step in architectural design, for the “invention” of architecture.

Though the elements converging in such a context are innumerable, we need to build a hierarchy. This is the first creative act in the design process.

For us a constant guide to start to develop a creative concept of a “context” and consequently a design process is to detect what is most strongly felt to be missing in the “specific context” we are operating in. Our architecture must be a choice and not a hierarchy. This is the first creative act in the design process.

For us a constant guide to start to develop a creative concept of a “context” and consequently a design process is to detect what is most strongly felt to be missing in the “specific context” we are operating in. Our architecture must be a choice and not a hierarchy. This is the first creative act in the design process.

Influences that affect an architectural project are both general for the project type and specific to the location or project context.

Studio Nicoletti’s methodology is devoted to addressing, understanding, and mapping the global and local parameters, with the goal of better controlling the architectural production. This research addresses issues of interdisciplinary collaboration, environmental life cycle issues, and the rationalization of production.

Questions of design are therefore complemented by influential project parameters such as: social, political, and economic structures, legal and code landscape and environmental parameters, technological systems of construction and fabrication, and building maintenance and life cycle.

Every architectural project is by nature interdisciplinary since it involves people, the city, the landscape and the environment.

Studio Nicoletti will collaborate with the Faculty’s, the University and the users to deliver an Iconic building, outstanding in appearance, function and performance, in order to provide an inspiring work environment for all users.

User’s participation in building design and management is a fundamental approach to deliver an outstanding level of quality in both the processes of design and development and in the finished product.

The project will be based on the best possible processes of design, collaboration, procurement and construction, with all parties working closely together and with staff and students who will monitor and record the processes.

The basis of the architectural project is the development of a functional brief and the evaluation of its overall feasibility within the project context. The first phase of the architectural project is to acknowledge a client brief, and to conduct analysis to determine the feasibility of a project.

This second step of the project is the Schematic Design which transforms the diagrammatic descriptions of the feasibility study into functional, logical, thematic, and aesthetic architecture. The contextual issues of site and connections are addressed, and solutions for basic issues of structure, materials, overall aesthetics, and volumetric relationships are explored. Here is formulated the project’s identifiable architectural expression, its overall character, its iconic image. The unique design of this building will play an essential part in the Faculty’s goal of attracting and retaining the best staff and allowing flexibility and choice in work style.

The new building will interact with the existing Campus and natural landscape, in accordance with the诉求. Parkville Campus Masterplan which identifies the existing location of the Architecture and Old Commerce buildings as the site for the new building. The current buildings contain items of heritage significance (as per Sec. Joseph Reed’s façade elements), elements which will be addressed in the design response in accordance with University heritage management plans and policies and in consultation with relevant heritage committees and consultants. Natural elements will be considered and involved in the global design scheme which comprehends landscape and environment design.
The Academic environment

Teaching activity requires both single, traditional, quiet separated areas and common interactive innovative spaces. The new building will complete the Campus with outstanding accommodation for research activities within the faculty. There will be research work areas for academic staff, research staff, and research higher degree students. These spaces will consist of traditional individual offices, separated from the general teaching facilities, allowing a combination of quiet, solitary research work. There will be a functional connection with additional areas with open, interactive workspaces, with outstanding facilities for formal interaction between staff and students, informal and peer-to-peer learning, experimentation and discussion as well as collaborative group or team work. Informal Studio spaces will be creative, tolerant of mess, able to be decorated and personalised, and focused on making students feel valued. Exhibition spaces will be provided relating to these areas.

The building will host traditional teaching spaces for tutorials and seminars, for small class groups of 15-25 students, highly engaged with digital media and immersive projection. Special rooms for digital design teaching with related equipments will be located near to main classrooms. The complex will include as well two small lecture theaters, two medium theaters and one large theater with related breakout spaces. Special workshops rooms and laboratories with equipments for model production will be located at the building’s ground level.

The building will provide workspace for operational and support staff, as well as an executive area for the offices of the Dean, Deputy Dean, and Faculty General Manager, and dedicated administrative staff and meeting rooms.

The library, with its leading collection in the region of architecture related texts, will provide spaces for individual and group study, with related technical equipments.

Reference: Udine University Campus, Italy (1982-1997)

The University Campus of Udine, the hugest in Italy, is a flexible building system suitable for growth and adaptation. It is based on acrotable macro-modules where work and service spaces are carefully balanced. The campus includes laboratories, greenhouses and stables. Its fulcrum is a plaza where a vast portico opens onto a common services building which connects to a sport centre.

In the departmental organism, the most important of the complex, the macro-modules, forming a series of square courts, consist of two elements: segments and nodes. The nodes contain the services and vertical routes. The working spaces in the segments are kept as simple as possible to facilitate flexibility. All teaching areas are on the ground floor. The upper floor houses research laboratories used by professors while the intermediate floor is a spontaneous meeting place for teachers and students, being devoted to libraries and administration.

The inverted pyramid section determines an exterior sequence of porticos and, internally, creates a volume where the three levels open up, allowing full visual participation in the University’s academic life.

The cladding of the external walls consists of precast concrete three-dimensional panels, finished with a combination of white cement, marble aggregates and inorganic pigments.
Design Studio

The Design Studio will be the central core of the new building. It will be a new outstanding space designed in order to host a dynamic, collaborative and interdisciplinary community of students, academics and professionals. Here will be the place for immersion in professional culture, built to demonstrate the best practices of engineering, fabrication, construction and servicing. This space is going to encourage staff-student interaction, experiential learning, teaching based on advanced theories, and global engagement in relevant social issues.

Reference: New facilities, University Campus, Udine, Italy (2008)

The New buildings designed for the University Campus of Udine will complete the whole structure with some missing functions such as main Library and department’s laboratories. Both are extremely functionally flexible and based on a simple design: two parallel buildings are separated by an empty green space with connections at superior levels. This solution allows a construction by consecutive phases. The structural frame is minimized and modular, to obtain an entirely open internal space free to change according to new functional requirements.
The Living Building - Sustainability and technologies

Manfredi Nicoletti is a pioneer in Bioclimatic Urban and Architectural Design; Expert in Architectural Ecology for the Italian Government and the European Community, member of the Italian Institute of Bioclimatic Architecture (ENEA), of EuroSolar, of PLEA (Passive and Low Energy Association). Nicoletti received the International Award of WREN (World Renewable Energy Network). He is the founder of the course "Ecocentric Architecture" at Rome University. His most innovative structures derive from the study of nature. Nicoletti has also published internationally various essays about architectural criticism and the urban ecosystem, as "Ecocistema Urbano", Dedalo, Bari 1985.

Studio Nicoletti’s projects are always focused on sustainable design, and on sustainable use of materials, energy, air and water. The buildings take advantage of local climate conditions and have specifically designed systems of sun-shading and natural ventilation. They provide high levels of occupant comfort, high quality natural light, ventilation and acoustics. Internal spaces are adaptable and flexible.

The new Building will demonstrate an outstanding level of environmental performance, designed to achieve a 6-star Greenstar rating using Green Building Council of Australia rating system. Local environmentally sustainable design (ESD) consultants will be involved in the project team. The following factors are going to be considered, with consequent strategies:

Management: adoption of sustainable development principles from project conception through design, construction, commissioning, tuning and operation.

IEQ: reduction of environmental impact along with occupant wellbeing and performance by addressing the HVAC system, lighting, occupant comfort and pollutants.

Energy: control of greenhouse emissions from building operation by addressing energy demand reduction, use efficiency, and generation from alternative sources.

Transport: reduction of demand for individual cars by both discouraging car commuting and encouraging use of alternative transportation.

Water: minimization of potable water through efficient design of building services, water reuse and substitution with other water sources (specifically rainwater).

Materials: minimization of non recyclable materials use and of resource consumption through material selection, reuse initiatives and efficient management practices.

Land Use & Ecology: reduction of project’s impact on its immediate ecosystem, by discouraging degradation and encouraging restoration of flora and fauna.

Emissions: control of source pollution from buildings & building services to the atmosphere, watercourse, and local ecosystems.

Innovation: marketplace innovation that fosters the industry’s transition to sustainable building.

Reference: Taipei Centers for Diseases Control Complex, Taiwan (2009, competition project, shortlisted)

It’s the first building of its kind designed to achieve a Gold rating from both LEED and Green Building certification systems.

The holistic design carried out so far aims at reducing resources consumption and operating costs, minimise environmental impacts and positively contribute to the local environment.

The categories evaluated are the followings:

1. Biodiversity index (BD)
2. Green landscaping index (TCO2)
3. Site soil water content index (I)
4. Daily energy conservation index (EEV)
5. Carbon dioxide reduction index (CCO2)
6. Waste reduction index (PI)
7. Indoor environment index (IE)
8. Water reduction index (WI)
9. Sewage and garbage index (GI)

A primary objective of the sustainability strategy is to deliver a development that has low carbon emissions over its lifetime. The development aims to achieve a reduction in CO2 emissions of 50% below the average CO2 emissions of a residential building. This is to be achieved through the following steps:

Step 1 - Passive design and energy efficiency measures

The double skin approach allows to provide efficient shading from the sun while allowing natural ventilation of the flats as the outer skin is not sealed. The combination of balconies, vertical structural elements and horizontal brise-soleils provides shading to all flats, drastically reducing the need for cooling. Solar control glazing will also be considered. A large proportion of windows will be operable.

Step 2 - Integration of Low or Zero-Carbon Energy Sources

A community energy system will be provided. This is a sustainable choice as having only one single Energy Centre brings flexibility, now and in the future, in terms of energy sources and will allow an increased use of additional renewable energy sources. The following Low or Zero Carbon Technologies are proposed: Gas-fired or Biomass-fired Combined Heat and Power (CHP); Surface water heat pump system (SMWH); Micro wind turbines or Photovoltaics. These Low or Zero Carbon Energy Sources will generate approximately 40% of the energy requirements.

Reference: Putrajaya Waterfront development, Kuala Lumpur, Malaysia (2008, competition winner)

It will be the first sustainable residential complex to be built in Kuala Lumpur in 2010. The design of Waterfront Residential Development at Precinct 4, Putrajaya has aimed to create a truly sustainable development. Significant measures have been taken to reduce the impact of the development on the local and global environment.

This will fundamentally be achieved by ensuring a sustainable design, construction and operation of the buildings. The approach to sustainability has been to ensure that the development makes efficient use of natural resources and has a greatly reduced environmental impact.

The main sustainability features in the scheme are the following:

Carbon Reduction Measures

- Effective skin providing optimum shading to all residents
- Community energy reducing from thermal, solar and wind farms coupled with the take and use of water
- Low energy lighting

Sustainable Water-use Measures

- Efficient water appliance
- Low water use within glazing and washing machines
- Rainwater recycling

Sustainable Transport Measures

- Cycle Storage
- Secure cycle paths throughout the site
- Car share with hybrid electric vehicles

Sustainable Wastes Management

- Waste sorting and recycling facilities maximised during construction
- Extensive recovering collection facilities will be provided in the development

Sustainable Operation

- Biodiversity (e.g. roof gardens)
- Low energy and water consumption ensures reduced utility costs
- User information packs will provide guidance on how to get the best out of the systems provided (Wiring)