

# CHINA TECHNICAL AND CULTURAL LIGHTING TOUR

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## Setting off to Shanghai

On the 26th September 2009 twelve lighting students, graduates and interested friends from the Faculty of Architecture, Design and Planning, University of Sydney joined with industry colleagues and lighting academics for a technical and cultural visit to China. Led by Professor Warren Julian, the trip was designed to provide first hand knowledge and understanding of manufacturing, testing, research and an insight into the cultural differences of the art of architectural lighting in China. This was the second tour to China organised by Warren: the first of took place in 2005.

The tour started in Shanghai and most participants flew from Sydney, into the mayhem of the streets that have been upturned, shredded or just newly created in Shanghai in preparation for Expo that will begin in May 2010. One participant arrived from London and one from Hong Kong but all of us managed to rendezvous at a guesthouse in Tongji University, our relatively quiet home base in Shanghai. It is located in the midst of what is considered a "downmarket" part of town and is not yet a jungle of high-rise accommodation and malls. For that reason the streets and neighbourhood, whilst they are also undergoing a measure of renewal, are still relatively normal in terms of daily life and offer a small insight into life in the suburbs of Shanghai.

It was obvious from day one that the pace of the tour would not be entirely easy given the chaos of the roads, the pressing crowds of people, cars, bicycles, taxis, earth-moving equipment and pedestrians. Shanghai contains roughly as many people as Australia has population and a taxi ride to anywhere is enough of a demonstration of a real crowd to cause a few gasps and not a few eye-covering moments. The risks taken by drivers, pedestrians and cyclists would be considered extreme by our own standards, but after a day or so you realise that it is all an orchestrated and very practised "dance". Habituation is everything.

## The realities of the visit

Our generous hosts enabled us to visit some lighting amazing factories on the outskirts of the city: RoLED, Dongli and Yaming. There we were permitted to see testing and manufacturing facilities and to hear first hand about procedures, R&D, health and



FIGURE 1. Soak testing blue LED outdoor tubes at RoLED creates an eerie atmosphere.

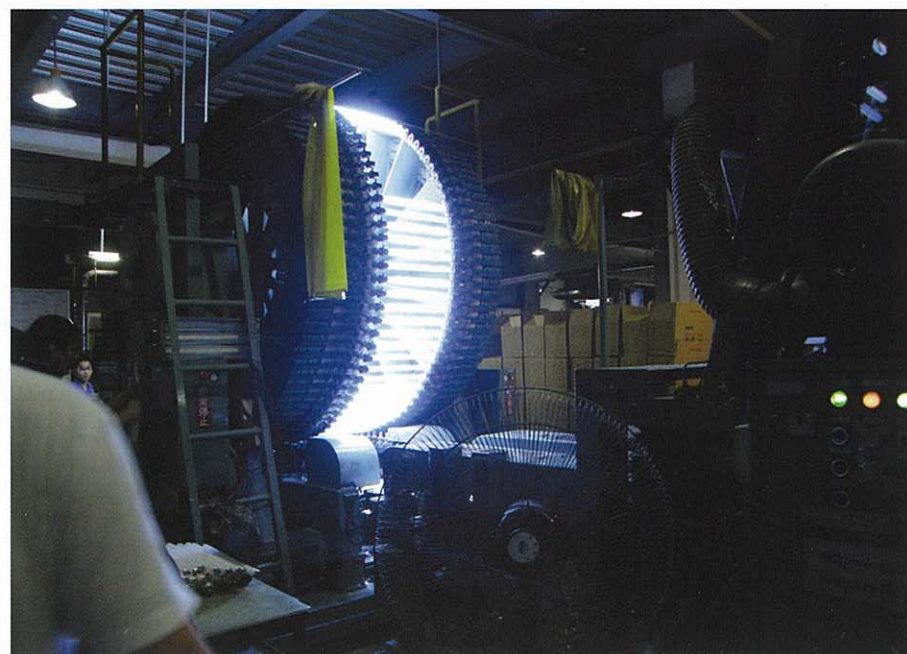


FIGURE 2. The 18W tubular fluorescent lamp production line at Shanghai Dongli



FIGURE 3. One of the many group photographs: Dongli staff and their visitors.



FIGURE 4. At Tongji University: a development model for Expo 2010.

safety (!) and how factory workforces are procured and housed.

RoLED, an LED manufacturing company located on the outskirts of Shanghai, was the group's first stop. Everyone was pleasantly surprised to see the high quality of the manufacturing and testing practices that enable RoLED to meet the requirements of a variety of international lighting standards. The entertaining and knowledgeable owner/MD of the company, Rock Hsiung, drew on his obvious entrepreneurial talents in giving us a comprehensive overview and tour of his facilities. His final act of generosity was to celebrate our visit by giving us a memorable lunch at the city zoo! One of the entrance gates marked "Naughty Family Pets" had us scratching our heads.

As there are no longer any lamp manufacturers in Australia, it was a rare opportunity for us to view first hand the factors that influence the reliability and consistency of lamps as well as the technical difficulties associated with lamp production. At Shanghai

Dongli Co our group observed the manufacture of compact fluorescent and tubular fluorescent lamps, then at Yaming Co Ltd, the creation of high intensity discharge lamps.

Before we left Shanghai we had the opportunity to visit two of China's leading universities and this gave us a unique opportunity to strengthen relationships and gain insight into eclectic academic approaches. At Fudan University the staff and students of the Faculty of Illuminating Engineering and Light Sources, by invitation from Professor Lin Yandan, guided our group through their extensive lighting laboratories, and explained to us their various testing and measuring instruments as well as procedures.

Not to be totally caught up by work, after the formal visit, we were treated to a stupendous Chinese banquet for lunch and then we struggled to our feet to another campus.

That afternoon, at a subsequent visit to Tongji University's College of Architecture and Urban Planning, we discussed, with the students and staff, ideas that included a major focus on master planning and creative lighting design. Under the auspices of Professor Hao Luoxi we also had the opportunity to experience the benefits of Tongji's generously equipped lighting studio and hear her students discuss their projects and ideas. Professor Hao regularly visits Sydney to give lighting master classes to post graduate students at the University of Sydney and it was obvious that she has cross cultural experience and expertise.

That evening we made a dash downtown to Pudong (east side of the river) and surfaced near the base of the Pearl Tower by the Huangpu river to take in the Puxi (west side of the river) vistas. It was a propitious choice. The Bund, on the Puxi side of the river, is currently surrounded by construction barricades. So we were in luck to look back across at the new Bund lighting that was being tested. The previous high pressure sodium lighting on the beautiful buildings has been replaced with detailed

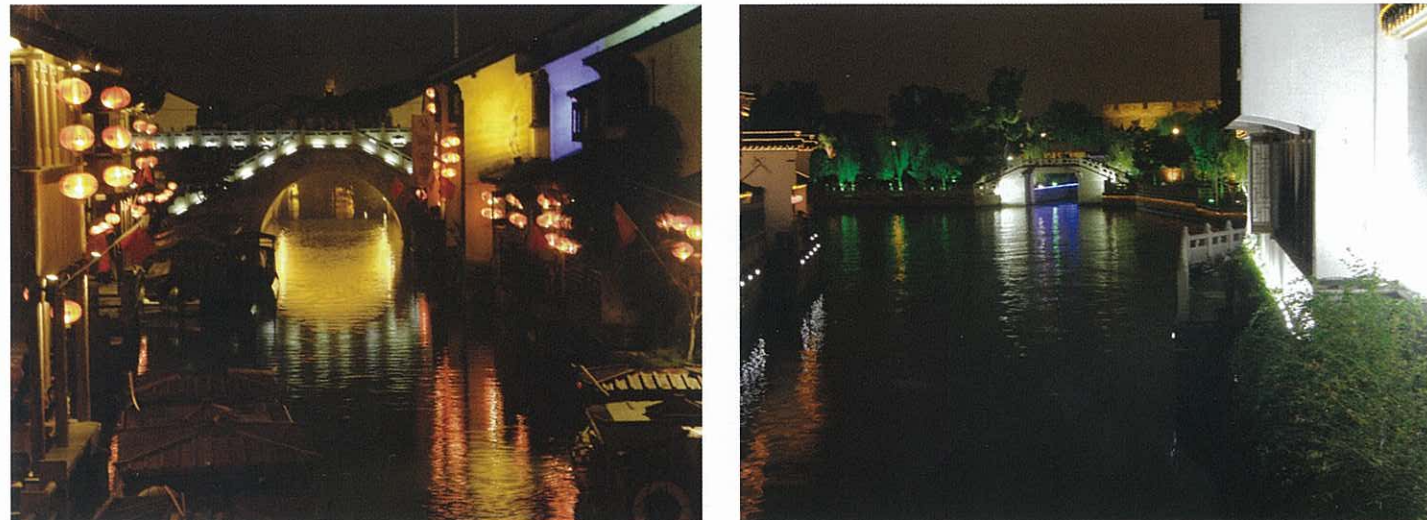


FIGURE 5. Amateur, hand-held night photography is very difficult. These photographs show canal lighting in He Feng (History) Street in Suzhou. Light and water go well together. Notice the use of colour including the green uplighting of trees. Sky glow from the lighting can also be seen.

lighting that gives greater depth and definition to the buildings and a more Shanghaiese character to the whole riverfront. Once the construction walls and equipment have been removed it will certainly be a thrilling spectacle of light.

From Shanghai we motored on to Suzhou, Wuxi, Nanjing and Hangzhou to see the night time streetscapes and, as luck would have it, light hearted millions of Chinese holiday makers in every city. The 60th anniversary of the PRC and Moon Cake Festival had been combined into an extended national holiday and we were in the middle of it all, lights, celebrations and moon cakes included.

In the evenings, newly-wedded couples, some in traditional

outfits, took advantage of the highly decorated streets, canals and bridges. Particularly in Suzhou and Nanjing there was a frenzy of light festooned boats and this made a perfect backdrop for atmospheric photographs. In all of the cities we visited, lighting trumpeted the outlines and facades of temples, pagodas, offices, shops, homes, parks and pedestrian areas. Cars, scooters and motorbikes that looked like they had been “dressed” in Las Vegas were unimaginable sights of blinking, twinkling and flashing lights – like moving Christmas decorations.

On the night of the Moon Cake Festival in Hangzhou, the light from a full moon glinted from the pond-still waters of the beautiful Xi Hu lake. The hills and river banks of the lakeside city were picked out by the sensitively but brightly lit pagodas, arched bridges, islands and natural features. We struggled through the happy crowds in He Feng (History) Street after another stomach-expanding banquet and then staggered back to our hotel before our last technical visit. By this stage, everyone in the group was fluent in asking for beer or wine in Mandarin. Bing pi jiu anyone?

The next day in Hangzhou, in the middle of this important and chaotic eight-day national holiday, our group was privileged to enjoy a private visit to Everfine Co. Ltd, the designers and manufacturers of precision measuring and testing equipment. With many of Everfine’s devices being used in lighting laboratories and studios across the world, this was an invaluable behind-the-scenes visit. The obvious high standards of this company steered our ideas about (manufacturing) China a further few degrees of shift.



FIGURE 6. Daytime open air opera in the Yellow Dragon Garden in Hangzhou included good theatre lighting.

### Back “home” in Shanghai

On the last day of the coach tour we struggled through teeming crowds to visit a heritage canal town en route to Shanghai. Once back at Tongji we scattered and scurried downtown with various aims in mind: shopping, bar hopping, shopping, photographs, shopping, foot massages, shopping and sleep after pleasant, self-inflicted exhaustion. On the final afternoon we made our way to the Maglev station for our 300kpm, seven minute ride to the airport. By fair means and foul, all of us managed to get into the business class lounge (of our unnamed airline) where high tech massage chairs, even more high tech and multi-purpose toilet facilities, snacks, drinks and comfortable chairs made a great foil to the sardine-style journey home to Sydney.

### Cultural differences between China and Australia’s approaches to architectural lighting design

During the 10 day visit our group viewed the lightscapes of Shanghai, Wuxi, Suzhou, Nanjing and Hangzhou and we realised that colour has a very important cultural significance in China. As a consequence of this insight, it not surprising that Chinese buildings are brightly and often colourfully lit, creating a sense of movement, excitement and occasion. Even the boats on the Huangpu River in Shanghai displayed amazing sequences of LED lighting, rivalling the most audacious of the building displays. To a western eye many of these displays could be viewed as over the top. However, from a Chinese point of view, it is an alluring way to encourage people outdoors, to socialise and to enjoy the evening.

All of our collective observations during the tour promoted discussion and prompted ideas that could be capitalised on to enhance lighting design back home in Australia.

### Final reflections

For us at least, the outstanding lighting highlight on the tour was the evening cruise on West Lake in Hangzhou. To the backdrop of a full moon we were able to see the results of a lighting design that had been very well planned. Its aim was to create an appealing and aesthetically successful design for the Chinese people from both a practical and creative point of view.

There is much more we could say about the trip, but suffice to say that no one in the group came home unaltered in their ideas about this fascinating, waking giant of a nation and its generous people.

Those who participated on this tour were: Jessica and Ruth Briffa (Cosmoluce), Alistair Duncan (Eco Living Centre), Jo Elliott (Light Art), Gillian Isoardi (QUT), Warren Julian, Tony Papa (ATP Electrical Contractors Pty Ltd), Stephanie Rogers-Julian, Alex Shepherd (on secondment to University of Sydney from Birbeck University in London), Paul Thompson (Webb Australia), Mariana Van der Scheur and Christa Van Zoeren. ■

#### Footnote

If you are interested in participating in any future tours, please send an email to: [wjands@bigpond.net.au](mailto:wjands@bigpond.net.au). The date of the next tour is not yet determined but expressions of interest are welcome. There may be a tour to China again in the first half of 2010 and perhaps a tour to India.



FIGURE 7. Boys’ toys: a goniophotometer at Everfine in Hangzhou. Photography is also difficult in black rooms!



FIGURE 8. For readers with an interest in history: this looks like the classical photographs of 1970’s China except that the cars are modern. This is looking onto the top deck of the Nanjing Bridge, now supplemented by two others across the Yangtze River. The bridge was completed using Chinese technology after the Soviet Union walked away from the project as a result of a cooling of relations. The road lighting luminaires, in the form of closed lotus blossoms, were apparently designed by Zhou Enlai, China’s amazing Foreign Minister and stabilising element during the Cultural Revolution. In deference to him, they can be still seen in most major public spaces in China. They still adorn Tiananmen Square in Beijing.