



INVESTING IN EDUCATION:

Building Better Schools

November 9 - 11, 2011

London, UK



AIA

COMMITTEE ON
ARCHITECTURE
FOR EDUCATION
(CAE)

CAE FALL 2011 CONFERENCE

IN ASSOCIATION WITH THE BRITISH COUNCIL FOR SCHOOL



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If you are interested in learning how you can participate as a Committee on Architecture (CAE) for Education leader or subcommittee leader, please contact cae@aia.org.

LETTER FROM THE CHAIR

On behalf of the AIA Committee on Architecture for Education, welcome to London and our Fall 2011 Conference. The over 7,000 member CAE is the second oldest AIA Knowledge Community, and the largest all-volunteer school planning organization in the country. The CAE is relentlessly committed to improving learning environments through research and collaborative planning and design.

We are particularly delighted to once again be working with our colleagues from the British Council for School Environments. As we join together this week, we will extend our international conversation about the design of learning environments that began with the Amsterdam Watershed Conference in 2000, expanded during the CAE Spring 2005 Conference in Washington, DC, and continued in the 2008 visit to Helsinki.

We are in London for a number of reasons...our theme this year is “Investing in Education”. At the DC conference, we saw the genesis of an amazing plan to invest in education in the UK – a plan to replace all of the aging school buildings in this country. In Helsinki, we spent an afternoon learning about some of the first crop of these carefully planned replacement buildings. We will visit several of them during the next three days.

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In light of the current global economic recession, the plans here have necessarily been scaled back. How does less funding affect the big picture of the creation of quality learning environments? What can we learn from this that we can take away and use in our own recessionary environment?

Over the next three days we will engage visionary thought leaders from the United Kingdom, the US, and Australia...we will visit some extraordinary learning environments, and we will enjoy rich conversation. We know that your time here will be challenging, inspiring, reflective, and truly memorable.



Jeanne Jackson, AIA
2011 President & Chair, Committee on Architecture for Education
VCBOArchitects
Salt Lake City, UT, USA

FALL 2011 CONFERENCE PLANNING COMMITTEE

John R. Dale, FAIA, REFP
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Paul C. Hutton, AIA, **LEED® AP**
Hutton Architectural Studio

Steven M. Shiver, AIA, NCIDQ, LEED® AP
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Peter C. Lippman, Assoc. AIA, REFP
JCJ Architecture

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American Institute of Architects
Douglas Paul, Director, Knowledge Communities
Tonya Horsley, Director, Meetings
Heather Pesch, Manager, Meetings
Sharia Barksdale, Specialist, Meetings

British Council for School Environments
Nusrat Faizullah, Chief Executive
Ty Goddard, Director
Ian Fordham, Associate Director

WELCOME TO LONDON!

In cool, moist air of the English Fall, the Committee on Architecture for Education joins the British Council for School Environments (BCSE) for our 2011 Fall Conference. The conference theme, “Investing in Education, Building Better Schools”, speaks to society’s responsibility to continue to invest in future generations. As you travel throughout London and southern England you will have a chance to experience award-winning educational facilities that were a result of the recent Building Schools for the Future Program. You’ll also learn how changes in funding are challenging design teams in both the United States and United Kingdom to fight for solutions that express the value society has for our students and communities.

Beginning in Central London, you will tour a variety of award-winning school buildings, followed by a dynamic presentation by Andrew Christie, the United Kingdom’s first Director of Children’s Services for a Triborough local authority. Finish the day at an evening reception where you will have an opportunity to get acquainted with your British counterparts.

At the recently completed West London Free School, you will join BCSE delegates where a series of keynote presentations and panel discussions will be interspersed with seminars focusing on recent trends in school design and pedagogy that highlight the power of new technology in improving educational outcomes.

Travelling southwest to the Rook Lane Chapel in the town of Frome- a 1707 era church that has been converted to a community facility for exhibitions, receptions, meetings and concerts with architectural offices on the upper floor- a panel of award-winning sustainable architecture, environmental engineering and educational experts will review individual school projects relating how each incorporated sustainable design into the educational program. You will tour the new Sanger Centre for Science and Mathematics at the Bryanston School and Foster+Partners Langley Academy en route.

We hope you are challenged by the opportunity to share insightful dialog with our counterparts in the United Kingdom and bring solid ideas back to improve your practice.

Sincerely,



Steven M. Shiver, AIA, LEED AP, NCARB, NCIDQ
2011 Fall Conference Chair
NAC|Architecture
Seattle, WA USA

NOTES:

SCHEDULE



Tuesday, November 8th

- Arrival all day
- Registration at Hotel 19:00 - 21:00

Wednesday, November 9th

- Registration at Hotel 07:00 - 12:00
- Morning Gathering and Continental Breakfast - Hotel 08:00 - 08:20
- Transportation to The City Academy (Hackney, London) 08:20 - 09:00
- The City Academy - Tour 09:20 - 10:30
- Transportation to Stoke Newington School 10:30 - 11:15
- Stoke Newington School - Tour 11:15 - 12:15
- Transportation to Hotel 12:12 - 12:45
- Lunch on your own 12:45 - 13:30
- Study Tours with BCSE Delegates 13:30 - 17:00
 - Phoenix High School, Hammersmith
 - Chelsea Academy, Kensington and Chelsea
 - Evelyn Grace Academy & Elm Court School, Lambeth
 - City of Westminster College & Royal Veterinary College, University of London
- Dinner on your own 17:00 - 19:00
- Evening Reception 19:00 - 20:45
 - Welcome - Ty Goddard, Founder, BCSE & Nusrat Faizullah, CEO, BCSE
 - Andrew Christie, Director of Children’s Services, Triborough Local Authorities
 - Paul Morrell, OBE, Chief Construction Adviser, Dept. of Business Innovation and Skills

Thursday, November 10th

- **Public Transportation to West London Free School** 08:30 - 09:30
- **Welcome and Introduction** 09:30 - 09:45
 - Nusrat Faizullah, CEO, Bristish Council of School Environments
 - Thomas Packer, Headteacher, West London Free School
- **Keynote: Surviving and Thriving in the new environment** 09:45 - 10:15
 - Graham Stuart MP, Chair, Education Select Committee
- **Panel Discussion: Connecting up new school models** 10:15 - 11:00
 - Chair - Nusrat Faizullah, CEO, Bristish Council of School Environments
 - Steve Bollingbroke, Managing Director of Kunskapsskolan, UK
 - Anne-Louise De Buriane, Headteacher, Langford Primary School
 - Jo Shuter, Headteacher, Quintin Kynaston School
 - Zarlast Halaimzai, Head of Strategy and Development, Future Schools Trust
- **West London Free School: What Have We Learned** 11:00 - 11:25
 - Toby Young, Chair, West London Free School
 - Marcel Hendricks, Education Director, Apollo Group
- **Refreshments** 11:25 - 11:45
- **Back to Basics: Quickfire Presentations on the Big Issues** 11:45 - 12:45
 - Chair - Ty Goddard, Foudler, BCSE
 - Standardisation: Cookie cutter or kit of parts?
 - Tough choices: What does evidence tell us as we work towards a decent school standard
 - Show Me the Money: Securing funding in the new environment
- **Lunch and Exhibition** 12:00 - 13:00

- **Seminars** **13:55 - 14:55**
 - Rebuilding schools and communities post Hurricane Katrina
 - The future of SEN – how can we learn from the best
 - How was it for you: The experience of working with new school models
 - Sustainable school design and operation: a whole school approach
 - High impact, low cost- what is the case for decent furniture
 - Built-in, not bolt on: the first BREEAM UK outstanding primary school
- **Keynote: Innovation in the Education Estate** **15:00 - 15:45**
 - Dr. Peter Jamieson, Associate Professor, University of Melbourne
- **Panel Discussion: Learning from the USA** **15:45 - 16:30**
 - Ronald Bogle, President and CEO, American Architecture Foundation
 - Steven Bingler, Founder and President, Concordia
 - Alan Dunlop, Visiting Chair in Architecture, Kansas State University
 - David Greenberg, Founder, Denver School of Science and Technology
- **The Future** **16:30 - 16:45**
 - Nusrat Faizullah, CEO, British Council of School Environments
- **Closing Session: CAE, UIA and AAF Update** **16:45 - 17:45**
 - Jeanne Jackson, 2011 Chair, CAE
 - Steve Crane, Past Chair, CAE
 - Ron Bogle, President, American Architectural Foundation
- **Dinner on your own**

Friday, November 11th

- | | |
|--|---------------|
| • Morning Gathering and Continental Breakfast - Hotel | 07:00 - 07:30 |
| • Transportation to Bryanston School (Dorset) | 07:30 - 10:00 |
| • Sanger Centre for Science and Mathematics – Tour | 10:00 - 11:30 |
| Refreshments provided | |
| • Transportation to Rook Lane Chapel (Frome) | 11:30 - 12:30 |
| • Symposium: Sustainable Practices in the United Kingdom | 12:30 - 14:30 |
| Buffet lunch provided | |
| • Transportation to Langley Academy (Slough) | 14:30 - 16:30 |
| • Langley Academy – Tour | 16:30 - 17:30 |
| • Dinner on your own | |

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Notes:

- Images from the CAE 2011 Awards, UIA Japan Conference will all run continuously (as a loop) at all gatherings and receptions.
- Registration includes: 3 day conference, 3 breakfasts, 3 lunches, all event transportation, conference materials, and a cd summarizing the entire conference.

ABSTRACTS & BIOS



SPEAKERS

British Council for School Environments

Nusrat Faizullah
Chief Executive, BCSE

Chief Executive of the British Council for School Environments, Nusrat recently served as the development manager for the Studio Schools Trust, setting up a national network of studio schools to pioneer new approaches to education for 14 to 19 year old students.

Nusrat has a background in education. Prior to joining the Studio Schools Trust she worked on a number of projects at the Young Foundation including supporting and developing social enterprises and practical projects in the field of education and unemployment. Nusrat is an inaugural member of the Teach First Program, similar to Teach for America in the United States, where she spent two years working as a qualified science teacher in a challenging inner-city secondary school, gaining first hand experience in the United Kingdom's education system.

Nusrat is also a Director and Trustee of Catch21 productions, a production company which aims to engage young people with politics.

Ty Goddard
Director, BCSE

Director and founder of the British Council for School Environments, Ty Goddard is also the co-founder of the Centre for School Design. He is a globally renowned expert on learning environments and a leading campaigner and commentator on school design and the built environment.

Ty previously worked as Managing Director of School Works, an organization aiming to build better schools through consultation and participation by bringing together the best in the building industry with the best in education. Previous to School Works, Ty was Community Strategic Manager at Brighton and Hove City Council's Schools. He has also acted as an advisor to the DfES on Extended Schools and co-location of services.

WEDNESDAY SPEAKERS

Andrew Christie

Andrew Christie serves as the United Kingdom's first tri-borough children's services director at Westminster, Hammersmith & Fulham and the Royal Borough of Kensington and Chelsea. He oversees an organization that provides education, children's services, social care and family support at 153 separate facilities with an annual budget exceeding \$500 million.

Christie previously served as the Hammersmith & Fulham Director of Children's Services.

Paul Morrell, OBE

Recently appointed as the first Chief Construction Adviser for the Department for Business Innovation and Skills, Paul Morrell chairs the Board responsible for securing value for money from the United Kingdom government's procurement of construction, promoting innovation and sustainability in the industry.

Previously, Mr. Morrell joined Davis Langdon in 1971 and became a Partner in 1976, Senior Partner in 1999 and then a consultant to the firm from 2007 until resigning to take up the Chief Construction Advisor post. He is a Fellow of the RICS, an Honorary Fellow of the RIBA, and served as a Commissioner on CABE from 2000 to 2008, finishing as Deputy Chairman. He was a founder member of the British Council for Offices, and served as President in 2004/5.

He has worked on a wide range of projects including: The ITN Headquarters Building, for Stanhope Properties, TAG McLaren Headquarters, Headquarters and Distribution Centre, Theale, for Porsche Cars Great Britain, Public Housing projects for the former GLC, the London Boroughs of Camden and Wandsworth, and Milton Keynes Development Corporation, the Underground line extension for London Underground Limited and the Joslyn Art Museum in Omaha, Nebraska.

Mr. Morrell also is a regular columnist and industry conference speaker, in the UK and overseas, on construction economics, the value of good design, procurement, and the structure and practice of the construction industry. He received the Award for Outstanding Contribution to the Construction Industry at the 2007 Building Awards; received the President's Award from the British Council for Offices in the same year; and was awarded an OBE for services to architecture and the built environment in the 2008 New Year Honours list.

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NOTES:

THURSDAY SPEAKERS

Toby Young

British Journalist and Author

Toby Young is a British journalist and the author of *How to Lose Friends and Alienate People* (2001) and *The Sound of No Hands Clapping* (2006).

In 1991, Young founded and edited the *Modern Review* with Julie Burchill and Cosmo Landesman. Young moved to New York in 1995 to work for *Vanity Fair*, where he was a contributing editor from 1995-98. Young is now an associate editor of the *Spectator* and a blogger for the *Telegraph*. He has performed in the *West End* in a stage adaptation of *How to Lose Friends and Alienate People* and, in 2005, co-wrote a sex farce about the David Blunkett/Kimberley Quinn scandal called *Who's the Daddy?*. It was named *Best New Comedy* at the 2006 *Theatregoers' Choice Awards*.

He co-produced the film version of *How to Lose Friends & Alienate People* and, more recently, co-produced and co-wrote a dramadoc for *More4* called *When Boris Met Dave*. His teaching experience includes working as a teaching fellow at Harvard and a teaching assistant at Cambridge. He lives in Acton with his wife and four children where, for the past two years, he's been leading the efforts of a group of parents and teachers to establish the *West London Free School*.

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Steve Bolingbroke

Managing Director, Kunskapsskolan

Steve trained as a secondary Science teacher at Nottingham Trent University. He spent 17 years developing computer systems for the airline business before joining RM plc in 1997. RM is the United Kingdom's largest provider of IT systems to education. At RM Steve was responsible for a wide range of education businesses including; interactive teaching resources, teacher training, school inspections and data collection & analysis.

Kunskapsskolan is the sponsor of the Learning Schools Trust, a charity established in the United Kingdom to operate a group of Academies using a common pedagogic approach, curriculum and operational structure based on the Kunskapsskolan model of personalized learning. The Trust currently has three academies in England, Twickenham Academy, Hampton Academy and Ipswich Academy.

He has been a Governor of both primary and secondary schools in England. He started to work with Kunskapsskolan in 2004 after visiting schools in Sweden. He joined Kunskapsskolan in 2008 to head up the program to open schools in the UK.

This image shows a full page of blank graph paper. The grid consists of small, uniform squares formed by thin, light gray lines. There are no margins, text, or other markings on the page.

THURSDAY SPEAKERS

Graham Stuart MP

Chair, Education Select Committee

Graham Stuart is a member of parliament and the Chair of the cross party Education Select Committee.

He started his publishing business at the end of his first year at Cambridge and he remains non-executive Chairman. Graham founded CHANT (Community Hospitals Acting Nationally Together), a national, cross-party Parliamentary pressure group which campaigns for community hospitals which led to a Government u-turn and the announcement of a new hospital for the East Riding. In Parliament, he has served on the Children, Schools and Families Select Committee and, formerly, on the Environmental Select Committee and the Draft Climate Change Bill Committee. He was elected by his fellow MPs to the Conservative Party Board in 2006.

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Professor Peter Barrett

International Council for Research and Innovation in Building and Construction, Salford University

Peter is President of the UN-established International Council for Research and Innovation in Building and Construction involving 2000 experts in 60 countries. He is a past Director of Salford's top rated, 6* Research Institute for the Built and Human Environment and is currently Chairman of the £5M EPSRC funded, Salford Centre for Research and Innovation. From 2001 - 2008 Professor Barrett was Pro-Vice Chancellor for Research with overall responsibility for all research across Salford University, which in this period grew from involving 38% to 60% of academic staff.

To date he has produced over one hundred and seventy single volume publications, refereed papers and reports, and has made over one hundred and ten presentations in around sixteen countries. Professor Barrett has undertaken a wide range of research. He is currently focusing on the theme of Revaluing Construction with a particular interest in the links between Senses, Brain and Spaces.

THURSDAY SPEAKERS

Dr. Peter Jamieson

Associate Professor, Senior Policy Adviser Learning Environment Design & Director Learning Environment Spatial Laboratory, Office of the Provost, The University of Melbourne

Dr Peter Jamieson is an Educator, not an Architect. He worked as a qualified Secondary School teacher for several years, before gaining extensive experience in the Vocational and Higher Education sectors where he worked in Academic Development to improve teaching and learning. He has been actively involved in the creation of new generation learning environments since 1996.

Peter holds a unique position in Higher Education, being an Educator who leads the design of new generation learning environments at The University of Melbourne. His position was created at Melbourne to ensure that learning environment and campus development projects were driven by a primary concern to improve the student learning experience. Under his direction over the past six years, Melbourne has created a diverse suite of formal and informal learning environments which, in turn, have influenced the development of educational settings at many international institutions.

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Peter also contributes to a number of school campus development projects as a design consultant to project architects and by undertaking pro-bono projects where he works with the school community to design new classroom and informal learning environments.

Peter has worked extensively with Higher Education professional associations and universities internationally, conducting professional development and design workshops, seminars and keynote presentations at institutions in the USA, Hong Kong, Sweden, England, Scotland, Ireland and Wales. For the past five years Peter has convened an annual five-day intensive learning environment design workshop for representatives of the U21 Network which is an international association of universities

THURSDAY SPEAKERS

David Ethan

Founder, Denver School of Science & Technology

Mr. Greenberg is the Founder of the Denver School of Science & Technology (dsstpublicschools.org), a demonstration school that has been cited by Bill Gates and U.S. Education Secretary Arne Duncan as a national model for teaching STEM education in urban settings.

An open enrollment public charter school, DSST graduates more low income and minority students who are admitted to four year institutions than any other public high school in Colorado. All members of its first four graduating classes were accepted to four year colleges and universities. The first LEED certified public school structure in Denver, and one of the first LEED buildings built by a charter school nationally, DSST was the subject of a documentary co-produced by the American Architectural Foundation, KnowledgeWorks Foundation and the Target Foundation called “Great Schools by Design – The Denver School of Science & Technology.”

Mr. Greenberg also served as founding Board Chair of DSST Public Schools, a charter management organization designed to replicate the success of DSST. At full build-out in 2020, the DSST system of 5 STEM focused campuses will serve close to 4,500 students attending grades 6-12 in Denver.

Active in a wide variety of education reform efforts, he served on the Colorado Commission on Higher Education and is a Regent of the American Architectural Foundation. A graduate of Columbia University and the Harvard Law School, he was legal advisor and speechwriter to Colorado Governor Richard Lamm and has served as a White House Fellow.

NOTES:

THURSDAY SPEAKERS

Steven B. Bingler, AIA, REFP, NCARB

Founder and President, Concordia

Steven Bingler is the founder and President of Concordia. Under his leadership, Concordia's projects span a wide range of building types including the Jackson Brewery Festival Marketplace, the New Orleans Aquarium of the Americas and the Henry Ford Academy. Concordia's award winning work has appeared in a wide range of national publications, including Architecture, Interiors Magazine, Architectural Digest, Newsweek, the Los Angeles Times, the New York Times, USA Today and the Wall Street Journal.

In recent years, Steven has undertaken projects focused principally on the planning and design of environments for living and learning. He served as a special consultant to the Office of the Secretary of the U.S. Department of Education for policy related to the design of schools as centers of the community. His educational papers have been published in a wide range of books and journals in the fields of urban planning, architectural design, education, public health and smart growth. Additionally, Steven frequently speaks at national symposia and conferences related to innovations in community-based and small school planning and design.

Steven has been involved in many notable research and development projects concerning educational issues around small schools. Most recently, Concordia was a partner in the research and publication of Dollars and Sense: The Cost Effectiveness of Small Schools, a collaboration with the KnowledgeWorks Foundation, Rural Schools and Community Trust, and Dr. Craig Howley of Ohio University. At the behest of the KnowledgeWorks Foundation and the Bill and Melinda Gates Foundation, Steven co-authored a second release, Dollars & Sense II: Lessons from Good, Cost-Effective Small Schools.

NOTES:

THURSDAY SPEAKERS

Ron Bogle, HON. AIA

President, American Architectural Foundation

Ron Bogle is the seventh president of the American Architectural Foundation (AAF). He brought to the AAF a career-long commitment to public service and his lifelong passion for community development, civic engagement, education, art and architecture.

Today, he continues to be an innovative leader. His professional interests include the impact of local community design choices and processes on community development, urban neighborhood revitalization, civic engagement, quality of life and governance systems in educational institutions and municipalities.

At AAF, Bogle's efforts are squarely focused on creating and sustaining supporting programs to identify best practices for the design of livable communities across the country. Currently, he is directing the development of a national program to provide resources to local community leaders engaged in the K-12 school facility design and construction processes.

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In association with the National Endowment for the Arts and the U.S. Conference of Mayors, Bogle is a managing partner for the Mayors' Institute on City Design. He is highly regarded as a gifted public speaker, a talented musician, and a natural leader. He received his undergraduate degree in Fine Arts from Baker University in Baldwin, Kansas, and his MS in Counseling Psychology at the University of Kansas.

THURSDAY SPEAKERS

Alan Dunlop, FRIAS, FRSA

Alan Dunlop is one of the United Kingdom's leading architects and a respected educator. He recently completed a successful term as the Distinguished Victor L. Regnier Visiting Chair in Architecture at Kansas State University and is currently Visiting Professor at Robert Gordon University, Scott Sutherland School of Architecture. He has taught at schools of Architecture in the United States, United Kingdom and Germany and has lectured internationally.

Widely published in the architectural press and international broadsheets, he is an established commentator on architecture, urban design and social issues.

A Fellow of the Royal Incorporation of Architects in Scotland and the Royal Society of Arts, he was educated in London and at the Mackintosh School of Architecture in Glasgow. In practice, he has won more than fifty national and international awards, including Europa Nostra; Royal Institute of British Architects Awards; the Scottish Design Awards: Grand Prix for Architecture; a Special Award from the Royal Institute of the Architects of Ireland; a British Construction Industry: Best Practice Award; a Designshare Honor Award and two International Architecture Awards from the Chicago Athenaeum. His project for Hazelwood School was listed as one the top five schools of the 21st Century by Architectural Record.

A gifted draughtsman and artist, his drawings have been exhibited at the Royal Academy in London and since 1996 at the Royal Scottish Academy. In 2008, he was awarded the Royal Gold Medal in Architecture from the Royal Scottish Academy. His work has been exhibited at the Royal Institute of British Architects, the Royal Scottish Academy, the Royal Incorporation of Architects in Scotland, and The Lighthouse in Glasgow, in Europe and at the Venice Biennale.

He regards the education of young architects as both an obligation and a privilege and brings enthusiasm, ambition and authentic commitment to the task.

NOTES:

FRIDAY SPEAKERS

Sustainable Schools Symposium

Craig White, BSc, AA Dip, RIBA, MEI, FSC, FRSA

Architect and renewable material entrepreneur. Craig is a founding Director of the companies White Design and ModCell (<http://www.modcell.com/>). He has 25 years' experience in architectural practice in the UK and Europe and has been involved in low energy and sustainable design since the 1980s. A graduate of the Welsh School of Architecture and the Architectural Association, his approach to design is innovative and grounded in a thorough understanding of practical delivery.

Craig is a Design Advice consultant with the Carbon Trust and worked with dBERR (now BIS) on the Low Carbon Buildings Programme. Craig is a board member of the Timber Research and Development Association and is Chair of Wood for Gold, the government's champion of timber buildings for the 2012 Olympics. He is a steering group member of the Technology Strategy Board and a trustee of Spike Island, the centre for contemporary art and design in Bristol. Craig is also a senior lecturer at the Department of Planning and Architecture at UWE, where he teaches architectural design with special emphasis on the principles of sustainability at both undergraduate and post graduate levels. In 2010 Craig was appointed as a Visiting Fellow at the Systems Centre at the University of Bristol.

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Prof. William (Bill) Scott, BSC, PGCE, PhD

Bill Scott is an Honorary Professor of Education at the University of Bath, director and current Chair of the community interest company South West Learning for Sustainability Coalition. He chairs the UK National Commission for UNESCO's Education for Sustainable Development Co-ordinating Group and ESD Forum, is President of the National Association of Environmental Education [NAEE] and a trustee of Sustainability and Environmental Education [SEEd].

His research has focused on the role of learning in sustainable development, on the contributions that education (viewed broadly) can make to this, and on the problems of researching the effectiveness of such activities. His goal is schools, colleges and universities take sustainability seriously through what they teach and how they operate as institutions, but not to the extent of disempowering people by telling them how to live their lives and what values to hold.

FRIDAY SPEAKERS

Sustainable Schools Symposium

Jonathan Hines, BSc (Hons), BArch, FRSA

Jonathan became a director of Architype in 1989, and later established a second office in Hereford in 1996. Jonathan's life-long focus has been on achieving sustainability through design. He has led the team for many of Architype's pioneering buildings including the Genesis Project, Architype's Hereford office, and St Luke's Primary School. Jonathan's wife is an ex-headteacher now local authority education advisor. He regularly lectures at universities, and is a member of the Design Review Panel of the Design Commission for Wales.

Architype is a Founder member of the UK Passivhaus Trust, and are pioneering the introduction of Passivhaus standards into the UK, through a number of projects – including two new primary schools in Wolverhampton and a number of housing projects.

Mark Brierley, BA (Hons), DipArch, RIBA, DipLA

Mark is the senior director at NVB Architects, based in Frome Somerset. He is a specialist in educational buildings having worked in both the independent and state sectors for over 30 years. In addition to being an architect, he is also a qualified landscape architect and RIBA client design advisor. He has a keen interest in the harmonious integration of landscape with building design. He attended Bristol University.

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Dr. Mike Entwisle MA (schol) (Cantab) PhD (Cantab) CEng MEI MCIBSE MASHRAE

Director at Buro Happold, Mike has led the engineering design of over twenty schools, including primary, secondary, Academy, BSF, and Special Needs facilities and University buildings at Cambridge, Oxford, Exeter, Glamorgan, and Bath. An environmental and MEP engineer, he is an expert in passive building design. He also advises government bodies with regard to policy and technical matters affecting school buildings.

He is a leading member of the CIBSE Schools design group and the PfS Post Occupancy Evaluation Group, and is working with Constructing Excellence to develop a model for sustainable school refurbishment. Mike was a member of the DCSF Zero Carbon Schools Task Force and the BSRIA Schools Soft Landing Group, and drafted the environmental assessment framework for the CIBE Schools Design review process.

FRIDAY SPEAKERS

Sustainable Schools Symposium

John R. Dale, FAIA, LEED-AP

A Principal at Harley Ellis Devereaux in Los Angeles, John Dale has been involved in the master planning, programming and design of public and private projects for over 20 years. He has created high performance pre-school through secondary school environments. By defining small learning communities which boost student achievement, promote sustainability, and galvanize community involvement, he has established widely recognized models of regional and national significance. John has also been a leader in promoting green schools. Building on evidence-based research, he has put in practice the theory that students are healthier and learn more effectively in well-ventilated, acoustically balanced, naturally lit spaces with strong connections to the outdoors—all features of energy-conserving, sustainable design. John is currently the chair of the CAE Alternate Learning Environments Subcommittee.

Paul Hutton, AIA, NCARB, LEED-AP

Paul Hutton is the founder of Hutton Architecture Studio and has dedicated his 32-year career to integrating sustainable building strategies with creative design. He has been designing energy saving buildings since 1979 and daylighted buildings since 1982. He continues to use daylight as a primary tool to reduce energy use and to improve occupant well-being in all his projects.

His passion for the environment has led him to become involved with Colorado State Parks, including the Net Zero Energy Staunton State Park., now in design. Other recent undertakings include a proposed Zero Net Energy Flex Building, an Ethics Institute in rural Colorado, a Photovoltaic crystal manufacturing plant in Texas, and his own sustainable ranch house, recipient of McGraw-Hill's Gold Hard Hat award as most sustainable building in Colorado for 2006.

Paul has been a member of the American Solar Energy Society since 1986. He attended Princeton University, and has graduate degrees in both Architecture and Environmental Planning from the University of Virginia. Paul is currently serving on the CAE Advisory Group and is chair of the 2012 CAE Design Awards Program.

This image shows a full page of blank graph paper. The grid consists of thin, light gray horizontal and vertical lines that intersect to form small squares across the entire surface. There are no margins, text, or other markings on the paper.

TOUR SITES





The City Academy, Hackney

Architecture: **Studio E Architects**

Photos: Courtesy of BCSE

The City Academy, sponsored by the City of London Corporation and KPMG, opened its doors to its first year intake of 210 students on the 3rd September 2009. A striking contemporary building that has been delivered on time and to budget by a fully partnered team led by the City of London's, City Surveyor's Department, Studio E Architects and Willmott Dixon. The challenges of a tight programme and complex site have been successfully met, whilst implementing an exemplar programme of "young client" engagement.

A colourful glassy school ribbon, woven through clusters of mature existing trees, faces the sensitive Clapton Square Conservation Area and grade II listed Sutton House across Homerton High Street. As with all our projects, a strong sustainable approach has driven a concept that has reconciled aspirations, site issues and environmental performance. This includes passive environmental measures that rely on high standards of daylight and natural ventilation. A glass secondary façade assists with dealing with noise generated by heavy traffic along the street frontage. A strong sustainable strategy has delivered a BREEAM rating just short of excellent.



45



Stoke Newington School

Architecture: **Jestico and Whiles**

Photos: Courtesy of BCSE

Stoke Newington School is a successful inner city secondary school with a specialism in Media, Arts and Science and is part of the London Borough of Hackney, Building Schools for the Future programme. The original building suffered from long term neglect, including poor ventilation, confusing circulation and limited disabled access. The design of the new and refurbished building provides modern and flexible learning spaces with a strong emphasis on design quality, innovation and sustainability.

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The new entrance building consists of a bold, three storey block with a secure and welcoming entrance and landscaped entrance plaza. The design has provided improved and clearly defined circulation routes with a central 'street' running through the centre of the plan, which simplifies the understanding of the existing building layout. The building has been designed to integrate sympathetically with the existing Brutalist architecture and to provide a contemporary feel. The cladding to the new entrance building is made of striking Cor Ten steel panels, which provide robustness and complement the red brick and bush-hammered concrete of the original school building. The elevation features elegant offset strip windows raised above black glazed brick at the entrance. The design of the school is expected to receive a BREEAM rating of 'Good'. The windows are high performance in terms of thermal loss and solar admittance, and unglazed areas are highly insulated to limit solar heat gain and retain naturally generated heat. Natural ventilation has been used with passive night-time cooling, daylight responsive lights and a highly efficient services installation.



47



Phoenix High School

Architecture: **Bond Bryan Architects**

Photos: Courtesy of BCSE

Phoenix High School is a former failing school which is now ranked as one of the highest performing schools in England. Several new buildings designed by Bond Bryan Architects, were envisioned to encourage an even better performance from the students they serve. The designs had to work within the constraints of a Conservation Area. The Post-16 Centre, completed in 2011, has been dubbed the 'liquorice allsorts' school because the elevations comprise vertical timber panels repeated at random intervals and framed with vibrant colors, visually akin to liquorice allsorts.

This Post-16 Centre is constructed from in-situ concrete and incorporates an iconic design which integrates the building with the rest of the school. The building has a low environmental impact, having been designed to achieve a BREEAM rating of Very Good. BREEAM is a green construction rating system widely used in the United Kingdom. Executive Head Teacher Sir William Atkinson enthused: "The design creates an uplifting and stimulating environment by introducing a vibrant concept that motivates learners. The aim of the school is to inspire its pupils and our new Post 16 Centre was designed to achieve this. This has created a visual beacon for the school and the wider community; it is a cathedral for learning."

A second building, the new Sixth Form Centre, is thought to be Europe's largest cantilevered building, with a 24 meter cantilever extending over an existing car park. The building turns the regimented horizontal timber and glass aesthetic of the existing 1950s buildings on its head, to create an elevation comprising of vertical timber panels of varying sizes, repeated at random intervals and framed with subtle colours. The resulting elevations have been likened to a string of liquorice allsorts. The design creates an uplifting learning environment by introducing a vibrant concept that all the students can relate to. This concept has been extended in to the façade design to create a visual beacon for the school and wider community. A number of pupils who, on learning that Bond Bryan designed their new buildings, have said they would now be interested in a career in architecture, simply because they find them so inspiring.



Chelsea Academy

Architecture: **Fielden Clegg Bradley Studios**

Photos: Courtesy of BCSE

This new Academy is situated on a very constrained site in Lots Road, Chelsea. Sponsored by the London Diocesan Board for Schools (LDBS) and The Royal Borough of Kensington and Chelsea, it will provide world-class education for approximately 810 pupils in years 7 to 11 and 250 students in the sixth form. The Academy specialises in the Sciences and it is intended that this will be assisted by the development of close links with the museums, universities and similar institutions that are located in the Royal Borough.

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The design provides identity, flexibility and an inspirational educational environment. The building design responds to the constrained nature of this urban site and the requirement for highly adaptable spaces to provide for future flexibility. It incorporates a range of sustainable principles including optimising natural light and thermal mass. A series of diverse spaces supports a range of teaching and research methods and lightwells provide a feeling of openness. This is one of a new generation of schools on a very tight urban site. The building has been built up to the boundary on virtually every elevation, but by using every part of the roof space there is space for play and external recreation. There is a full size semi-enclosed multi-use games area above a full size Sports Hall, a training size games area on the roof above the activity hall, and other play terraces extend out and between the main school departments across the site.

Through the consistent use of materials interspersed with subtle interludes of external space, Chelsea Academy complements the surrounding buildings and is a landmark building in the true sense of the word.



51



Evelyn Grace Academy

Architecture: **Zaha Hadid**

Photos: **Courtesy of BCSE**

The Evelyn Grace Academy is a cutting-edge new secondary school in Brixton, south London by Zaha Hadid Architects and recently won the prestigious RIBA Stirling Prize 2011 for the best new European building built or designed in the United Kingdom.

A highly stylized zig-zag of steel and glass, the Evelyn Grace Academy is squeezed onto the tightest of urban sites (1.4 hectares - the average secondary school is 8/9 hectares). The architects received a complex brief: four schools under a single academy umbrella with the need to express both independence and unity. The architects were strongly encouraged by the client to 'think outside the box'. With such a small space and with sport being one of the Academy's 'special subjects' (each Academy school has one), the architects needed to be highly inventive.



53



Elm Court School

Architecture: **JM Architects**

Photos: Courtesy of BCSE

This project involved turning an Edwardian school into a state of the art secondary school for 100 children with special needs. The thermal mass of the solid brick walls stores and regulates heat, while a new atrium creates a stack effect, providing natural ventilation. The existing 1912 era school hall was stripped back and renovated, maintaining the existing timber roof. Floor to ceiling window openings in classroom areas were also retained, providing a beautiful quality of light for students to enjoy.

New building additions created a building with different moods and atmospheres, which is beneficial to a school where pupils have a range of emotional, behavioral and social needs including those who are on the autistic spectrum.

The permeability of space within the existing building has been transformed by opening up an atrium within the centre of the 'T' shaped plan. This space links to a dining hall, which opens out onto a play area and courtyard. This sequence of spaces liberates the existing building and ties in the new additions of the school. In addition, community activities and open house activities can be easily accommodated within the building.

New build elements were developed at the rear of the building, providing a more enclosed secure space. The practical learning block and sports hall are built into the landscape to reduce the impact on the surrounding housing area, so that back gardens are not overlooked.



55



City of Westminster College, Westminster

Photos: Courtesy of BCSE

The new flagship Campus for the City of Westminster College is designed to support new ways of teaching and learning. The 24,000 m2 College, won in a competition in 2006, provides much greater amounts of open learning spaces than typical colleges in the UK and holds state-of-the-art facilities for both students and staff. The building is designed to embrace interaction and diversity and allow students to learn from each other, both formally and informally.

The learning spaces are adaptable and flexible so that, in addition to the integrated technology, the students' development is supported by the diverse architectural spaces of the very building they are in. It is a design which encourages new ways of teaching and learning.

The building has been designed from the inside-out, responding to the needs of the diverse groups who use the College, as well as taking into account the sensitive local context. The building's simple geometric forms rotate around a terraced atrium, creating a unifying yet flexible organization.

To support connectivity with the local community, most public functions – including an exhibition area, a theatre and a café – are located adjacent to the main entrance before the security turnstiles. The choice of colors for the building is inspired by its context and by the change of the seasons, whilst the light timber panels lining the interior form a contrast to the exposed concrete surfaces and underline the Scandinavian design heritage.



57



Royal Veterinary College, University of London

Architecture: Architecture PLB

Photos: Courtesy of BCSE

On a tight urban campus with limited opportunities for expansion, the Lightwell Café has been created from an underused courtyard of an existing building. Enclosed with an ETFE roof, the courtyard provides additional flexible spaces and enhances the facilities of the surrounding library, refectory, museum and teaching spaces. Strong links with the existing museum lends the atrium a character unique to the Royal Veterinary College. A high-level semi enclosed reading room creates a dramatic focus to an exciting new facility that acts as a unifying 'hub', improving the educational experience of the campus and the College.

The Lightwell Café is principally made up of satellites to the existing library, in the form of an annexed reading room, and existing refectory, in the shape of a new café. A design that is open plan in nature supports the concept of social learning by providing a range of flexible spaces for groups and individuals to meet, work or relax. The bright naturally ventilated space has become a focal point for the College and wider campus.

The lower level is set out with large terraces offering flexible zones for café seating and social learning. A platform lift is incorporated to provide step free access between the basement and 'plinth' levels. Openings into and out of the College's museum have been created with a young elephant's skeleton on display in the centre of the courtyard, whilst others, such as a polar bear, are displayed in glass cabinets.

The courtyard's centrepiece is the raised plywood pod, designed as an extension of the library and accessed via link bridges. From here there are good views of the Lightwell Café and brightly coloured coffee tables can be seen below through the perforated pod whilst the ETFE roof above lets in the maximum possible amount of light.



59



West London Free School

Photos: Courtesy of BCSE

The West London Free School is the highest profile free school in the UK and one of the first of 24 to be opened in September 2011. Toby Young, the enigmatic British journalist whose book “How to Lose Friends and Alienate People” was made into a Hollywood film, has led the development of this school and is its chair of governors. Modeled on charter schools in the United States, free schools are funded by taxpayers at the national, not local, level. Schools are non-selective, free to attend and completely separate from local authorities. The concept of free schools is based upon similar programs found in Sweden and the United States and they have set a model for an innovative new way of parents and not for profits to set up schools.

Free schools are part of changes following the 2010 general election whereby it will be possible for parents, teachers, charities and businesses to set up their own school. Free schools are an extension of the existing Academies Program. The Academies Act of 2010 authorized the creation of free schools and allows all existing state schools to become academy schools.

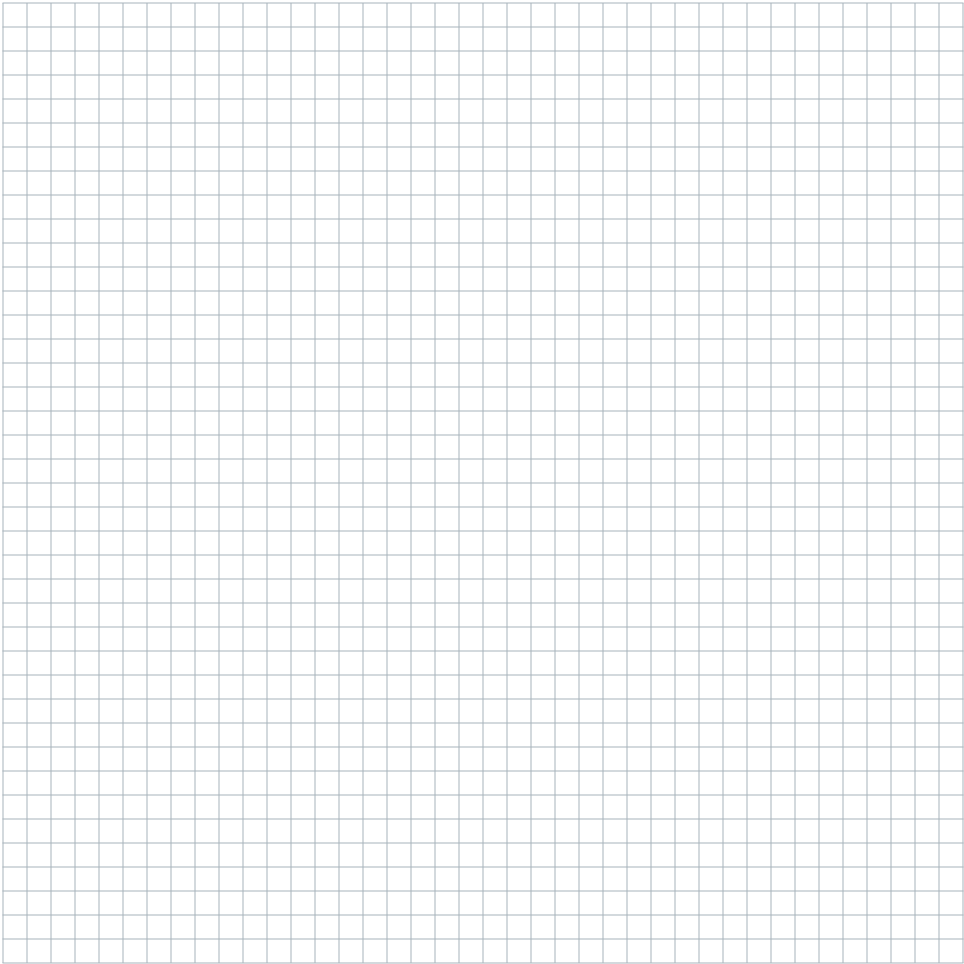
To set up a free school, groups apply to the Department for Education. Funding is on an equivalent basis with other locally controlled state maintained schools. Free schools have latitude for developing a broad and balanced curriculum. They are still subject to the national educational requirements and are expected to comply with standard performance measures.

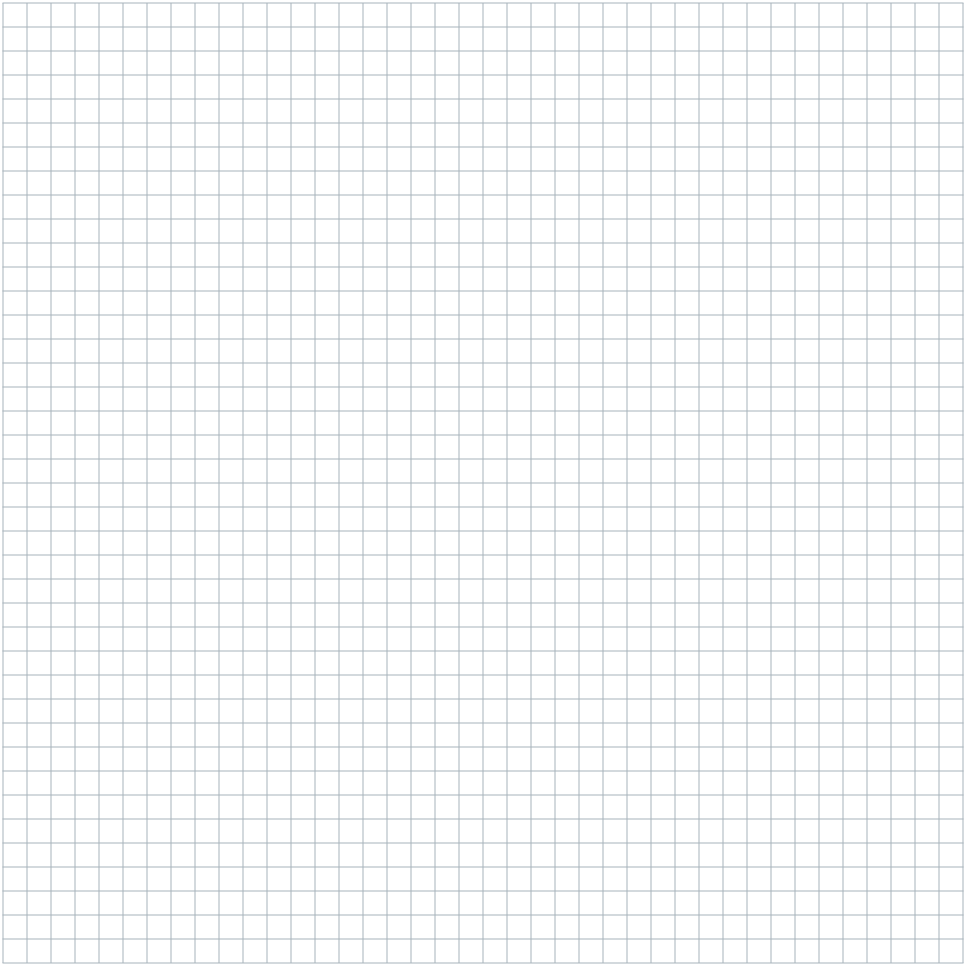
Many of the first 16 schools have a curriculum or ethos which is currently exclusively, or almost exclusively, available in independent schools. Supporters believe that there are many effective methods of education, from which parents should be able to choose using their knowledge of their child.

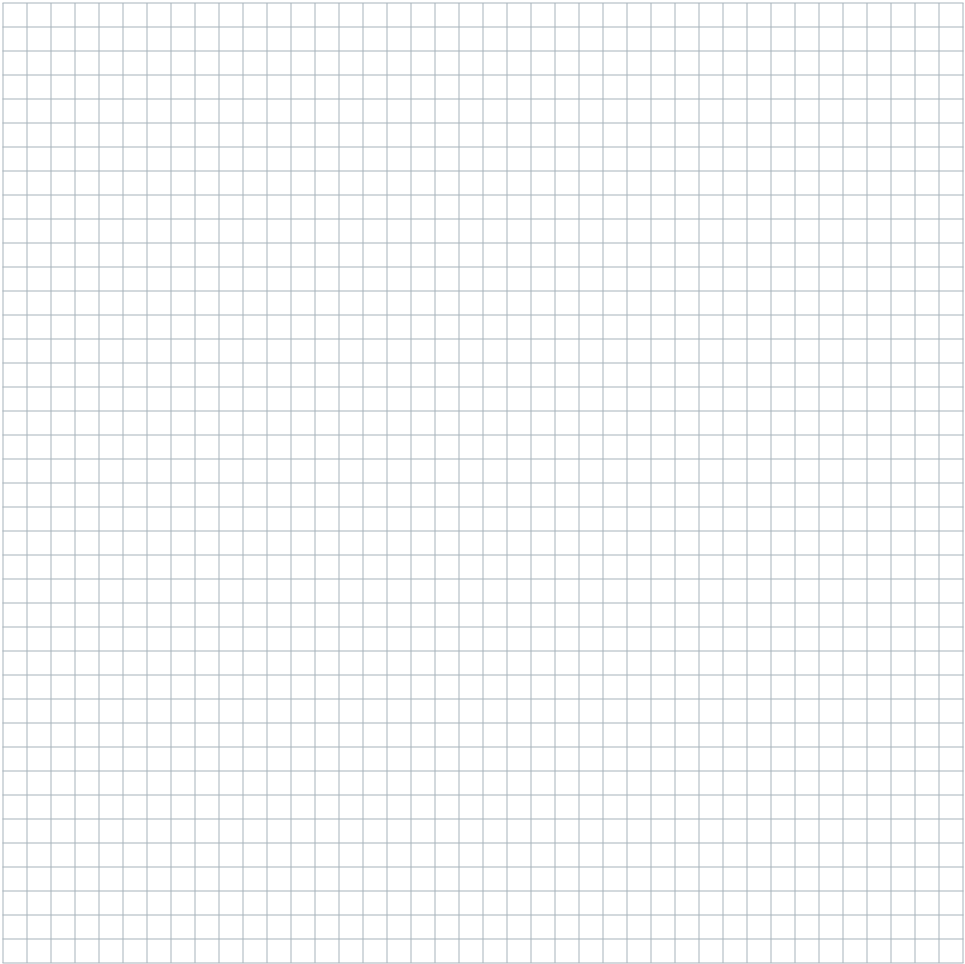


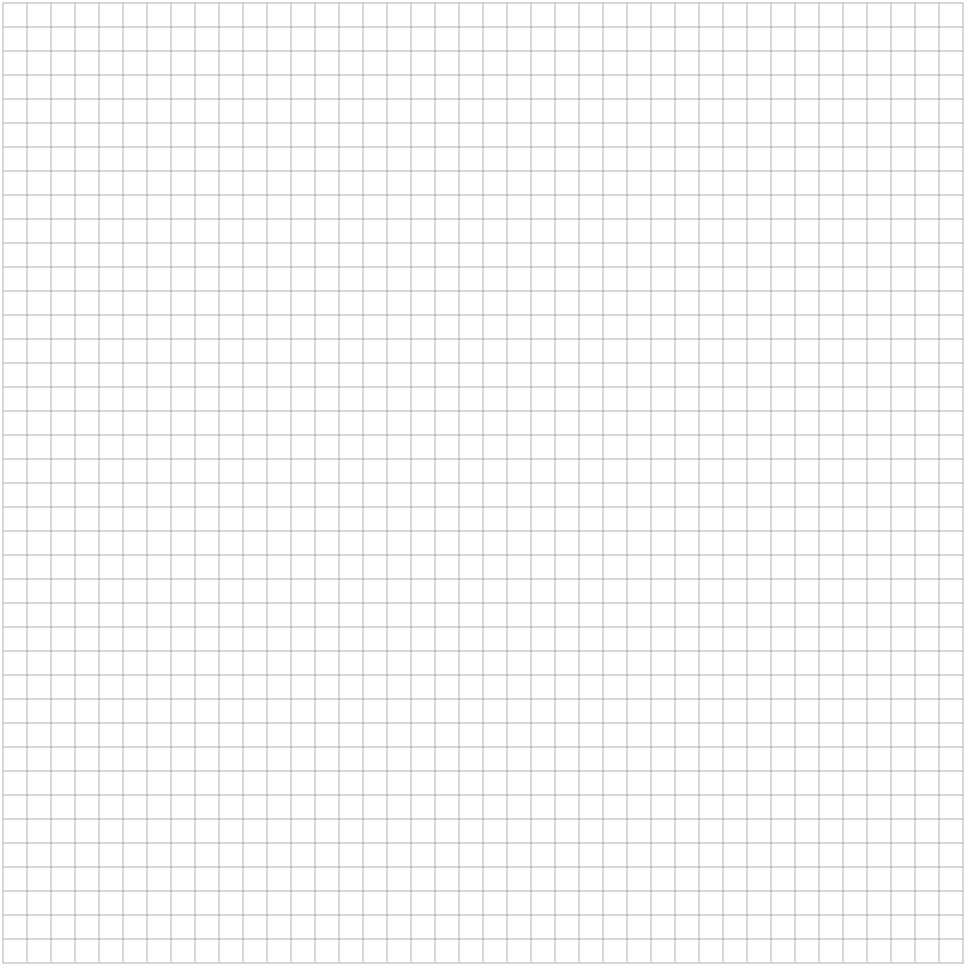
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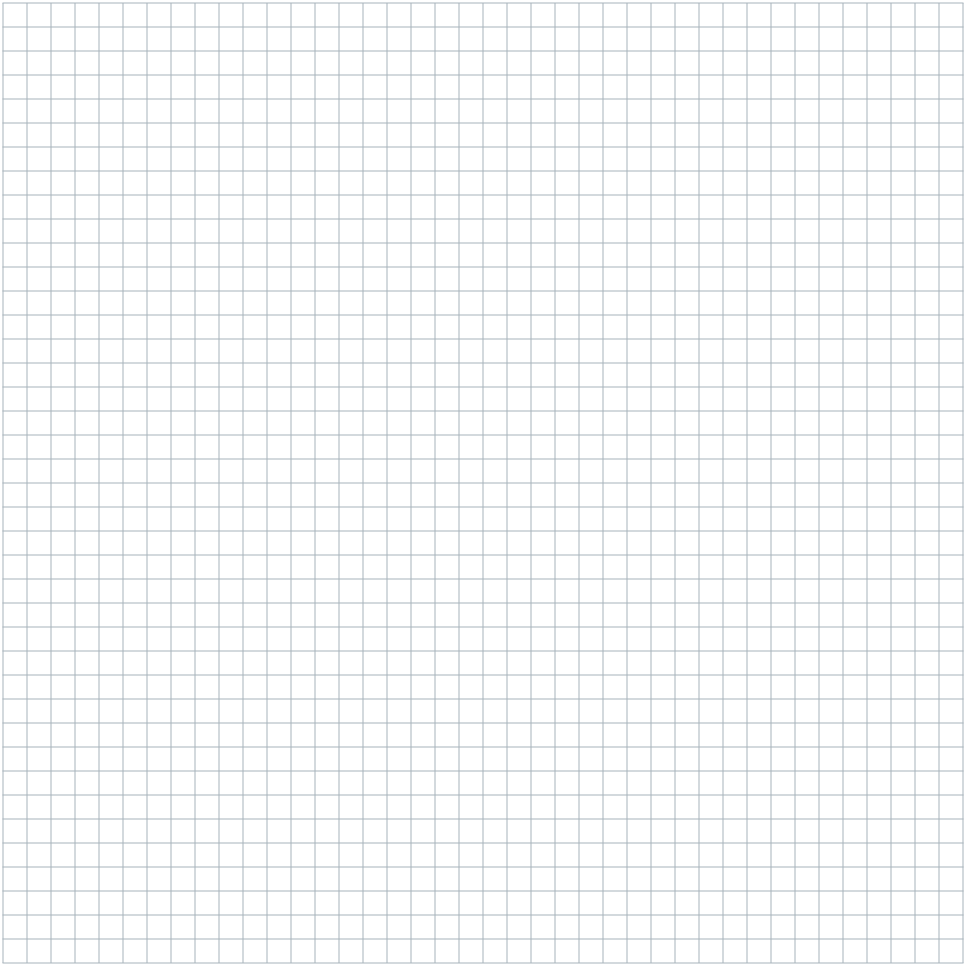


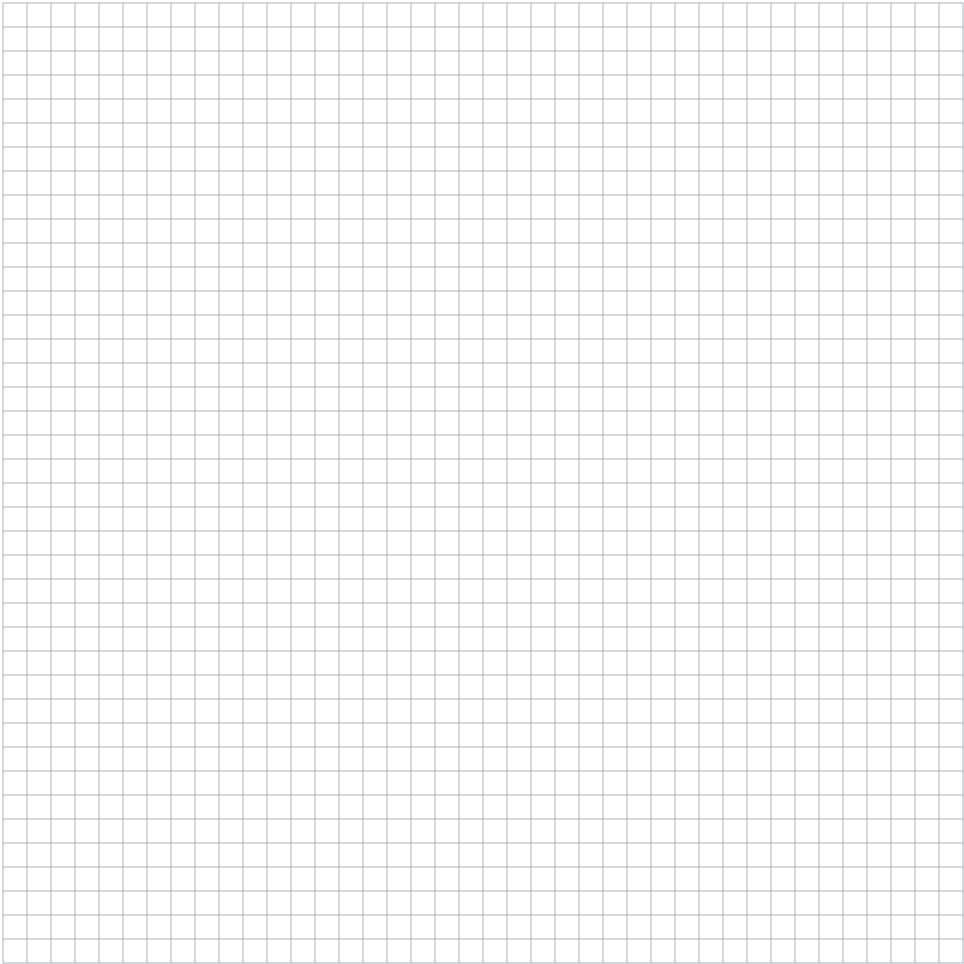


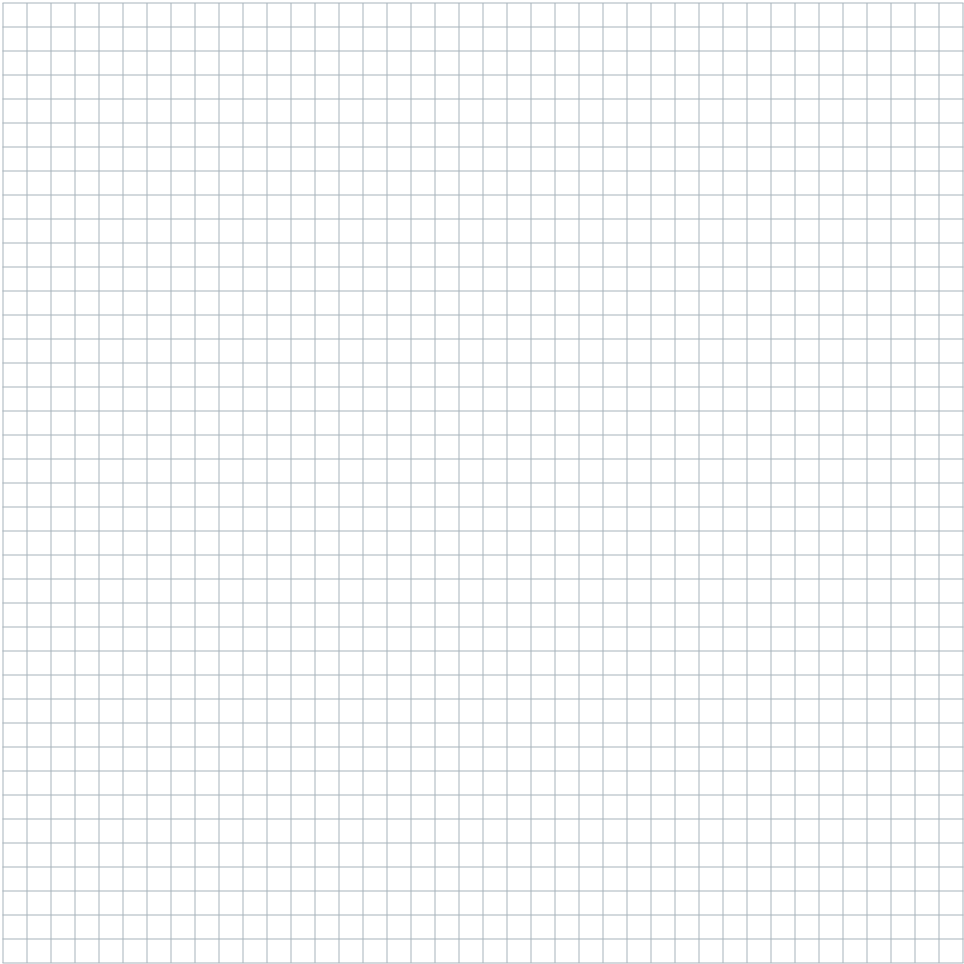


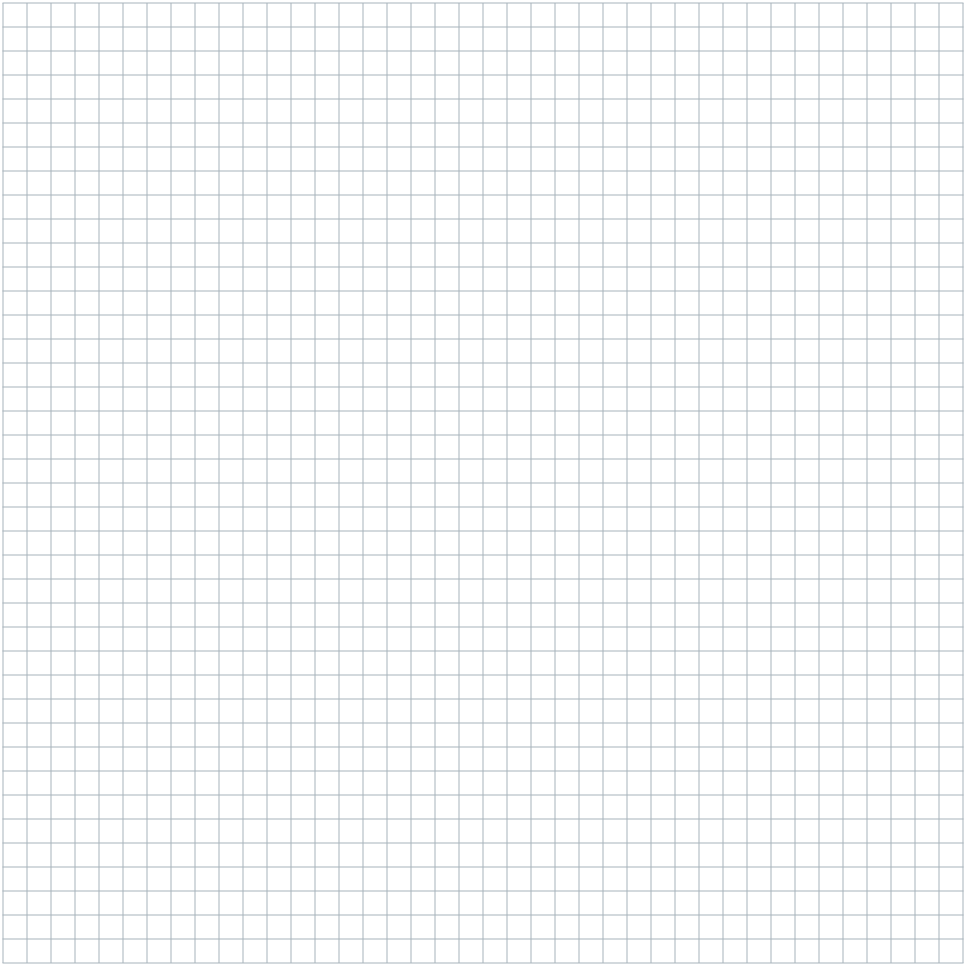












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