

BEYOND ENGINEERING

YOUNG ENGINEERS FORUM

The Young Engineers Forum (YEF) is an inclusive community, open to all, that connects junior members of BuroHappold staff through their shared interests, and provides a nurturing environment in which they can strengthen working relationships and cultivate friendships.

2018 saw a surge in inter-office YEF collaborations. Berlin YEF welcomed the Warsaw YEF to their office, reciprocating Warsaw's invitation to Berlin last year. In October, the Berlin YEF also hosted members of the Bath and London YEFs, as well as young architects from FCBS and Grant Associates, for a weekend gaining insight into the architecture and culture of the city, through interactive tours and design sprints.

The YEF along the US West Coast is continuing to grow and once again, members from the Los Angeles and San Francisco offices met up to get to know each other. A ski trip to Slovakia was attended by multiple YEFs, headed up by the Warsaw office. The UK YEFs are excited about their annual camping trip in September. This global interaction amongst BuroHappold's young engineers provides invaluable connections across cultures and countries, strengthening professional links across the practice.

With the recent focus on public speaking and digital design at BuroHappold, both the New York and London YEFs have been helping members to improve their skills, with the Leeds YEF focusing on design communication, not only in person but also through different software. The Manchester YEF organised and set up an office digital design group whilst London YEF recently launched 'Conversation Street'; senior

members of staff speaking on social responsibility, inclusive design, an engineer's role in natural disaster relief and the future of BuroHappold.

Talks are key to the YEF community, with YEFs across the globe continuing to focus on some engaging talks and CPD opportunities. The Mumbai YEF has had a number of CPD opportunities and, in all the offices, workshops have been held looking at the YEF's view on work in the Middle East. Bath YEF thoroughly enjoyed hosting some key senior members of staff to speak on their vision and passion for the company, including Paul Rogers and Neil Squibbs.

As always, the YEF is a very social community and this year, karaoke has been a big theme. Edinburgh picked up the microphone in May for a karaoke social; Warsaw YEF went one step further with a karaoke social once a month; whilst back in November graduates from all the YEFs were welcomed to Grad Week in Boston, where the Boston YEF hosted a scavenger hunt and karaoke night.

As well as promoting a sense of community, the YEF continues to push outreach and external collaboration globally. As the YEF in Copenhagen starts to stabilise in numbers after their recent formation, they have been

collaborating with local architects, including writing scientific papers together. All the UK YEFs continue to promote STEM careers through outreach with schools and local organisations. The Leeds YEF have set up links with a social mobility foundation charity and the London YEF has been helped by the STEM Education Coalition forum, allowing BuroHappold to have a cohesive and integrated approach to outreach activities.

All the events and activities have only been made possible through the hard work and emotional investment of countless individuals. Over the year ahead, the BuroHappold YEFs will continue to provide a platform for our engineers to foster friendships, share ideas and celebrate achievements as one global community.

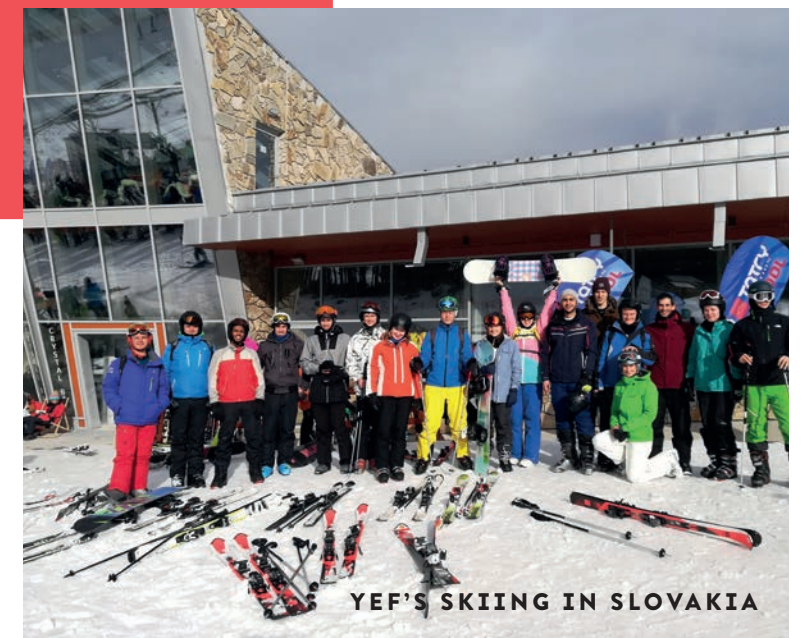
GLOBAL YEFs



BUROHAPPOLD UK YEF GROUP



YEF'S GAINING INSIGHT ON SITE



YEF'S SKIING IN SLOVAKIA

SHARE OUR SKILLS

For the past four years, BuroHappold's Share Our Skills programme has provided employees with the opportunity and support to apply their skills to causes they are passionate about. To date, we have awarded 800 days of staff time to enable 50 projects across the globe.

This has been a significant year for the scheme with a record number of applications from teams across our global office network. This year, 200 days will be given to enable 14 exciting initiatives. Here's a little more on three of them:

Thane Sanitation Complex, Mumbai

Driven by Indian Prime Minister Narendra Modi's *Swachh Bharat Abhiyan* initiative to make the country open-defecation free by 2019, a team from BuroHappold's Mumbai office are working with global non-profit organisation, Habitat for Humanity, to provide sustainable design services for a two-storey sanitation facility on the outskirts of their city.

When open, this development will provide washing and toilet facilities to over 1200 local people in one of the poorest areas of the city.

BuroHappold are providing advice to Habitat for Humanity against a reference design on sustainable and low-cost solutions including waste and water recycling, rainwater harvesting, PV powered lighting and low-impact construction techniques. It is hoped that this improved design can become a template to be replicated for further developments around India.



Agri-Tech Centre, Cambodia

Alongside the project architect, SAWA – *Socially Active Workshop Architecture*, and the client, Greenshoots, BuroHappold is providing engineering support, in the form of structural and sustainability design input to the Agri-Tech Centre project, set in rural Northern Cambodia.

In this area, society is heavily reliant on agriculture, with relatively few skilled jobs available. This project will provide training for locals, allowing them to become more efficient in their agricultural work. Whilst improving the skills of the local work force, it will also facilitate economic growth in the local community.

The project includes a training centre, to be used to train local people how to use their environment more efficiently and sustainably. It also incorporates other structures, including toilets, storage buildings and a chicken shed. These have all been designed with constructability and their environmental impact in mind.

It is the hope that this project will be the first phase of a larger development, which will further improve the quality of life for the local community in this region.

Ankarafa Field Station, Madagascar

In November 2017, BuroHappold was contacted by the Richard Feilden Foundation to provide specialist engineering support for the development of a field research station in Madagascar.

The purpose of this fascinating conservation initiative, in the Ankarafa Forest in the north-western region of Madagascar, is to study the behaviour and ecology of the critically endangered blue-eyed black lemurs. These lemurs are one of the 101 species of lemurs found exclusively in Madagascar, most of which are endangered due to deforestation and habitat loss.

Improving the research station's existing facilities will allow researchers to expand the scale and effectiveness of their conservation work, ensuring they are at the forefront of the conservation research in the area. This station will also act as a hub for conservation in the entire region and will aim to create a link between the local community and the forest. Through increased education of the local community in sustainable farming methods and construction techniques, it is hoped that they will begin to view the forest as a valuable asset worth preserving, both for themselves and for future generations.

We are working on the design of this new field station alongside Grant Associates, Feilden Clegg Bradley Studios and Bristol Zoo. With construction underway, a site visit to phase one of the site is planned alongside the rest of the team. It is hoped that BuroHappold can continue its involvement with future phases of the project as well as in the long term, following completion.



THE ESSENCE OF BUROHAPPOLD AWARDS

PAUL ROGERS, SENIOR PARTNER, ON THE CELEBRATION OF BEST PRACTICE

Annually we celebrate great people and teams across our global community with the Essence of BuroHappold awards. Championed by our Senior Partner Paul Rogers, the awards recognise best practice around the regions and our people who are truly embracing our Essence, and who we are.

This year a panel of both BuroHappold and external judges sitting in different cities around the world met to review more than 120 nominations – a record number. The judges were impressed by the quality and diversity of people and projects nominated.

PAUL ROGERS Senior Partner



Winner – team:

Battersea Power Station Phase 2 Team

An iconic sight in London, the Battersea Power Station (Phase 2) development project is transforming the dilapidated 1930s power station into a modern, world-class, mixed-use development; bringing significant benefits to the local community and acting as a catalyst for regeneration.

With over 40 people in a site based project office, the team has collaborated with colleagues from Edinburgh to Warsaw, a shining example of the truly global essence of BuroHappold. The team turn up every day with a positive attitude, confident in their design solutions, and developing engineering solutions that are both technologically advanced, yet sensitive to the architecture of the existing building.



Winner – individual:

Michael Bartyzel UK BIM Lead

Michael is the UK's BIM lead within the building environments team based in London. For over 25 years, Michael has been a leader in his field of 3D computer automated design and Building Information Modelling and because of this has been instrumental in making BuroHappold a global leader in technology.

With a truly global reach, his mentoring, invaluable leadership skills, and dedication to internal communication has driven knowledge sharing within the practice. As a result, initiatives such as global work-sharing and implementation of BIM standards have flowed from the standard integration of BIM and associated software tools.

THE HAPPOLD FOUNDATION

The Happold Foundation is a charity that for over 23 years has been dedicated to using engineering skills and experience to make a positive impact on people's lives. Working with young people, educators and researchers to shape a community who want to improve the built environment.

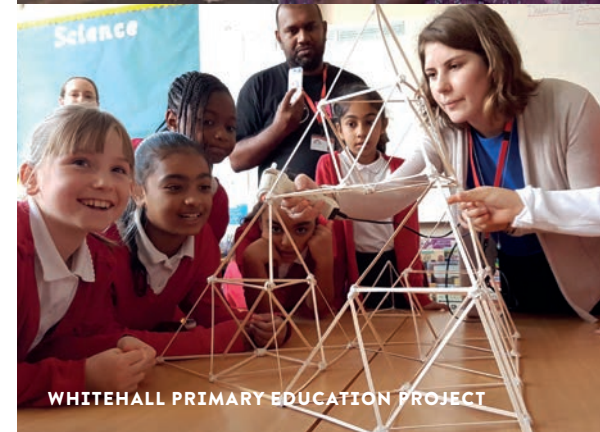
Originally funded from shares transferred by Ted Happold, the charity continues to be supported by donation from the current partners of BuroHappold. Now established for more than two decades, it has been able to support hundreds of students, researchers and engineers in their aspirations to improve the built environment for all.



'CARE' INDIA'S SHELTER PROGRAMME



OUR GLOBAL DESIGN SPRINT



WHITEHALL PRIMARY EDUCATION PROJECT



HANNAH LITTLE,
2017 HAPPOLD SCHOLAR



ALUMNI WORKSHOPS

The Happold Foundation has four key focus areas where it allocates resources and plan its future initiatives. We also promote the work our alumni undertakes to improve our world and build stronger communities.

Engineering futures

Our work with schools where we design exciting education programmes for 6-11 year olds are inspiring the next generation. This year we are entering our second year of the Whitehall Primary Education Project in London, where we have been engaging Year Five pupils with exciting engineering concepts.

Engineering education

The Happold Foundation helps students who want to pursue a career in engineering to access scholarships and work experience opportunities. 45 Scholarships were awarded this year – 32 in the UK, two in Central Europe, four in The Middle East, five in North America and four in India. Additionally our *Happold Brilliant* prize – a £1000 award that recognises excellence in teaching, was presented to MidKent College.

Engineering thinking

The annual Happold Foundation Lecture is one of the ways in which we bring together the most talented people in our industry to discuss some of the world's most challenging issues. Harriet Tregoning, former principal deputy assistant secretary for the office of community planning and development at the HUD, gave the keynote speech on the physical and social consequences of rising sea levels across the country.

Engineering for human development

Our work in this area helps engineers and organisations access the training and funds they need to get involved with humanitarian projects across the globe. Two of this year's projects were supporting Abundant Water to train Lao villagers to sell, and install low cost water filters; and awarding a grant to the Rural Education Development (RED) Project Borneo, a student-led initiative that runs skills based education programmes for marginalised Bornean communities.

IAN MADDOCKS
Happold Foundation Chairman

GAVIN THOMPSON
Past Chairman