

MY CURRICULUM VITAE

As at November 2015

Derek Fuller Wrigley

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CV

Born 16 February 1924

Diploma of Architecture, School of Art, Manchester, 1945

City & Guilds Certificate in Structural Engineering, Manchester College of Science & Technology, 1945

Course in Building Science under Christopher Jones, MCST 1943/44

Associate of the Royal Institute of British Architects, 1945

Part time course in Civic Design & Town Planning, Manchester University, 1946/47

Associate, then Fellow of the Royal Australian Institute of Architects

Life Fellow of the Design Institute of Australia

Inducted into DIA Hall of Fame 2010

Architectural practice 1945 ...

Assistant architect – Ernest Simister, Yorkshire Street, Oldham

“ “ - Borough Surveyor’s Dept. Union Street, Oldham

“ “ - Taylor and Young, Architects, Oxford St. Manchester

Arrived in Sydney 1947.

“ “ - Fowell, Mansfield & Maclurcan, Architects, Sydney.

1948 - 1957 Lecturer in architecture at Sydney Technical College & University of Technology, Kensington (later Uni. of Technology, then Uni. of New South Wales).

Initiated the first Australian course in Building Science for architects in 1949.

Designed and built two solar houses at DeeWhy 1948 - 1957.

Initiated the formation of a NSW Chapter of the Society for Designers in Industry in 1953 which later became the Industrial Design Institute of Australia and subsequently the Design Institute of Australia - now the recognised professional organisation for all designers.

1956 Co-founder, with Fred Ward, of the Industrial Design Council of Australia. First Honorary Secretary under the chairmanship of Essington Lewis & later, Sir Walter Scott.

Chair of the IDCA Education Committee for 3 years.

1957 Joined Fred Ward in the Design Unit at the Australian National University, having the basic aim of creating a good learning environment for staff and students.

1958-9 Designed the main seating settees in the Conference Hall of the Australian Academy of Science, also gallery seating. Fred designed the office furniture and the Fellows Room. Clients : Sir Mark Oliphant and Sir John Eccles.

- 1957 1959 In my spare time (!) designed and had built a solar house in Griffith, ACT - now heritage listed by the RAI as an outstanding building for its time. Designed several other houses in Canberra, mainly for ANU academics.
- 1960 Initiated the Good Design label of the IDCA with Ron Rosenfeldt and later, the Australian Design Award. Served on several Design Award selection committees over the next 20 years for a wide range of products.
- 1960 Initiated the formation of the ACT Chapter of the Industrial Design Institute. President of the ACT Chapter 1980 -81. Awarded Life Fellowship LFDIA.
- 1962 Collaborated with Robin Boyd on the design of an Australian Made exhibition for the IDCA held in Harry Seidler's Australia Square Tower.
- 1962 Following Ward's retirement, appointed University Architect, built up the Design Unit to a team of 13 to cover all aspects of design within a university - responsible for site planning, architecture, interior design, furniture, landscape, graphics & site signage. In its time the Design Unit was unique in the world as a unit concerned with totally integrated design within an academic organisation.
- 1966 Part-time sculptor in bronze & stainless steel. Successful Hilary and me exhibition in Australian Sculpture Centre, Canberra (Lesta O'Brien, Director). Opened by Ross Hohnen. Almost a complete sell-out.
- 1974? Chair of the ACT Division of the IDCA in the 1970s.
- 1974 Built another solar house at Little Burra, NSW using 6mths long service leave from ANU. Active solar heating system with under-floor water storage tank and re-locatable walls. Moved in 1975.
- 1977 Retired from ANU, disillusioned at the lack of awareness by some senior administrators of the real role of design within an academic institution and the intrusion of disparate management on the central role of design within an organisation.
- 1977 Renovated Byrne's Mill (an 1881 flour mill) in Queanbeyan) to establish private practice as a consultant for solar passive housing. Built a restaurant on the ground floor with Gus Petersilka. (now a heritage listed building).
- 1977 Established The New Millwrights - a group of building professionals trying to make the public more energy conscious following the oil scares of 1973. Gave 10 public lectures on living sustainably with better designed houses. Very well attended. Tone Wheeler, Arthur Davies, Russel Wombey, etc. HQ in my office in the mill.
- 1978- 80 Designed half of the furniture for the High Court. Designed and made the bronze coat of arms sculpture in Court 3 in my workshop at Lt. Burra. Collaborated with Peter Otto (Sydney) on design and construction of wooden coat of arms in Court 2.
- 1979 Established a voluntary Technical Aid to the Disabled (ACT). Design Coordinator until 1991. Still active as a technical volunteer until about 2010.
- 1980s Gave lecture series on '*Design for Living*' to art and industrial arts teachers in the hope of encouraging Design as a joint subject for students. Lectures a great success but school principals proved resistant to change. Failed.
- 1981? Designed, prototyped and patented a new kind of hospital bed (a world first) which Richard Saberton and I worked on for about 14 years (*LiftCare bed*), only to have the concept stolen by a Dandenong firm. *Enormous* waste of our time.
- 1982? Pioneered the establishment of Disability Aids Collective which aimed to make small batches of low cost disability aids on a semi-voluntary basis - now taken on by TAD ACT as TAD Productions.
- 1983 Established the Design in Education Council Australia in Canberra with a good team of art and industrial art teachers at the Griffith Education Centre. Issued papers, gave lectures, organised a conference with an overseas speaker – Philip Roberts? Noeline Naar, Lola de Mar, Ray Green, Ilona Lasmanis, etc. Organisation passed over to similar DECA group in Sydney but after 3 years nothing had happened - the initiative was not evident.

- 1985 Retired from the Design Council of Australia Board having given 30 years of voluntary service to it.
- 1985-7? Designed and built, with my son Ben, another solar house in Burra in which *all* rooms - north and south - received warming sunlight in winter. Earth sheltered on east, south and west walls, vertically ventilated, solar hot water system with internal (frost-free) absorber panels built into the clerestory window.
- 1988 Awarded OAM Order of Australia for services to the disabled. (Initiated by Ross Hohnen.
- 1990 Fred Ward died while we were away overseas. Loss of a great friend & pioneer.
- 1991 Moved into the Mawson house . Built the first 2.3kW array of photovoltaic panels in Canberra under the AGO Photo Voltaic Rebate Program in 2000, resulting in a 90% reduction of our electricity bills. Possibly first in Canberra. Other retrofitted low energy measures have been featured in the alternative energy journal *Renew* 2001.
- 1994 Awarded 'Inventor of the Year' by the ACT Chapter of the Inventors Association of Australia.
- 1994-5 Gave two series x 12/ 2 hour lectures to University of the Third Age (U3A) students' on the role of design in everyday life, covering most areas of design involvement from planning to fashion, including evaluation of good design, solar design, retrofitting. Unfortunately it was talking to the elderly who were too set in their ways
- 1996 Self-published booklet based on U3A lectures '*The Magic of growth & design*'
- 1998 Joined the Committee of the Nature & Society Forum working toward an Australian National Biocentre. Secretary to ANB.
- 1999 Assisted with the Australian Youth Convention on the Environment held in September. Tried to establish a world network of young enthusiasts. Failed.
- 1998 Experimented with Mk1 static solar reflectors in to utilise 'unused' sunshine by reflecting 1.5MWh heat and light into southern windows of the house over the winter period.
- 1999 Designed and built new type of adjustable sunshades which permit maximum ingress of winter sunshine and block out all summer sunshine without destroying the view.
- 1999 to 2002 Convenor of the ANB Buildings & Technology Committee, responsible for integrating its design policy across all projects. Abrupt end to all activities when our building (on loan from ANU) was destroyed by the big 2003 Canberra bushfire which destroyed a large area of Weston.
- 2000 - 2005 The Mawson house has been included in the annual Solar House Tours organised by the ANZ Solar Energy Society and the Alternative Technology Association. Most common comment was "*Why can't we buy houses like this?*"
- 2002 Constructed Mk 2 automatically rotating on vertical axis, sculptural heliostat to capture all available sunlight and reflect it *at 90°* from sunrise to sunset into the *southern* side of the house. Calculated potential of 2.5 MWh of free heat over the six month heating period in Canberra.
- 2003 Designed and built a horizontal axis, reversible reflector (winter) backed by photovoltaics (summer). More efficient/sq.m than heliostat.
- 2004 Wrote, designed and self-published "*Making your home sustainable*" in June, describing the various low-energy features of the Mawson house. Sold 1400 copies in 8 months. 5th edition published by Scribe Publications for overseas distribution.
- 2004 Wrote and self-published a booklet "*Climate change needs housing change*" aimed at our recalcitrant housing industry which shows little interest in meeting the real needs of house buyers in a rapidly changing world. The booklet became popular and the Land Development Agency bought 60 copies to give to staff. Visited several CEOs with Prof. John Sandeman to discuss the booklet and got good receptions, but no apparent actions. Andrew Barr, ACT Housing Minister however promised to bring CEO's together to discuss the situation with us. No action.
- 2005 Designed and made a font in stainless steel, bronze and cast glass in for St. David's, Red Hill to harmonise with the sanctuary furniture, reredos screen and cross designed and made in 1970.

- 2005 Following the EcoSolar designs, it became clear that the underlying problem was in the bad layouts of subdivisions and the decreasing sizes of the blocks which are preventing the building of effective solar houses. Wrote an article on this topic for the Canberra Times but, despite three subsequent requests to the editor it has still not been published - regarded as antagonistic to its advertisers?
- 2006 All reflectors believed to be world firsts, but despite several submissions during 2005 to the New Inventors programme on ABC Television it was always knocked back on the grounds that it is only a mirror and not an invention. Wrong on both counts. Made a further submission with my reflectors conference paper in Sept. and received a telephone call back to say they would fit it in ! (*see videotape*)
Delivered many public lectures on this topic to arouse interest in retrofitting our existing houses, but while there is a lot of interest in 'how to do it' there is little evidence that people are willing to spend money to achieve the desired results.
- 2006 Growing consultancy since 2004 in low energy, sustainable eco-logical house design. Designed an EcoSolar, integrated, low energy house which I hope to promote as a demonstration house with monitored and displayed evidence of its thermal performance.
Prepared a peer-reviewed paper on the EcoSolar house for the 2006 Annual Conference of the ANZ Solar Energy Society held at ANU in September. Well received. Also prepared a peer-reviewed paper on southern reflectors. Both papers are on a CD of the Proceedings (*in my files*).
- 2006 Self-published ' *Low energy affordable housing* ' to show how, with more effective house design we could have almost complete solar penetration in winter even with higher density development,
- 2006 Organised a public Forum at ANU on sustainable housing for Sustainable House Day with 6 speakers on Sept. 9. My conclusion was that most speakers were more interested in justifying their current actions than in contributing to an enquiry into how we can do better.
However, despite the fact that the reflectors and the EcoSolar house are useful architectural elements in achieving lower energy living, there is only superficial interest in low energy, sustainable eco-logical house design – certainly no interest by the housing industry and no research.
- 2006 Gave at least 3 talks to Rotary groups on climate change and housing inadequacies.
- 2007 Designed a reflector for Em. Prof. Frank Fenner in Red Hill. Erected Dec 2007. Very effective installation - raised internal temperature up to 12°.
Increasing number of house evaluations for retrofits this year.
Gave a talk to ANU Emeritus Faculty on house design, including EcoSolar design.
- 2007 Appeared on ABCTV in October with walk around Belconnen with John Sandeman and Phillip Williams as compere pointing out the housing mistakes which will become slums in the future because of ignorance in the housing industry.
Also appeared on "The New Inventors" ABCTV May 2007 with my southern reflectors, but the judges obviously hadn't done their homework and didn't even ask me about its purpose, concentrating on perceived negative aspects which had no basis in fact. Very disappointing. Reaction from the audience was very positive however, judged by the off-air discussion after the show. The judges were very surprised. The model they made got the proportions all wrong.
- 2006 Self-published ' *Southern reflector development* ' Paper to the Solar Energy Society Conference
- 2007 ACTPLA published ' *Checklist for buying existing houses* ' - a downloadable checklist to compare the effectiveness of a shortlist of houses for better quality and lower energy living. A very useful checklist for buyers written largely by me with assistance from John Sandeman.

- 2008 Wrote and published a booklet "*Are retirement villages designed for the wellbeing of residents ...and ready for global warming?*" with Shirley Kral and Rosemary Blemings a critical review of six retirement villages in Canberra and their shortcomings on their effectiveness on solar utilisation for the benefit and enjoyment of their occupants. Sold 2000 copies. No response from either the developers or the housing industry Or the retirement industry.
- 2009 Steve Wootten said he would like to build an EcoSolar house in Chifley – a patron at long last ! Peter Overton would act as architect with me as consultant.
- 2009 Designed and made a full size fibreglass seating form with a forward tilt and advanced backrest using the inner thighs to restrain movement. An interesting concept but found better things to do with my time. Better solution in 2014....
- 2010 Self-published '*EcoSolar house design principles*'- summary of the many advantages to be gained by careful design using free, natural energies.
- 2011 Advised Dr. Sue Wareham, Wybalena Grove, Cook on how to achieve more penetration of sunlight, daylight and solar warmth into her dark and cold house. Drew up detailed plans, but various trades not really interested in giving reasonable quotes due partly to novelty (so what's new?). Donated my time to Sue because of her excellent public awareness campaigning for the need to limit nuclear warfare and prohibit war. Good client.
- 2013 Self-published '*Fred Ward Design Pioneer*' after about 6 years of writing and research into Fred's life. Had a most successful launch with AV Jennings manager presenting certificates from the ACT Government to about 12 of the remaining "Jennings Germans". An exhibition of Fred's furniture was arranged by Meredith Hinchliffe at the Gallery of Australian Design in Canberra.
- 2013 Steve's EcoSolar house just about completed with some minor changes to design. Basic thermal data difficult to obtain because house was full of junk which would distort the readings (extra mass). Not resolved. Also house was let to a tenant which complicated arrangements for installing Thermachrons. Unsatisfactory.
- 2014 Self-published '*Problem solving system*' after spending several years refining the system to a manageable size with a simple process and useful outcome. Sent copies to all our children.
- 2014 Designed and made a simple backrest with padded belt around the high lumber region and a strap around the knees when working at the computer.
- 2014 Australian Institute of Architects, Canberra announced a new annual Award – *The Derek Wrigley Award for Sustainable Architecture* to celebrate my long time contributions to the sustainability cause in Australian architecture. (No award made in 2015 because none of the entries was regarded as good enough. Hmmm.
- 2015 Installed my best and final system of northern retractable sunshading on the Mawson house. Design by me with installation by Betta Canvas, Queanbeyan, using white Coolaroo which is certainly the best shade cloth around. (Andrew Stonehouse, 6299 1786).
- 2015 Gradually dismantling my trial greywater purification system on the workshop roof (using natural UV to purify). Greywater is a messy and rather dangerous liquid and it could be that electroflocculation is a better technique but I (at 91) am lacking in energy, drive, clear vision and watery eyes, as well as unsteadiness (especially dangerous on roofs) and creeping arthritis – all of which is limiting my physical activities – causing me to increasingly use my computer as a tool rather than my other old faithful friends – hammer, chisel etc.

as at 21 Nov 2015