Every few years when the Australian Open and the Cricket seem to coincide, a view is obtained of a culture engaged in the spectacle of sport. This will be amplified in 2006 when the Commonwealth Games comes to town. Many of the facilities built in the recent years will be used for the Games, many coming out of the Kennett Era boom, such as Melbourne Sports and Aquatic Centre (to be extended for the Games); Vodafone Arena and the Exhibition Centre (getting its flexibility tested). The classics of Melbourne Park, the Rod Laver arena and the MCG will be central to this: the G of course under major redevelopment, with the major new Northern Stand to be completed for the opening of the Games.

The feature in this issue of Architect Victoria looks at selection of buildings designed for sport, in the post-war period. The concentration is toward the more recent, and starts with the Beaurepaire Centre at Melbourne University, current under restoration by Allom Lovell.

Questions we might include: Are sports buildings treated differently architecturally and professionally to other buildings? Do they receive fewer awards? Do fewer players dominate the market?

Sports buildings are a subset of Public buildings, at least according to the way the Institute classifies them; and it is good to think of them in this way. It is however hard to conceive say Vodafone Arena or Telstra Dome as public - possibly the strategy of full spatial enclosure takes them further away from this, possibly their corporate names. It struck me the other day, when walking from Federation Square to the MCG that the absence of the Ponsford Stand opened up the G in a public way which gave the approach a sense something of the Circus Maximus; this was amplified by the gap being roughly aligned with the walk from the City. The crowd became part of the spectacle, and the roar added to this sense. I stood on the pedestrian bridge looking into the ground; and looking at the stadium itself became more interesting than the cricket, which I was trying to watch for free.

The Great Southern Stand remains perhaps Daryl Jackson’s best work. With both a strong sense of the Brutalism that Jackson so well handled with Kevin Borland at the Harold Holt Pool, and with the truss/expressed steel structure motif that has dominated so much of sport buildings in the last 10/20 years. In terms of the survey set up in the following pages, it is the Southern Stand that can perhaps be considered a turning point in the dominant aesthetic of the modern sports building. If the Docklands Stadium is a revision of this language, then it may be that it has lost all remains of the strength that the Southern Stand imbues, as a backdrop to the passions of the activities within. It is hoped that the new (Great) Northern Stand will live up to its partner; and is a rich enough replace one of the only remaining structures from the 1956 Olympics, the Members Stand and the Ponsford Stand.

Recently an ex-employee of Lab Architecture Studio was trying to argue to me the cost-effectiveness of Federation Square by comparing it to Colonial Stadium/Telstra Dome. Sure $600m is a lot, but then $425m for Colonial does make the gesture of Colonial seem pricey; but then that is private money. The elements Jackson used in the Southern Stand to articulate the edge and scale of

**SOME POST-WAR SPORTS BUILDINGS**

**EDITORIAL**

**ARCHITECT VICTORIA SUMMER 2003**

<table>
<thead>
<tr>
<th>Building Name (Original): Docklands Stadium</th>
<th>Building Name (Current): Telstra Dome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect: HOK + LOBB in association with Bligh Voller Nield and Daryl Jackson</td>
<td></td>
</tr>
<tr>
<td>Commissioned by: Stadium Operations Ltd</td>
<td></td>
</tr>
<tr>
<td>Date of Opening: 2000</td>
<td></td>
</tr>
<tr>
<td>Cost: $425 million</td>
<td></td>
</tr>
<tr>
<td>Capacity: 53,000</td>
<td></td>
</tr>
<tr>
<td>Location: Docklands</td>
<td></td>
</tr>
<tr>
<td>Comments: First retractable roof and moving tier stadium in the southern hemisphere.</td>
<td></td>
</tr>
</tbody>
</table>
the building become so flimsy in Colonial that the approach seems to maybe be the opposite of what is needed. The element perhaps most lost in the translation are the scissor ramp cores that at the Southern Stand are generous, raw and grounded, whereas at Colonial only the diagram of this idea is maintained, then wrapped in painted precast. Ironically, this thinness makes Colonial seem more like Olympic Stand at the G rather than Jackson’s building.

An engaging alternative for the Docklands Stadium was DCM’s scheme for the building, a singular drum that may have generated a resonance in the new context of small balconies, fins and planes on the apartment towers of Docklands.

Another clear alternative to the elaborated white externalized structure aesthetic that was employed for Vodafone Arena is Edmond & Corrigan’s circus like scheme; offering a braver, more celebrational (perhaps less Sydney) view of how a modern sports facility could be figured (Architect Victoria, May 2001, pg10/11)

So what do sports buildings look like? Sports buildings perhaps more than any other can still be discussed primarily of functional grounds, they tend to need large spans or cantilevers, and very specific dimensional requirements. The form/function dialogue is often dominated by function, and the aesthetic chosen often supports this: expressed structure because it has to be there.

In this sense, are sports buildings the last modern buildings?

The process of 3D modeling many of these projects is an attempt to reveal something about the language used in these types of buildings. Most of these models, produced by RMIT Architecture students as part of a Communications Seminar last year, had the common theme of repetition to them. This takes typically two patterns: partial or full elliptical extrusion, with periodic volumetric intervals along the same path; and orthogonal repetition along the edge of main spectacle area, and then mirroring to the other side. The former type is perhaps best exemplified by the MCG Southern Stand, and the latter by the Olympic Pool.

The aesthetic typical of the modern sports building is perhaps best seen in Sydney, with buildings constructed for the 2000 Olympics generally built in this way. This aesthetic is historically perhaps best typified by Sydney Football Stadium, by Phillip Cox Richardson Taylor & Partners, opened in 1988. Stadium Australia, now Telstra Stadium, is a development of this manner.

This particular style, which in this survey can been seen in Vodafone Arena, Rod Laver Arena and the Melbourne Sports and Aquatic Centre; has also been used in Victoria for Dandenong Oasis Recreational Centre (D.Jackson, 1991) and to a certain extent the new Members Grandstand at Flemington (The Buchan Group and K H Edelstein, 2001).

All the projects in this brief survey are chronically between the 1956 Melbourne Olympics and the 2006 Melbourne Commonwealth Games; the Beaurepaire Centre was used for training for the Games. Before the opening of the Commonwealth Games, Victoria will have an enlarged and very different MCG to what existed at the Bicentennial in 1988: all of the buildings will have been demolished and replaced by new facilities designed by Daryl Jackson. As also the
author of Colonial Stadium, it gives Jackson the privileged position of being the designer of the two most used sports buildings in Victoria.

It would be rewarding to see young architects, like the team of Borland, et al., to gain commissions and propose similarly exciting projects as the Olympic Pool was in 1956. Is seems that the same trust and optimism that gave that project its life is absent from any project discussion for Commonwealth Games. Is it the role of Institute to encourage and make possible these kinds of opportunities for younger players, or to maintain the status quo? The stagnation in the procurement of sport buildings commissions is perhaps similar to their architectural development.

The construction of sports buildings often clusters around large sporting events, such as the Olympics and the Commonwealth Games. The 1956 Olympic Pool, by Kevin Borland, Peter McIntyre, John and Phyllis Murphy (Bill Irwin as engineer) is our greatest legacy from that event. Architecturally far superior to the soon to be demolished Olympic Stand at the MCG, the true nature of the project is clouded by the 1980

SOME POST-WAR SPORTS BUILDINGS

Building Name (Original): Olympic Swimming Stadium
Building Name (Current): Melbourne Sports and Entertainment Centre, the “Glasshouse”. Currently unused.
Architect: Kevin Borland, Peter McIntyre, John and Phyllis Murphy.
Engineer: Bill Irwin
Builder: McDougall and Ireland
Commissioned by: State/Federal Government, Olympic Organising Committee
Date of Commission: 1952
Date of Opening: 1956
Cost: 292,000 pounds
Capacity: 5,500
Area: 7,000sqm
Location: Cnr. Swan St, Batman Av, Melbourne
Comments: First Olympic Pool to be fully enclosed.
Alterations: 1980-82 Borland Brown

Olympic Pool data and model by Dee Neville, drawing by Ben Marks, photo by Stuart Harrison.
Building Name (Original): Great Southern Stand
Architects: Daryl Jackson Pty Ltd in association with Tompkins, Shaw & Evans Pty Ltd
Commissioned by: MCC
Date of Commission: 1989
Date of Opening: 1992
Cost: $115 million
Capacity: 60,000
Location: MCG, Jolimont

The infill under the raking seat seems cruel to a project so reliant on its structural expression. The building also had to survive a change of sport-function, from pool to flat arena, typically for basketball. Given the loss of the Olympic Stand, some form of restoration to the original form and function would make a worthwhile project for the building’s 60th anniversary and in time for the spotlight of the Olympics.

Comparing the Olympic Pool to Peddle Thorp’s Melbourne Sports and Aquatic Centre (MSAC), we can see two very different expressions of the time in which they were built. With 50 years between them, one by younger architects, the more recent building by a large corporate practice; one open, challenging, and original, the other closed, conventional and derived: from a combination of the white steel aesthetic and the rolling vaults of rural nostalgia, as exhibited in Feiko Bouman’s 1988 Stockman’s Hall of Fame, Longreach. In many ways, the MSAC is a contemporary building: a mixed-use land-scraper that attempts to be hidden (the green roof in Albert Park). As a product of the
Kennett-era is unlike other major public buildings such as the Exhibition Centre, Melbourne Museum and Federation Square that went through a competition process: it came out of the shadows - is this related to its function? Is it perceived that sports buildings are a specialized field in the same way Hospital Planning is? If so, why? One suspects it suits the firms who dominate the sector generally.

At MSAC, the relative failure of the language to represent the activities within is resolved through large colourful signage type figures on the façade. It may have been possible for the architectural language to deal with this need, at the level of façade/structure/cladding. It is perhaps even more odd that a full height (9m plus) glass wall is used internally to separate the two main halls, but then the externally gazing is single level height. The internal glass wall is assumedly an attempt to register the two volumes as one. The different structures are telling the user something else, and it is clear they are two volumes. An exaggeration of the separation, as perhaps in the Harold Holt Pool, may have proven to be a more spatially interesting outcome.

**SOME POST-WAR SPORTS BUILDINGS**

**Building Name:** Melbourne Sports and Aquatic Centre  
**Architect:** Peddle Thorp  
**Project Architect:** Gary Duckworth  
**Commissioned by:** State Government  
**Date of Commission:** June 1995  
**Date of Opening:** 24th July 1997  
**Cost:** $65 million  
**Builder:** Baulderstone Hornibrook Pty Ltd  
**Capacity:** A 75-metre pool, 25-metre lap pool, leisure pool with wave machine, show court with 2000 seats, 8 basketball courts, 12 badminton courts, 18 squash courts and 25 table tennis courts, gymnasium, aerobics room, sports medicine clinic and crèche.  
**Area:** Site - 6.2 hectares, building - 350,000 sq.ft / 32,515 sq.m.  
**Comments:** Built to replace the outdated State Swimming Centre in Batman Avenue and the indoor sports facilities at Albert Park

MSAC data, model and drawing by Chan Mung Lee, photos by Stuart Harrison.
The building as whole consists primarily of two large vaulted halls, one for a multitude of indoor sports and the other for the 75m pool, the former being the larger. These are set at different orientations, and then joined between with a lower curved section, and then in-filled in at the front (eastern) side with smaller halls and curving (in plan) arcade/mall. An entry roundabout and canopy alludes to a large hotel.

MSAC occupies perhaps the unfortunate in-between realm of a large building which neither uses it size to gain presence, nor playing sufficient (de)scaling games to be able to read at a number of levels; the result in a building that is more akin to a shopping centre. The idea of hiding the building (the green roof) is not carried through further either, and instead is deviation from the all-white type that the building uses. The masts that may have some structural role are perhaps the only redeeming feature to the project, giving it registration it is context and alluding to a fineness and serialality and possible to a tent. These associations are fleeting - the derivation of the masts is possibly from Richard Rogers’ 1985 PA Technology Building in New Jersey, but also maybe from Cox’s Exhibition Centre at Darling Harbour.

Waverly Park seems now like somewhat of a ruin - both from its concrete brutalism and the AFL’s rejection of it as a main venue for football. Colonial Stadium is the urban replacement for the very suburban location for Waverley - and is representative of the general cultural shift in the 90s from outer suburbs to more urban inner suburbs.

Fundamental to this shift is the removal of the need for carparking - Colonial Stadium operates as a stadium in the same Brutalist tradition as Harold Holt Pool, and like the Great Southern Stand has a figure as expressed section. The vertical concrete fin treatment to the front adds a relative delicacy to the building, and this combined with the VFL mosaic give the front a civic presence. The planned Mirvac redevelopment of the site is possibly a lost opportunity for this failed decentralised experiment in sport. It joins Victoria Park, with its iconic black and white panelling, as an abandoned icon.

Harold Holt Swimming Centre uses Brutalist devices such as the ramp to great effect, and creates a defined interior for the 25m pool in which a hierarchy is defined. The role of the viewing box to the pool gives the space a room-like feeling absent in say the pool hall interiors of Melbourne Sports and Aquatic Centre. Jackson and Borland’s site plan reveals a complexity in the siting that makes it seem more akin to contemporary interests than straight modernism of the 60s. Whilst the pool building itself has typical chamfer gestures of the time, there is a sense of several merging types entering the main pool chamber: a factory type form and something more suburban at the entry: possibly akin to suburban church - like Edmond and Corrigan’s St. Joseph’s Chapel, Box Hill of 1978, also with a processional ramp.

In this way, Harold Holt Pool is more sophisticated than the some of the contemporary responses, as it allows for readings beyond its immediate stylistic categorisation (as Brutalist). It is possible that Brutalism’s usage for sports buildings is related to some sense of appropriateness to function? Sports as brutal, gladiatorial? This is
often considered the case with Graeme Gunn’s (historically successful) 1980 Plumbers and Gasfitters Union Building, where analysis compares the raw concrete Brutalism to its manly ideas of work and unionism.

Bligh Lobb Pink’s State Hockey Netball Building, 2001, in Royal Park, is also part of the facilities to be used in the Commonwealth Games. Two existing facilities here combined into one new building. There is different agenda to the expression of structure seen in other examples. The ambition here is perhaps more akin with contemporary European architectural interests, which has crossovers in local interests such as the shed as building type. As strong sense of heroic formalism is achieved through an extruded canopy, in the form of an inverted capped arc: a fully cladded element where the truss/wire language is suppressed. A similarly extruded seating “bar” recalls the expressed sections of Waverley and the Southern Stand. The main building box also conceals structural expression - and is played out in cladding types, all grey in colour with changes in profile. In this way, it is like the “eurobox”: a simple form

**SOME POST-WAR SPORTS BUILDINGS**

**Building Name** (Original): Harold Holt Memorial Swimming Centre
**Building Name** (Current): Harold Holt Swim Centre
**Architect**: Kevin Borland & Daryl Jackson
**Programme(s)**: 5 Swimming Pools, including outdoor Olympic pool, indoor 25m pool
**Commissioned by**: Malvern City Council (now part of City of Stonnington Council)
**Date of Commission**: 1966
**Date of Opening**: March 1969
**Cost**: $600,000
**Builder**: ARP Crow and Son Pty Ltd
**Location**: Malvern Rd, Malvern

**Building Name**: State Netball & Hockey Centre
**Architect**: Bligh Lobb Pink Pty Ltd
**Programme(s)**: 5 indoor, 4 outdoor netball courts, 2 outdoor hockey pitches
**Commissioned by**: Office of Major Projects, Dept of State & Regional Development
**Date of Opening**: 2000
**Builder**: Multiplex Constructions P/L
**Cost**: $27 million
**Location**: Royal Park

executed in a one material used in different ways. The interiors reveal the truss structural system, but interestingly these cross the orthogonality set up by the courts, by running at 45 degrees to the main building. This is a patterning rather than external expression of structure; this building does offer an alternative to possible consistency of an approach, as goes some way to disproving it.

Similar to this is perhaps Swaney Draper’s RMIT Netball Building, at the University’s outer Bundoora Campus. The building is more clearly modernist in its agenda: the expression of different functions through form is clear, changing rooms, hall, etc. The entry is clearly set up as being between box and plane, and a decorative externalised grid frame is possibly a register of the structure within - but seems to add little to the overall gesture. The palette is grey, black and with a defined timber screen which gives the building a louvred environmental type reading: there was an ESD agenda to be satisfied. The architectural tradition here is however in formal abstraction; the vibrant and widely popular sport of netball happens as internal foreground to it.

Building Name: Bundoora Netball and Sports Centre, building 221 Bundoora RMIT
Architect: Swaney Draper
Project Manager: Terry King
Commissioned by: RMIT University, RMIT Student Union and the City of Whittlesea
Date of opening: 24th February 2002
Cost: $4m
Capacity (main stadium): Seating for 500 spectators
Comments: A collaboration between RMIT University and the City of Whittlesea, the netball centre has been built to house a number of sports and service both the university and local community in Melbourne’s north. Built with an emphasis on sustainability, the centre features “green screen” walls, natural ventilation and recycled materials, such as the external cladding made from the recycled plastic of domestic wheelie bins.

Bundoora model, drawings, data and photo by Rosie V on Marburg.
Both Rod Laver Arena (the former National Tennis Centre) and Vodafone Arena have openable roofs, and both form part of the Australian Open. It is hard to conceive how Kooyong Tennis Club, before its major upgrade by Six Degrees, coped with the Grand Slam event. The change in 1988 to the new Tennis Centre coincided with other Melbourne bicentenary-timed projects, such as the Rialto Towers. The architecturally significant Kooyong redevelopment, as a sports project, is so radically different to the ones surveyed here it does not fit within any description of a sport aesthetic. Its argument is far more about architecture (refer to Monument, issue 40, Feb/Mar 2001).

It is however the combination of Rod Laver and Vodafone that makes the Open the best world facility for Tennis Championships. The tradition of the openable roof event space goes back in Melbourne to the Princess Theatre, which achieved the same feat atop its stage in 1886. This tradition has found its logical conclusion with Colonial Stadium, with the largest of Victorian activities now enclosed. It is at the site of Melbourne Park that direct visual comparison between these two...
projects can be made. Vodafone, a velodrome primarily, seems the weaker partner to Rod Laver Arena - its age makes it seem more of building of its time than Vodafone of only a few years ago. It is however the clear articulation on Rod Laver that is strong - the array of concrete arches that support the continuous cantilevering top level, which is then banded with a ribbon window wrapping the entire building. The overhang shades the glazing on the bottom levels and provides shelter - and gives the building more of civic presence. On Vodafone Arena, it is the opposite, the roof lines setback with lower vaulted roofs and large areas of unshaded glass; and the civic effect is similarly negative.

Both arenas deal with the task of the extending moving roof, and supporting the track required. At Rod Laver, Cox makes the required structure relatively minimal given the nature of the expressive language used, to minimise the effect of continual edge of the main building. The underslung arching truss is a simple and now iconic motif. Vodafone Arena’s support for the roof track is heavier, but hangs out from the edge in perhaps one of buildings only interesting moments.
Fitzroy Pool by Ivan Rijavec added a small two-storey building onto the existing pool site. A figured street frontage becomes an elliptical back at the sides and facing into the pool area. In this curving zinc clad wall small openings rescale the building into something larger than it is; behind an upstairs room caters for a range of health/sports activities. It is within the language employed by the Architect on various other (mainly residential) projects, a form of expressive abstraction that suits the public role of the pool in the context of old housing and warehousing.

Peter Elliott’s redevelopment of the Carlton Baths in 1989 exhibits the modern picturesque treatment common to the Architect’s work. A small building by comparison to the others here, and with an existing building, Elliott further breaks down the scale by rendering it into a series of pavilions. The main one, the double vaulted sports hall, is clear in its articulation and has a smooth curved ceiling following the external line, and does not express structure - except in moments such as cable bracings with a circular ring crossing detail - the type that became more commonly associated with...
balcony detailing of poor apartments. The series of external pavilions at the Carlton Building are both for shelter and, in the case of the cerebral grid structure an example of contemporary formal interests as perhaps seen in the work of Peter Eisenman at the time (such as the Wexner Centre) The ealry-Gehry like distorted window is a deconstructive tool, a suggestion away from the certain, the symmetry and often underlying classicism that typifies many sports buildings.

This is observed by Simon Anderson in an article from Architecture Australia, July 1991; “Arenas, by their very nature, generally require a high degree of symmetrical ordering, whether the facility is for tennis, cricket, football, equestrian sports or cycling. Multi-purpose arenas require an even greater degree of symmetrical ordering. In fact, it is quite difficult to imagine a sporting arena without at least one axis of symmetry.”

“There appears to be a definite inevitability about sports arenas that is surviving unscathed the uncertainties of the late twentieth century”.

From the same issue, editor Ian McDougall summarises a situation that has perhaps not changed in the last 12 years, “A glance at the legitimising tomes of Australian architectural history reveals very little about the place sport holds in our culture......sport buildings have rarely attracted critical attention.”

In addition, McDougall makes the call, “The change from sport as participation to sport as entertainment must prompt a new imagery, more linked to the hospitality functions of the pavilions than to the structural expression which currently appears to be the norm.”

It would be fair to say the prevailing view has not changed in this time.

The relationship to the English high-tech movement is clear in the role of expression of structure, even if Rogers, Foster, et al., are not known for their sports buildings. It is the attraction of the finery of web structure that makes sports buildings more akin in to bridges and other engineering, Bill Irwin is normally credited on the Olympic Pool as one of the designers, and it seems logical to demonstrate as structural system - when it is innovative.

It is at the Beaurepaire Centre, at the University of Melbourne, that we see perhaps the most sophisticated relationship of volume to structure amongst this group, ironically it being the oldest. Here, the portal type structure is external, sitting proud of the façade, until it reaches the underside of the roof, then transfers underneath and inside the building to be support it and to read from inside. The inversion are also even in Leonard French’s mosaic tiling on the outside - a decorative registration of a tiled pool. The sophistication of the end walls is evident through an inversion of solid/glass relationship, with cream brick (Institutional material of the day) infill panels, between slender vertical windows that read as columns. The building’s openness is achieve through the thinly framed glazing (if compared to MSAC for example), and the ability for the pool hall to open directly onto the lawn behind, from pool surround to grass - in informality and openness of use to the campus population.

Colonial Stadium has a whole book dedicated to it, ‘The Making of Colonial Stadium Melbourne Docklands’ - but there is little discussion of its architecture - it is showcase of construction.
techniques, materials, statistics; how many times things could be wrapped around the world, etc. This is strong contrast to the Southern Stand, which has had the front cover of Daryl Jackson’s hardback Monograph (Master Architect Series II) since its publication.

In summary, sports buildings tend to express structure - either internally or externally, and the more interesting ones manipulate this condition; and furthermore can develop a public presence. It is perhaps clear that no significant building has emerged in this type in the same way others have in the Institutional and Residential sectors in Victoria in the last decade. From this limited, and Melbourne-centric survey it is not clear if there is a fundamental difference in the way these commissions are treated professionally: other than to know that there is no reason any number of smaller, less established firms should receive future sports projects.

Many of the buildings have undergone name changes; normally to corporate identities. Telstra Dome for example is now on its third name in as many years. The name, National Tennis Centre, had an austerity and seriousness about it, then it became (or at least part of) Melbourne Park, which was confusing, and now of course Rod Laver Arena. It is interesting to note that the John Elliott Stand at Optus Oval is to have its name changed after the former Carlton Football Club president’s recent fall from grace. The MCG Olympic Stand was just the Northern Stand originally.

One wonders if the unthinkable is possible: that the new MCG, with a far more singular building nature in 2006, might go the way of Stadium Australia and become Phonecompany Something. It is the ease with which sporting buildings have begun corporate naming that is different to other public buildings; but the sense creeps into Federation Square for example, in which the “BMW Edge” is to be opened soon (the City’s new amphitheatre). It is however with great affection we might look a something like the (Sidney) Myer Music Bowl, because it is good architecture, and perhaps because of the individual name; like Rod Laver - where it seems to have gained for more acceptance.

Some form of permanence in names helps the public nature of the building if it is unlikely for example that the recent revision by some figures of Bradman’s career would result in the Sir Donald Bradman Stand at the Adelaide Oval being renamed.

Stuart Harrison is a lecturer at RMIT and partner in the practice s-architecture.

Thanks to Ben Marks, Truc Mai and Melinda Bradshaw for their assistance.