

# **Annual Report 2014/15**

#### **Purpose**

The aim of the Foundation is: 'the advancement of education of the public directed towards the promotion, furtherance and dissemination of knowledge of matters associated with the built environment'. We pursue these, where possible, with an emphasis on 'the multi-disciplinary nature of design in engineering and architecture'.

#### **Chairman's Statement**

The year 2014-15 has been very busy with both extensions of existing projects and developing ideas for new and potential projects. Inevitably not all the work developing projects is successful, but when it is it can be the result of many months of work.

As well as activities that we have funded (listed at the end of this statement); we were very pleased to be able to extend MADE's work again for the outstanding educational programme they are providing to make young people aware of a career in the Built Environment professions. We have agreed two other small projects and an agreement to part sponsor an Academic in Residence at the Institution of Civil Engineers to help inform decision making for global solutions.

Our financial position is strong, in spite of the continuing economic pressures, and we enter the next year with confidence in continuing the pattern of supporting both short and long term projects.

This year we held a Strategic Discussion workshop for about 50 invited guests: The Next 25 Years of The Ove Arup Foundation and we wish to thank everyone who attended for the valuable contributions that they made to make this day a success. We have prepared a report on the discussions and we will be developing and implementing the ideas in the immediate future.

There has been no change to either the Trustees or the Advisors to the Foundation over the past year. The Trustees are supported by the Advisors representing professional bodies. Our Advisors are invaluable in helping to develop our thinking and supporting the work of the Foundation.

Once again, we are grateful for the continuing support of Arup Group which when combined with our own endowed funds enables us to seek wider outcomes, and to take a long term view over the scope of our activities.

Terry Hill

Chairman of The Ove Arup Foundation

# **Activities during 2014/15**

#### **Expedition Workshed,**

Expedition Workshed is a simple way to access civil and structural engineering educational resources on the web. They are in Year 3 of 4 of a TOAF commitment to support their programme to develop multimedia teaching aids which present complex topics in an easily understandable way. Our commitment has encouraged other funders to support other aspects of the programme.

They have recently released their latest innovation, Make A Scape: an educational engineering app, specifically designed for school children and undergraduates.

Make A Scape helps users develop a tacit understanding of structural behaviour through an imaginative interface, and future world concept. The app encourages users to build a structure efficiently in real-time and to test their structures under live loading through an enjoyable and imaginative interface.

The app is now available to download from the App Store: <a href="http://thinkup.org/innovation/makeascape/">http://thinkup.org/innovation/makeascape/</a>
<a href="https://itunes.apple.com/us/app/make-a-scape/id953326836?mt=8">https://itunes.apple.com/us/app/make-a-scape/id953326836?mt=8</a>

#### **University of Cape Town**

Following on from their successful Masters programme in 'Urban Infrastructure' at the Cape Town University Centre for Cities in Africa, TOAF then awarded a grant for a programme entitled 'Spatial & Design Literacy for Excluded Neighbourhoods'. This is developing a methodology to assist poor communities to imagine alternative futures and show them how, with the aid of a 'Design Manual' for social movements, to impact on formal government policy priorities and processes. Dr Leszek Dobrovolsky, (Arup Group) has been liaising with the Centre for Cities in Africa on this project. Professor Graham Reinfeldt who is leading the programme is interested in achieving greater cross discipline integration and working. The programme includes a public exhibition, academic papers, a design manual and workshops to provide training.

Once it was known that TOAF were seed funders many other donors have come forward.

#### Social Aspects of Fire Safety, University of Edinburgh

Dr. Graham Spinardi is carrying out research into the sociological nature of fire safety and with the intention of designing a teaching programme whose reach will include engineers, architects, fire scientists, social scientists.

In contrast traditional Fire Engineering has been based on laws and regulations developed from tests in controlled environments, interpretations and assumed built forms.

Barbara Lane of the Arup Group is Visiting Professor at the Department of Fire and Structures at the University of Edinburgh and liaises with Dr Spinardi.

#### **Edge Commission on Future Professionalism**

A grant was made to The Edge Commission which looked at the roles and responsibilities of professionals in construction in the modern day.

The Report was published in 2015 and has identified a number of areas within the industry where its effectiveness could be improved.

The Construction Industry Council is expected to consider the future strategy.

#### **Anglo Danish Society Scholarship**

The recipient of the 2015 award for the Ove Arup Foundation Scholarship which is awarded by the Anglo Danish Society, is Kaare Stokholm Poulsgaard.

He has been accepted for a DPhil at Oxford University's School of Anthropology and Museum Ethnography to study the effect that computer-aided design has had on the actual creative process of Architecture as well as on the workplace. He will work with Professor Rayer who is also an Honorary Professor at Copenhagen University which will provide access to both the British and Danish research networks.

#### Chongqing University: Sustainable Built Environment – Design and Management

A two-year agreement has been made with Chongqing University to help develop a new interdisciplinary design-teaching course by funding a visiting professor programme. Although the Foundation has previously supported an academic course in Hong Kong this is the first time a grant has been made to mainland China.

The course is in Sustainability for Built-Environment Design & Management. The TOAF Distinguished Lecture Series was launched in November 2014 and Andrew Chan, Michael Kwok and Raymond Yau of Arup Group have all been responsible for liaising with the University.

This investment is clearly giving TOAF a significant amount of very positive exposure in a new region.

#### **MADE (Midlands Architecture and Designed Environment)**

The grant that was awarded to MADE helped with their City Builder Academies programme and enabled over 80 young people to participate in the academies and gain some experience of a career in the Built Environment professions.

Because of the outstanding work carried out under this programme TOAF are extending their involvement on this project to further develop and deliver the educational programmes and share best practice.

# **Royal National Institute of the Blind**

Load2Learn is an innovative and free online resource that allows teaching staff to download key curriculum materials. With the help of The Ove Arup Foundation, the RNIB will be able to add new science, technology, engineering and mathematics (STEM) materials, to both textbooks and images.

# **The Ove Arup Foundation Fire Engineering Prize**

The 2015 Ove Arup Foundation Prize in Fire Safety Engineering at the University of Edinburgh was awarded to Felix Wiesner, an MEng Graduate in Structural and Fire Safety Engineering. The award is made to the top student graduating on the Structural and Fire Safety Engineering degree course at Edinburgh University.

He is now undertaking a PhD at the University of Edinburgh supervised by Professor Luke Bisby and Dr Rory Hadden studying the fire performance of engineered mass timber buildings, in partnership with Arup's Fire Engineering.

#### **Bristol Natural History Consortium**

Bristol Natural History Consortium was given a small grant for a Green Infrastructure Debate at the 2014 Festival of Nature which attracts around 25,000 visitors annually. The BBC provided a host and chair to assist with the 'provocations' discussion.

### **Hong Kong Polytechnic University**

The Sustainable Urban Development Advanced Summer School and Distinguished Lecture series is a multi-disciplinary programme with students invited from all over South East Asia including Hong Kong, Mainland China and the region. The four year programme will now start in March 2016.

Andrew Chan is liaising with Prof J.G. Teng, Director of the Research Institute of Sustainable Urban Development who will be arranging the programme.

The investment will give TOAF a significant amount of positive exposure.

# **University of Queensland (Uof Q)**

The Ove Arup Foundation is funding three Lectures at the Uof Q with distinguished speakers who are the centre piece of three-day colloquia designed to inform and engage key stakeholders.

The second lecture took place in November 2015 entitled "The Architect and Engineering Technology" focusing on the complexity of the relationship between architects and the quickening evolution of engineering technology.

The key speaker was Dr. Alan Cheville the T. Jefferson Miers Chair in Electrical Engineering at Bucknell University. Peter Burnton the Arup Group industry advisor to the Civil Engineering Department of the UofQ introduced The Ove Arup Foundation to the colloquia.

#### Institution of Civil Engineers (ICE) – Academic in Residence

The ICE wishes to appoint an Academic in Residence to help inform decision-making for global solutions and innovation. TOAF has agreed to part fund this post and the process of selecting this person has started.

#### **Trustees**

Andrew Chan
Caroline Cole
Richard Haryott
Terry Hill
Gregory Hodkinson
Joanna Kennedy
Duncan Michael

#### **Advisors**

John Burland representing the Institution of Civil Engineers
Sarah Buck representing the Institution of Structural Engineers
Jim Croll representing the Royal Academy of Engineering
Christine Hawley representing the Royal Institute of British Architects
Doug King representing the Chartered Institution of Building Services Engineers
Ian Ritchie representing the Royal Academy of Arts

#### **Contact**

The Ove Arup Foundation 13 Fitzroy Street London W1T 4BQ England

TheOveArupFoundation@arup.com

www.ovearupfoundation.org