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Bligh Voller Nield

百瀚年建筑设计事务所作品集

Introduction by Joseph Rykwert and Xing Ruan

导言: 约瑟夫·里克沃特 阮昕

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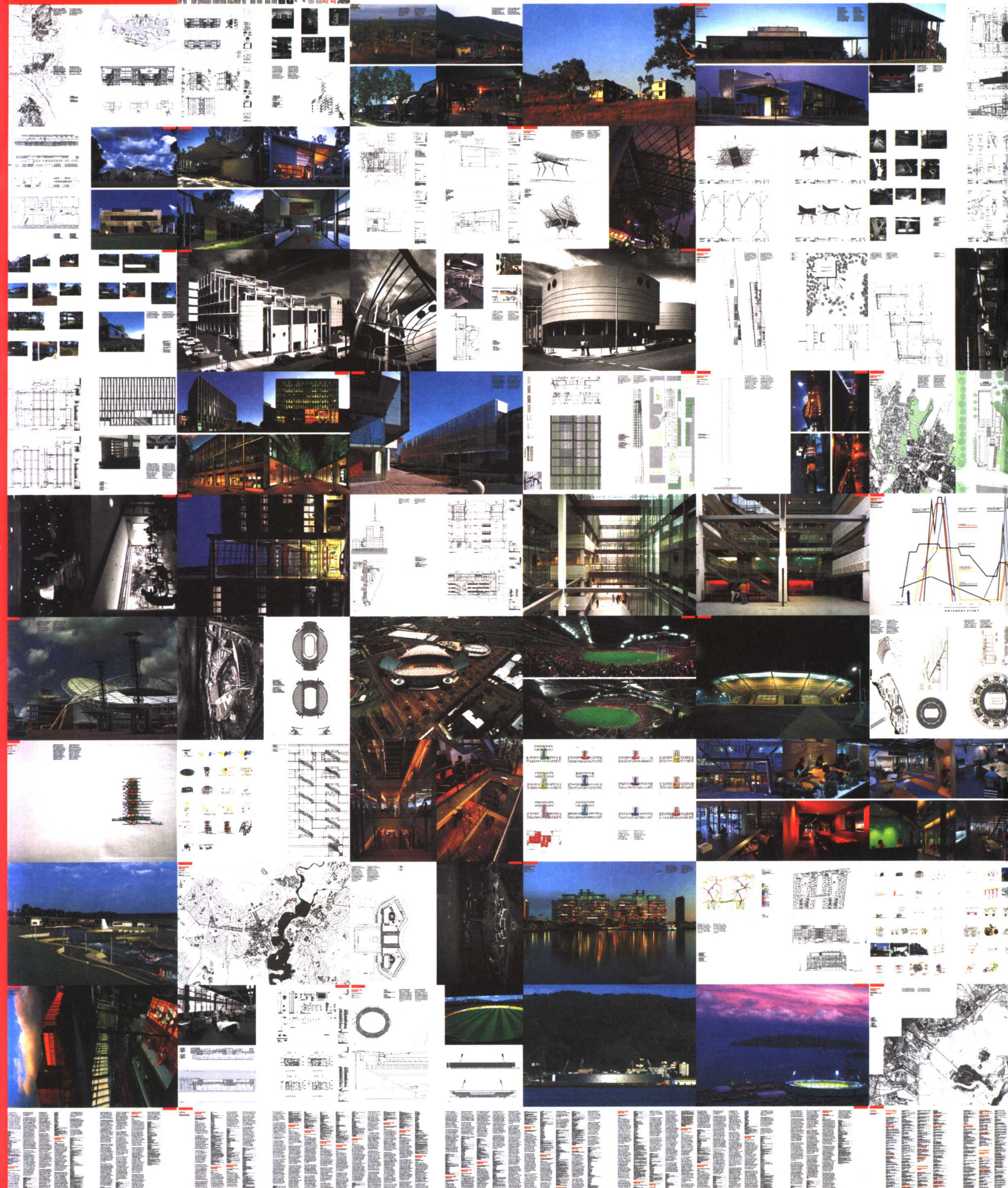
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THE SOUTH PACIFIC ARCHITECTURAL AWARD
The South Pacific Architectural Award is a biennial award for the best architectural work in the South Pacific region. It is presented by the South Pacific Architectural Association (SPAA) to the architect or architects responsible for the design and construction of the building. The award is given to the architect or architects responsible for the design and construction of the building. The award is given to the architect or architects responsible for the design and construction of the building.

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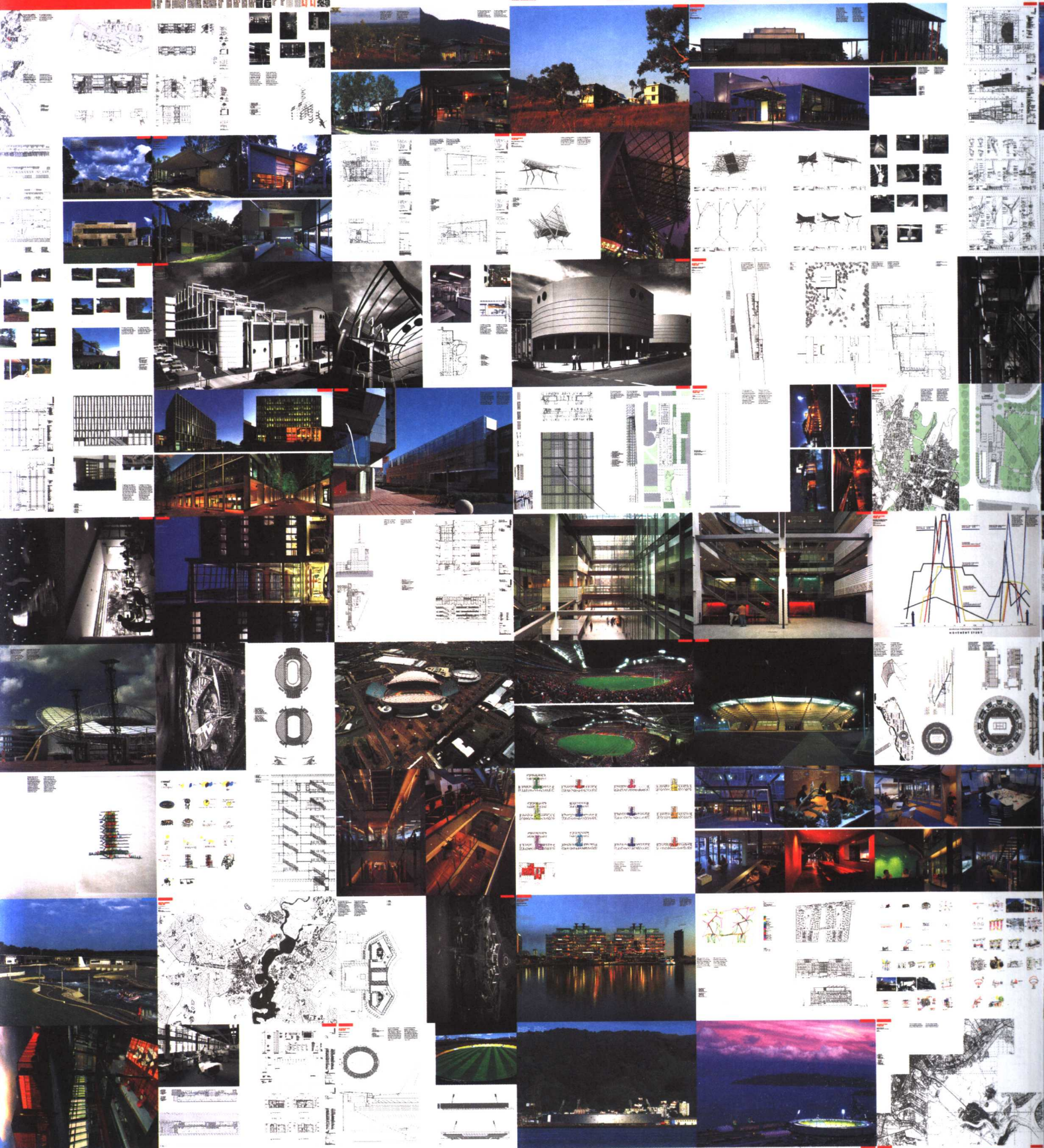
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THIS BOOK RECORDS THE SIGNIFICANT BUILDINGS AND PROJECTS OF BLIGH VOLLER NIELD. IT IS APPROPRIATE THAT THE PROJECTS ARE ORDERED AND LOCATED BY LATITUDE AND LONGITUDE – BY THEIR PLACE IN THE WORLD. FOR OUR ARCHITECTURE REGIONAL DIFFERENCES REMAIN SIGNIFICANT. EQUALLY SIGNIFICANT IS THE NARRATIVE OF LIFE AND LIVES IN OUR ARCHITECTURAL FRAMES – THE PEOPLE OF OUR PROJECTS. THE PRACTICE'S WORK IS ABOUT PROVIDING A VANTAGE POINT, A HOME OR A WORK SPACE, THAT IS EITHER A CELEBRATION OF AN EVENT OR AN ACTIVITY. THE BUILDINGS AND PROJECTS ARE ARCHITECTURAL NARRATIVES ABOUT PEOPLE. THEY ARE ABOUT PROVIDING SUPPORT AND BACKGROUND FOR HUMAN ACTIVITY NOT AN ALL CONQUERING FOREGROUND. THE WORKS AND PROJECTS SEEK TO ACCOMMODATE RATHER THAN TO IMPRESS. THEY SEEK TO INVOKE RECOGNITION BY SENSATION. THE ARCHITECTURE OF SENSATION IS ABOUT THE SENSE OF TOUCH, RATHER THAN THE 'ASTONISHMENT OF THE EYE'¹, ABOUT LANGUAGES DEVELOPED FROM MATERIALS AND SURFACES. BLIGH VOLLER NIELD ESCHEWS A HOUSE STYLE; ITS BUILDINGS ARE INFORMED BY AN ALTERNATIVE TRADITION OF READINGS OF ARCHITECTURAL HISTORY IN SYMPATHY WITH HUMANITARIAN, CULTURAL AND, IN THE MOST SERIOUS WAY, SUSTAINABLE VALUES. EACH BUILDING AND PROJECT IS A DIFFERENT ESSAY ON THESE THEMES.

LAWRENCE NIELD

1. SEE PALASMAA J., RIBA DISCOURSE LECTURE, 1999.

本书记录了百瀚年建筑设计事务所(BLIGH VOLLER NIELD)的主要工程项目和设计作品。在编录过程中,我们特意根据这些项目在世界各地的经度和纬度——即地理位置进行排序,因为这些作品因地域差异而形成迥然不同的建筑风格,意义深远。同样有意义的是生活在我们建构的建筑中的人们——他们对生活和生命的演绎。我们的作品,既有为日常生活提供的居住空间和工作场所,也有为庆典聚会提供的观赏平台。建筑与方案是关于人类的建筑叙事,它们为人类活动提供舞台和背景,而不把自己当作舞台上的表演者。这些工程和方案力图适应文脉而非茕茕孑立,孤芳自赏。它们试图通过对观者心灵的触动而不是简单的视觉刺激¹来赢得认同。建筑的感染力在观者的共鸣中得到升华,其所使用的语言也源自于材料与表面。百瀚年竭力避免某种约定俗成的建筑模式,其建筑中蕴含的丰富信息来源于解读历史时在不同方式间的转换,这与人文的,或者从更严格意义上来讲,与可持续发展价值观的主题是一致的。每个建筑和方案都代表了在这些主题下的不同尝试。

劳伦斯·尼尔德 (LAWRENCE NIELD)

1. 见J·帕拉斯马, RIBA Discourse Lecture, 1999年

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致谢

Every building has to be an isolated object – that much is self-evident. It is equally evident that every building must have a context, but the relation of the object to its context is not self-evident at all: it may fit smoothly into it, or dominate by position or just sheer size. It may even configure itself into a comment on – or a criticism of – its surroundings. The buildings in this book, the work of one collective office, provide examples of all these relations. Even a cursory examination will show that the process of designing that determined them had to involve considerations of position and context as well as of the detailed form. By deliberate choice these architects work through a dialectic between the design of the building as an object and the placing of it in its context as a dynamic factor.

In this they differ from a number – perhaps the majority – of successful contemporary practices, who so concentrate on the object-building that all questions of context become secondary, even trivial. Perhaps that is why the problem of style, refreshingly absent in this group of buildings, has been dragged, the reddest of herrings, through current architectural discussion. Neo-modern, postmodern, post-postmodern, high-tech and blob (less colloquially, virtual tectonics) are all stylistic labels indicating the way the building has been made to look. These terms tell you nothing about the way it was planned or built – never mind about its relation to its surroundings.

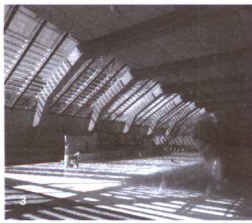
Which does not mean that preoccupations with form or connotation have not shaped the buildings published here, or that they might be called 'functional' – in the old sense that their visible shapes are merely the automatic product of satisfying the requirements of the programme and finding the cheapest and quickest way of building a shelter for them. On the contrary, these buildings show their designers' commitment to formal problems – how the plan is projected into structure, how the appropriate materials are chosen, how the interior may shape the exterior – as well as to questions of proportion and modelling. None of these are ever left to chance. The materials may often be workmanlike – exposed galvanized steel,

timber or metal slats, raw aluminium – but that very simplicity often contrasts with the felicity of the treatment.

Perhaps the most important distinction of many of these projects is that they are as much 'urbanistic' or town-planning (English is not good at describing the urban) schemes as architectural ones. The two that show this most evidently are the Sydney International Tennis Centre in the Olympic grounds and the Cook and Phillip Park Aquatic and Fitness Centre. The Olympic 'settlement' was placed on almost virgin territory, with the tennis arena acting as a very muted climax – a sort of inverted dome visible along the whole of its main avenue. ¹ The pools in Sydney occupy the space of the old (and small) Cook and Phillip Park, which stretched between the learnedly Gothic St Mary's Cathedral and the more commonplacely 'classical' Australian Museum. ² Its position gives the centre a crucial role in the city plan. Although barely projecting above ground level, it makes an impact on the whole fabric of this part of Sydney by inserting a paved civic and public area on the site of a diagonally crossed and underused green – which, in any case, is a part of the large wedge that opens the city from Woolloomooloo Bay.

That square – or perhaps more accurately the *piazza* – is, in fact, the roof of the Aquatic Centre, surveyed from high stone plinths by the bronze figures of the first two Australian cardinals in their full canonicals, so that the paved space directly in front of the cathedral also becomes its parvis. So much relatively smooth stone surface makes it a skateboarders' paradise of course, but it is also sheltered enough to become an urban promenade, shaded on one side by a row of giant fig trees that survive from the old park. Some further green space and a sweeping, curved path through it lock the rectilineal alignment of the Aquatic Centre into the surrounding street pattern. As a truly public space it can be mustered for ceremonial occasions – meetings, processions, state funerals – and it makes an interesting contrast with St Patrick's and St John the Divine, the two cathedrals of New York, both of which are much bigger than St Mary's, even though neither of them can command a comparable intermediate public space between the interior and the busy street.





The pavement of the parvis rests on a row of complex concrete portal frames braced by hinged struts – and here I might be allowed a formal, almost a stylistic consideration. **3** Hinged frames, much favoured in high-tech buildings, often have their obtrusive hinges and other such structural elements at ground level to dwarf the passer-by into insignificance by their scale and power. In the buildings of Bligh Voller Nield this (to my mind, unfortunate) device is never resorted to. These are buildings that mean to put their users at their ease as buildings almost always should.

The grouping of the Aquatic Centre pools at an angle takes up the slightly divergent lines of the external street grid. The internal volume is also articulated to allow the passer-by a view of the pools through dormer windows, which project above the paving; at night, the same dormer windows become a soft, low-level illumination of the parvis. Although it is underground, the Aquatic Centre is not buried out of sight, but remains a constant, if discreet and unobtrusive, presence in the civic realm.

An analogously 'civic' problem faced the practice when it designed the library at the University of the Sunshine Coast in Queensland. **4** It was to be built within the campus plan that Aldo Giurgola based on Thomas Jefferson's University of Virginia buildings at Charlottesville. Jefferson had two ranges of porticoed teaching and professorial houses facing onto a green, dominated at one end by a Pantheon-like library. Our time is impatient of Pantheon look-alikes and axial climaxes. Without resorting to such a device, the library had nevertheless to provide the campus with its focus. Although it does not dominate by its position, the library's huge open porch is nevertheless a significant element on the campus, and its axis becomes the centre line of the porch. It can therefore be 'read' as the portico of the whole university. Descending gently from the porch, the saw-tooth roof section gives even light to the reading rooms and the open stacks. Its open side is sheltered by a series of slatted screens carried by a slender metal structure, that discreetly but very decidedly monumentalises the time-honoured Australian domestic tradition of the 'Queenslander' – the slatted house on stilts.

A sharply contrasting university building is the office and classroom block for the University of New South Wales on Anzac Parade in Sydney, which faces onto a rather haphazardly occupied busy, suburban roadway. **5** Since the building serves many new arrivals into the student body, it is something of a gateway for them and has therefore been designed to introduce a note of civility into the commercial street. That is done by making it much more tightly and even obtrusively organised than many other buildings on the campus. An in-situ concrete frame gives it an insistent rhythm, broken into staccato overlays at crucial points. One corner is 'broken' where the columns rise through two stories to make for a monumental stairway up to a high-level courtyard. This might be considered the gate proper, with a café that is entered from that courtyard but is open to the double-height porch. The east and west surface of the building is ventilated, with inclined double-glazed outer windows and a single inner blind. The space between the window and the blind is mechanically ventilated, so reducing the need for air-conditioning.

The simplest of Bligh Voller Nield's university buildings is the relatively small studio for the School of Architecture at the University of Newcastle. **6** It is a near-square – four to five on plan. A light metal construction is painted red lead, while the outer skin is of aluminium-faced sandwich panels, broken for louvered windows at each corner; additional light is provided by two skylights and slits in the outer skin. The concrete foundations make a columnar porch where the ground slopes to provide a social space at the lowest level, but the roof rises enough to allow for a gallery at the higher one, so that the simple shed works as a three-level building.

The very earliest of the projects shown in this book is the Mt Druitt Hospital. **7** It was designed to provide much-needed hospital services to an expanding area of Sydney. The primary formal problem was posed by the need to avoid an 'institutional', corridor-dominated layout – hence the swell of three bays and wards opening off a 'spine' of consultation suites and operating theatres that look over open landscape. The use of metal cladding for the exterior suggested the use of the porthole as a formal device. The sweep of the louvres along the three bays, contrasting with the portholed 'spine', achieves a memorable, if very

straightforward statement, which can serve as a model for the way a hospital should be designed in the future.

Hospitals have become something of a specialised area in the Bligh Voller Nield repertoire, although I am quite sure that the practice is right in insisting that its contribution to hospital design does not consist of sharpening specialised hospital skills, but is very much concentrated in design ones, and on the humanising of the institutional environment. In fact, the specialised knowledge required for hospital design – the servicing, the layout of surgical suites, the accommodation for diagnostic and therapeutic equipment – is easily tapped and, in any case, changes constantly with the development of new forms of therapy and operative techniques, while the formal qualities of such designing do not depend on these variants, but shape the lives of both staff and patients independently of any technical-medical consideration.

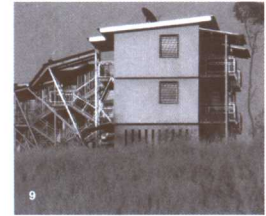
Bligh Voller Nield has developed its approach while working on different types of buildings, and it considers its contribution equally valid for hospital design as it is for office and airport projects. As in offices, so in hospitals, greater attention is given to patient/user requirements. The exploitation of new communication technology has led both designers and technicians to insist on a greater refinement of the 'hard' carapace and to an increasing reliance on 'event-oriented' internal structures that need to be more flexible than they have been up to now, so that any new developments can be accommodated without disturbing the stable part of the building. The very straightforward structure of Terminal 2 at Sydney Airport shows an example of the practice's approach to working with canopies and screens to create mobile sub-spaces in the main hall. **8**

A somewhat different specialist area to which – unexpectedly – Bligh Voller Nield has made an original contribution is military construction. Located in the tropical but arid north, the Lavarack Barracks depart radically from any preconception of what barracks should be like if they conformed to precedent. **9** They are articulated into three precincts of semi-independent units, each one centred on a single-story 'commons' or mess hall, while the differences in layout

are due to the adaptation of each unit to its topography. This apparently scattered – but, in fact, very deliberate – organisation ensures that natural ventilation (particularly cross-ventilation) by the east winds is fully explored.

As for the rather prominent, exposed structure, there is also something gracefully haphazard about that framing. The open stairways and the long metal struts carrying the roof overhangs emphasise the airiness of the building. The apartments are of three different types and are enclosed in prefabricated steel and concrete elements, 'clipped in' to the framework. They are also designed to exploit the natural ventilation of the slatted and sometimes barely inclined steel wall elements. This is a building for a new professional, but also very much a 'civic' army, and the organisation of each precinct is intended to emphasise this character.

The National@Docklands overlooks Victoria Harbour in Melbourne and is one of the last completed groups of buildings illustrated here. **10** It indicates another direction resolutely taken by the Bligh Voller Nield office: instead of providing its client with the usual prestige high-rise office block, it has chosen to lay the 'skyscraper' on its side, as it were, and has articulated the accommodation in two interconnected 'U'-shaped blocks, which allows it to use a good deal of the space in the lower stories for parking, and to open semi-public atria, criss-crossed by walkways in the inner space of each 'U'. The main meeting rooms are appropriately housed in connecting bridges or overlooking the harbour, while the freely disposed workstation spaces open out into the atria, as well as to the street, so that natural light predominates in spite of the relatively low height of nine stories. **11** A penthouse deck houses the ventilation and elevator mechanicals. At ground level the trapezoidal perimeter takes up the angle of the harbour as well as of the street grid, and is deliberately permeable, with stanchions forming an open colonnade. A high canopy projects over the harbour side walk. At the corners it forms a deep porch to accommodate cafés and shops, while the faces of the building to the street and the harbour make sharp, brightly coloured staccato patterns, which are essential to assert the building's presence against the somewhat disordered, commercial surroundings.





The Sydney International Tennis Centre for the Sydney Olympic Games has three stadia: the largest by far is the circular Centre Court, which is flanked by a lower players' building, to which it is connected by a tunnel. **12** This passage allows star players to enter the stadium unmolested by fans, but also permits earth-and-shadow cooled air to ventilate the auditorium. Although it provides a climax to the site layout of Olympic Park, sited, as it is, at the end of the 'spinal' avenue, it has no monumental entry, and is separated from the avenue and the other buildings by the winding Boundary (both in name and function) Creek. Direct access is pedestrian, over three footbridges. Car access is indirect and parking is withdrawn to the rear of the site. The big stadium, although seating 10,000, seems relatively modest in size because half the spectator accommodation is below grade – the bowl is excavated down to the stony underlay. **13** Radiating galvanised steel ribs and masts hold the stepped concrete seating project up into a wide – but low – inverted cone; this also suspends the sheltering roof to protect spectators from both rain and sun. A structural rim – a ring beam – provides the stability that usually depends on columns at the outer edge. The two smaller stadia are rectangular; one of them adjoins the players' pavilion and matches there can be watched from its terrace as in an ancient 'royal' tennis court.

The friendly almost domestic scale of the players' building belies the scale of the project, comparable to any of the world-scale tennis stadia. Perhaps mindful of Auden's distich that "Private faces in public places are wiser and nicer than public faces in private places". Bligh Voller Nield has never attempted to inflate the scale of its buildings, not even its most monumental ones. That is also why its houses are so good, whether the updated and reformed 'Queenslander' (for one of the partners, Chris Clarke), in which the ingenious section has carefully tailored limited accommodation to the living requirements, **14** or the somewhat earlier 'steel house' in Northern New South Wales, with its rectilinear frame left in its rough, galvanized state, **15** while the accommodation is configured to make the best use of the orientation. It might be contrasted with Mies van der Rohe's Farnsworth house, where the exposed steel structure was expensively

sandblasted and the welded joints filed to invisibility before it could be painted, while the accommodation was not articulated – either with regard to use or to orientation.

But then Australian architects seem to have a double advantage over their contemporaries: they can work in the wide open spaces that are available to many Americans, but they can also rely on a relatively healthy urban fabric. What is more – and in this perhaps Bligh Voller Nield stands out from its contemporaries – they have no discomfort about their cultural baggage: neither about immediate Australian precedents, nor about the more remote old world inheritance on which they draw freely. It is the radical and principled approach of Bligh Voller Nield to its work in the public and urban sphere, that has made it one of the most remarkable offices working anywhere nowadays.

Joseph Rykwert is a significant contemporary architectural thinker and historian. He is currently the Paul Philippe Crete Professor of Architecture at the University of Pennsylvania. Rykwert taught at the Royal College of Art before becoming Chairman and Professor of Art at the University of Essex in 1967. In 1979 he was appointed Slade Professor of Fine Arts at Cambridge University, where he was a Reader in Architecture until 1987. He has held visiting professorships and fellowships at numerous European and American universities. Professor Rykwert has written extensively and published many books on architecture including *The Idea of a Town* (1963), *On Adam's House in Paradise* (1972), *The First Moderns* (1980), *The Necessity of Artifice* (1982), *The Dancing Column*, *On Order in Architecture* (1996) and *The Seduction of Place* (2003), all of which have been published in several languages.

每幢建筑物都是一个独立的个体——这应是很明显的。同样明显的是每幢建筑物都有一个内涵，然而建筑物的个体与其内涵之关系却并不那么明显：因为有时它们紧紧相连，有时则因其地理位置或其尺寸大小独占鳌头，甚至有时这层关系还能诠释其周遭环境——或作出批判。本文中的所有作品皆是由同一建筑设计事务所集体创造的，这些作品适切地表达了上述的种种关系。即便是匆匆一瞥我们也能感受到建筑师们在设计这些作品的过程中，对其方位、内涵及细节所下的功夫。因为建筑师们在设计这些作品时，确实也为是否要把它看成一个单纯对象来设计或是要把它视为一个能反映周遭环境的镜像而绞尽脑汁。

也就因为如此，他们与时下的许多——或许是大多数——一味追求个体与建筑物的关系变化而走火入魔到把建筑的内涵视为次要或当成繁琐小事来看待的著名建筑师截然不同。这也难怪这本书中作品的风格隐然不见，而这样没有自家风格的风范俨然成为时下建筑界的新话题。虽然在现代建筑词汇上新现代（Neo-modern）、后现代（post-modern）、后后现代（post-post modern）、高科技（high-tech）及“泡泡”（blob）（或套句专业术语：虚拟结构）皆尝试为建筑物所被塑造的形式贴上风格标签。然而这些建筑语汇并没有告诉我们一幢建筑是怎样被规划的及怎样被建造的，更没有告诉我们这幢建筑与其周遭环境的关系。

但这并不代表这本书内的作品没有造型可言或缺乏内涵，或是套句老话，充其量只能被叫作“功能建筑”（functional）：意味着他们的外观造型只是为满足其功能性，而用最廉价和最迅速的方式把一个空间“包起来”。相对地，这些建筑物充分反映出设计者对建筑的形式问题研究之透彻：例如如何将纸上作业转变成一个实质的结构体，如何慎选材料，如何将建筑的里外结合和有关比例及模块等问题。这些问题没有一个是他们未曾考虑过的。他们用的材料或许

精简，例如使用镀锌钢、原木、金属板及生铝材——但这种精简的构成方式反倒显现出他们的适宜得体。

或许这些作品最大的特点是它们大多能把“都市化”及“城市化”（其实很难用英文来表达都市化的语意）落叶归根在建筑的语汇里。位于奥运公园的国际网球中心（International Tennis Centre）及悉尼游泳健身中心（Sydney Aquatic and Fitness Centre）可以说是他们把建筑的“都市化”及“城市化”诠释得最完美的两件作品。奥运公园的“安身点”被植入在一片几乎未开发的土地上，而其网球场则缄默地高挂在其顶端——就像一个上下颠倒的圆顶在其主要大道上触目可及（图1）。而在悉尼市中心的游泳池则处于坐落在著名的哥特式圣玛丽大教堂（在本书出版的同时，刚好圣玛丽大教堂正在兴建原本在哥特式建筑上应有的螺塔，所以照片上才会有两座不搭调的起重机）及典型的传统澳大利亚博物馆之间的老旧（且小）的库克与菲利普公园上（图2）。在市区规划上，这样的地理位置使得这座健身中心扮演了相当重要的角色。虽然它几乎没有突起于视觉平面上，却在悉尼的这个角落的再造上，起了很明显的作用，因为它在一个未被充分利用的斜角绿荫上强制插入了一个人们可以互相交流、往来的公共空间——也形成了市区与乌鲁鲁湾（Woolloomooloo Bay）之间交流的一个契机。

这一方形空间——正确一点儿来说应是一个露天广场（piazza）——正是这座游泳健身中心的屋顶。如果从两位穿着正式礼服的澳大利亚首席红衣主教铜像的地方俯视，它又如同教堂前的方形前庭一般。因为这广场上的铺道相当平滑，不但成为滑板爱好者的天堂，同时也因为一边有着原先旧公园中栽植的巨大无花果树之绿荫，而成为散步的好去处。周边的一些绿地加上贯穿其中的一条延绵不绝的步道让这线性排列的游泳中心与周边的街道平面规划合为一体。如此巧妙规划的公共空间让这里成为节日庆典的首选——像集会、迎宾及国葬——而且它也使得位于纽约的，在尺寸上占有绝对优势的圣帕特里克（St. Patrick）和圣约翰（St. John）大教堂相形逊色，因为这两座教堂都无法適切地提供一个





能融合室内与繁杂室外街道的适宜的公共空间。

教堂前的广场铺地是建构在游泳中心的一排由链状角钢所构成的复杂混凝土结构上的——这里我想从形式上或比较风格化的角度来说（图3）。这种在高科技建筑上常看到的链状钢结构通常拥有很庞大的基础架构定桩在建筑物的地基上。这些庞然巨物的尺寸及气势使得过往行人显得微不足道。然而对百瀚年建筑设计事务所（Bligh Voller Nield）的建筑而言（很遗憾的，但也是可喜的）这种情况并不存在。因为他们的建筑永远把使用者摆在第一位，其实本来一个好的建筑就应如此。

从某个角度上来看，游泳中心的游泳池似乎整合了周围有点偏斜的格状街道规划。而透过其屋顶天窗所映画出的池中美景往往使得过往行人驻足而观；夜晚，这些窗户则宛如柔和的地下照明映照在教堂前的广场上。这幢建筑虽建构在地面下，但它并不因此而被埋没在视野外，反倒成为市区中一个深思熟虑又不突兀的地标。

百瀚年建筑设计事务所的建筑师在设计昆士兰的阳光海岸大学（Sunshine Coast University）图书馆时亦面对同样的“市政”问题（图4）。这幢建筑原本想要按照阿尔多·吉尔古拉（Aldo Giurgola）依照托马斯·杰斐逊（Thomas Jefferson）在夏洛特市（Charlottesville）的弗吉尼亚大学（University of Virginia）之建筑雋型而建。在杰斐逊原来的构想中，两排柱状回廊式的教室与职员室隔着草坪与另一端万神殿造型的图书馆相互呼应。然而在现今的时空下，万神殿造型和同轴式建筑型态似乎已不太讨好了。因此如何不用这种造型而又能强调这幢建筑在这个校园中的重要性成为这幢建筑的设计重点。相对于地理位置而言，这幢图书馆的宽大圆形前廊反倒更能吸引人们的目光，而且它的中心点又刚好位于整个前廊的中心轴。这使得这幢建筑在校园“扮演”着对外的门廊要塞的角色。沿着圆形前廊缓缓而下的侧面锯齿状屋顶，提供给馆内阅读空间和开放书架以均衡的光线。馆外的侧面开放空间是为一系列修长金属结构所架设的百叶隔屏所荫庇，质朴却明确地反映出澳大利亚内部颇受推崇的“昆士兰”

式（Queenslander）建筑——架高式百叶屋。

和一般大学建筑迥相其趣的是另一幢位于悉尼近郊交通繁忙的安捷克大道（Anzac Parade）上的新南威尔士大学的办公及教室大楼（图5）。因为这幢建筑主要的功能是接待新生，所以它就像是一个出入口户，被赋予这条商业大道的亲善大使的使命。所以整幢建筑相对于大学校区内其他建筑，反而被刻意打造成一种层层相连而又有点仓促成局的感觉。内建固定的混凝土框架结构有节奏地排列，时而被看似重叠排列的玻璃帷幕打断。建筑物的一边也被两层楼高的柱子“打断”了整体的流畅性，用以坐落一座引领人们至楼上中庭的给人以强烈的视觉震撼的大楼梯。这里可被视为正式的入口大门，其中的咖啡厅除中庭可进出其间外，亦开放给那两层楼高的门廊。东西两边的外侧是倾斜的双层玻璃，内侧用单层百叶来促进空气循环。玻璃与百叶之间也有机械通风系统，用以降低空调设备的需求。

百瀚年建筑设计事务所设计的大学建筑中，最简单的可算是位于纽卡斯尔大学（University of Newcastle）建筑系的小工作室（图6）。这是个几乎呈正方形的平面——4×5见方。整幢建筑的构成是红色轻钢架、铝板及角落上的百叶窗；外层的两个天窗及建筑物的夹缝则提供了额外的光线。混凝土的地基形成一处圆柱状门廊，并与地面产生一个斜坡而形成一地面层的天然社交空间，其屋顶的高度又足以在顶层容纳一个画廊的存在，因此这简单的小空间等同具有3层楼的功能。

橡特露医院（Mt Druitt Hospital）是本书中最早的作品（图7）。最初这座医院是为悉尼市外围之医疗资源不足而建的。为了想摆脱一般医院给人的“刻板”的长形走道式设计，这里用三个鼓起的圆弧造型把面对外面景观的咨询室及手术室如“脊椎”般地弯连起来。而电镀金属板的外观，则使用圆形舷窗来作为其造型。顺着三个圆弧延伸的百叶造型和“脊椎”般的连绵舷窗相互辉映，仿佛直接为未来的医院树立了新的典范。

虽然百瀚年建筑设计事务所在医院设计上几乎快成权威了，可是我确信，也认同他们坚持其医院设计必须着重于设计的层面及想办法人性化这个太过制度化的医院环境，而且设计与医院本身之专业能力没有任何牵连。事实上，有关医院设计方面的专业知识——像是服务病人、手术室规划、诊断病床设施及医疗设备等的认知，很容易会因新的医疗方式及手术技术的改善而有所变迁，而一幢医院在造型上的规划设计与这些客观因素并没有太大关联，因为它只想增进病人与医疗人员之间的互动关系而并不想增进任何医疗技术。

百瀚年建筑设计事务所在游历于各种不同形态的建筑类型之间，已经发展出一套自己的设计模式及理念：他们亦认为他们在办公空间的规划及机场设计上的贡献并不亚于医院设计上的成就。因为对他们而言，无论是办公空间或医院的设计皆应以使用者为重。由于现今设计师及工程师皆沉溺于对新科技的追求，而一味将重点放在如何使建筑物的“外壳”更加亮丽，如何锁定其内部更加像一个它们所“约定俗成”的角色，然而这角色应可以更有弹性以便后来追加的设施可以适切发挥而不需再大兴土木。以悉尼机场二号航空站为例，直线般的整体架构，搭配上机动性的顶棚及隔间设施，很直接地就能弥补机场大厅空间的不足（图8）。

百瀚年建筑设计事务所在其专业领域上的另一项有点让人难以联想到的设计成就是军事基地的设计。坐落在澳大利亚炎热又一毛不拔的北部的拉瓦拉克兵营（Lavarack Barracks）和一般约定俗成的军事基地看起来差异很大（图9）。这座基地是以一层楼的“公共空间”或餐厅为中心所延伸出来的三个半独立单位，而每一单位的设计则因其个别之地形地物而有所调整。这个看似明显松散的排列组合——其实是经过谨慎评估的——确保了东边来的风能被善加运用（特别是在空气的相互流通上）。

至于这座基地明显又突出的结构则是建筑师们巧思的杰作。开放式的楼梯及承载屋檐的长条金属架把这座基地顶得高高在上。三种不同类型的营房则因被预铸钢筋水泥组件所包围而

“融入”其框架中。这样的设计亦是为了更好地利用由百叶及半倾斜的钢构外墙所形成的天然气流。这是一幢为新的军事专家同时也为有点“平民化”的军事专家所量身打造的，而每个不同的机构也皆有所属。

位于墨尔本道克兰（Docklands）正对维多利亚港（Victoria Harbour）的澳大利亚国家银行（National Australia Bank）是本书中比较近期的作品（图10）。它代表了百瀚年在设计上的另一项突破：他们摒弃了一般备受推崇的垂直发展的超高层办公大楼设计而选择了将这“摩天大楼”水平倒置在一边，像现在这样，他们又巧妙地将这幢建筑规划为两个相互交错的“U”形方块，让底层的空间腾出来作为停车专用，亦形成了一个半开放式的天井，由相互交错的走道贯穿在这两个“U”形空间内侧中。几个主要会议室大都坐落在大楼间的连接枢纽或能够眺望港中景色的位置，而散落的工作台椅则因透空而开放视野给天井及外部街道，因此9层高的办公大楼不会因其高度太矮而享受不到充足的阳光（图11）。顶层的阁楼则用来安置空调及升降梯的机械设备。不规则四边形的地面层则刻意把周边港口及街道配置纳入版图，并在其间树立环绕的柱栅以形成开放式的廊柱景观。高高的顶棚亦延展至行人走道上。建筑的角落则形成一处深入的门廊，用来作为餐饮及商店的地点，而其正对街头及港口的立面，则刻意使用鲜艳亮丽而不连贯的颜色来突显它与周边不太协调的商业建筑之不同。

为悉尼千禧奥运而建的国际网球中心（International Tennis Centre）则因经常在电视上亮相而最为人所熟知。它由三个球场组成：其中最大的球场是一个由有地下隧道连接的底层球员休息室所环绕的圆形中心球场（Centre Court）（图12）。这样的地下隧道是针对明星球员在出场时不受追星族的干扰，同时又能使球场享有地底层的超冷空气对流而设计的。虽然中心位于奥运公园螺旋走道顶端，为整个地形中的一个高潮，它却没有一个很雄伟的入口，也因身旁迂回的庞德利溪（Boundary Creek）而与其他奥运主要大道及建筑分离。其主要出入口必须靠步行并穿越三座人行桥才能到达。车

