

Royal Irish Academy Annual Review 2017



KEY ACHIEVEMENTS



At the US-Ireland Research Innovation Awards (l to r) James O'Connor, American Chamber of Commerce Ireland; Anna Scally, KPMG; Peter Kennedy, PRIA; Stephen Masterson, Ulster Bank



A YEAR IN VIEW



Chief Whip and Minister of State Joe McHugh, TD who officially launched Corpas Stairiúil na Gaeilge 1600–1926



Nithy Kasa reciting her poetry at the launch of the 'Language and migration in Ireland' report



Marianne Elliott, MRIA, and Eucharia Meehan, MRIA, on admittance day



New members on admittance day

At the launch of the 2018 suffrage conference 'Representation, gender and politics: past and present' at the Houses of the Oireachtas; Leas-Cheann Comhairle, Pat 'the Cope' Gallagher, TD; Cathaoirleach, Senator Denis O'Donovan; Senator Ivana Bacik, Chair Vótáil 100; Peter Kennedy, President of the Royal Irish Academy (PRIA)



Briefing on 'Climate change: science, policy and the future for Ireland' at the Houses of the Oireachtas organised in association with the Oireachtas Library and Research Service



At the launch of the Gender Equality Taskforce for Higher Education. Mary Mitchell O'Connor, TD, Minister of State with special responsibility for Higher Education (right), with Marie O'Connor, taskforce chair (left).

Cunningham Medal 2017 awardee Dervilla M.X. Donnelly, MRIA (right), with Catherine Godson, MRIA (left)



At the Academy Gold Medals ceremony (l to r) Mary E. Daly, PRIA; Gold Medal 2016 recipients Fergus Shanahan, MRIA and Louis Cullen, MRIA; and Richard Bruton, TD, Minister for Education and Skills

Social Sciences Committee members, Dr Aisling Murray, ESRI (left) and Dr Felicity Kelliher, WIT (right) at the Mary McAleese Discourse



Mary McAleese, MRIA, with Mr Edward Gleeson, partner, Mason Hayes & Curran at the Mary McAleese Discourse in September



Professor Tuula Teeri, president-elect of the Royal Swedish Academy of Engineering Sciences, delivering the 2017 Leaders in Higher Education Address on 16 November



John Bell graffiti art installation at Fane Street Primary School, Belfast for John Bell Day November 2017

Noel Dorr, MRIA; Olivia O'Leary; Ambassador Bobby McDonagh at Iveagh House on 22 November for the launch of *Sunningdale: the search for peace in Northern Ireland*





Celia Holland, MRIA who was the respondent to the William C. Campbell Discourse on 29 November



Fintan O'Toole speaking at the launch of *Judging Shaw* at the Little Museum of Dublin



At the launch of IHTA, Dublin Suburbs No. 1 Clontarf (l to r): Charles Duggan, Dublin City Council Heritage Officer; Dr Jacinta Prunty, series editor; Peter Kennedy, PRIA; the Lord Mayor of Dublin, Mícheál Mac Donncha; Colm Lennon, MRIA, series editor and author (seated)



At the Dublin launch of 'Ireland and Japan, 1957' (l to r) Dr Eoin Kinsella (RIA), State Minister for Foreign Affairs Kazuyuki Nakane, Minister for the Diaspora and International Development Ciaran Cannon, TD, and Dr Michael Kennedy (RIA)



The Hamilton Prize winners 2017: (l to r) Tadhg O'Keeffe, UCD; Oliwia Jarosz, DIT; Conor Reynolds, MU; Lauren O'Hare, UU; Michael Keyes, UL. Other Hamilton Prize winners (not in the photograph) were: Samuel McKeown, TCD; Brian Whelan, NUIG; Ethan Hawthorne, QUB; Aidan J. Marnane, UCC; Ryan Hogan, DCU.

NEW PRESIDENT

Professor Michael Peter Kennedy is the 56th President of the Royal Irish Academy (RIA); he was elected on 16 March 2017.

Peter Kennedy, PRIA, is a world expert in wireless communications. He is professor of microelectronic engineering at University College Dublin. Prior to that he was chair of the Department of Microelectronic Engineering in University College Cork from 2000 to July 2017.

His research publications are in the fields of oscillator design, hysteresis, neural networks, nonlinear dynamics, chaos communication, mixed-signal test and frequency synthesis. He has worked as a consultant for SMEs and multinationals in the microelectronics industry, and is founding director of the Microelectronics Industry Design Association and the Microelectronic Circuits Centre Ireland.

Professor Kennedy has received many prestigious awards including Best Paper (*International Journal of Circuit Theory and Applications*), the 88th IEE Kelvin Lecture, IEEE Millennium and Golden Jubilee Medals, the inaugural Royal Irish Academy Parsons Award in Engineering Sciences and the IEEE Solid-State Circuits Society Chapter of the Year Award 2010. In 2004, he was elected to membership of the RIA and was made a Fellow of the Irish Academy of Engineering in 2014. He was elected to membership of Academia Europaea in 2015. He served as RIA Policy and International Relations Secretary from 2012 to 2016.



PETER KENNEDY, PRESIDENT

Across the developed world, academies are self-governing communities of leaders of scholarly enquiry. Independent from political, commercial and ideological interests, they are uniquely placed to provide access to an unparalleled human resource of intellectual excellence, experience and expertise. The Royal Irish Academy is proud to be Ireland's leading body of experts in the sciences and humanities and to play its unique role both nationally and internationally.

With significant amounts of public money being committed to research across Europe, it is important that appropriate governance structures exist to ensure the quality and integrity of the work. As a member of the ALLEA (All European Academies) Permanent Working Group on Science and Ethics, the RIA played a leading role this year in drafting 'The European Code of Conduct for Research Integrity',

which was launched in March and has been adopted by the major funding bodies across Europe.

The Academy also took the lead in preparing a report for the European Academies Science Advisory Council (EASAC) on 'Valuing dedicated storage in electricity grids', which addresses the problem of storing electrical energy. In a carbon dioxide emissions-reducing world where a larger percentage of electrical energy now comes from renewable sources, it is becoming increasingly difficult to balance the instantaneous production and consumption of electrical energy; hence the need to understand what role storage grids might play. This timely report was launched both in Brussels and in Dublin.

Closer to home, Brexit has been a major concern for scholars. The RIA partnered with academies and learned societies across



Members of Council, 2017–18: Front row left to right: Seán Dineen, MRIA; Geraldine Butler, MRIA; Pat Shannon, MRIA; Peter Kennedy, PRIA; Sally Wheeler, MRIA; John McGilp, MRIA; Peter McHugh, MRIA. Centre row left to right: Eoin O'Reilly, MRIA; Mary Canning, MRIA; Andrew Carpenter, MRIA; Elizabeth Meehan, MRIA; Pat Guiry, MRIA; Imelda Maher, MRIA; Jane Grimson, MRIA. Back row left to right: Daniel Carey, MRIA; Bernadette Whelan, MRIA; Gerry McKenna, MRIA; William Spillane, MRIA. Council Members not present: Maria Baghrmian, MRIA; Ciarán Brady, MRIA; Tom Brazil, MRIA; Eunan O'Halpin, MRIA; Angret Simms, MRIA.

the UK and Ireland, including the British Academy and the Royal Society, to address matters of shared concern in the fields of research and innovation.

As an all-island body, the RIA is uniquely positioned to highlight the issues which impact higher education and research. The RIA Brexit Taskforce with two working groups, one in Northern Ireland, the other in the Republic, consulted widely and prepared a Brexit factsheet, which is enclosed in this Annual Review, quantifying the connections between Ireland and the UK. The Academy also published discussion papers in collaboration with the British Academy addressing issues related to the Border.

Since its foundation in 1785, the Academy has concerned itself both with sciences and with polite literature and antiquities. Over the last century and a half, it has been involved in a number of Irish language dictionary projects. A major milestone was reached this year in the Academy's Irish language project Foclóir Stairiúil na Gaeilge with the publication online of the Historical Corpus of the Irish Language 1600–1926. This searchable collection of 19 million words, collected from over 4,000 Irish language texts, allows users to search for the earliest use of written words and to read and download associated texts.

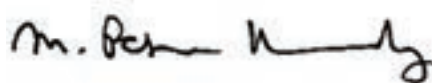
Thanks to diligent collecting and donation by members and friends over the years, the Academy's Library is an important resource for scholars, not only in early Irish manuscripts, but across a range of disciplines. We were delighted to exhibit selected manuscripts from the Academy's Jonathan Swift collection when we hosted a discourse to mark the 350th anniversary of his birth.

Ireland's cultural heritage is a crucial element of the island's attraction as a place to live,

work and visit. Archaeological sites, built heritage, the historic environment and museum collections are significant contributors to the creation of local and national identities for Ireland's citizens, attractors for tourists, and a source of connection and pride for the Irish diaspora. The Academy's 'Archaeology 2025' report provides a sustainable, strategic pathway towards understanding, enjoying and protecting the benefits of archaeology over the next decade.

The Academy also has an outstanding record as an academic and scholarly publisher. This year saw the publication of a number of important new works including Volume 6 of the *Excavations at Knowth* series, the Irish Historic Towns Atlas of Clontarf, and the fourth in our Judging series, *Judging Shaw*.

It has been an eventful year for me as president, being elected in March and then relocating from Cork to Dublin in July. Over the past months, I have had the honour and pleasure to work with a dedicated, hard-working, creative team in Academy House, enthusiastic members and supporters who give freely of their time and expertise, and a large network of national and international bodies that look to us for inspiration and evidence-based analysis and advice. It has been refreshing to learn of the esteem in which the Academy is held by so many, both nationally and internationally. Over many years, we have earned our reputation as a trusted, all-island body, known for excellence. We do great work, and our activities—from publishing to stimulating debate—are highly appreciated. Long may they continue.



LAURA MAHONEY, EXECUTIVE SECRETARY

It is fitting that during the decade of centenaries the issue of diversity is finally being seriously tackled across society. It is not before time. After all, the 1916 Proclamation was the first radical endorsement of equal rights for women in Irish society.

We in the Academy still have some way to go in this regard, but we made a strong start, helped not least by having the redoubtable Mary E. Daly as the first female president of the RIA (2014–17). Her view as president was simply that society is stronger with diversity than without, and we must strive in every way towards diversity in the Academy. The Women on Walls portraits was one such initiative to make women leaders visible. In 2018 those portraits will hang at the United Nations (UN) for the sixty-second session of the UN Commission for the Status of

Women, which is being chaired by Ireland's Permanent Representative to the UN, Geraldine Byrne Nason, MRIA.

So much still needs to be done. I am glad to report that in the last year procedures and policies within the Academy structures were reviewed and enhanced, and that we elected one of our highest ever percentages of female MRIsAs. I am also committing the Academy to greater levels of reporting and monitoring of our work to ensure this agenda remains a priority for us.

Diversity embraces a number of agendas—we are also conscious of ensuring greater levels of representation across institutions and disciplines, and ensuring we engage with the system as fully as resources allow. We devoted our annual 'grants roadshow' entirely to institutes of technology this year in order to positively enforce the message

that we are ‘open for business’ across the higher education sector, and to encourage as many researchers and academics as possible to engage with our work. I want to pay tribute to the diversity of talent amongst our members, committee members, peer reviews groups, editorial boards etc., all of whom work for the Academy *pro bono* and who bring immense expertise, diversity of opinion and speciality to our work.

In 2018, we will devise our next strategic plan, and I am very pleased that the first female president of our sister academy in Scotland, Dame Jocelyn Bell Burnell, Hon. MRIA—who completes her term with the Royal Society of Edinburgh in April—will join us as our chair. The plan will help the

Academy assess the gains and great strides it has made since 2013, and chart a course for even greater outcomes over the next five years.

A final word of personal thanks to honour our immediate past president Mary E. Daly. At events and meetings, we were often accused of ‘feminising’ the Academy—an accusation that I continue to take as a compliment. More importantly, Mary E. Daly was a committed servant of the Academy, a knowledgeable and generous chair and supportive and kind to all the staff. On behalf of all the Academy, I pass on our gratitude and deepest thanks.

Laura Mahoney

Mary E. Daly, MRIA, with Laura Mahoney, Executive Secretary



NEW MEMBERS

Paul Crowther is professor of philosophy emeritus at the National University of Ireland, Galway. His previous posts include reader in aesthetics and the history of art at Oxford University. He is internationally acclaimed for his publications in the area of aesthetics and he specialises in philosophy of the visual arts. He has published thirteen highly regarded monographs. His latest book *What Drawing and Painting Really Mean: The Phenomenology of Image and Gesture* was published in 2017 by Routledge.



John Cryan is professor of anatomy at University College Cork (UCC), where his neuroscience research team has made ground-breaking discoveries on stress and on the relationship between the gut and brain function. Among his many honours are UCC Researcher of the Year in 2012 and being named on the Thomson Reuters Highly Cited Researcher list in 2014. He is president-elect of the European Behavioural Pharmacology Society.



Anna Davies is professor of geography at Trinity College Dublin. She is a leading figure internationally within the sustainable consumption research community and is secretary to the European Platform on Sustainable Consumption and Production. Professor Davies was recently a recipient of a European Research Council Consolidator Award for a project entitled SHARECITY, the first global study of city-based food sharing, its practice and sustainability potential.



Robert Elgie is Paddy Moriarty Professor of government and international studies at Dublin City University. He was educated at Oriel College, Oxford and at the London School of Economics, and is a leading world expert on the subject of semi-presidentialism. He is the author of five monographs, two co-authored and nine edited and co-edited books. He is the lead co-editor of *The Oxford Handbook of French Politics* (OUP), published in 2016.



Noel Lowndes is professor of biochemistry at the National University of Ireland, Galway (NUIG). He studies mechanisms of genome stability that prevent cancer and has published widely in leading journals. As founding director of the Centre for Chromosome Biology he has made major contributions to the international reputation of biochemistry at NUIG and, more generally, Irish biomedical science. He is also a member of the European Molecular Biology Organization.



Jennifer McElwain holds the 1711 chair of botany at Trinity College Dublin. She is head of the botany department and an adjunct professor at Northwestern University, USA. In her research she has made major contributions to our understanding of the relationships between plants and their changing environment in the geological past.



Eucharía Meehan is registrar and CEO of the Dublin Institute for Advanced Studies. Prior to this she was director of the Irish Research Council from its foundation, working to enable and sustain a vibrant and creative research community in Ireland. She previously served as head of research and innovation and head of research programmes and capital investment at the Higher Education Authority, where she led the €1.2 billion PRTL investment in national research infrastructure and capacity.



Finola O’Kane Crimmins is associate professor of architecture at University College Dublin. Her ground-breaking publications on the history of Irish landscape design have been received with acclaim by architectural historians throughout the world. Her most recent book, *Ireland and the Picturesque: Design, Landscape Painting and Tourism, 1700–1840*, was the first Irish book honoured by the US Society of Architectural Historians, the pre-eminent scholarly body in the discipline.



Máire O'Neill, professor of information security at Queen's University Belfast, is the university's first female professor in electronic engineering. She is internationally renowned for her research in novel data security architectures and currently leads a major €3.8M EU project on quantum-safe cryptography. She has received many awards including the 2014 UK Royal Academy of Engineering silver medal and British Female Inventor of the Year 2007.



Aidan O'Sullivan is a professor of archaeology in University College Dublin. He has an international reputation in the field of wetland archaeology, and is a leading researcher on the archaeology of early medieval Ireland. Recent projects include the Early Medieval Archaeology Project, published in 2014 by the Royal Irish Academy. He has made an important contribution to the development of experimental archaeology in Ireland.



Barry O'Sullivan is a full professor at the Department of Computer Science and director of the Insight Centre for Data Analytics at University College Cork. As well as being the author of more than 250 peer-reviewed papers, he is a fellow of the European Association for Artificial Intelligence, has served as president of the Association for Constraint Programming and was Science Foundation Ireland Researcher of the Year in 2016.



Filipe Ribeiro de Meneses, professor of history at Maynooth University, is a historian of Portugal and Portuguese Africa. He followed his pioneering study of Portugal's involvement in the First World War with a political biography of Salazar, which has been acclaimed as the definitive study of the leading figure in modern Portuguese history. He was recently visiting professor at Brown University.



Fergus Shanahan is professor of medicine at University College Cork and director of the APC Microbiome Institute since its foundation in 2003. He has published over 500 peer-reviewed articles and received many international accolades for his work in gastrointestinal health, the microbiome and medical humanities. He was awarded a gold medal for achievements in life sciences by the RIA (2016).



Michael Viney is a journalist and environmentalist. In the 1960s, he wrote incisive and influential articles on social problems in Ireland. In 1977, he moved to Mayo and his focus changed to natural history. Since then he has entertained, informed and educated readers of *The Irish Times* through his weekly column 'Another life'. He has published ten books, including *Reflections on Another Life* (2015).



NEW HONORARY MEMBERS



William C. Campbell is a parasitologist, currently an associate of the Research Institute for Scientists Emeriti (RISE) at Drew University, New Jersey, USA, and formerly senior director, basic parasitology, Merck & Company, Inc. He and his team discovered and developed several pharmaceuticals, including ivermectin, which have had a positive influence on human and animal health. He shared the 2015 Nobel Prize in Physiology or Medicine.



Marianne Elliott, retired director of the Liverpool Institute of Irish Studies, transformed the study of 1798, bringing a transnational dimension to the history of the United Irishmen. She has written extensively on Irish history and religious identity, receiving many awards for her work. Particularly notable publications include her biography of Wolfe Tone. She is also a widely recognised public intellectual, and played an important part in the Northern Ireland peace process.



Scott Kelso holds the Creech Chair in science at Florida Atlantic University and is emeritus professor of computational neuroscience at Ulster University. He combines brain imaging, behavioural methods and dynamical modelling to understand how the brain is coordinated on multiple levels, from cells to cognition and social behaviour. He is Pierre de Fermat Laureate (2007) and a recent recipient of the Bernstein Prize (2011).



Alastair Minnis is Douglas Tracy Smith Professor of English at Yale University, having previously been professor at the University of York. He is a medievalist who has worked extensively on medieval literary theory, literature, philosophy and theology. His most recent books are *From Eden to Eternity: Creations of Paradise in the Later Middle Ages* (University of Pennsylvania Press, 2015) and *The Cambridge Introduction to Chaucer* (Cambridge, 2014).



Brendan O'Leary is Lauder Professor of political science at the University of Pennsylvania, and a major theorist of power sharing in deeply divided places. He helped design new structures of government in Northern Ireland, Somalia and the Kurdistan Region in Iraq. His publications include 23 books and 130 articles and chapters. He has received the first Juan Linz Prize of the International Political Science Association (2014) and the distinguished scholar prize of ENMISA (2017).



Sir Stephen O'Rahilly is professor of clinical biochemistry at the University of Cambridge where he co-directs the MRC Wellcome Trust Institute of Metabolic Science. He has made major contributions to understanding the molecular mechanisms underlying human disorders of energy balance and metabolism. His work first established that mutations in single genes could result in severe human obesity effected through disruption of central satiety mechanisms.

BEREAVEMENTS

Buttimer, Anne
Elected: 2000
Died: 15 July 2017

Byrne, Francis John
Elected: 1974
Died: 30 December 2017

Evans, Gwilym Owen
Elected: 1973
Died: 6 June 2017

Fanning, Ronan
Elected: 1989
Died: 18 January 2017

Hayes, Maurice N.
Elected: 1997
Died: 23 December 2017

Hayes, Michael Alphonsus
Elected: 1980
Died: 1 January 2017

Jäger, Helmut
Elected: 1990
Died: 14 April 2017
Honorary Member

Loeber, Rolf
Elected: 2008
Died: 6 November 2017
Honorary Member

McCarthy, Matthew F.
Elected: 1987
Died: 16 March 2017

McGarvey, John Joseph
Elected: 2012
Died: 27 October 2017

McKervey, Michael Anthony
Elected: 1983
Died: 24 June 2017

Morawetz, Cathleen Synge
Elected: 2000
Died: 11 August 2017
Honorary Member

Ó Corráin, Donnchadh
Elected: 1982
Died: 25 October 2017

Ó Riordáin, Antoine Breandán
Elected: 1975
Died: 3 May 2017

Scanlan, John Oliver (Séan)
Elected: 1977
Died: 2 May 2017

Stewart, J.A. Carson
Elected: 1993
Died: 30 December 2017

Walmsley, David George
Elected: 1988
Died: 30 September 2017

Whiston, James Francis
Elected: 2010
Died: 14 January 2017

Whitaker, Thomas Kenneth
Elected: 1975
Died: 9 January 2017

Woodman, Peter
Elected: 1988
Died: 24 January 2017

SEÁN SCANLAN: AN APPRECIATION

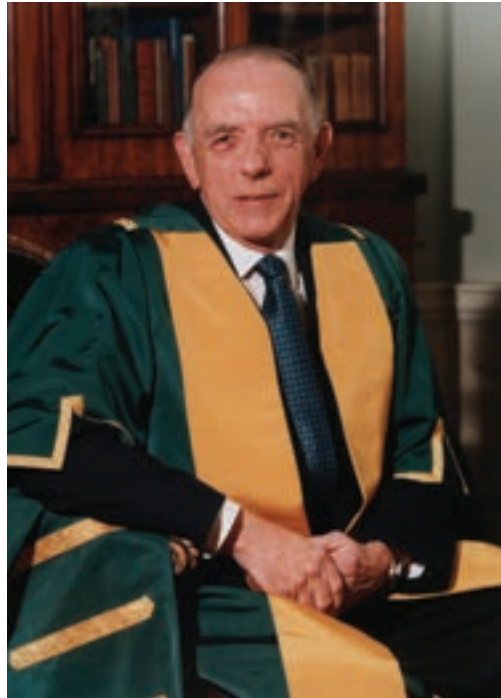
by Tom Brazil, MRIA

Seán Scanlan, President of the Royal Irish Academy (1993–6) died on 2 May 2017.

From his earliest years it was clear that Seán was a brilliant student. After secondary school in Dundalk he went to UCD, where he studied Electrical Engineering. After graduating in 1959, he worked for several years in the UK at Mullard, a leading industrial research laboratory, and received his PhD from the University of Leeds in 1966. He soon acquired a reputation as a formidable researcher, so much so that in 1968 he was appointed to the chair of electronic engineering in the University of Leeds at the age of just 31. Seán left Leeds in 1973 to return to Merrion Street as UCD's first professor of electronic engineering, and he later became head of the Department of Electronic and Electrical Engineering. He retired from these positions in 2002.

Seán's contributions to his discipline were enormous. He made many deep and fundamental contributions to circuit theory. To this day, Seán is numbered among the very top elite of circuit theorists worldwide, and he won many of the top awards within the field. He was also a leader in the international organisation of scientific research, founding major conferences and research journals that continue to thrive to this day.

Seán served as secretary and later president of the Royal Irish Academy, and he received the Academy Gold Medal for



Engineering Sciences in 2011. He was held in great esteem by his colleagues and repeatedly elected by the professors of UCD as one of their representatives on the governing authority. He served on the board of Telecom Éireann—including a period as acting chairman—from 1979 to 1996, a time that saw a transformation of Ireland's telecommunications infrastructure. More recently, he served as chairman of the .IE domain registry, a position from which he retired only a week before he died. To all of these, Seán applied his razor-sharp intellect, his wise judgement, his toughness and of course his absolute integrity.

T.K. WHITAKER: AN APPRECIATION

by Mary E. Daly, MRIA

T.K. (Ken) Whitaker, President of the Royal Irish Academy 1985–87, died on 9 January 2017, a month after his hundredth birthday.

Whitaker's remarkable career is a testimony to his outstanding abilities, and a reflection of the changes that have taken place in Irish society during his lifetime. Born in Rostrevor, County Down, when Ireland was still part of the United Kingdom, his family moved to Drogheda where he had a brilliant secondary school career. His family was unable to afford a university education, so he joined the Irish civil service as a clerical officer, rising rapidly through the ranks to become secretary of the Department of Finance in 1956, shortly before his fortieth birthday. He was the first head of that department not to have worked in the British civil service. Whitaker was appointed at a time when the Irish economy was undergoing a major crisis. Record levels of emigration reflected Ireland's failure to achieve the rising living standards and near-full employment that other western countries were enjoying, and it showed that the policies of self-sufficiency that had prevailed since the 1930s were not effective. The decision in 1958 to publish an official report, 'Economic Development', under Whitaker's name, (his original title was 'Has Ireland a Future?') was unprecedented, and this reflected the unique status that he had acquired among Irish public servants. His years as secretary of the Department of Finance



(1956–69) marked a major transition, when Ireland moved from isolation to active participation in international affairs. Ireland joined the United Nations, the World Bank and the International Monetary Fund; began to dismantle protectionist trading barriers and the legal barriers against foreign-owned industries, and applied for membership of the European Economic Community (EEC). Whitaker played a key role in all these developments: travelling to EEC member countries to convince them that Ireland was ready for membership; advising ministers and harnessing the efforts of his fellow civil servants to drive economic development and national progress.

When Taoiseach Seán Lemass determined to establish a better relationship with the government of Northern Ireland, Whitaker became the go-between, because he had come to know Northern Prime Minister Terence O'Neill (then Minister for Finance) at meetings of the World Bank. Whitaker accompanied Lemass on the first historic visit to Stormont in January 1965, and has provided the most graphic account of the excitement felt by all involved. When the crisis in Northern Ireland erupted in the summer of 1969, Whitaker, now governor of the Central Bank became one of Jack Lynch's most trusted advisors on Northern Ireland, and he retained that unofficial role for many years. In 1977 Jack Lynch appointed him to the Senate, an appointment that Garret FitzGerald renewed in 1981.

Whitaker's public service continued long after his retirement as governor of the Central Bank in 1975. He succeeded Éamon

de Valera as chancellor of the National University of Ireland in 1976, and held that position for twenty years. His role as chair of the governing authority of the Dublin Institute for Advanced Studies (1980–95) reflected a keen interest in the Irish language and Celtic studies. He was elected to the RIA in 1975, and served on its council 1976–8, and 1984–5. Given his national and international distinction, he was an obvious choice as president of the Academy during its bicentenary year. Ken Whitaker was a regular presence at stated meetings, even giving up his beloved salmon fishing to be present on 16 March. His last visit to Academy House was in November 2014, when he attended the launch of *Judging Cosgrave*, by Michael Laffan. In a popular poll held in 2001, Ken Whitaker was declared to be the greatest living Irishman—conclusive testimony that his impact went far beyond the public service and the Academy.



The four new artworks from the 'Pushing Boundaries' series may be viewed on the first-floor landing of Academy House

NEW ARTWORK FOR ACADEMY HOUSE

The Academy's newest artworks are of four female MRIs. The artworks hang on the first floor landing.

These four analogue cyanotype photographic prints were part of Becks Butler's photographic series entitled 'Pushing Boundaries'.

Anna Davies, MRIA, professor of geography, School of Natural Sciences, Trinity College Dublin

Catherine Godson, MRIA, professor of molecular medicine, Conway Institute of Biomolecular and Biomedical Research, University College Dublin

Celia Holland, MRIA, professor in parasitology, Department of Zoology, School of Natural Sciences, Trinity College Dublin

Kathleen James-Chakraborty, MRIA, professor of art history, School of Art History and Cultural Policy, University College Dublin

WE ADVISE

BREXIT TASKFORCE

In March 2017, the Academy established a high-level Brexit Taskforce to consider the likely implications of the United Kingdom's decision to exit from the European Union for higher education, research and innovation across the island of Ireland. The establishment of the taskforce coincided with the release of a joint statement signed by the Royal Irish Academy and UK Academies, following the triggering of Article 50.

The taskforce, co-chaired by Jane Ohlmeyer, MRIA, and Gerry McKenna, MRIA, formed two working groups to explore the sector-specific concerns and challenges arising from Brexit for the Irish and Northern Irish higher education systems.

During 2017, the Brexit Taskforce:

- surveyed the academic community, north and south, to gather their views

on the likely impacts and consequences of Brexit on higher education and research

- convened two high-level roundtable meetings of academics, researchers and policymakers from foreign affairs, enterprise and education in Dublin and Belfast
- published a Brexit factsheet illustrating the variety and depth of Ireland-UK higher education and research connections with an emphasis on student mobility
- published two final reports—'Research and Higher Education on the Island of Ireland After Brexit' and 'Higher Education and Research in Northern Ireland Post Brexit'—in November 2017.

The taskforce emphasised stakeholder engagement throughout the year, meeting with a broad range of interested parties including higher education institutions

Co-chairs of RIA Brexit Taskforce Jane Ohlmeyer, MRIA (left) and Gerry McKenna, MRIA (right) present the taskforce reports to EU Commissioner Tibor Navracsics (centre)



and public research organisations, Irish members of the European Parliament and political parties, research funders and enterprise agencies, the Department of Education and Skills, Department of Foreign Affairs and Trade, and the Higher Education Authority (HEA) President's Roundtable. Its reports and papers contributed to the development of the Brexit research strategy adopted by the Department of Education and Skills and this engagement will continue into 2018 as the Academy works to ensure that the voice and needs of research and higher education are understood and articulated throughout the Brexit process.

The co-chairs of the taskforce presented the RIA Brexit reports to the EU Commissioner for Education, Culture, Youth and Sport, Tibor Navracsics, on 13 December in Academy House.

The co-chairs outlined the findings of the taskforce to the commissioner and discussed their concerns regarding the potential impact of Brexit on higher education and research. The Minister for European Affairs, Helen McEntee, TD, also attended the meeting and discussed the Irish government's perspective on these issues. The co-chairs stressed the importance of ensuring that Brexit does not negatively impact higher education and research on the island of Ireland.

BREXIT TASKFORCE REPORT SUMMARIES

Ireland

The Academy's Ireland Brexit Taskforce analysed ongoing collaborative links

between Ireland and the United Kingdom's higher education and research systems. It concluded that Ireland's higher education system could benefit from the UK's forthcoming departure from the European Union, but only if action is taken to build higher education capacity, to invest in research infrastructures and facilities, and to prioritise foreign language acquisition across all education levels.

The taskforce calls for action in three strategic areas:

- to maintain the beneficial north-south, east-west axis between Ireland and Northern Ireland, and Ireland and Britain, in higher education and research
- to address underinvestment in higher education and research
- to align national research and internationalisation strategies to grow Ireland's international research connectivity and enhance its reputation as a hub for international talent

(Summarised from the RIA Brexit Taskforce Island of Ireland report, 'Research and Higher Education on the Island of Ireland after Brexit', November 2017)

Jane Ohlmeyer, MRIA, co-chair of the taskforce, commented that this is a unique opportunity to position Ireland as a global hub for research, education and talent. Appropriate investment now will increase Ireland's global competitiveness at a moment of great uncertainty and help to build a stable platform for future growth. This will also ensure that research and education continue to play an important part of the Peace Process.

Northern Ireland

The RIA Taskforce Northern Ireland report makes a number of recommendations designed to secure the capacity of the Northern Ireland higher education sector to attract and retain talent, promote research and development, stimulate economic growth and to protect the peace process. These include:

- the maintenance of an open border between Ireland and Northern Ireland, including the continued unimpeded cross-border flow of people, goods and services
- the continuance of the current fee status and eligibility for access to higher education in Ireland and the UK, and continued involvement in Erasmus+ programme
- enhanced support for all-island bodies such as the RIA and Universities Ireland to promote all-island and UK-Ireland collaboration
- continued access to EU structural funding programmes (European Regional Development Fund, European Social Fund, EU Programme for Peace and Reconciliation 2014–2020 and INTERREG). If such funding will be unavailable through EU/UK structures, it should be provided directly and ring-fenced by the UK government

- continued eligibility for involvement in EU framework research programmes
- the promotion of greater ambition and flexibility within the Northern Ireland higher education sector, including increased involvement of the Open University and the further education sector.
- the creation of a new Northern Ireland Tertiary Education Council to advise and help establish greater coordination, resource distribution and oversight within and between the higher education and further education sectors
- the development of joint north-south research centres, academic and research appointments and research studentships, to enhance the profile and international impact of the Northern Ireland universities
- the development of regional research-enhancement funding by UK Research and Innovation to expand Northern Ireland's research capability

(Summarised from the RIA Taskforce Northern Ireland report, 'Higher Education and Research in Northern Ireland Post-Brexit', November 2017)

Gerry McKenna, MRIA co-chair of the taskforce commented that EU structural funds have been crucial in building research





At the launch of the Archaeology 2025 policy document in May (l to r) Laura Mahoney, RIA; Rónán Swan, Transport Infrastructure Ireland; Dr Ann Lynch, National Monuments Service; Imelda Maher, MRIA

capacity and educational and professional opportunities in a region which has suffered 40 years of trauma and division.

After Brexit, the Northern Ireland higher education system will need to be more coordinated and agile within a challenging economic and fiscal environment. This will require strong political determination at the level of the UK and Irish governments and a future Northern Ireland Executive to actively promote and fund structures and initiatives in support of north-south and east-west collaborations.

BREXIT DISCUSSION PAPERS WITH THE BRITISH ACADEMY

The Royal Irish Academy-British Academy Brexit Briefings is a series of policy discussion papers aimed at highlighting and

considering key issues related to the UK's withdrawal from the EU within the context of UK-Ireland relations. This series is intended to raise awareness of the topics and questions that need consideration and/or responses as the UK negotiates its exit from EU.

The discussion papers include the history of the Irish land border, legal and political questions relating to the border today, rights in the context of the Good Friday Agreement and the common travel area. This is planned to be an ongoing series, with papers to be published on the implications of Brexit on the energy sector in Ireland and the UK, and on agriculture and biosecurity.

ARCHAEOLOGY 2025

The policy document 'Archaeology 2025: strategic pathways for archaeology in



The panel at the Oireachtas Briefing on Climate (l to r): Oisín Coghlan, Director of Friends of the Earth; Professor John Sweeney, MU; Dr Paul Nolan, ICHEC; Dr Laia Comas Bru, UCD; Dick Ahlstrom

Ireland’ was launched in May in Academy House. ‘Archaeology 2025’ offers a sustainable, strategic pathway towards understanding, enjoying and protecting the potential benefits of archaeology. These aims can be achieved by supporting excellence in archaeology at all levels, by valuing research and by engaging communities. A number of core recommendations are made in the document. The overarching recommendation is that proper resourcing and management of the state and private archaeological sectors are necessary, particularly if current population and economic growth continue. Critical shortcomings diminish the sectors’ ability to respond effectively to new programmes of planning and development.

CLIMATE CHANGE: INAUGURAL OIREACHTAS BRIEFING

The Academy, in conjunction with the Oireachtas library and research service, held an inaugural Oireachtas briefing

session entitled ‘Climate change: science, policy and the future for Ireland’ at the Houses of the Oireachtas on 5 July. The briefing was attended by Oireachtas members and staff. Dick Ahlstrom was the moderator and the panellists were Dr Laia Comas Bru, University College Dublin; Dr Paul Nolan, Irish Centre for High-End Computing; Professor John Sweeney, emeritus professor of geography, Maynooth University; Oisín Coghlan, director of Friends of the Earth.

EUROPEAN CODE OF CONDUCT FOR RESEARCH INTEGRITY

On 24 March 2017, the Federation of All European Academies (ALLEA) published the revised edition of the ‘European code of conduct for research integrity’. The revised code set out the principles of research integrity, addressing recent and emerging challenges emanating from technological development, open science, citizen science

and social media. This code will become the 'gold standard' for good research practice across the European Union, and describes how to prevent violations of research integrity. The lead author was Dr Maura Hiney, head of policy, evaluation and external relations at the Health Research Board, who served as the Academy's expert nominee to the ALLEA subgroup responsible for drafting the revised code.

VALUING DEDICATED STORAGE IN ELECTRICITY GRIDS

A high-level European Academies Science Advisory Council (EASAC) working group, led by the Royal Irish Academy, developed an independent report for EU policy makers on the value of dedicated storage in electricity grids from a scientific perspective. The report concludes that the value of storage is system-dependent and that it can contribute to balancing, reserves, capacity

and generation adequacy as well as congestion management. In electricity markets, however, dedicated storage must compete with flexible generation, demand response, interconnections and curtailment.

A briefing on the report was delivered at Academy House in September by Mark O'Malley, MRIA, who was the RIA expert nominee and chair of the EASAC energy storage working group.

LEADERS IN HIGHER EDUCATION ADDRESS

The 2017 Leaders in Higher Education Address was delivered by Professor Tuula Teeri, president-elect of the Royal Swedish Academy of Engineering Sciences and the first president of Aalto University, Finland. Her address was entitled 'The Finnish Higher Education Reform Towards an Innovative Society'.

Left to right: Peter McHugh, MRIA, chair of the Policy Oversight Group; H.E. Ms Jaana Teckenberg, Ambassador of Finland to Ireland; Mary Mitchell O'Connor, TD, Minister of State for Higher Education; Professor Tuula Teeri, president-elect of the Royal Swedish Academy of Engineering Sciences





In her address, Professor Teeri discussed her experience of managing large-scale reform in the Finnish higher education system, offering insights at a time when the Irish higher education system is also undergoing considerable change including the introduction of technological universities.

WOMEN IN ENGINEERING AND COMPUTER SCIENCE

The 'Fixing the leaky pipeline and retaining our talent' workshop brought together leaders from industry and academia, as well as representatives from funding agencies, industry bodies and other key stakeholders. The challenges involved in the retention and progression of early career women engineers and computer scientists in Ireland were explored. The workshop featured speakers giving an international as well as national perspective, and an open panel discussion engaged the audience to examine possible next steps and future actions.

OPERATIONALISING BEHAVIOUR CHANGE FOR CLIMATE CHANGE

Future Earth Ireland, the Irish national committee of Future Earth Global, convened a panel discussion entitled 'BEHAVE', which focussed on operationalising the behavioural changes needed to combat climate change. The main speakers were Dr Charlie Wilson, University of East Anglia and Dr Iain Watt, Forum for the Future UK. A series of lighting talks was then given by Karl Purcell, Sustainable Energy Authority of Ireland; Dr Jeanne Moore, National Economic and Social Council; Dr Simon O'Rafferty, Environmental Protection Agency and Dr Mike Hynes, National University of Ireland, Galway. Future Earth Ireland is

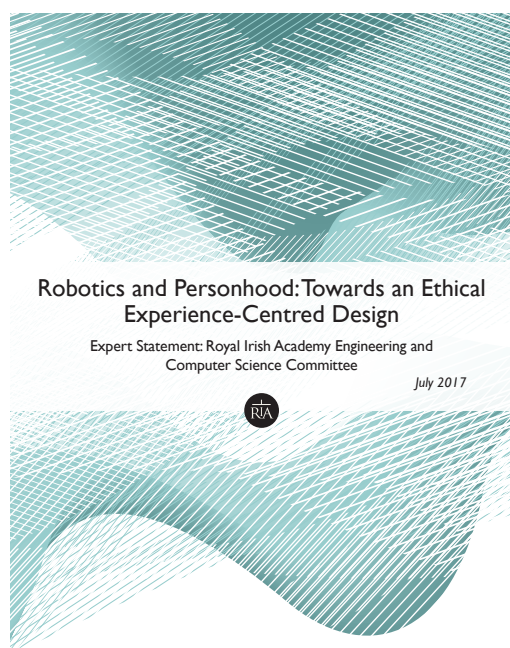
housed in the Academy and chaired by Anna Davies, MRIA.



EXPERT STATEMENTS

This year the multidisciplinary science committees authored three expert statements on:

- Irish storminess: what does the future hold?—Expert statement by the Climate Change and Environmental Sciences Committee
- The dynamics of housing markets and housing provision in Ireland—Expert statement by the Geosciences and Geographical Sciences Committee
- Robotics and personhood: towards an ethical experience-centred design—Expert statement by the Engineering and Computer Science Committee



WE EXPLORE

Dionbrolac Zeabair



Did be dume sanbioe cnuiof meime rencar no rinriodaet cuice
do leminin no do lozfoed, 7 read dlizer cimoed an trelize ar
foileine noctar firime rdaide na cuice 7 dail na foirne aitzizer
i cuir zo foilein rior. 7 do bpuz zur zabar mem ar forur perra q eirun ofairneir, do
mear ar tuir chd da lexiom 7 da heuzcomlan deznac, 7 zo aitzize an teuzcomie
ata aza dehad q ahaitezteonib mar ataid na renzail ata na reilb trillid 7 ceire
ceud bliagan o zabaltur zall aleaz mar son me zaoibiolib ata na reilb (beznae)ne
tun mile bliagan, oir ni bpril rdauide o rin alez da rzrioban hime nac az iamuid
lochta 7 coibeme do eabje do renzallib 7 do zcoibiolib bid. Bid ariazniri rin
an teird do bein Cambrensis, Spencer, Stanhurst, Hamner, Camden, Barklie, Mor
rison, Davis, 7 Champion, 7 zac muszall oile da rzrioban hime o rin amac, ionz zur
abe nor (beznae) an pmoimrollan do znid az rzrioban q eimoniaib. Ardo ion
urro ar nor don pmoimrollan an tamozbur aceen ran trainrad beie q folua
man az mtef 7 zan cromad q mionrzoed da mbi ran macae, na q blait da mbi
alubzort zemab nor, no lile hie id, f beie q fuaidiod zo tregman buallzmac
bo no ocrac capill nif, zo teid da ionfrit fein ionta. Murim don dmoing zu
ar m cromad q rubailcib na q robezraib na nuaral do renzallib 7 do zcoibiolib do
bi az aitzuzad eimoin me na lin na q na znioaneta do moindari, mata rzriobad
q accpodaet 7 q accpabad, 7 q ar ozbad q do mainrziocais, 7 q atuzadardre



Leabhar IV. Uimhir 3.
Vol. IV. No. 3.

Át-cliaic, máirta 29, 1902.
DUBLIN, MARCH 29, 1902.

Pinginn.
ONE PENNY.

CORPAS STAIRIÚIL NA GAELIGE

Chuireamar bailchríoch i 2017 ar Corpas Stairiúil na Gaeilge 1600–1926. Is féidir 19 milliún focal as timpeall 4,366 téacs a chuardach ar an suíomh seo, saor in aisce, agus na torthaí a léamh ina gcomhthéacs dílis féin chomh maith. Is féidir cuardach de réir leama, rud a thugann torthaí cuimsitheacha d'fhocal gan ach an t-aon téarma cuardaigh amháin a úsáid. Beidh an corpas seo mar fhoinse agus mar thobar don Fhoclóir Stairiúil féin; táimid ag dréachtú agus ag athbhreithniú iontrálacha lena aghaidh sin i láthair na huaire. The resource can be accessed at corpas.ria.ie

HISTORICAL DICTIONARY OF IRISH

2017 saw the Foclóir Stairiúil na Gaeilge team complete the online Corpas Stairiúil na Gaeilge 1600–1926, a fully searchable, freely available corpus comprising some 19 million words from some 4,366 texts written in Irish during the period. The digital

corpus is searchable by lemma; this innovative feature enables users to return multiple spellings of words from a single search term. The corpus will form the source material for the Historical Dictionary, for which sample entries are currently being drafted and reviewed. The resource can be accessed at corpas.ria.ie

IRISH SCRIPT ON SCREEN (ISOS)

We are at phase nineteen of our partnership with ISOS, which stretches back to 2001. Approximately 85 Irish manuscripts have been digitised to date, including the three works added during 2017: MSS E iv 3, the eighteenth-century Book of O'Loughlen, the subject of current research at National University of Ireland, Galway; 23 D 4, a seventeenth-century volume of scholastic verse; and 24 P 27, 16th–17th century, a copy of Saltair na Rann. The ISOS website, which is freely available, is an essential resource for Irish scholars with more than 4 million accesses per annum.

Left: A manuscript copy of Geoffrey Keating's *History of Ireland* (c. 1640). Above: Masthead of 'An Claidheamh Soluis'; examples of the texts available and searchable on the digital archive *Corpas Stairiúil na Gaeilge 1600–1926*. corpas.ria.ie

Clontarf

Colm Lennon

IRISH HISTORIC TOWNS ATLAS: DUBLIN SUBURBS



IHTA LAUNCHES ITS NEW DUBLIN SUBURB SERIES

The first instalment in the new Irish Historic Towns Atlases (IHTA) Dublin suburbs series—*Clontarf*, by Colm Lennon—was published in December 2017 in association with Dublin City Council. This series, edited by Colm Lennon and Jacinta Prunty, is linked closely to the Towns Atlas series, but has a new design and brings the project into new territory by exploring the suburban districts of Dublin up to approximately 1970.

Below: Dublin from railway bridge at Hollybrook, c. 1850, by Edward Radclyffe (National Library of Ireland), taken from *Clontarf* by Colm Lennon.



IRISH HISTORIC TOWNS ATLASES ONLINE

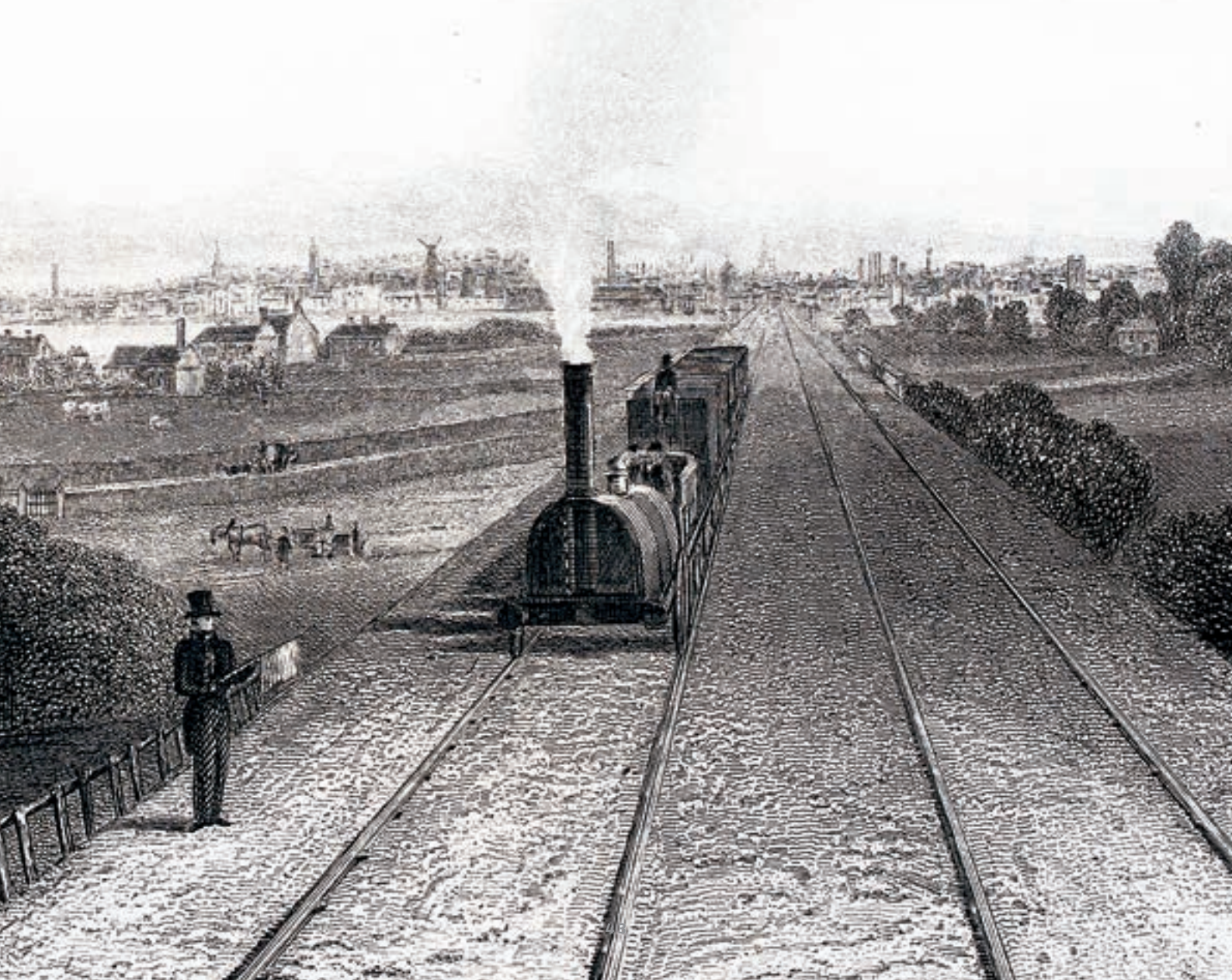
2017 saw the completion of the IHTA online project, which includes select contents from the first 25 published atlases (in association with Eneclann). The towns were released in thematic batches—from ‘towns of monastic origin’ to ‘towns in the nineteenth century’—and were accompanied by short essays by atlas authors and editors.

The Digital Atlas of Galway, an interactive map that presents historic map layers and sites from IHTA, no. 28, *Galway/Gaillimh*, was also launched in 2017. The digital atlas is part of ongoing work using Geographical Information Systems (GIS) in the creation and dissemination of IHTA projects. Both

IHTA online and the Digital Atlas of Galway are available through the Academy website.

MAPPING TOWNS THROUGH TIME

In May 2017, the IHTA held its annual seminar. For the second year running the perspective was comparison between Irish and British towns, this time focusing on the theme of mapping in the past, present and future (in association with the British Historic Towns Atlas/Historic Towns Trust and the Irish Walled Towns Network). Professor Roger Kain, FBA, School of Advanced Studies, University of London, gave the keynote lecture on ‘Mapping towns through time’.



DRI ONLINE COLLECTIONS

The Digital Repository of Ireland (DRI) published a number of collections online this year:

- The Irish women at work oral history project, which captures the working lives of women (1930–60) living in three counties of Ireland (Cork, Kerry and Limerick).
- The Transport Infrastructure of Ireland digital heritage collections, which gather together more than 1,500 archaeological excavation reports, commissioned by the National Roads Authority and the Railway Procurement Agency (2001–16).
- The ‘Growing up in Ireland’ longitudinal study of children and youth in Ireland, which looks at the status of two representative samples of children in Ireland and how they are developing in the current social, economic and cultural environment. The online content includes reports of the qualitative interviews that supplemented the main survey data collection of the first waves of the child and infant cohorts.



Catherine Walshe, engineer (1950s), from Irish women at work collection, Digital Repository of Ireland. Image rights: University College Cork

Excavation of a Middle Bronze Age house on the M8 Fermoy–Mitchelstown motorway in County Cork. (Photo: John Sunderland, courtesy of Transport Infrastructure Ireland)



THE ATLANTIC PHILANTHROPIES

The DRI began its work on housing a digital archive of the Atlantic Philanthropies' granting activities in Ireland. The digital archive will make select research collections about the foundation's approaches and impact across Ireland available online and it will build upon the Atlantic Philanthropies' archive housed at Cornell University Library's division of rare and manuscript collections in Ithaca, New York.

OVER 10,000 LIVES IN THE DICTIONARY OF IRISH BIOGRAPHY

During 2017 the online Dictionary of Irish Biography (DIB) has continued to expand to include biographies of notable figures who died in the years 2009–11, bringing to

well over 10,000 the total number of lives covered in the dictionary. The project's twice-yearly updates have included figures who have contributed to Irish life in many different ways, such as Cardinal Cahal Daly; the scholar and critic Breandán Ó Buachalla; the author and editor David Marcus; the cardiac surgeon and commentator Maurice Neligan; the rugby player Moss Keane; the architectural historian Maurice Craig; the stained glass artist Helen Moloney; the restaurateur and radical political activist Margaret Gaj; the historian R.B. McDowell; the physicist Dan Bradley; and the politicians Brian Lenihan, Alice Glenn and Oliver Napier.

'MISSING PERSONS' UPDATE

As part of the DIB's continued efforts to bring to light significant figures who

Brian Lenihan, whose biography was one of those added recently to the DIB online



previously have been neglected, it published online another 'Missing Persons' update. This is the third such update added to the online DIB, adding to the 157 'Missing Persons' already published, and includes figures such as the actress, singer and broadcaster Agnes Bernelle; the novelist and playwright Una Troy; the actor Patrick Magee, a notable interpreter of the plays of Samuel Beckett, who also had significant roles in Stanley Kubrick's *A Clockwork Orange* (1971) and *Barry Lyndon* (1975); and the little-known U Dhammaloka (born Laurence O'Rourke in Dublin in 1856), one of the first westerners to be ordained as a Buddhist monk.

IRELAND-JAPAN 60: SIXTY YEARS OF IRISH- JAPANESE DIPLOMATIC RELATIONS

2017 marked the 60th anniversary of the 1957 opening of formal diplomatic relations between Ireland and Japan. Throughout 2017 Dr Michael Kennedy and Dr Eoin Kinsella, with the assistance of the diplomatic archives of the Japanese Foreign Ministry, undertook important research in the archives of the Department of Foreign Affairs and Trade to tell the story of the diplomatic, economic and cultural relationship between Ireland and Japan over the last sixty years. They found a rich history dating back not just to 1957,

アイルランドと日本、1957～2017年 外交・経済・文化による結びつき



but to almost a century earlier when Irish engineers, architects, soldiers and academics played a part in the Meiji Restoration and assisted Japan's modernisation and economic growth. Their research was published in late 2017 in English and Japanese as *Ireland and Japan, 1957–2017: diplomatic, economic and cultural connections*.

DICTIONARY OF MEDIEVAL LATIN FROM CELTIC SOURCES (DMLCS)

As the second volume of the DMLCS
Non-Classical Lexicon of Celtic Latinity

progresses steadily towards completion, the dictionary team is undergoing some changes: Angela Malthouse recently retired after a quarter century of sterling service, and Dr Joseph Flahive has succeeded her as project assistant. Likewise, IRC-funded research fellow Dr Elizabeth Dawson departed for a post in Queen's University, Belfast, but a further such fellowship has been gained by Dr Sarah Corrigan of National University of Ireland, Galway.

Below: Members of the DMLCS team: (l-r) Drs Joseph Flahive, Sarah Corrigan and Anthony Harvey



WE ENGAGE

DISCOURSES

Every year the Academy organises six public talks called 'Discourses'. This series is the oldest and most prestigious series of talks in Ireland and has included contributions by many great thinkers from Ireland and the rest of the world.

The Academy discourse programme for September 2017–20 is being supported by Mason Hayes & Curran.

- **Mary E. Daly**, PRIA—Presidential Discourse. 'Higher education and Irish society: from independence to today' 20 February 2017
- **Professor Nils Christian Stenseth** 'A unified biology during the 21st century and its impact on our lives and our environment' 30 March 2017
- **Professor James Woolley** 'The circulation of verse in Jonathan Swift's Dublin' 8 June 2017
- **Mary McAleese**, MRIA 'The Holy See and the 1989 UN Convention on the Rights of the Child: is a once-promising journey now going backward?' 12 September 2017
- **Sir Stephen O'Rahilly**, Hon. MRIA 'Causes and consequences of obesity: lessons from human genetics' 13 November 2017
- **William C. Campbell**, Hon. MRIA 'Finding medication: river blindness, ivermectin and beyond' 29 November 2017

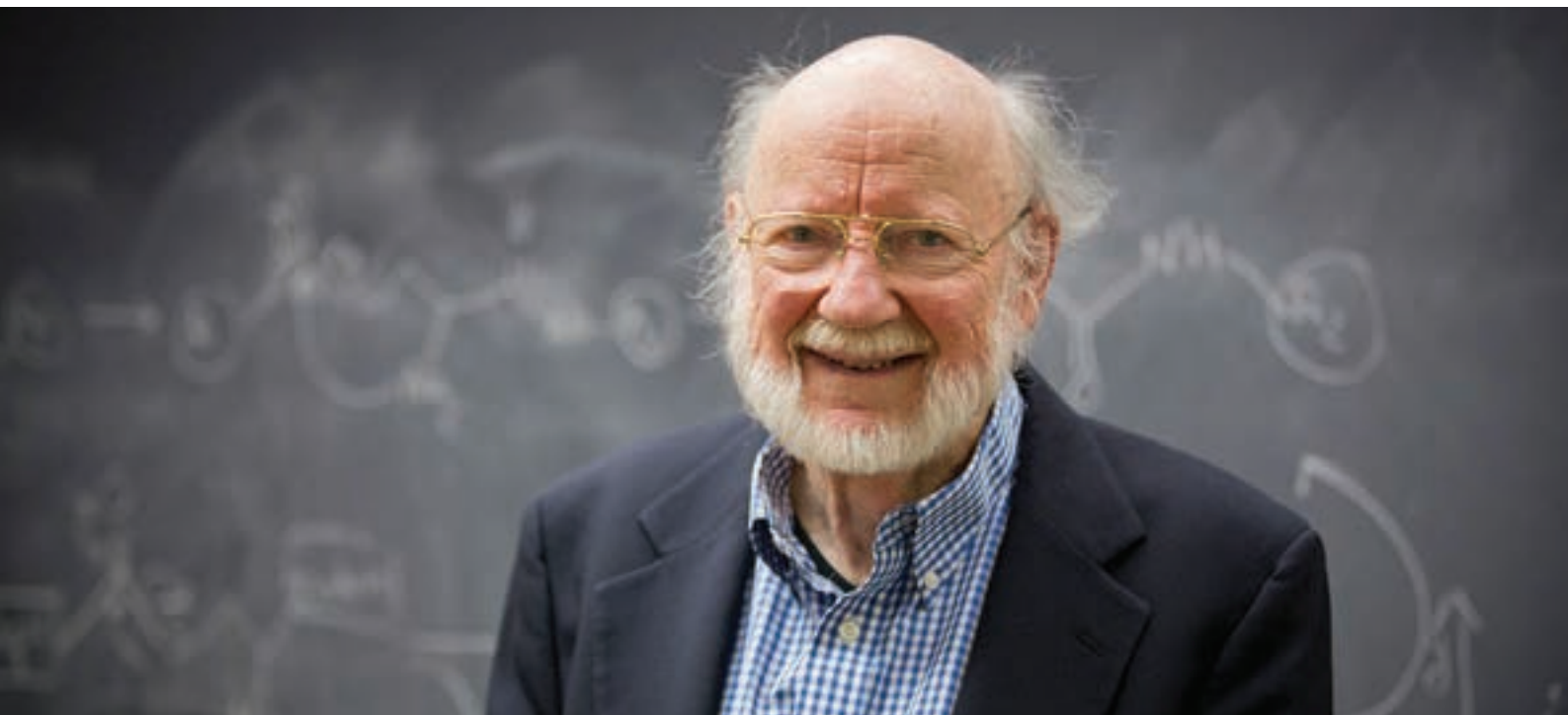
2018 DISCOURSE PROGRAMME INCLUDES:

- **Catherine Day**, MRIA, former Secretary-General of the European Commission 10 January 2018
- **Alvin Jackson**, Hon. MRIA 6 March 2018
- **Professor Sir Venki Ramakrishnan**, FRS, the President of the Royal Society 18 June 2018
- **Frances Fitzgerald, TD; Joan Burton, TD; Mary Coughlan and Mary Harney** 12 December 2018
- **Máire O'Neill**, MRIA, will present a discourse in Autumn 2018

SPONSORED BY



Opposite: Mary McAleese, MRIA; William C. Campbell, Hon. MRIA; Catherine Day, MRIA



MASTERCLASSES

The Academy's masterclasses have been running since 2012. These informal special events bring together early career researchers with leaders in their field. The Academy organises approximately ten masterclasses each year, covering disciplines in the sciences, humanities and social sciences. The objective of the masterclass is to engage and motivate early-career researchers and forge relationships and networks.

Since the series started, over 400 researchers have participated. Participants are usually postgraduate students, PhD students or post-doctoral researchers and are nominated by their third level institutions.

The 2017 masterclass series was given by:

- **Professor Nils Christian Stenseth**, University of Oslo - 30 March 2017
- **Dr Vivienne Ming**, Socos Learning LLC, USA - 29 June 2017, in association with Accenture
- **Mary McAleese**, MRIA, Pontifical Gregorian University - 12 September 2017

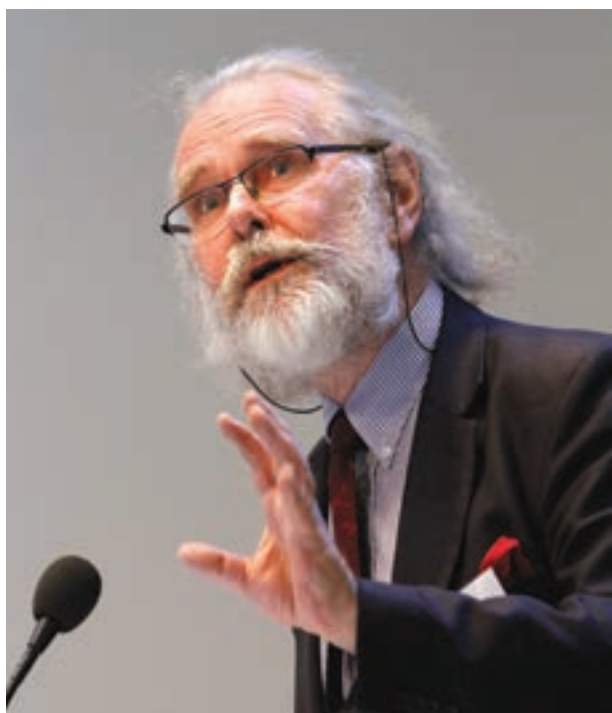
- **Clair Wills**, Hon. MRIA, Princeton University - 4 November 2017
- **Professor Chris Rapley CBE**, University College London - 26 October 2017
- **Fergus Shanahan**, MRIA, Academy Gold Medallist, University College Cork - 2 November 2017
- **Sir Stephen O'Rahilly**, Hon. MRIA, Cambridge University - 13 November 2017
- **Louis Cullen**, MRIA, Academy Gold Medallist, Trinity College Dublin - 15 November 2017
- **Professor Noah Finkelstein**, University Colorado Boulder - 22 November 2017

DATA SUMMIT

The Engineering and Computer Science Committee organised a panel at the government's Data Summit, 'What the data society means for you'. The summit brought together a range of national and international stakeholders to discuss some of the key issues arising from the ever-expanding role of data in modern life.

The panel discussion was on the topic of

Professor Nils Christian Stenseth, University of Oslo. Dr Vivienne Ming, Socos Learning LLC, USA





Man Booker Prize-winner **ALAN
HOLLINGHURST**

in conversation with
CARLO GÉBLER

'Research in data science: public vs privately funded'. The panel comprised Dr Karen Church, senior manager product analytics, Intercom; Orla Feely, MRIA, vice president for research, innovation and impact, University College Dublin (UCD); Dr John Ghent, CEO, Sytorus; Barry Smyth, MRIA, chair of department of computer science, UCD and a director, Insight Centre for Data Analytics. Their discussion was chaired by the broadcaster Jonathan McCrea.

Dr Brian Mac Namee, UCD, delivered the final lecture in the committee's Engineering and Computer Science lecture series 2016–17 at the Data Summit; his lecture was entitled 'Show me your data and I'll tell you who you are', sponsored by Hewlett Packard Enterprise.

HENRY JAMES: 'THE BATTERED TECHNICIAN'

In January Man Booker prize-winning author Alan Hollinghurst was in conversation with Carlo Gébler on the subject of Henry James as critic, with humorous and reflective readings from James's letters and diary entries.

HUMAN RIGHTS: CULTURE AND CRITIQUE

'Human Rights: culture and critique' was a two-part conference series spanning the social sciences and the humanities. The keynote speaker at the social sciences conference was Conor Gearty, Hon. MRIA, who asked the question 'Is the era of human rights drawing to a close?'. The conference was followed by the European premiere screening of the documentary 'It stays with you: use of force by UN peacekeepers in Haiti', directed by Social Sciences Committee Member Siobhan Wills, Ulster University, and Cahal McLaughlin, Queen's University Belfast, followed by a panel discussion.

Professor Samuel Moyn, Yale University, was the keynote speaker for the humanities conference on human rights. Professor Moyn's keynote addressed the topic of 'Ireland and the history of dignity'. Conference topics included digital culture, gender identity and Australian Aborigine peoples' rights.



Illustration from an 1805 edition of *Gulliver's Travels*. By courtesy of private owner.

BOOK OF UÍ MHAINE

This was the third conference in the Library's series on the major vellums written in the late fourteenth century for Muircheartach Ó Ceallaigh, Lord-Bishop of Clonfert. The Book of Uí Mhaine is a treasure trove of traditional Irish history and learning. New research on the texts contained in the Book of Uí Mhaine/Leabhar Ua Maine as well as the history of the book and those connected with it, particularly the O'Kelly family of Uí Mhaine in South Galway, was presented at this major conference.

CHARLES HALIDAY EXHIBITION

'Dublin documents: highlights from Charles Haliday's manuscript collection' commemorated the 150th anniversary of the Haliday donation, which encompasses the renowned eponymous pamphlet collection and also comprises a significant medieval and later socio-political resource in manuscript

format. The exhibition highlighted resources for Dublin history, including the Deeds of the Guild of St Anne, the subject of a fascinating lecture 'Charitable property: the manuscripts of St Anne's Guild, Dublin' by Colm Lennon, MRIA (1 March).

SWIFT 350

An exhibition "'To please and to reform mankind": a life of protest: Jonathan Swift, 1667–1745' was organised to coincide with the Swift 350 international conference at Trinity College Dublin, which took place from 7–9 June. The exhibition focused on Swift, his campaigns against injustice in Ireland and his highly satirical, graphic depictions of the plight of the Irish.

Andrew Carpenter, MRIA, David Dickson, MRIA, and Dr Aileen Douglas delivered lectures on the themes of 'Swift and books,' 'Swift's Dublin' and 'Women in the writings of Jonathan Swift'.

LAUNCH OF 2018 SUFFRAGE CENTENARY CONFERENCE

A conference to mark the centenary of female suffrage and the extension of male suffrage, 'Representation, gender and politics: past and present', will be held on 1 February 2018.

The conference, which is produced in partnership with the Houses of the Oireachtas, was launched at the Houses of the Oireachtas on 21 November 2017.

Image by Norman Jacobsen (1885–1944) courtesy of the National Women's History Project.





Above: Gabriel Beranger's view of Clonskeagh village (late 18th century). RIA MS 3 C 32, p.4. (detail)

BERANGER'S IRELAND

The Academy's collection of antiquarian drawings is one of the finest in Ireland and this exhibition contained examples of many buildings which are no longer extant. The title of the exhibition was 'Beranger's Ireland: eighteenth-century watercolours by Gabriel Beranger, c. 1729-1817'. Beranger, a Dutch artist who settled in Ireland and ran a printshop and artist's warehouse in Dublin, sketched ancient monuments throughout Ireland and left an important

record of Connacht antiquities, completed with Italian architect Bigari.

HARP LECTURE AND RECITAL

Sisters Mary Louise and Teresa O'Donnell delivered a lecture on the topic 'George IV, Thomas Moore and the Egans of Dawson Street, Dublin' to an appreciative audience who were enthralled by the story of John Egan's invention—the portable Irish harp.

The lecture was followed by a harp recital featuring music composed by Egan's son, Charles, and by Thomas Moore, whose library the Academy holds. Moore's Egan harp, a proud Academy possession, was on display on the day.

LIBRARY BLOG

The Library's blog post featured the small collection of manuscript poems sent by Meath poet, Francis Ledwidge, in 1917, to Lil Fogarty, later Bean Uí Thuama. Ledwidge was killed on the first day of the Battle of Passchendaele, 31 July 1917. The poem 'O'Connell Street'—a reflection on the 1916 Rising—is included in the collection (RIA MS 23 K 44). Other blog posts during the year focussed on aspects of the Halyday manuscript collection, RTÉ's commemorative programming marking the golden jubilee of the 1916 Easter Rising (from the K.B. Nowlan collection), Irish-language matters, scholars connected with the Irish manuscript collections and much more.



DARWIN ON DARWIN

In July, Charles Darwin's great-great-grandson gave a talk in Academy House about his famous forbear. Chris Darwin told the story of Charles and Emma Darwin (née Wedgwood) with intriguing personal insights. A small display was exhibited,

including Darwin's letter to botanist A.G. More, on the subject of orchids.

WOMEN ON WALLS WINS AWARDS

The Royal Irish Academy, in partnership with Accenture, won the Allianz Business to Arts Award 2017 for Best Large Sponsorship (over €50,000) for Women on Walls.

Blaise Smith's portrait of eight female scientists won the Ireland-U.S. Council/Irish Arts Review Portraiture Award 2017.

Women on Walls was also the winner in the Best Arts and Cultural sponsorship category of the Irish Sponsorship Awards 2017.

The Women on Walls campaign aimed to make women leaders more visible and to inspire the next generation of women, especially in the area of STEM. Paintings were commissioned through an open competition in March 2016 from Vera Klute and Blaise Smith.



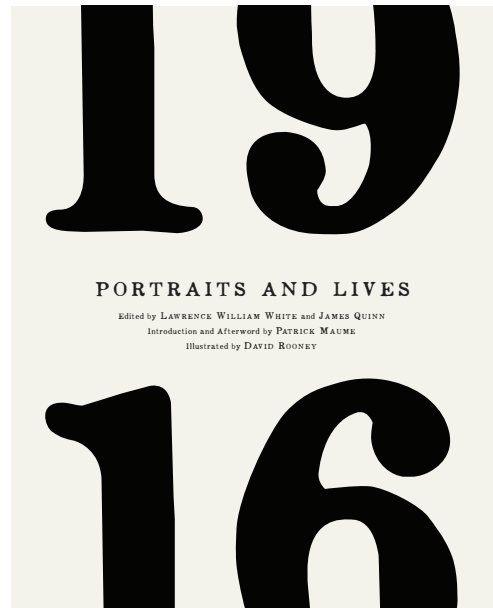


Professor Gretchen Bakke, McGill University

THE GRID AND ENERGY TRANSITION

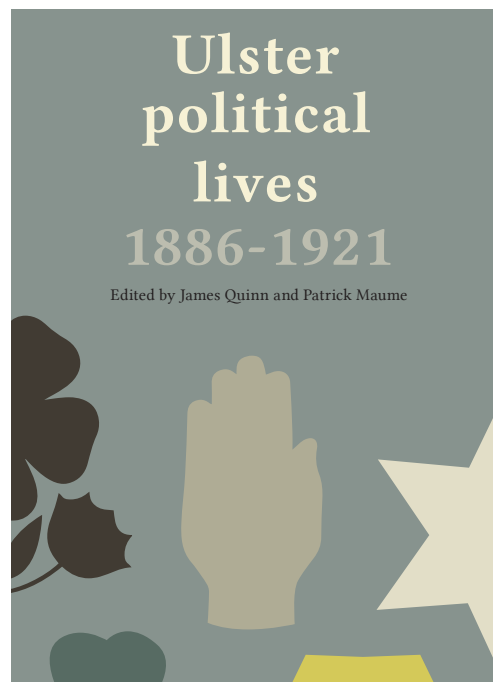
Professor Gretchen Bakke, Department of Anthropology, McGill University, Montreal, delivered a lecture about the quirky, messy human side of the electricity grid as critical to the ways in which the infrastructure is now being conceptualised and redesigned for the 21st century. She considered the particular creativities (and absurdities) of the energy transition in the US case, touching on the history of the development of the American electricity grid as a technological system, a business model, a regulatory artefact and the material accretion of very particular cultural values.

This event was organised in conjunction with the Electricity Research Centre, University College Dublin, to coincide with the launch of the latest EASAC policy report, 'Valuing dedicated storage in electricity grids'.



DICTIONARY OF IRISH BIOGRAPHY IN IRISH SCHOOLS

Two publications developed from the Dictionary of Irish Biography (DIB); *1916: Portraits and Lives*, and *Ulster Political Lives, 1886–1921*, were distributed to secondary schools in the Republic of Ireland during 2017 as part of the Academy's and the State's contribution to the Decade of Centenaries.





John Bell. Photo © Peter Menzel/menzelphoto.com

14TH BIENNIAL CONFERENCE OF EDITORS OF DIPLOMATIC DOCUMENTS

Dr Kate O'Malley and Dr Michael Kennedy represented Documents on Irish Foreign Policy (DIFP) at the 14th Biennial Conference of Editors of Diplomatic Documents, which was hosted by the Foreign and Commonwealth Office in Lancaster House in London. The objective of the conference was to bring together those who edited diplomatic documents with their end users to develop mutual engagement. The conference is the primary

international gathering of the 25 states and international institutions currently editing and publishing diplomatic documents. The DIFP has been attending the biennial conference of editors since 1998.

JOHN BELL DAY 2017

The annual John Bell Day event was held in Riddel Hall, Belfast, on 6 November and the John Bell Day lecture was given by Professor Antonio Acin, Institute of Photonic Sciences, Barcelona. The title of his talk was 'Quantum information and communications: the legacy of John Bell'.



JUDGING SHAW

George Bernard Shaw was the most famous Irishman in the world for much of his life—yet, for many, he is now largely forgotten. If he is remembered at all in popular culture, it is as the author of *Pygmalion*, the original play on which *My Fair Lady* was based. The Shaw Day festival—a new celebration of all things Shavian—aimed to change that. The festival, which was co-ordinated by the Royal Irish Academy, marked the anniversary of Shaw's death on 2 November 1950. The festival was planned around the publication of *Judging Shaw*, by Fintan O'Toole. This work is the fourth book in the Royal Irish Academy's award-winning 'Judging' series. As part of the festival, Academy House was

brought back to Shaw's time with a production of 'Judging Shaw' by ANU Productions in collaboration with writer Colin Murphy. The Little Museum of Dublin and National University of Ireland, Galway collaborated on exhibitions, which will tour to the UK and US in 2018, and RTÉ broadcast *My Astonishing Self*, a new documentary on Shaw presented by Gabriel Byrne. Supported by the Department of Culture, Heritage and the Gaeltacht.

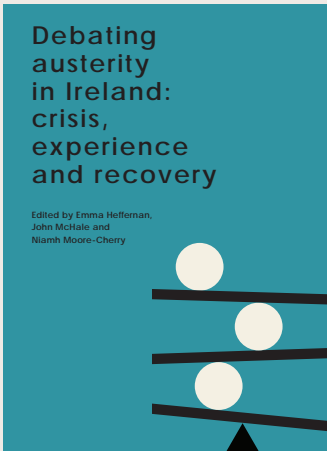


THE PASSAGE TOMB ARCHAEOLOGY OF THE GREAT MOUND AT KNOWTH

The excavations undertaken at Knowth have contributed greatly to our knowledge of Irish passage tombs, most notably the sequence and methodology of tomb construction. These monuments are widely recognised as outstanding architectural achievements, and the great mound at Knowth is a fine example that would have required considerable 'wealth' of time, people, technical expertise and craftsmanship to build. The people who built Knowth may have been regarded as deriving their power from a privileged connection with the spiritual world. This volume 6 in the

Excavations at Knowth series, was launched by Chief Whip and Minister of State Joe McHugh, TD on 6 December. Author George Eogan and archaeological editor Kerri Cleary dedicated the book to all those—workmen, students, archaeologists and specialists—who contributed so generously to the Knowth project over the past 55 years. In 2018 the Academy and the Department of Culture, Heritage and the Gaeltacht in association with the OPW intend to make all six volumes available online free of charge to encourage further scholarship on this UNESCO World Heritage site.





DEBATING AUSTERITY IN IRELAND: CRISIS, EXPERIENCE AND RECOVERY

Debating Austerity was edited by Emma Heffernan, John McHale and Niamh Moore Cherry, on behalf of the Social Sciences Committee of the Academy. Patrick Honohan, writing in the foreword, states ‘the policy priority in the crisis years had to be the restoring of confidence ... to maximise the continued flow of financial resources on a sustainable basis in order to avoid even more severe austerity. But this need not have been at the expense of realistic communication and public debate on what could be attainable on a lasting basis post-crisis. This volume provides an excellent foundation for filling that void and helping form a longer-term vision for a post-austerity Ireland.’

Debating Austerity was launched at the panel discussion ‘Austerity in retrospect: too much, too little or just right?’, which took place in Academy House on 29 September. Mary Murphy (Maynooth University) commented in her review in the *Irish Journal of Sociology*: ‘[*Debating Austerity*] achieves what it set out to do. There is a great deal of plurality in the debate, with diverse views and a good interplay between 16, high-quality, concise and short contributions and a clear introduction and conclusion.’

The book cover has a light yellow background. A purple triangle is in the top right corner. The title 'THE SEARCH FOR PEACE IN NORTHERN IRELAND' is in black, and 'SUNNINGDALE' is in purple. The author's name 'NOEL DORR' is in black at the bottom.

THE SEARCH FOR PEACE IN NORTHERN IRELAND SUNNINGDALE NOEL DORR

SUNNINGDALE: THE SEARCH FOR PEACE IN NORTHERN IRELAND

‘In a major new book on Anglo-Irish relations Noel Dorr, MRIA, former secretary general of the Department of Foreign Affairs, lays the primary responsibility for the failure of the Sunningdale Agreement on Northern loyalists and the British government, but he suggests the Irish side played its part in undermining its prospects. The agreement, signed at Sunningdale Park in Berkshire, England, in December 1973, was a power-sharing deal between the Ulster Unionist Party and the Social Democratic and Labour Party (SDLP). It presaged the Belfast Agreement, which was famously termed by former SDLP deputy leader Seamus Mallon as ‘Sunningdale for slow learners’. Dorr’s book, entitled *Sunningdale: The Search for Peace in Northern Ireland*, is published by the Royal Irish Academy and events reviewing Sunningdale and the Belfast Agreement, now in its 20th year, will continue in 2018.’

Extracted from a piece written for *The Irish Times* by Stephen Collins to mark its publication on 22 November 2017.

PROCEEDINGS OF THE ROYAL IRISH ACADEMY

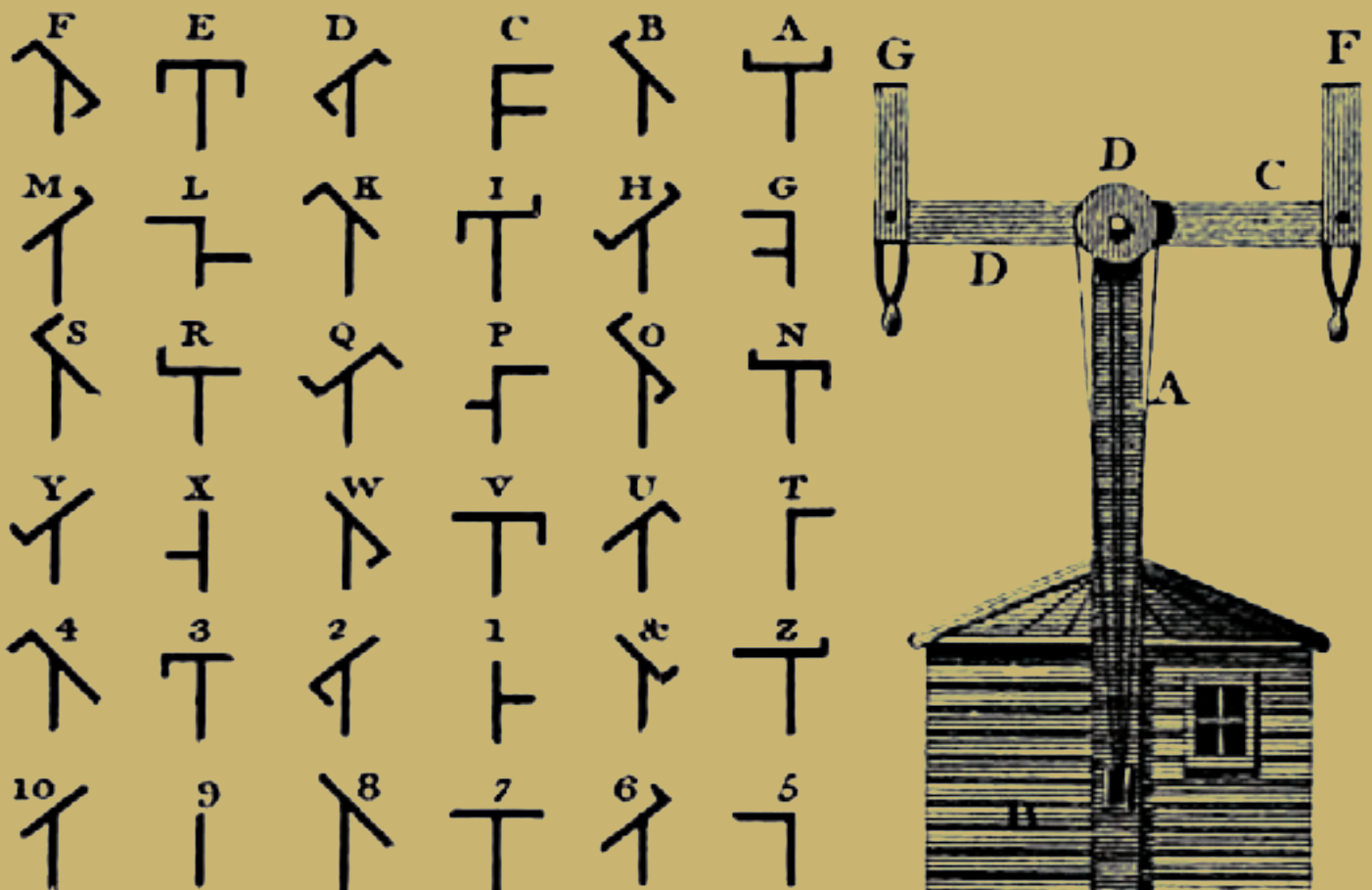
In 1804 Richard Lovell Edgeworth, MRIA, and father of Maria Edgeworth, experimented with transmitting telegraphic messages from Dublin to Galway. Claims of rapid transmission speeds appeared in national newspapers and great excitement was provoked by this marvel of modern science. He fashioned his invention of the optical telegraph as a military communication device.

'R.L. Edgeworth and optical telegraphy in Ireland c. 1790–1805', by Adrian Kirwan, explores the many spheres of influence that inventors had to infiltrate and persuade in order to secure the patronage needed to make their inventions successful. This paper appears in volume 117C of *Proceedings of the Royal Irish Academy*, one of the Academy's six research journals.



The Academy is committed to the dissemination of research and encourages scholars to submit articles to the journals for publication in 2018.

Below: Chappe telegraph. Abraham Rees, *The cyclopaedia; or, universal dictionary of arts, sciences, and literature* (39 vols, London, 1820), iv.



JOURNALS

The Royal Irish Academy is one of the longest-established publishers in Ireland. We have been publishing scholarly articles since 1787 and we currently publish six journals. You can subscribe to our journals at www.ria.ie/journals and read them both in print

and online. We welcome submissions and we particularly encourage manuscripts from early stage researchers and PhD students. If you wish to submit an article, check the 'Instructions to Authors' on each individual journal's webpage. Visit www.ria.ie



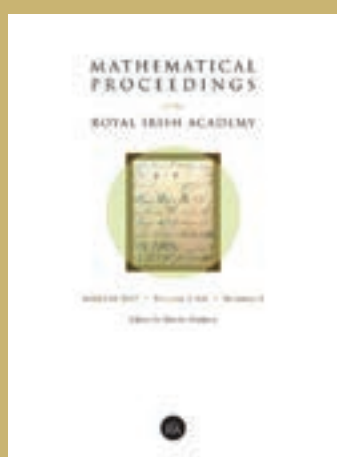
ÉRIU
Edited by
Liam Breatnach, MRIA
and Damian McManus, MRIA



**IRISH STUDIES IN
INTERNATIONAL
AFFAIRS**
Edited by
Professor John Doyle



**IRISH JOURNAL
OF EARTH
SCIENCES**
Edited by Dr Matthew
A. Parkes, Dr John Murray
and Dr Patrick Wyse Jackson



**MATHEMATICAL
PROCEEDINGS
OF THE ROYAL
IRISH ACADEMY**
Edited by
Martin Mathieu, MRIA



**PROCEEDINGS
OF THE RIA**
Edited by James Kelly, MRIA
and Dr Tomás Ó Carragáin



**BIOLOGY AND
ENVIRONMENT**
Edited by
Professor Bruce Osborne

WE AWARD AND SUPPORT



GOLD MEDALS

The 2016 Academy Gold Medals were awarded to Fergus Shanahan, MRIA, and Louis Cullen, MRIA, by Richard Bruton, TD, Minister for Education and Skills.

The medals, sponsored by the Higher Education Authority, were established in 2005 to acclaim Ireland's foremost thinkers in the humanities, social sciences, physical and mathematical sciences, life sciences, engineering sciences and the environment and geosciences. The medals aim to identify and recognise inspirational figures—the

stars of the knowledge economy—in order to celebrate the achievements of higher education in Ireland and to inspire future generations.

The medals have become recognised as a national expression of celebration for scholarly achievement in Ireland. Each medal is a testament to a lifetime of passionate commitment to the highest standards in scholarship and they are a well-deserved recognition of academic excellence. The medals are kindly supported by the Higher Education Authority.



Dr Thomas Nader, Austrian Ambassador to Ireland with Dervilla M.X. Donnelly, MRIA at the Cunningham Medal award ceremony on 7 March

CUNNINGHAM MEDAL

The 2017 Cunningham Medal was awarded to Dervilla M.X. Donnelly, MRIA, for her outstanding contributions to scholarship in the sciences and to the objectives of the Academy. Professor Donnelly has been a generous and enlightened leader in scholarship and the wider community, nationally and internationally.

The Cunningham Medal is the Royal Irish Academy's premier award. Its history goes

back to the earliest years of the Academy, which first met in Dublin on 18 April 1785. The medal is presented once every three years by the president and council of the Royal Irish Academy, alternately in the sciences, and the humanities and social sciences.

HEA | HIGHER EDUCATION AUTHORITY
AN tÚDARÁS um ARD-OIDEÁCHAS



Mark Redmond, chief executive, American Chamber of Commerce Ireland (left) and Peter Kennedy, PRIA (right) at the US-Ireland Research Innovation Awards Ceremony 2017

US-IRELAND RESEARCH INNOVATION AWARDS 2017

The US-Ireland Research Innovation Awards are a joint initiative of the Royal Irish Academy and the American Chamber of Commerce Ireland to recognise excellence in research innovation. These are high profile peer-reviewed awards which highlight and recognise excellence in research innovation that has occurred in Ireland as a direct or indirect result of US foreign direct investment. There are three categories of awards and the 2017 winners were:

- HEI Award: University of Limerick
The biomaterials research team

in the Department of Mechanical, Aeronautical and Biomedical Engineering at the University of Limerick, in collaboration with US-based medical technology firm Stryker, developed DirectInject®, the first auto mixing, injectable hydroxyapatite-forming bone repair material used in neurosurgical procedures.

- SME Award: 3D4MEDICAL
3D4Medical's comprehensive educational tool, Complete Anatomy, is a cloud-based platform on which the user can explore the human anatomy in 3D. The user can zoom into minute detail, rotate body parts and examine at any angle, cut through various



Pat Guiry, MRIA, Science Secretary (left) and Professor Declan McCormack, DIT (right) presenting Dr Fergus Poynton, TCD (centre) with the Young Chemist Prize 2016

structures and witness how the various systems of the body interact with each other.

- MNC Award: IBM Research GovHHS Cognitive Solutions in Dublin, part of IBM Watson Health, won the award for Irish operations of a US MNC. Its work helped IBM develop new techniques for care professionals to better understand the complex social, behavioural and clinical issues facing vulnerable populations.

The awards are sponsored by KPMG and Ulster Bank.



 Ulster Bank

YOUNG CHEMIST PRIZE

Every year the Royal Irish Academy awards a prize for the most outstanding Irish PhD thesis in the general area of the chemical sciences. The awardee is then nominated for the International Award for Young Chemists.

The 2016 awardee was Dr Fergus Poynton, Trinity College Dublin, who went on to be one of the five winners of the International Award for Young Chemists. The award was presented to him at the World Chemistry Congress in Sao Paulo, Brazil, in July.



The 2017 Charlemont scholars at the awards ceremony on 9 March 2017

CHARLEMONT GRANTS

Humanities and Social Sciences

- **Dr Sheena McHugh, UCC**—
Characterising a falls prevention intervention for older people to improve implementation success in the health service.
Travelling to Gillings School of Global Public Health, North Carolina, USA
- **Dr Katja Bruisc, TCD**—Another ‘Virgin Land’ Campaign: land improvement in the late Soviet period. Travelling to German Historical Institute, Moscow, Russia
- **Dr Jessica Leigh Doyle, UU**—
Violence against women and political conflict in Kurdish Turkey.
Travelling to Demir Leblebi Kadın Derneği, Ankara, Turkey
- **Dr Federico Ferretti, UCD**—
Historical geographies of critical development.
Travelling to University of São Paulo, São Paulo, Brazil
- **Dr Helen Lynch, UCC**—Playgrounds of inclusion: a study of social inclusion, disability and the environment.
Travelling to Lulea University of Technology, Lulea, Sweden
- **Dr Cicely Roche, TCD**—Moral reasoning competencies development in community pharmacists: a repeated measures study using the Defining Issues Test (DIT2).
Travelling to University of Toronto, Canada

- **Dr Jenny Butler**, UCC—An ethnographic analysis of comparative Irish and Icelandic fairy lore and landscapes: Síðhe and Huldufólk.
Travelling to The University of Iceland, Reykjavík, Iceland
- **Dr Joseph Walsh**, UCD—Towards an understanding of pain and suffering: healthcare and existential phenomenology.
Travelling to Tel Aviv University, Israel
- **Dr Thomas Hansen**, UU—Balancing justice and peace?: building capacity for early-career researchers in Kenya to explore the role of regional organisations' in justice processes.
Travelling to United States International University, Nairobi, Kenya
- **Dr Deborah Hayden**, MU—Grammar and natural philosophy in Medieval Ireland.
Travelling to The British Library, London, UK
- **Dr Mariano Paz**, UL—Dystopian short stories in Argentinean literature. Travelling to University of South Florida Library, Tampa, USA
- **Dr Richard Scriven**, UCC—Exploring the cultural and spiritual significance of the North Wales Pilgrim's Way.
Travelling to Aberystwyth University, Wales, UK
- **Dr Bryan Gardiner**, UU—Bio-inspired computed tomography imaging reconstruction.
Travelling to Henan University of Technology, Zhengzhou, China
- **Dr Rory Hodd**, independent scholar—Climate change impacts on oceanic montane plant communities—simulating warming and drought at lab- and field-scales
Travelling to School of Natural Sciences and Psychology, Liverpool, UK
- **Dr Steven Hollis**, UCD—Origin and discovery of Irish zinc-lead mineralisation: application of the clumped C-O isotope carbonate geothermometer.
Travelling to School of Environmental Sciences, Norwich, UK
- **Dr Sean Kelly**, National Centre for Plasma Science and Technology—Plasma catalysis for CO₂ reforming: an investigation of packed bed and porous catalyst structures.
Travelling to PLASMANT University of Antwerp, Antwerp, Belgium
- **Dr Karen Matvienko-Sikar**, UCC—Determining the most feasible and acceptable methods of cortisol sampling in pregnancy.
Travelling to University of Westminster, London, UK
- **Dr David McNulty**, UCC—GeO₂ inverse opals as an anode material for Li-ion batteries with long cycle life and high capacity retention.
Travelling to Science and Technology Facilities Council, Daresbury Campus, Warrington, UK
- **Dr Aoibhinn Ní Shúilleabháin**, UCD—Analysing mathematics teacher learning in lesson study: developing a theoretical framework.
Travelling to Lausanne Laboratory of Lesson Study, Lausanne, Switzerland

Science

- **Dr Leonard Browne**, UCC—Analysing physical activity patterns of an Irish cohort of middle aged men and women: a functional data analysis approach.
Travelling to Columbia University, New York, USA



- **Dr Inga Reich**, independent scholar—A novel multiplex real-time PCR assay for molecular gut content analysis of ground beetles and preliminary assessment of their biocontrol potential of slugs in till and no till fields.
Travelling to Oregon State University, Corvallis, USA
- **Dr Srikumar Roy**, UCD—Pore-level monitoring of gas hydrate formation in sediment cores and its effect on electrical resistivity and sonic velocity.
Travelling to University of Bergen, Norway
- **Dr Alan Ryan**, RCSI/TCD—Electroconductive biomaterials to enhance the maturation and engraftment of cardiomyocytes for cardiovascular regeneration.
Travelling to Fraunhofer Institute for Interfacial Engineering and Biotechnology, Stuttgart, Germany



ROYAL IRISH ACADEMY – ROYAL SOCIETY COST SHARE RECIPIENTS 2017

Science

- **Professor Yvonne Buckley**, TCD (pictured, top left)—Is plant local adaptation stronger below ground or above ground?
- **Emma Teeling**, MRIA, UCD (pictured, bottom left)—Growing old and staying young: telomere dynamics in a long-lived mammal species

R. J. HUNTER RESEARCH BURSARY 2017

Mr Marius ÓhEarcáin—The planter and the Gael: Clonmany 1600–1850



Dr Jamie Goggins, NUIG who was the RIA nominee at the World Science Forum 2017

C14 RADIOCARBON RECIPIENT DATES AWARDED 2017

- **Mr Darius Bartlett:** Tralispean
- **Mr Graham Hull/Joseph McCooley:** Quin Friary earthworks
- **Mr Michael Lynch:** Doolin storm beach
- **Ms Susan Lyons/Mr C oil n O'Drisceoil:** Robing Room, Heritage Council Headquarters, Kilkenny City and Site 7-12 Rathduff Madden
- **Mr Allan McDevitt:** Castlepook Cave
- **Mr Richard O'Brien:** Rathnadrinna

ARCHAEOLOGY RESEARCH EXCAVATION GRANTS 2017

- **Mr Ger Dowling:** The Faughan archaeological project
- **Dr Alan Hawkes:** The Rathcoran Hillfort project
- **Mr Richard Jennings:** Phase 3 of the Ballynamintra Caves project
- **Mr Cormac McSparron:** Season two test excavation and geophysical survey at Knocknashee hilltop enclosure, Co. Sligo

- **Mr Richard O'Brien:** Rathnadrinna Fort

ARCHAEOLOGY RESEARCH GRANTS 2017

- **Professor Elizabeth FitzPatrick,** NUIG—Archaeometric analysis of late medieval inscribed slates
- **Dr Alan Hawkes,** UCC—Hot-stone cooking in prehistoric Ireland: a residue analysis
- **Mr Paul Stevens,** UCD—Preliminary scientific analyses of jet-like jewellery from early medieval Ireland: an exploratory study

WORLD SCIENCE FORUM

The Royal Irish Academy's nominee to attend the World Science Forum in Jordan in November 2017 was Dr Jamie Goggins, NUIG. Dr Goggins has worked on many projects worldwide, including in the areas of structural engineering, earthquake resistant structures, building design, structural health monitoring, renewable energy and infrastructure in developing countries.



The Irish team that travelled to the IMO in Brazil. Bronze medallists Cillian Doherty is fourth from the left and Anna Mustata is third from the right. Dr Mark Flanagan, Team Leader, is first on the left.

EOIN O'MAHONY BURSARY IN IRISH HISTORY 2017

- **Mr Ruairi Gallagher**, NUIG—Labour militancy and politics of the engineering and shipyard workers in Belfast and Glasgow, 1915–24: a comparative study
- **Mr Alan McCarthy**, UCC—Press, politics and evolution: the influence of nationalist and loyalist newspapers in Cork City and County, 1912–23
- **Ms Lorraine Grimes**, NUIG—The emigration of Irish unmarried mothers to Britain and their search for assistance and adoption in Britain 1926–67

IRELAND WINS AT INTERNATIONAL MATHEMATICAL OLYMPIAD (IMO)

The Irish Maths Olympiad team won two bronze medals at the 2017 IMO in Rio de Janeiro. The medal winners were Cillian Doherty (Colaiste Eoin, Dublin) and Anna Mustata (Bishopstown Community

School, Cork). Ireland's four other team members—Antonia Huang (Mount Anville Secondary School, Dublin); Mark Heavey (Blackrock College, Dublin); Mark Fortune (CBS Thurles Secondary School, Tipperary) and Darragh Glynn (St Paul's College, Raheny, Dublin)—received honourable mentions. The team leader was Dr Mark Flanagan, University College Dublin. The students travelled with the support of the Department of Education and Skills. This is the first time an Irish team has won two medals since it began competing at the IMO in 1988, making this the best performance for an Irish team.

DONATIONS AND ACCOUNTS

DONORS OF BOOKS AND ARCHIVES

Members: W.C. Campbell; A. Carpenter; M.E. Daly; R. Gillespie; P. Harbison; J. Lunney; J. Mallory; W.J. McCormack; J.C. McElwain; M. McNamara; W. O'Brien; D. Ó Corráin (*obit* October); R. Ó hUiginn; J. Waddell; B. Wright.

Friends: Anchor Books Australia; E. Bairéad; Balbriggan & District Historical Society; E. Black; P. Bogue; D. Boyle; D. Bronner; P. Burton; M. Byrne; Cambridge UP; I. Cantwell; V. Cavalli; H. Crawford; B. Cunningham; P. Dempsey; Dublin Institute for Advanced Studies; C. Duffy; T.P. Dungan; Dutch Society of Bibliophiles; D. Elyan; Embassy of Republic of Poland in Ireland; J. Fenwick; E. FitzPatrick; S. Fitzpatrick; J.J. Flahive; M. Hand; G. Hughes; Institutum Historicum Societatis Iesu (IHSI); International Association of Hydrogeologists (Irish group); A. Ireland; L. Kelly; The Honorable Society of King's Inns; K. de Lacey; Leopardstown Park Hospital; L. Lunney; S. Magee; C. Manning; McClay Library, Queen's University Belfast; J. Miller; C. Mollan; A. Murray; M. Ní Chuinneagáin; Numismatic Society of Ireland; R. Ó Ciaráin; Palacký University, Olomouc; J. O'Nolan; E. O'Rafferty; C. von Ow; H. Phelan; An Post; J. Prunty; E. Rushen; Society of Irish Foresters; P. Timmins; F. Whearity; V. Whearity; J.C. Wilder.

The Academy would like to express its sincere thanks to the following Members and Friends who lent us their support in 2017.

- Angela Bourke
- Aidan Clarke
- Sean Corish
- John Dillion
- James Fairley
- Michael Gallagher
- G.L. Huxley (IHTA Suburbs)
- Boehringer Ingelheim
- Irish Committee for Historical Studies
- A.D.H. Mayes
- John McGilp
- T.B.H. McMurry
- Gearóid Ó Ceallaigh
- Seán Ó Coileáin
- Brendan O'Donoghue
- Lochlann Quinn
- Robert Roddy
- Martin Steer
- P. David Sweetman
- Mgr Piotr Tarnawski, Apostolic Nuncio on behalf of H.E. Dr Gints Apals, Latvian Ambassador

The Academy also acknowledges the support of those donors who wished to remain anonymous.

SUMMARY OF ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2016

General Purposes Current Account*

	€
Income	
Grant-in-aid	2,642,000
HEA Funding - pension legacy	185,515
Members subscriptions	57,935
Sale of Publications	241,760
Sale of Proceedings	90,570
Miscellaneous	159,861
Room Rental	70,000
Dept of the Gaeltacht	141,084
Total Income	<u>3,588,725</u>
Direct Expenditure	
Audit, Law, Bank, Professional Charges	105,487
Fuel & light	34,773
Furniture, Equipment & Household	52,146
Discourses	7,789
Miscellaneous	32,683
General Insurances	12,534
Information Technology	107,481
Supplementary Pensions	108,030
Postage and telephone	34,077
Printing Administrative	3,831
Salaries & Wages	1,319,447
Stationery & Office equipment	31,028
Training & Development	39,216
Total	<u>1,888,522</u>
Allocations to Special Accounts	
International Unions & General Assemblies account	27,990
Library account	340,385
Print Proceedings account	342,340
General Publications account	138,022
Foclóir na Nua-Gaeilge account	384,410
Celtic Latin Dictionary account	103,093
International Exchanges & Fellowships account	49,161
Irish Historic Towns Atlas account	133,852
Dictionary of Irish Biography account	282,194
Total of Allocations	<u>1,801,447</u>
Total of Expenditure	3,689,968
Income	3,588,725
Expenditure	<u>3,689,969</u>
Surplus/Deficit EOY	(101,245)
Carried forward from previous years	<u>143,538</u>
Balance going forward	<u><u>42,294</u></u>

*The above accounts are shown on a cash receipts basis. Under the provisions of the Comptroller and Auditor-General (Amendment) Act 1993, the Academy's accounts are subject to audit on an accruals basis by the Comptroller and Auditor-General.

SUMMARY FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2016

The summary financial statements presented here have been extracted from the financial statements of the Royal Irish Academy as approved by the Council of the RIA and audited by the Comptroller and Auditor General, whose report was signed on 26 September 2016. Review full financial statements online at: <https://www.ria.ie/sites/default/files/royal-irish-academy-financial-statements-2016.pdf>

Statement of Income and Expenditure for the year ended 31 December 2016

	2016	2015
	€	€
Income		
Oireachtas grants	2,827,515	2,722,000
Funding and Other income	2,256,321	3,363,645
Income (released)/deferred in the period	268,091	(676,560)
Deferred Pension Funding	762,000	979,000
TOTAL INCOME	6,113,927	6,388,085
Expenditure		
Staff costs	4,890,036	4,742,699
Accommodation and establishment	147,441	132,893
General administration	520,521	536,739
Publication costs	249,700	256,050
Conference and meeting expenses	181,492	186,400
Book purchases and international subscriptions	67,977	69,955
Grants and awards	139,023	81,858
Depreciation	26,335	28,568
	6,222,525	6,035,163
Operating deficit	(108,598)	352,922
Unrealised gains on Investments	76,520	104,533
Transfer from Capital Account	11,728	27,419
Transfer (to) Endowment Funds	(52,896)	(574,429)
Deficit for the year	(73,246)	(89,555)

Statement of Financial Position as at 31 December 2016

	2016	2015
	€	€
Fixed assets		
Property, Plant & Equipment	37,767	49,495
Heritage Assets	20,000	20,000
Funds and Projects Financial assets	3,271,862	3,176,184
	3,329,629	3,245,679
Current assets		
Stocks	201,903	211,088
Debtors	64,747	65,765
Cash at bank and in hand	2,141,367	2,359,496
	2,408,017	2,636,349
Current liabilities (amounts falling due within one year)		
Payables	(227,036)	(230,850)
Deferred Income	(3,145,724)	(3,254,214)
	(964,743)	(848,715)
Net current assets	(964,743)	(848,715)
Total assets less current Liabilities before pensions	2,364,885	2,396,964
Deferred pension funding	14,150,000	14,150,000
Funded Scheme Assets	2,100,000	2,100,000
Pension Liabilities	(16,250,000)	(16,250,000)
	2,364,885	2,396,964
Net assets	2,364,885	2,396,964
Financed by:		
Capital account	37,767	49,495
Endowment Funds—Expendable	1,984,914	1,932,018
Endowment Funds—Permanent	20,000	20,000
Income and expenditure account	322,204	395,451
	2,364,885	2,396,964

The Academy's financial statements have been prepared under the accruals method of accounting, and in accordance with generally accepted accounting principles under the historical cost convention, except for income from the Oireachtas Grant, which is accounted for on a receipts basis.

Financial Reporting Standards recommended by the recognised accountancy bodies are adopted as they become operative.

Corporate friends

Thanks to our Corporate Friends who help the Academy to fulfil our mission to foster and promote excellence in research in the sciences and the humanities.



Abbott

Abbott Laboratories Ireland Limited

Abbott is a diverse, global healthcare company which creates and distributes products that address the full range of healthcare needs – from disease prevention and diagnosis to treatment and cure. With nearly 70,000 employees worldwide and global sales of approximately \$22 billion in 2014, Abbott serves people in more than 150 countries. The company is headquartered in the United States, in north suburban Chicago, Illinois. In Ireland, Abbott employs almost 3,000 people across 11 sites and serves the Irish market with a diverse range of health care products including diagnostics, medical devices and nutritionals. Abbott has been operating in Ireland since 1946.



Intel

Intel in Ireland has come to represent a diversity of activities across the spectrum of Intel business, from advanced manufacturing to cutting edge research and design. The core of advanced manufacturing capability, which Intel has developed in Ireland, is a key enabler for numerous research and development initiatives that are carried out across the country. A dedicated team is involved in Silicon Nanoelectronics Research and collaborates extensively with research institutes such as the CRANN Nanoscience Research Centre in Trinity College Dublin and the Tyndall National Research Institute in Cork, as well as other universities and companies from across Ireland and Europe.



Xilinx

Xilinx is the world's leading provider of all programmable FPGAs, SoCs, MPSoCs and 3D ICs, enabling the next generation of smarter, connected, and differentiated systems and networks. With over 3,500 patents and 60 industry firsts, Xilinx is known for its historic achievements including the introduction of the first FPGA and the inception of the fabless model. Xilinx has a history of developing programmes for its employees and surrounding communities that provide a social impact through outreach, volunteerism, teambuilding and philanthropy. Areas of focus include education, health, arts and social services.