

### INSIDE

A year in view 4

A note from the President II

A note from the Executive Secretary 13

We explore 17

We award 27

We engage 31

We advise 49

We support 55

New members 61

Donations 73

Bereavements 78

Accounts 80



## **156** new entries added to the Dictionary of Irish Biography



**61** maps from Irish Historic Towns Atlas now available online



10

volumes of Documents on Irish Foreign Policy to date



6

US-Ireland Research Innovation Award winners



1 prehistoric bear bone excavated with RIA grants



## **1,400** visits on Culture Night 2016

### 1,500 events and meetings







**20,100** books sold



**100,000,000** stamps inspired by

A History of Ireland in 100 Objects



38,500 visitors





**70,000** downloads of 1916 Portraits and Lives















### MARY E. DALY, PRESIDENT

Academy House knew that 2016 would be a busy year, with an ambitious programme of events relating to the centenary of the Easter Rising and continuing efforts to make the case for additional funding for higher education and research in Ireland, north and south. Since mid-year, however, Brexit has emerged as a major cause for concern. Britain's decision to leave the European Union presents a major challenge for Ireland, and for the Academy. The Academy is an all-island institution, which means that by 2019/20, a significant proportion of our members will be located outside the EU. The precise shape of Britain's future relationship with the EU and its members—specifically the nature of the Irish border in a post-Brexit Europe—are matters that will impact on the Academy's activities and our goal of extending our connections and impact in Northern Ireland.

However, the Brexit vote has wider significance beyond the Academy's relationship with scholars in Northern Ireland.

Since its foundation, the Academy has championed research in Ireland and has worked to foster links between Irishbased researchers and the wider scholarly community. The list of members and honorary members of the Academy include many of the world's greatest scientists, and earlier generations of MRIAs cultivated links with other academies to promote the exchange of people and ideas. EU programmes for student and scholar mobility and EU research programmes have done much to advance an internationally mobile community of scholars and to develop extensive networks and partnerships between institutions and researchers. These developments are now under threat, given possible restrictions on the free movement of students and scholars in a post-Brexit Britain and Northern Ireland, and there is a serious danger that long-standing links between academic institutions in Ireland and Britain will be undermined. Over the past century the Academy has weathered partition and other serious disruptions to its all-island

Opposite: Mary E. Daly, PRIA, with Charlemont Scholars in February 2016

remit, and we must now examine the implications of Brexit for our concerns, both north and south.

Brexit also presents an opportunity for the Academy to contribute to the wider discussions that are underway about the impact on Ireland's economy, foreign policy and migratory patterns. The Academy should draw on the expertise of its members and our links with other academies to inform these discussions. Such debates reinforce the importance of the Academy's international networks and strengthen our relationship with other learned societies and international scientific bodies. During 2016 the Academy hosted a meeting of the European International Council for Science (Euro-ICSU) and the European Research Scientific Council (ERC). The ERC visit informed the Academy about key issues relating to European-wide research, and it provided an opportunity to reiterate the importance of basic research and the need to secure a sustained national funding stream if Irish researchers are to take full advantage of European funding. It was a special pleasure that President Michael D. Higgins, MRIA, was the guest of honour at the dinner in honour of the ERC Council, and that he used the occasion to express his support for primary research.

The Academy is above all a community of members, and it is vital that our membership reflects the evolving intellectual community in Ireland, in terms of discipline, institution, gender and age profile. For that reason we have formed a Diversity Committee to review our membership and identify mechanisms to ensure that nominations for membership capture outstanding scholars in all their diversity.

An increase in numbers elected annually from the current twelve ordinary members is a matter for urgent debate, given the steady rise in average age of MRIAs and the real danger that we lack sufficient representation among those who are currently active in our universities and research institutions. When reviewing the history of the Academy in the years immediately before the 1916 Rising, I discovered that at that time the Academy elected twelve ordinary members annually—and they were all men! It is a particular pleasure that in 2016 we are belatedly honouring the first four women members who were elected in 1949—Françoise Henry, Eleanor Knott, Sheila Tinney and Phyllis Clinch with the unveiling of their portraits, as part of the 'Women on Walls' project.

As this will be my final report as president to appear in the Annual Review, I want to take this opportunity to thank all the members for their support, most especially those who have served on Council and as Officers, and those who have answered the Academy's call to assist us in innumerable ways, including editors of Academy journals and other publications as well as committee members. The Academy's influence and achievements depend on members' expertise, their networks and their time, so thank you! My thanks also to the staff in Academy House; only those of us who work closely with them can fully appreciate their pride in and commitment to the Academy.

Lay & Doly

### LAURA MAHONEY, EXECUTIVE SECRETARY

Thirty years ago the Academy celebrated its bicentenary, and 'Irishman of the Century' Dr T.K. Whitaker gave his presidential address titled 'Ireland - Land of Change'. Few men were more qualified than he to lecture on the fundamental importance of research and scholarship, on Ireland's need and capacity for change and to articulate its ambitions as a nation.

In September 1966, when T.K. Whitaker's plans for Ireland's regeneration were being enacted, it was announced that the government would provide free second-level education for all. This was one of the most important decisions ever made by an Irish government and proved to be revolutionary. A second-level education went from being the preserve of a minority who could afford to pay for it to being an opportunity for all. At that time, one in every three children left school with only primary

education and only one in five sat their Leaving Certificate exams.

Exactly 50 years later, in September 2016, the first Action Plan for Education was announced. Its ambitious aim is to make the Irish education system 'the best in Europe by 2026'. This too represents a revolutionary goal and one for which the government should be commended. As Minister Richard Bruton said at the launch, 'Few areas are more pivotal than education to our ambitions as a nation'.

The commitment to quality, and the systematic and focused approach in the Action Plan for Education is to be applauded.

An important indicator of quality in universities is the ratio of students to academic staff members. The Academy's 2016 advice





paper on the future funding of higher education in Ireland sets out the challenge:

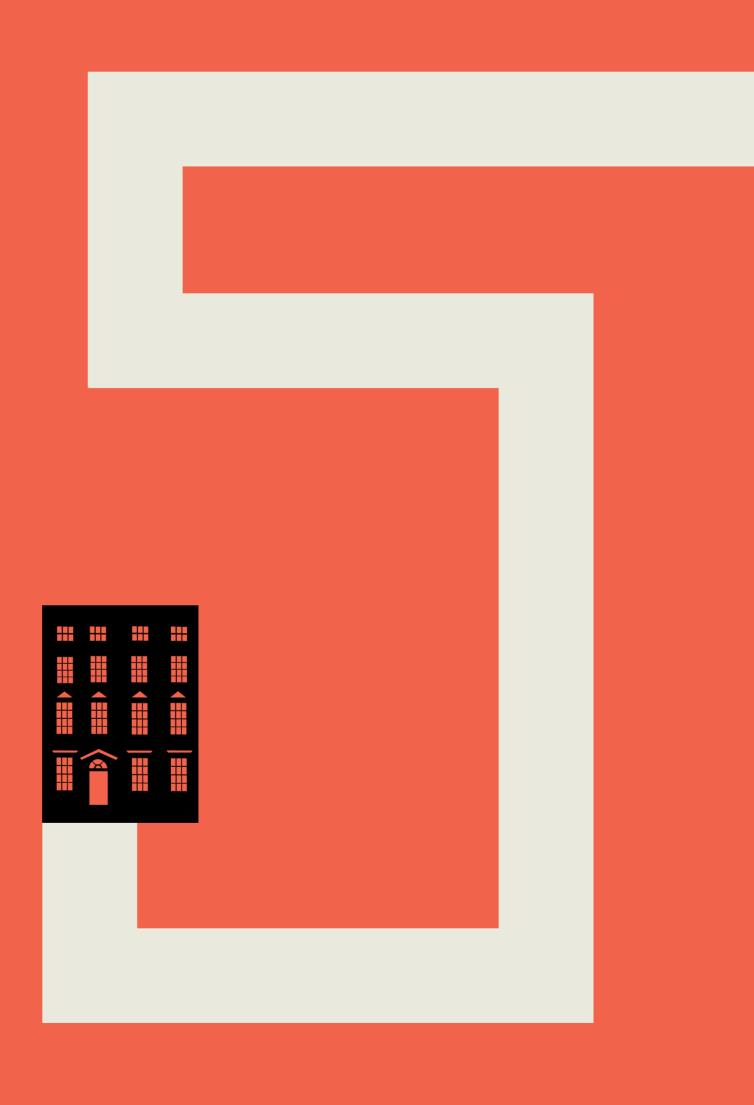
According to the HEA's 'Higher Education System Performance' report, 2014, the student/staff ratio in full-time equivalent numbers was 19.5:1 in 2012/13. This was projected to increase to 20.5:1 in 2016/17.² To reach a student/staff ratio of 16:1, an additional 2500 fulltime equivalent³ academic staff would be needed. This represents an additional investment of €375 million per annum, a formidable sum at this phase of our economic recovery and one that demands an imaginative, indeed a revolutionary response.

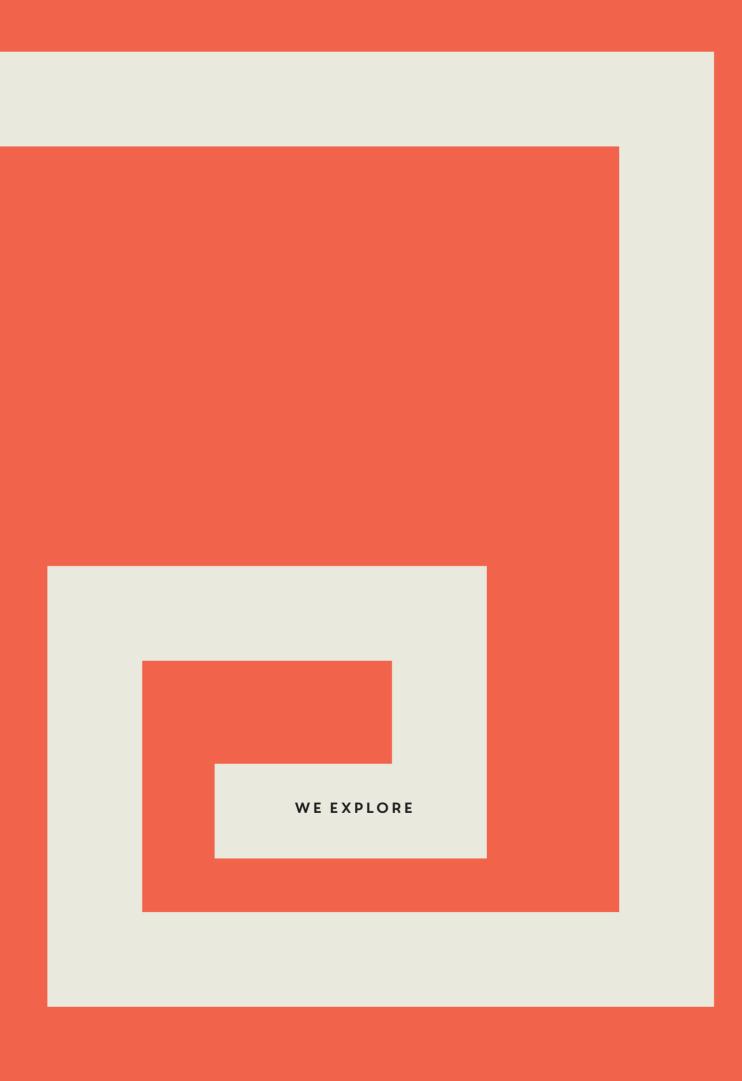
The Academy will continue to act as a bridge between academia, government and industry, and to work with all our stakeholders to support efforts to achieve this goal. It will not be easy. On page 67 of this report you will read an article on a famous maths problem that seeks to 'square the circle' by stretching the rules of the game. I implore all those who value our higher education system and who wish to see it continue to excel during this time of change, to embrace revolutionary thinking to achieve this goal.

Laure Motomeny

### NOTES

- $^{1}\ http://www.irishtimes.com/ews/ireland/irish-news/timeline-life-and-times-of-tk-whitaker-1.2930827$
- <sup>2</sup> Higher Education Authority, 'Higher Education System Performance First report 2014–2016'
- <sup>3</sup> Royal Irish Academy advice paper on the funding of higher education in Ireland







### 60 YEARS OF IRELAND IN THE UNITED NATIONS

To mark 60 years of Irish membership of the United Nations, Dr Michael Kennedy and Dr Kate O'Malley of *Documents on Irish Foreign Policy* curated an exhibition and booklet exploring Ireland's first year at the United Nations. The exhibition 'Follow an Independent Line', was launched by Minister for Foreign Affairs and Trade, Charles Flanagan, TD, in New York in September 2015 and at Iveagh House, Dublin, in December 2015.

### LAUNCH OF INSPIRING IRELAND WEBSITE

'Inspiring Ireland 1916: Weaving Public and Private Narratives' uses objects—digitised photos, diaries, posters, audio recordings, video and ephemera—to tell the stories of the Rising, and to paint a picture of everyday lives in 1916. Combining expert narrative with iconic objects from the National Archives of Ireland, the National Library of Ireland, the National Museum of Ireland and RTÉ Archives alongside 'found' objects from private collections, 'Inspiring Ireland 1916' creates a dynamic, multimedia

reflection on the people, events and legacy of 1916. Visit www.inspiring-ireland.ie.

#### 1916 MEMORABILIA

The Digital Repository of Ireland organised collection day events in Dublin, London and New York, in March and April 2016. These collection days enabled members of the public in to share their personal objects (such as letters, diaries, photographs and ephemera) and family stories related to events in Ireland during 1916, and to have this material digitised by experts, free of charge, for preservation and display within the DRI and Inspiring Ireland websites.

## INTELLECTUAL LIFE IN IRELAND 1910-20 EXHIBITION

The commemorative exhibition 'Intellectual life in Ireland, 1910–20' mined journal, Irish-language and cultural publications from the period. It revealed aspects of scholarship and intellectual life that helped to shape cultural understanding of what it meant to be Irish in the early twentieth century.

Above: Dr Natalie Harrower, Director of DRI; Minister of State for Diaspora Affiars, Jimmy Deenihan, TD and Caroline McGee, Project Creative Lead, Inspiring Ireland 1916.

Opposite: Alice Stopford Green (1847–1929) by V. L. O'Connor, historian and nationalist, one of the lives featured in the Library exhibition 'Intellectual Lives in Ireland'.



Mrs. A. S. GREEN.



### IRISH HISTORIC TOWNS ATLAS: GALWAY

'There are churches and bridges, schools, theatres and other structures that are not there anymore. And I think that so much of Galway's history is in small quiet corners but that shouldn't depress anybody, everything is on its way to being a ruin, including ourselves'.

President Michael D. Higgins, MRIA

Galway city was the primary focus of the IHTA project in 2015–16, with two publications being released by authors Dr Jacinta Prunty and Paul Walsh. *Galwayl Gaillimh* is no. 28 in the IHTA series and was launched with an accompanying exhibition by President Michael D. Higgins, in Galway City Museum on I November

2016. President Higgins described the atlas as a 'valuable tool' and 'a marvellous piece of cooperation'. Also published was *Galway c. 1200 to c. 1900: from medieval borough to modern city* (2015) — a large folded map, which plots over 200 sites in colour on to a modern base. Galway now joins Belfast, Dublin, Limerick and New Ross in the IHTA's popular 'pocket map' series.

### TOWN ATLASES IN LIBRARIES AND EDUCATION

IHTA has published three atlases dedicated to Dublin city. Collaborating with Dublin City Libraries and Archive, the Academy donated full sets of Dublin atlases to each of the city's twenty-one branch libraries in

L–R Dr Jacinta Prunty, President Michael D. Higgins, Sabina Higgins and Paul Walsh at the IHTA *Galway/Gaillimh* exhibition in Galway City Museum. Opposite: Galway in 1839, detail from IHTA, *Galway/Gaillimh*, map 2.





Above: Sixth-class students in Scoil Mhuire, Marino use maps from IHTA *Dublin, part III* during their Arts Week, November 2015. Opposite: detail showing Clontarf, which will be the first IHTA Dublin suburb to be published, from *An actual survey of the county of Dublin*, 1760, by John Rocque (Royal Irish Academy).

2016. The use of the atlas within education was also a point of exploration and culminated with a workshop on 'Teaching and learning using the IHTA' in September 2015.

### MEDIEVAL TOWNSCAPES IN BRITAIN AND IRELAND

The annual IHTA public seminar took place in collaboration with the British Historic Towns Atlas/Historic Towns Trust in May 2016. 'Medieval townscapes: comparative perspectives through the Irish and British historic town atlases' looked at similarities and differences in the urban landscapes of Bristol and Galway; Kilkenny and Norwich; Limerick and York; Caernarfon and New Ross; London and Dublin, with Terry Slater, University of Bermingham presenting a plenary paper at the end of the seminar. Elsewhere in Europe, the Irish atlas was represented at meetings of the International Commission for the

History of Towns in Zürich, Switzerland and Kiel, Germany; at an exhibition in Plovdiv, Bulgaria; and by a visit to the Institute for Comparative Urban History, Münster, Germany, to exchange ideas about Geographical Information Systems methologies for historic town atlases.

### NEW IHTA SERIES: DUBLIN SUBURBS

A new IHTA Dublin Suburbs series began in 2015 and No. 1, *Clontarf*, will be published in 2017. The series editors are Colm Lennon and Jacinta Prunty. The series is part-funded by Dublin City Council.

### SAFETY AT SEA THROUGH WAR AND UPHEAVAL

A major study of Ireland's lighthouse service was produced by the Royal Irish Academy and Irish Lights. The research revealed how Ireland's Lighthouse Service responded to





the challenges of the First World War, the 1916 Rising, the War of Independence and the partition of Ireland.

The outcome of this research was an exhibition titled 'Safety at Sea through War and Upheaval'. The exhibition, which was developed by Dr Michael Kennedy of DIFP and Dr Eoin Kinsella, was launched in Galway in July 2016.

### FOCLÓIR STAIRIÚIL NA GAEILGE / HISTORICAL DICTIONARY OF IRISH

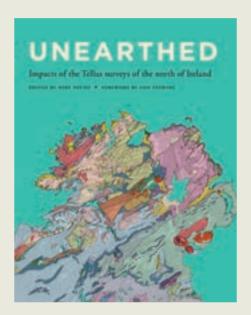
To mark the centenary of the 1916 Rising, the Foclóir team prepared and published in digital format the Irish-language content of *Irisleabhar na Gaedhilge / The Gaelic Journal* (1882–1909), which features so much of the cultural thought and scholarship of the period. Readers can find articles by figures such as Eoin McNeill, Pádraig Mac Piarais and other influential nationalist figures of the time (irisleabharnagaedhilge.fng.ie).

Mar chomóradh ar Éirí Amach 1916, d'fhoilsigh foireann an Fhoclóra leagan digiteach inchuardaithe d'ailt agus scríbhinní ó *Irisleabhar na Gaedhilge* (1882-1909) ina bhfuil léargas tábhachtach ar thuairimíocht agus ar scoláireacht Ghaeilge na linne. Is féidir le léitheoirí teacht ar ábhar scríofa ag údair ar nós Eoin Mhic Néill, an Phiarsaigh agus a lán eile (irisleabharnagaedhilge.fng.ie).

## DICTIONARY OF MEDIEVAL LATIN FROM CELTIC SOURCES (DMLCS)

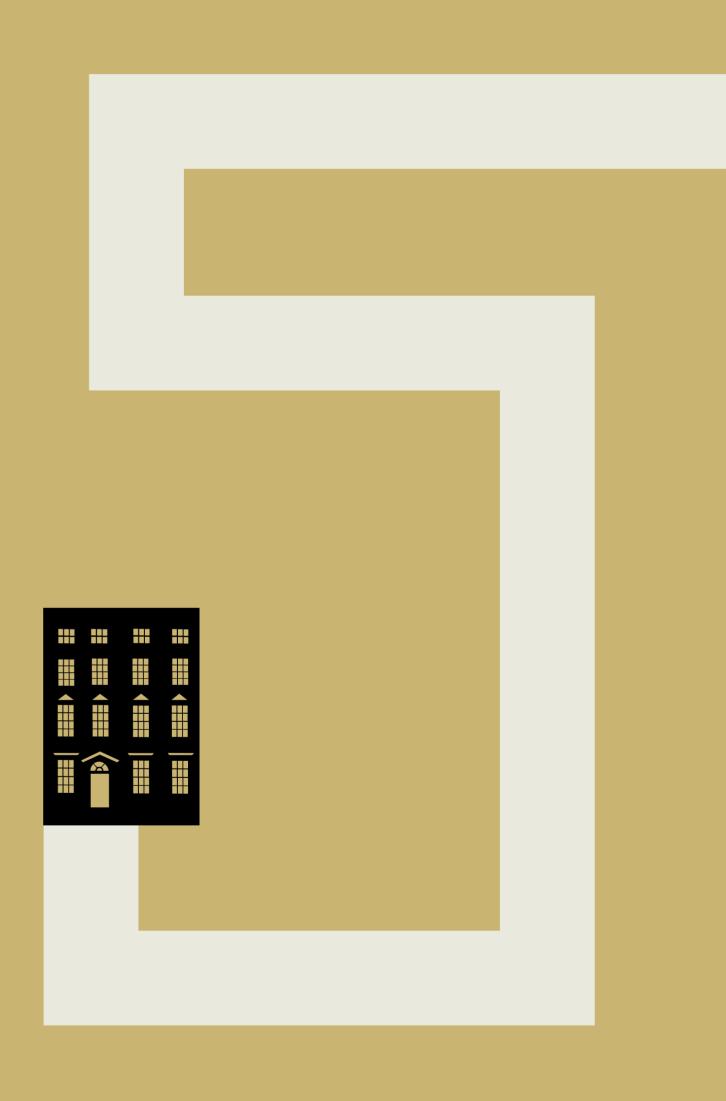
The latest instalment of the DMLCS was launched in February 2016. This comprehensive, online supplement to *The Non-Classical Lexicon of Celtic Latinity*, compiled by Anthony Harvey and Angela Malthouse has been made available to download free (letters A–H).

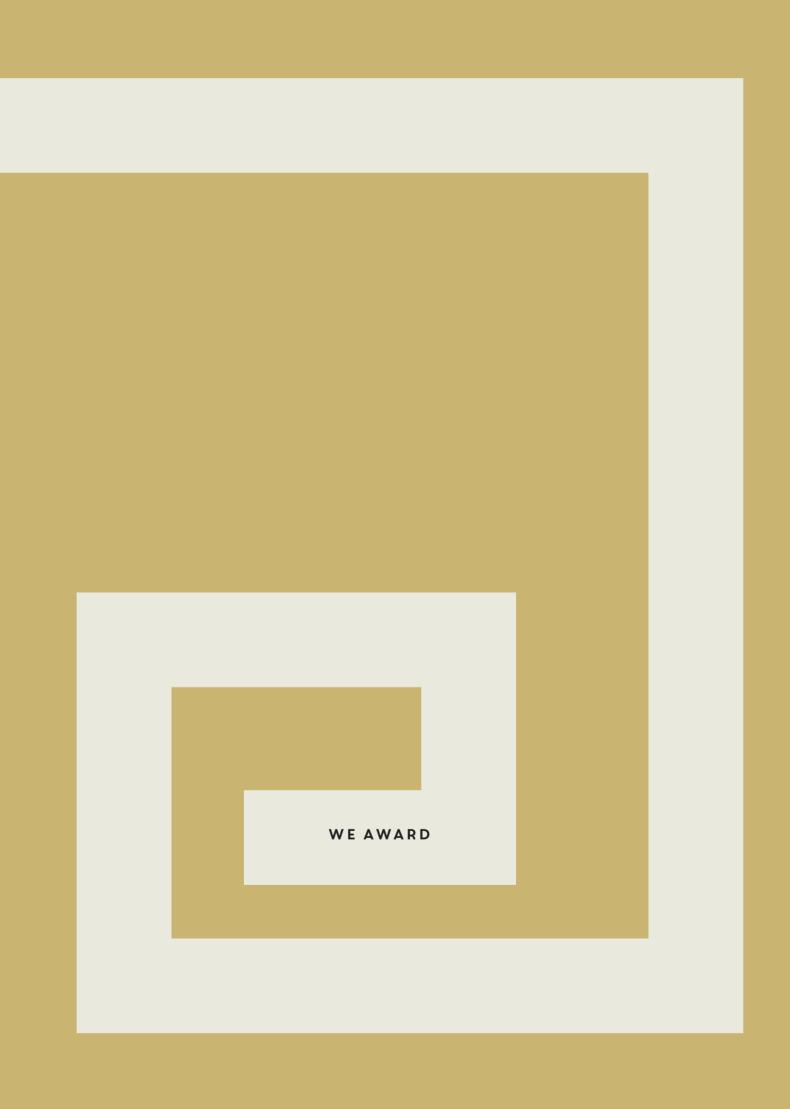
The supplement illustrates how digitisation can add qualitatively to a dictionary's scholarly value; it enables the content to be systematically and quickly searched for many kinds of information besides the definition and etymology of individual words. Compilation by DMLCS of the second half of the alphabet is underway with K, N and Q completed and the material pertaining to the letter M due to be ready by early 2017.



## UNEARTHED: IMPACTS OF THE TELLUS SURVEYS OF THE NORTH OF IRELAND

Unearthed, edited by Mike Young, showcases outputs from the Tellus surveys, the most significant geoscience project ever conducted across the island of Ireland. In the book, scientists who worked with the resulting Tellus data reflect on the survey findings and the real impacts for the economy, the environment, energy, agriculture and ecology. The Tellus surveys were initiated by the Geological Survey of Northern Ireland, the Geological Survey of Ireland and the British Geological Survey. To encourage further research and collaboration, the data presented in this book is available under open access protocols. www.ria.ie/unearthed







#### **GOLD MEDALS**

'Science shouldn't just be the preserve of an elite group of people. It should involve absolutely everybody. Open science gives us the opportunity to do that'

Professor Alan Smeaton

Robert-Jan Smits, Director-General of Research and Innovation with the European Commission, presented Professor Philip Lane and Professor Alan Smeaton with Academy Gold Medals in 2016.

Gold medals are a national celebration of scholarly achievement. Each medal is a testament to a lifetime of passionate commitment to the highest standards in scholarship. The Gold Medals are supported by the Higher Education Authority.



### US-IRELAND RESEARCH INNOVATION AWARDS

These awards, jointly organised by the American Chamber of Commerce Ireland and the Royal Irish Academy, recognise excellence in research innovation that has taken place on the island of Ireland as a result of US foreign direct investment. The winners of the 2016 US-Ireland Research Innovation Awards were:



### **SME Award: Econiq**

Econiq Limited's winning research innovation, 'The Conversation Hub', uses a colour-coding technique to guide complex business conversations.

### **HEI Award: University College Dublin**

University College Dublin and IBM developed the Real Time Correlation Engine, which uses novel data normalisation, clustering and filtering techniques to predict problems and enable rapid response in big data systems.

### **MNC Award: Hewlett Packard Enterprises**

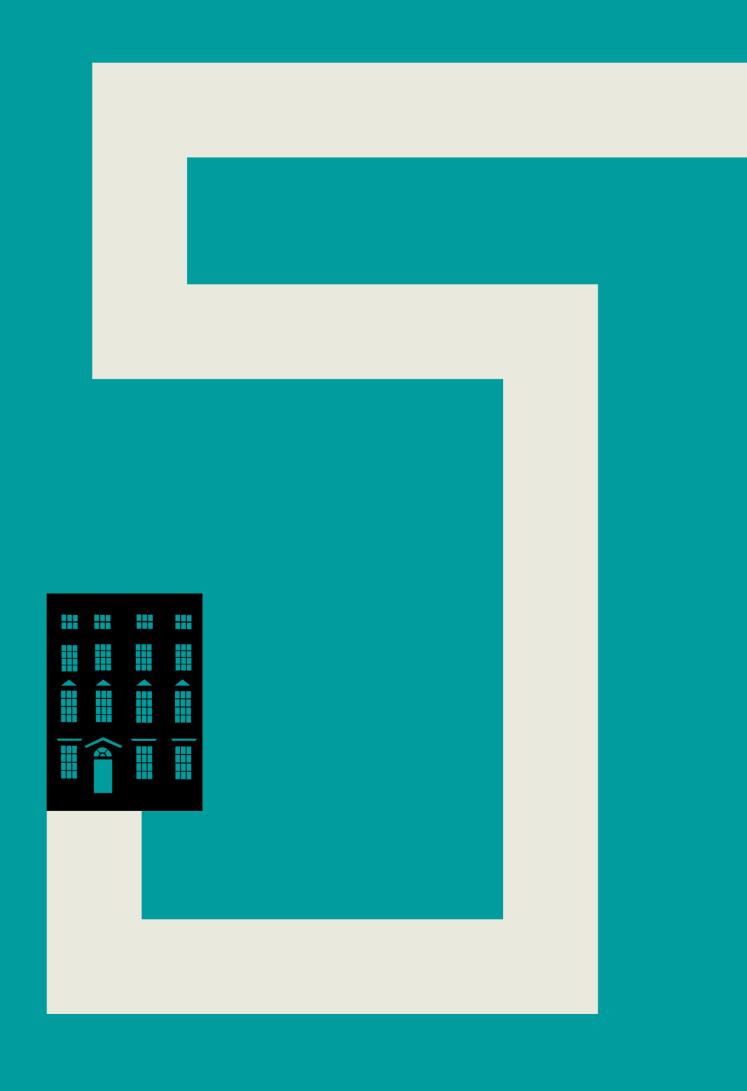
Hewlett Packard Enterprise's Global Product Authentication Service (GPAS) is an innovative technology service that addresses key enterprise business problems relating to brand protection.

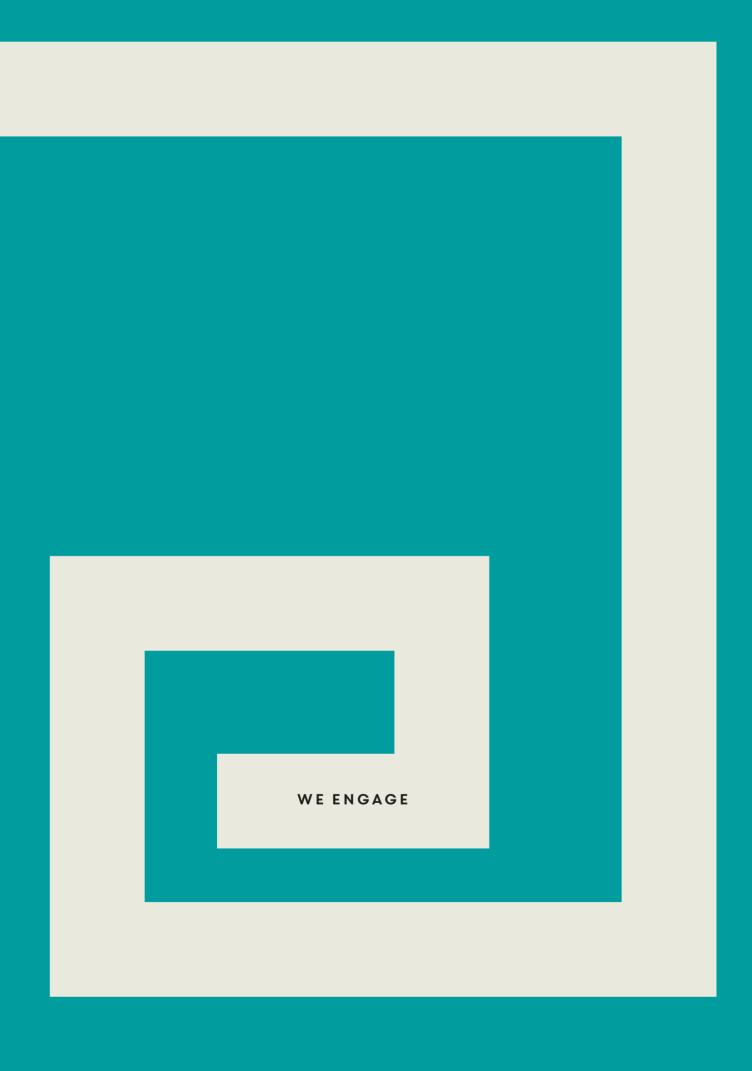
The awards are sponsored by KPMG and Ulster Bank.





**KPING X**UIster Bank





#### **ACADEMY DISCOURSES**

**Professor Joyce Tait •** Risk regulation, uncertainty and ethics in governing biotechnology • 10 November 2015

### Professor Margaret Murnane,

Honorary MRIA • Tabletop X-Ray Lasers: From Star Wars to Nanotechnology • I December 2015

Professor Roy Foster, Honorary MRIA
Knowing their dream? Yeats's response to Easter 1916
11 January 2016

**Professor Richard Ellis •** Gravitational lensing: Einstein's unfinished symphony • 13 April 2016

**Professor Michael Grätzel •** Energy beyond oil • 12 May 2016

#### Professor Patrick Cunningham •

Science for policy, policy for science: A sense of perspective • 28 September 2016

**Professor Sir Jonathan Bate •** The magic of Shakespeare • 27 October 2016

## REPRESENTATIONS OF JEWS IN IRISH LITERATURE

The Library hosted the Ulster University-NUI Galway exhibition, 'Representations of Jews in Irish literature' from I July to 5 August 2016. This exhibition was led by Professor Pól Ó Dochartaigh, MRIA, who gave a lecture titled 'Hyphenated identities: Irish-Jewish autobiography, 1935–2012'.

### WESTROPP AND THE AFTERMATH OF THE RISING

In the immediate aftermath of the 1916 Easter Rising, antiquarian and MRIA T.J.

Westropp (1860–1922) ventured into Dublin to photograph the city in ruin. In 2015, to coincide with the launch of the Digital Repository of Ireland, Westropp's images were digitised and used for Google's 2016 resource, 'Dublin Rising' and in the Google Cultural Institute. Visit www.dri.ie

#### **HAMILTON DAY 2015**

Professor Daniel Spielman, co-director of the Theoretical Computer Science Department at Yale Institute for Network Science, gave the 13th annual Hamilton Day Lecture in 2015. The title of his talk was 'Understanding Networks through Physical Metaphors'.

Professor Shafi Goldwasser, RSA Professor of Electrical Engineering and Computer Science at MIT and professor of computer science and applied mathematics at the Weizmann Institute of Science in Israel, gave the I4th annual Hamilton Day Lecture in 2016. Her talk was titled 'Modern cryptography in the age of cloud computing'.

# INAUGURAL ENGINEERING AND COMPUTER SCIENCE LECTURE SERIES

Dr Brian MacNamee, UCD, delivered the lecture titled 'Show me your data and I'll tell you who you are' throughout 2016 in Dublin, Galway, Derry and Cork.

This lecture focused on the ways in which we generate data through our interactions with Wi-Fi enabled devices, and how this data can be utilised by third parties to predict our behaviours and preferences. The Galway lecture was hosted and sponsored by Hewlett Packard Enterprise Galway.





### TRANSLATING ANNE ENRIGHT

Ireland's Laureate for Irish Fiction and Booker Prize winner Anne Enright participated in a public interview with four translators of her work; Alessandro Achilli (Italy), Hans-Christian Oeser (Germany), Isabelle Reinharez (France) and María Porras Sánchez (Spain) in Septemeber 2016. The discussion focused on issues such as cultural transfer, Irishness, untranslatables, markets and audiences. The event was sponsored by the Irish Research Council, the Laureate for Irish Fiction, NUI Galway and EUNIC Ireland. A video of this interview is available at ria.ie.

#### JOHN BELL DAY

John Bell laid the foundation stone for quantum computing on 4 November 1964 when he revealed to the world Bell's Theorem.

John Bell Day is about raising the profile of one of the world's most important scientists and inspiring future generations in Northern Ireland. To date, the Royal Irish Academy has led a campaign that has seen the renaming of a street in the Titanic Quarter and the old Belfast Met building.

In 2016, Professor Ronald Hanson, University of Delft in the Netherlands, gave the annual John Bell Day Lecture at Queens University Belfast.

The Royal Irish Academy and the Chief Executives' Club at Queen's University also hosted a breakfast briefing with Professor Hanson and former head of public policy at Intel, Leonard Hobbs, to discuss 'How Quantum Computing will Impact on Us'. John Bell Day 2016 was sponsored by IBEC.

In 2017, we hope to promote John Bell Day as one of the major quantum computing events on the international calendar.







#### **WOMEN ON WALLS**

In 2016, Accenture commissioned five portraits of leading female academics, to recognise their achievements and inspire future generations. Four portraits depict the first four women elected as members of the Royal Irish Academy in 1949: Eleanor Knott (TCD), Phyllis Clinch (UCD), Francoise Henry (UCD) and Sheila Tinney (UCD). These portraits were painted by Vera Klute. The fifth painting, by Blaise Smith, is of eight female scientists who were awarded European Research Council (ERC) grants

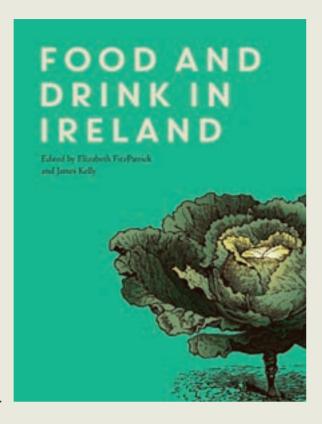
between 2012–2015. The finished artworks are now on permanent display in the Royal Irish Academy.

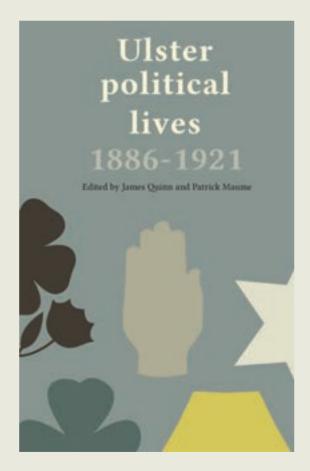
'The Academy wants to create role models to inspire our future generations. The people of Ireland should know and be proud of the twelve extraordinary women whose portraits will hang on the walls of Academy House for years to come'—Laura Mahoney, Executive Secretary, RIA



#### FOOD AND DRINK IN IRELAND

'To make a Potato Pie' (recipe on opposite page) is reproduced from Regina Sexton's 'Food and culinary cultures in pre-famine Ireland' published in 2016 in Food and Drink in Ireland. This collection of essays was commissioned by the editors of the journal Proceedings of the Royal Irish Academy, Section C which is one of six research journals that the Academy publishes. Louis Cullen, MRIA, describes the volume as 'the most ambitious and comprehensive academic study of the history of food and drink in Ireland that has ever been published.' Scholars are invited to submit to all of the Academy's journals.





## ULSTER POLITICAL LIVES, 1886-1921

Ulster political lives, 1886–1921, edited by James Quinn and Patrick Maume, presents fifty of Ulster's most significant political figures in the turbulent period from the first Home Rule Bill of 1886 to the creation of Northern Ireland in 1921. Drawing from the Dictionary of Irish Biography, it details the lives of prominent unionists and nationalists, loyalists and republicans, but also those who did not fit into such neat categoriessocialists, trade unionists and feminists. who often avoided identification with the major political groupings, but in their own right made noteworthy contributions to the direction that Northern Ireland and the Irish Free State took after 1921.

To make a Potata Pie Take 2 Josen of hotatoes boyle them till they will have then ship them being heeled in the middle then vaise your hie and take 2 hound of butter and zach is in voice water and worke it in your hands then layet in a thin cake all ones the bottom of your tet fre then season your potatoes, with half a found of fine Spugar 2 Thoonfulls of cinamon a little sault must his betwee them a hound a half of yours eggs boyted hard and ent en halues then take Donaces of cardied wing 2 oraces then the states then the fortators then layed hound of sweet butter in the fortators maner as before all over the hotatoes closent who and bake it in a gentle oven half an hour trove it is balled Trown it and hutt in their and hutt is their of navors, half a huit of sack a marker of a heart of navors, half a huit of white wine when it boyles take it from the hire and have a dozen yoths of eggs and a white goody beaten they other in Justing thereto fall a hound of higher to gether till they bee thick then had it into the file and set it in the onen to the halthan and sweep hord shugar one it and so since is

Modern Ireland in 100 Artworks traces the story of Ireland's creative output from the revolutionary period until today. Below you can read the article on Silent moves (2015), the final artwork, which was chosen for the book by public vote via our partners in the project The Irish Times.

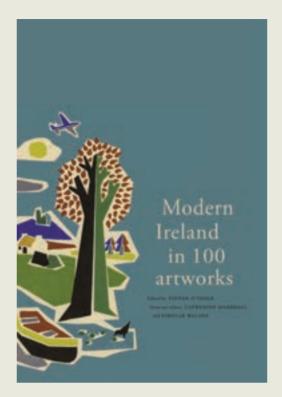
The visual artworks were chosen from the RIA's *Art and Architecture of Ireland* and biographies of many of the artists and writers are in the *Dictionary of Irish Biography*.

#### **2015: SILENT MOVES**

Aideen Barry, Emma O'Kane, Western Care's Ridgepool Training Centre and Scannán Technologies

The umbrella project Ignite was designed by the Arts Council, Arts & Disability Ireland and local authorities in Cork, Galway and Mayo to provide opportunities for artists and performers with disabilities, from Ireland and abroad, to make new work and to present it, publicly, in 2014 and 2015. Each project was funded to the tune of €60,000, while one of the completed presentations was to be selected to tour the country in 2015.

The short film, *Silent moves*, devised by visual artist Aideen Barry, assisted by dance artist and choreographer Emma O'Kane and by members of the Ridgepool Training Centre and Scannán Technologies in Ballina, Co. Mayo, was the project selected for that final accolade. Barry, only too aware of the disabling and frustrating effects of an anxiety disorder, worked with the group to explore their daily lives, joys and frustrations through an age-old

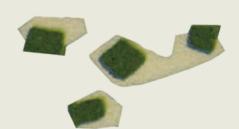


love story, with all the proven ingredients: shy heroism, beauty and a fair measure of villainy. This time however, that narrative is confronted by new, but very real challenges. What if the lovers have intellectual disabilities?

Ireland was intoxicated with self-congratulation at its generosity of spirit and open-mindedness in voting to allow samesex marriages in 2015, yet remained loath to encourage adult relationships between people with intellectual disabilities. While other taboos on marriage were joyfully thrust aside, it remains an offence, under Irish law, for an adult with an intellectual disability to have sex outside of marriage, and such marriages are not facilitated.

Silent moves provides a witty and thoughtful reminder that some inequities remain as insurmountable as ever.

The participants in *Silent moves* suffer all the frustrations and injustices of this



culture along with other, more banal restrictions: communication problems, mobility, access to buildings, careless parking that blocks access to wheelchair ramps being among the obvious ones, all shown here, again and again, to hilarious effect.

The participants, in discussion with Barry and O'Kane, chose to approach those problems through humour and to express them visually, without spoken language. The title and the action recall the slapstick comedies of Buster Keaton, as do the stop motion techniques that the group learned along the way. A key connecting element in the narrative is the town of Ballina, reminding us of the history of a typical Irish community that has coped with disabilities in the past in various ways, although, surely, never before in such an empowering manner.

Community arts has struggled for a place in Irish art practice since the establishment

of the Grapevine Arts Centre in the 1970s. They have been constantly relegated to a minor supporting role in critical commentary and in public collections, and written off as social work rather than arts, or of dubious quality, since they rarely shore up traditions of 'high art'. From start to finish, Silent moves was a collaborative project involving well-known artists, two highly talented community groups and local support. The fact that this, rather than a more traditional single-authored work, was chosen as the people's choice in The Irish Times/Royal Irish Academy's Modern Ireland in 100 Artworks, from a variety of options offered to them, suggests that now, after years of patient struggle, community projects are finally gaining their place in the canon of Irish creative achievement.

CATHERINE MARSHALL

In association with

#### THE IRISH TIMES

Opening image title of the film Silent moves, 2015, video still. © Aideen Barry, Scannan Technologies and Ridgepool Training Centre artists





PARTNERS



ÉIRE 19.16 Clár Comórth Céad Bliain Centenary Programme

'A book to savour... erudite, often spiky, nuanced and skilfully composed.'

Diarmaid Ferriter

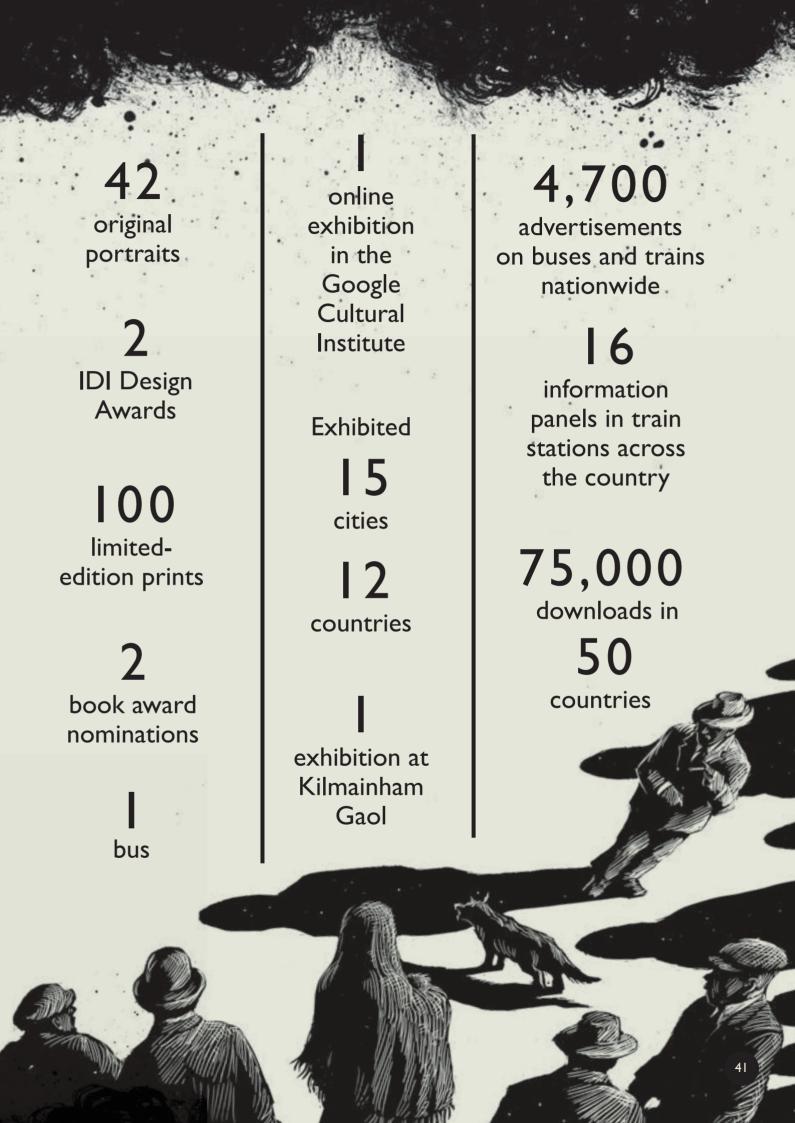




















# PROFESSOR DIANE NEGRA, MRIA, TAKES A CONTEMPLATIVE LOOK AT THE ROYAL IRISH ACADEMY LIBRARY

As long ago as 2000, James Gleick took note of a cultural shift towards acceleration manifest in such phenomena as a reduction in sleeping time, 'millisecond sensitivity that breeds further dependence on technology,' and modification of telephone operator scripts to eliminate courteous phrasing as a time-saving measure<sup>1</sup>. Similarly in his well-known book 24/7, Jonathan Crary writes about the accelerated pace of daily life and the elaboration of work into multiple spheres from which it used to maintain separation.<sup>2</sup> Judy Wajcman has observed that 'people's subjective sense of time pressure has become urgent,' while Melissa Gregg has analysed the ways in which 'consciousness of the always-present potential for engaging with work is a new form of affective labor that must be constantly regulated.'3

The strong consensus is that we are called upon more and more to be frantic multitaskers while 'the elaboration, the modelling of one's personal and social identity, has been reorganized to conform to the uninterrupted operation of markets, information networks and other systems."

Academics are hardly immune from these developments despite popular culture's predilection for depicting us as culturally removed solitary thinkers who sustain a sole and uninterrupted focus on our research while dwelling on a remote higher plane. Indeed, contemporary university environments are more and more marked by heightened administrative burdens in

baroquely technocratic regimes characterized by high levels of interruptedness. While it has always been true that the job of a university faculty member entails smooth coordination of research, teaching and administrative responsibilities, the calibration of these elements seems trickier of late, and certainly digital culture contributes to a pervasive sensibility that there is more to keep up with. Like many academics, I find my work being emphatically globalized; with colleagues and contacts in North America. Asia and elsewhere there is no phase of the day or night when email isn't coming in from somewhere. Libraries such as the Royal Irish Academy's Reading Room offer a salutary refuge in such an era. Facilitating lengthy periods of concentration, they are refuges for monotasking.



I want to venture a few comments about the particular usefulness of the RIA library to scholars as it is a space I have been making regular use of and deriving significant benefits from. To come into the library lately is to experience the vivid contrast between the tumult of the Dawson Street LUAS works and the wondrous quiet of the RIA. As a site for focused concentration, the Reading Room is unrivalled; this is a place where whispering librarians and patrons are mindful of each other's engrossment.

Maybe I am showing my age here, but I want a library to look, sound and even smell like a library. The primary colours, open-plan design and technologised operating systems that have taken over many libraries are out of sync with those expectations. At the RIA there is a pervasive and pleasing 'book smell,' the building absorbs sound and wood, glass and paper predominate over metal and plastic. In this space the disruptive innovations that reduce contact between human beings while ratcheting up administrative confusion don't set a tone of frustration and bewilderment. Ouestions to librarians are straightforwardly and directly dealt with.

For all these reasons, I've come to place a high premium on the RIA as a scholarly space in the heart of the city, a site where a more traditional set of protocols still governs interactions between library users and staff and where the work of reading, note-taking and writing can proceed in a deliberate, productive and unhurried way. In short, the Reading Room provides the kind of contemplative ethos and experience I crave more and more on days

dominated by administrative problem-solving work set to the tune of the pings of each new addition in the inbox.

Diane Negra, MRIA, is Professor of Film Studies and Screen Culture and Head of Film Studies at University College Dublin. She is the co-editor-in-chief of *Television and New Media* and the author, editor or co-editor of ten books including the forthcoming *The Aesthetics and Affects of Cuteness* (Routledge, 2016).

Read RIA Library blog @ria.ie

#### NOTES

<sup>1</sup> Faster: The Acceleration of Just About Everything, London: Vintage, 2000, p. 108. <sup>2</sup> 24/7: Late Capitalism and the Ends of Sleep, London: Verso, 2014. <sup>3</sup> Pressed for Time: The Acceleration of Life in Digital Capitalism, Chicago: University of Chicago P, 2014, p. 4; Work's Intimacy, London: Polity, 2011, p. 3.

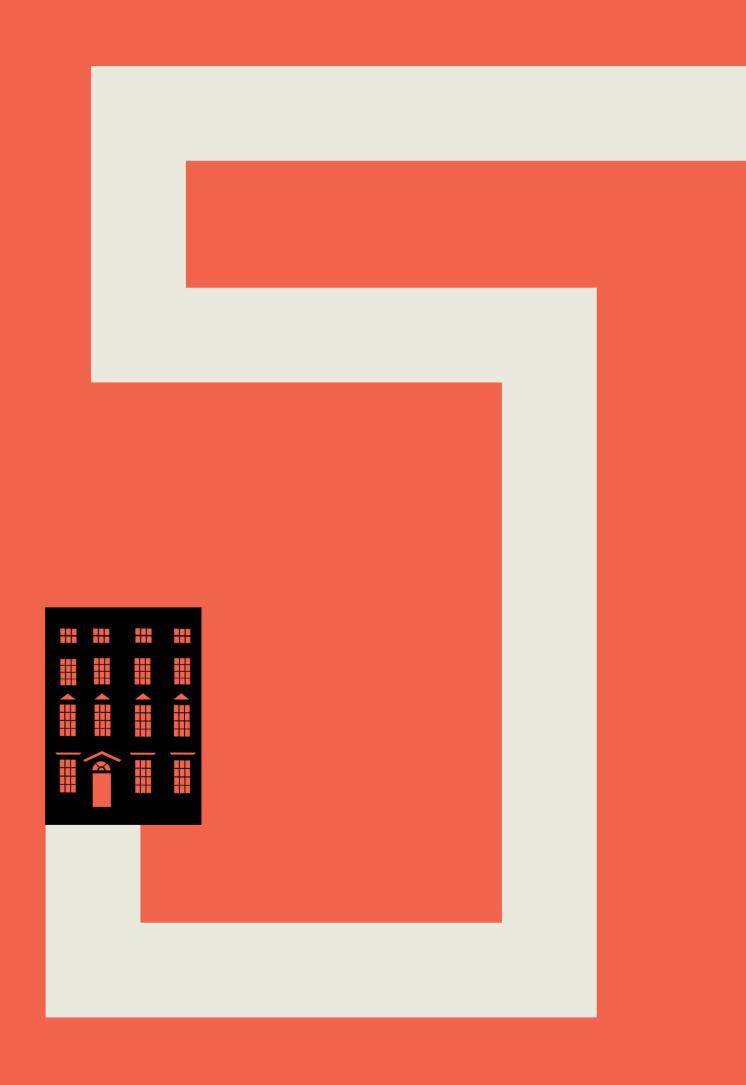
#### **CULTURE NIGHT 2016**

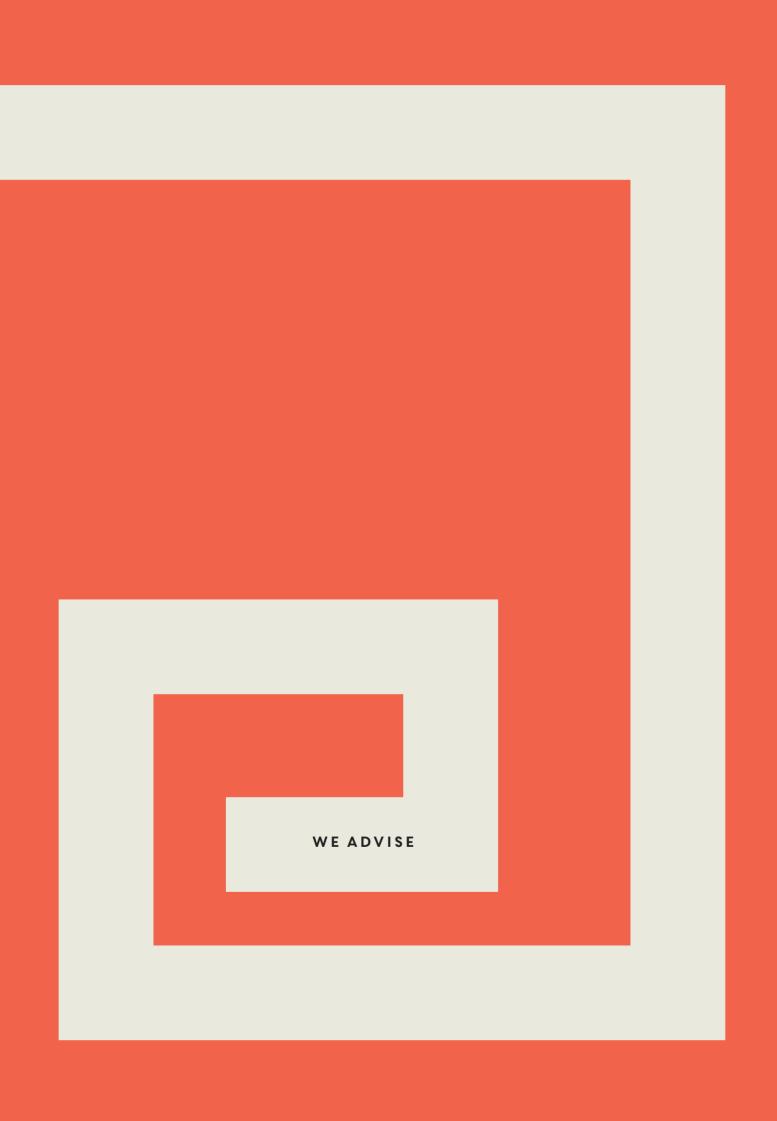
Over 1,400 people visited Academy House on Culture Night, 16 September 2016.

Live music took place all evening courtesy of NEAR FM and Raidió na Life, who used the Academy as the broadcasting hub for the South Georgian Quarter on the night.

Staff guided visitors who viewed the exhibitions, participated in a 'Write your name in Ogham' activity and learned from Tim O'Neill how manuscripts were made.







## CHALLENGES OF COMMEMORATIONS: A WORKSHOP

The post-1916 period in Ireland includes many divisive and contentious events, involving war, sectarianism, population movements and the partition of the island. In December 2015 the Royal Irish Academy hosted a roundtable discussion to explore how we should approach and commemorate the post-1916 anniversaries on a North/South basis.

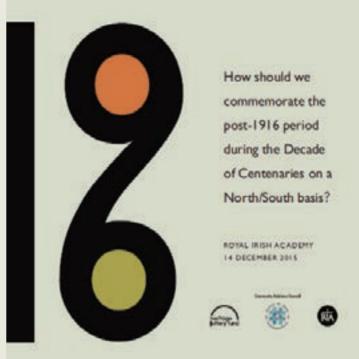
# ENFRANCHISING IRELAND? IDENTITY, CITIZENSHIP AND STATE

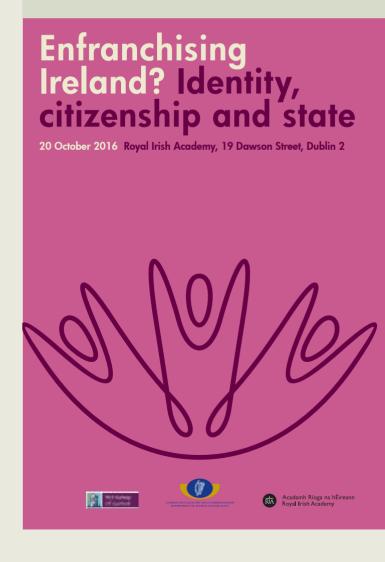
'In the words of Yeats "we are not a mean people"...we have become a multicultural society'- Mr Justice Bryan McMahon, Presiding Officer at Irish citizenship ceremonies

This day-long conference on the theme of citizenship, organised by the Historical Studies Committee took place in October 2016. The multidisciplinary conference featured contributions from classicists, historians and social scientists. The origins and evolution of the concept of citizenship and identity were explored from classical times, through the medieval period up to partition in Ireland, focusing on the implications for Ireland's citizens. Finally, contemporary issues such as Brexit, migration and integration were discussed.

## LEADERS IN HIGHER EDUCATION ADDRESS

2016 marked the third year of the Academy's 'Leaders in Higher Education Address' series. The series was established to acknowledge the contribution









of leading figures in higher education in Ireland and abroad.

In 2015, Professor Louise Richardson (pictured, left), Vice-Chancellor of the University of Oxford, and one of the world's foremost experts on terrorism and counter-terrorism, gave the second address in the series, titled 'Universities in the 21st Century'.

'I hope that European universities in the 21st century will be a diverse and variegated mix of institutions with differentiated funding models and with students advised and able to attend the university that is the best fit for them'.—
Professor Louise Richardson, MRIA

In 2016, Mr Tom Boland (pictured, left), former chief executive of the Higher Education Authority, delivered his address titled 'The relationship between the higher education and research sector and government – fractured but reparable.'

'There is a need for change, but we are in a good place and there is much to celebrate.
But it would be the height of folly for us, in this vulnerable moment, not to act'.—Tom Boland former chief executive, Higher Education Authority

#### EUROPEAN RESEARCH COUNCIL

In October 2016, the Academy welcomed the European Research Council (ERC) to Academy House for the 57th plenary meeting of their Scientific Council. To correspond with this meeting, the Academy, in association with our sponsors, organised a public interview and stakeholder conversation with Professor Jean-Pierre Bourguignon, President of the ERC. The goals of this forum were twofold: to raise awareness of the ERC across the Irish



research community and to communicate the opportunities available for Irish researchers pertaining to ERC grants.

### POLICY ADVICE PAPER SERIES

The RIA's advice paper series aims to inform those who make or influence policy. Academy advice papers are available online at ria.ie

## ADDRESSING THE FUTURE FUNDING OF HIGHER EDUCATION IN IRELAND

In September 2015, the Academy convened a forum organised in the context of the ongoing work of the Cassells Expert Group on future funding options for higher education.

In January 2016, Professor John Hegarty, MRIA, appeared before a sitting of the Joint Oireachtas Committee on Education and Skills to discuss the findings of the Report of the Expert Group on the Future Funding for Higher Education.

#### Report recommendations:

- A 25–30 per cent increase in academic staff to revert the student/staff ratio to a credible 16:1.
- An emergency public capital investment fund of €580m per annum be established to address the depleted capital stock and rising student numbers in higher education.
- The cost of further investment in higher education should be borne by its key stakeholders, notably the state, students and the institutions themselves.
- The Student Contribution Charge should be replaced with a new Student Fee and Support Mechanism that would offer students the option of deferred payment through an income contingent loan and the opportunity to borrow to cover living costs associated with participating in higher education.

#### DOES IRELAND NEED A MINISTER FOR HIGHER EDUCATION AND RESEARCH?

In 2015, the Academy established a working group to investigate whether the higher education and research sector would be better served by having a specific minister for higher education and research. A workshop led by Professor Brigid Laffan, MRIA, took place in July 2015 and the findings from this workshop informed an advice paper that explores the implications of appointing a minister for higher education and research.

### THE ACADEMY IN NORTHERN IRELAND

In April 2016, the Academy prepared an advice paper on the sustainability of the higher education system in Northern Ireland. The purpose of the paper was to highlight and draw attention to some of the major sustainability issues facing universities in Northern Ireland, the consequences of their continued underfunding and to present some initial solutions for further consideration and discussion. The paper concluded that:

'The current HE funding model, which results in Northern Ireland's universities being significantly underfunded relative to their counterparts and competitors in Britain, undermines and threatens the implementation of this central pillar of Northern Ireland economic strategy. Not only will it reduce the quality of local graduate output, it will result in a significant undersupply of graduates in areas projected to grow substantially in future years'.

In August the Academy made a submission to the UK House of Commons Select Committee on Science and Technology

Inquiry on the potential impact of Brexit on the higher education and research sector of Northern Ireland. The Academy has made a commitment to prioritise the impact of Brexit on the Northern Irish higher education and research sector as part of its 2017 policy agenda.

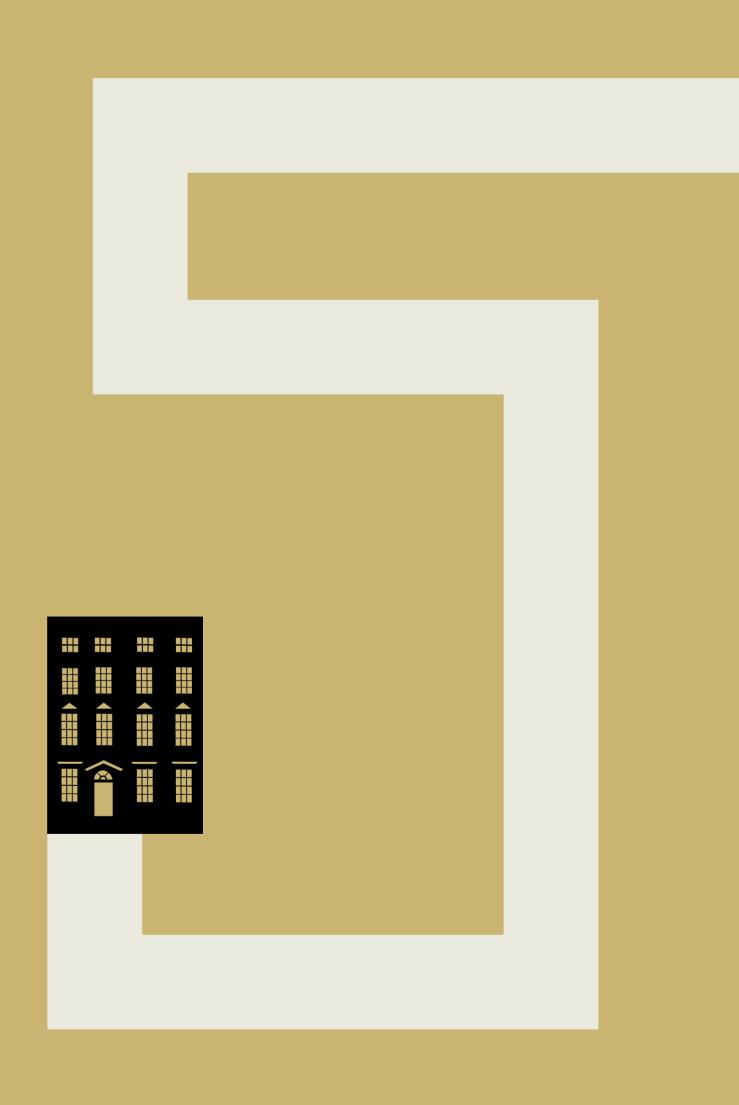
### CONSTITUTIONAL CONVERSATIONS

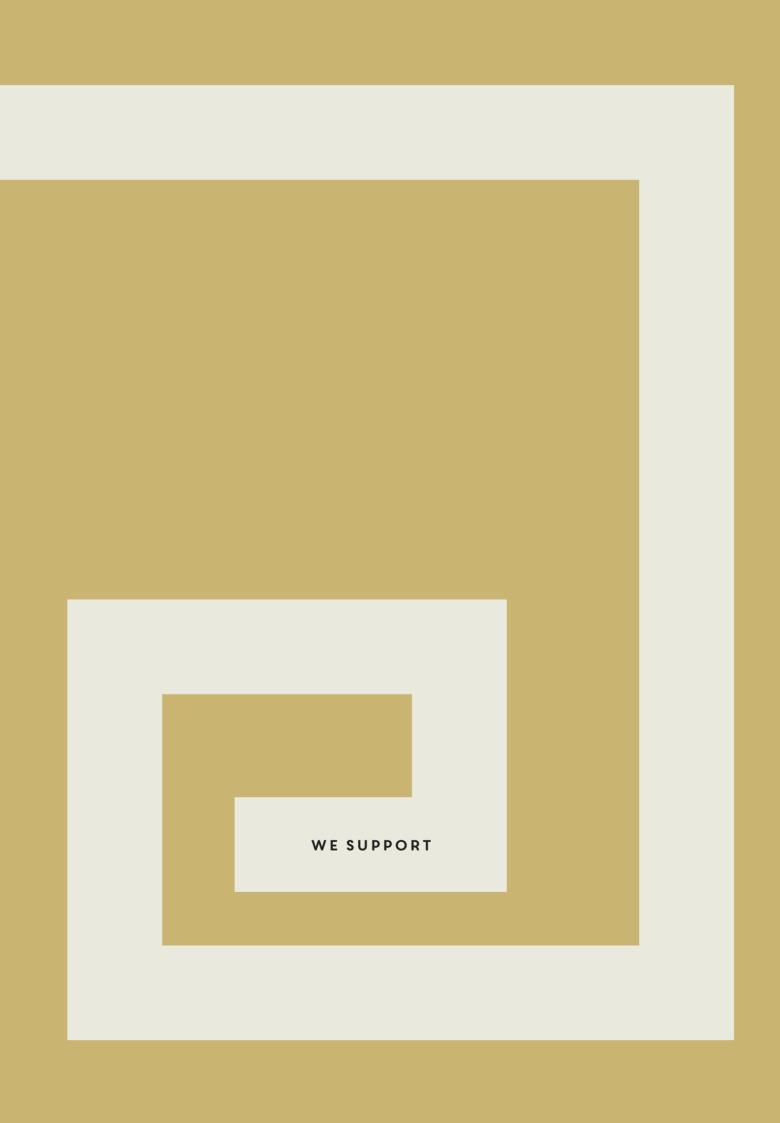
Six facilitated discussions took place throughout 2016 on topics of wide constitutional interest that reflect current concerns and some new research agendas.

- Constitutions, referendums and the family
- Reviewing constitutions: the role of constitutional conventions
- Constitutions and these islands: beyond Brexit: Part I-Dublin
- Constitutions and these islands: beyond Brexit: Part II-Belfast
- The idea of a republic: freedom and politics
- Digital citizenship
- Commemorations and the constitution

The constitutional conversations were sponsored by Mason, Hayes and Curran. The first round of Brexit conversations were co-sponsored and co-organised by JMCET Tensions at the Fringes of the European Union (TREUP). The second round of Brexit conversations were sponsored by the UK in a Changing Europe.









#### THE MASTERCLASSES

Researchers from the sciences, social sciences and humanities meet each year with leaders in their fields to discuss the opportunities open to them as early-career researchers.

A masterclass is made up of one speaker and no more than twenty participants. The speaker is an internationally recognised expert in his or her discipline. Speakers have included Professor Philip Lane, Governor of the Central Bank of Ireland; Professor Louise Richardson, Vice-Chancellor of the University of Oxford and Professor Dame Ann Dowling, President of the Royal Academy of Engineering.

#### Masterclass testimonials

'I found the talk motivational as it gave us contact with the story of a scientist's journey from beginning to discovery and to being awarded a Nobel prize. Researchers can often forget the big picture when you are buried in the work and the RIA Masterclass series is hugely beneficial to students.'

'It was very enlightening to be able to chat to someone who's so well known in the field about the things that'll affect me over the next few years.'

'I really enjoyed the masterclass, particularly the friendly and relaxed atmosphere. I definitely learned a lot about the importance of trusting your instincts and standing your ground as a researcher.'

#### CHARLEMONT GRANTS

The Royal Irish Academy's Charlemont
Grants Scheme was established in 2007. It
is a high-impact travel grant scheme aimed
at early-career postdoctoral researchers. It
is named in honour of the Academy's first
president, and notable grand tourist, James
Caulfeild, the first Earl of Charlemont
(1728-99). The scheme awards on average
30 individual applications each year with
an annual fund disbursed of approximately
€50,000.

#### **HUMANITIES AND SOCIAL SCIENCES**

**Dr Triona O'Hanlon** Reception of Thomas Moore in Paris • Bibliothèque Nationale de France, Paris France • QUB

Dr Bronagh McShane Irish women religious in exile during the early modern period: a case study of the Irish Dominican convent of Bom Sucesso, Lisbon •
Convento do Bom Sucesso, Lisbon
Portugal • NUIG

**Dr Isabella Jackson** Debating Chinese child slavery: child protection in 1930s Shanghai • Shanghai Academy of Social Sciences, Shanghai China • TCD

**Dr Mercedes Peñalba-Sotorrío** The Axis brotherhood: the role of propaganda in Spanish policy during World War II • University of Navarre Pamplona Spain • UCD

Dr Marek Martyniszyn From opposition into the vanguard: an investigation into recent changes in the Japanese approach to extraterritoriality in competition law enforcement • University of Tokyo, Kansai University (Osaka) • Tokyo and Osaka Japan • QUB

**Dr Caroline Rawdon** An investigation of the effectiveness of emotion recognition training to reduce symptoms of social anxiety in adolescence • University of Bristol Bristol UK • UCD

**Dr Julie Bates** Louise Bourgeois's fabric works: the passage of time on a personal scale • Louise Bourgeois Archive, New York USA • TCD

**Dr David Heffernan** The 'Composition for Cess' controversy and the position of the Old English in Elizabethan Ireland, *c.* 1575–1584 • The British Library, London UK • Independent Scholar

**Dr Siobhan Howard** Psychophysiological stress reactions in military veterans: examining the moderating role of stressor context and Type D personality • Indiana University of Pennsylvania Indiana USA • Mary Immaculate College UL

**Dr Denis Casey** An edition and translation of *Annála Gearra as Proibhinse Ard Macha* (British Library, Additional MS 30512) • British Library London UK • MU

**Dr Lindsay Reid** Go, little ring: graven posies and subjective objects in early modern England • V&A and British Museums in London London UK • NUIG

Dr Ailise Bulfin Literature and propaganda: An investigation of the impact of invasion scare fiction on pre-World War I British society • Lancaster University and British National Army Museum, London Lancaster UK • TCD

**Dr Grainne McEvoy** Justice and order: American Catholic social thought and immigration in the 20th Century • Center for Migration Studies (NY), Catholic University of America and Library of Congress DC NY and Washington DC USA • TCD

**Dr Alexander Dukalskis** Transition(s) in Burma/Myanmar: emerging from authoritarianism and armed conflict • Human Rights Education Institute of Burma, Burma/Myanmar • UCD

**Dr Jennifer Yeager** Memory and the Magdalenes: an examination of the role of professionals in shaping public memory • The Historical Society of Pennsylvania Hosted by Boston College USA • WIT

#### **SCIENCE**

**Dr Evelyn Keaveney** Production rate, carbon source and burial in sediments of a hyper-eutrophic lake – Rostherne Mere • Loughborough University Loughborough UK • QUB

**Dr Jim Johnson** Response of soil solution acidity in European forests to reductions in air pollution • Catholic University of Louvain Louvain Belgium • UCD

**Dr Luke Prendergast** Auto-calibrating dynamic soil-pile interaction model for offshore wind turbine analysis • National Yunlin University of Science and Technology Yunlin Taiwan • UCD

**Dr Justin King** Investigation of model order reduction techniques on state-of-theart polyharmonic distortion models • Cardiff School of Engineering, Cardiff UK • UCD

**Dr Kevin Burke** Robust multi-parameter regression models for clustered survival data • University of Copenhagen, Copenhagen Denmark • UL

**Dr Shane Hegarty** Smad-interacting protein-I regulation of nigrostriatal pathway development • Erasmus MC Rotterdam Netherlands • UCC

**Dr Mingjia Yan** Life cycle assessment of dairy processing University of Arkansas, Arkansas Arizona– UCD

**Dr Francesc Font** Phase change at the nanoscale: exploring the Limits of Continuum Theory • Imperial College London, London UK • UL

**Dr Emily Porter** Standardised calibration and validation techniques for the dielectric measurements of biological tissues • The University of Malta, Msida Malta • NUIG

**Dr Erin Jo Tiedeken** Applying novel disinfection technologies to control harmful pollinator pathogens and parasites • Royal Holloway University of London London UK • Athlone IT

Dr Linh Truong-Hong Rapid laser scanning based road network assessment
• Delft University of Technology Delft Netherlands • UCD

'The Academy's Charlemont Grant enabled me to spend a week in the former home and studio—and now an archive—of the French-American artist Louise Bourgeois in Chelsea, New York. The archival research, study of original artworks and interviews I conducted during my time in New York was directed towards *Pockets of Time*, a book I am writing that explores the imaginative turn towards worn materials and the passage of time on a personal scale by a group of contemporary artists and writers in the 1990s and 2000s.

During my time in New York, particularly after reading Bourgeois's diaries and interviewing her long-term studio assistant and the curator at MoMA who organised her retrospective in 1982 (the first ever by a woman), I came to understand that Bourgeois also offers a new way of thinking about the other primary focus of my research, Samuel Beckett. A monograph arising out of my doctoral study of Beckett will be published by Cambridge University Press as Beckett's Art of Salvage in 2017.

In the course of this visit, I came to appreciate the similarities in the material imaginations and creative practices of Bourgeois and Beckett, and, furthermore, how considering this artist and writer in parallel offers a way to reflect on the limitations of the established interpretative modes for both figures.'—JULIE BATES

## RIA-ROYAL SOCIETY COST SHARE RECIPIENTS 2015-16

#### **SCIENCE**

**Dr Stefan Schulz •** Tyndall National Institute, UCC • Band structure engineering of non-polar AlGaN structures for UV and THz emission

**Professor Peter Gallagher •** TCD • Examining the impacts of space weather on the UK and Irish power networks

**Professor Lokesh Joshi •** NUIG • Production of soluble C-type lectins for viral disease therapy



#### R. J. HUNTER RESEARCH BURSARIES 2015-16

HUMANITIES AND SOCIAL SCIENCES

**Dr Ralph Stevens •** University College Dublin / Maynooth University • Regulating and recording rites of passage in Protestant Ulster, 1690–1782

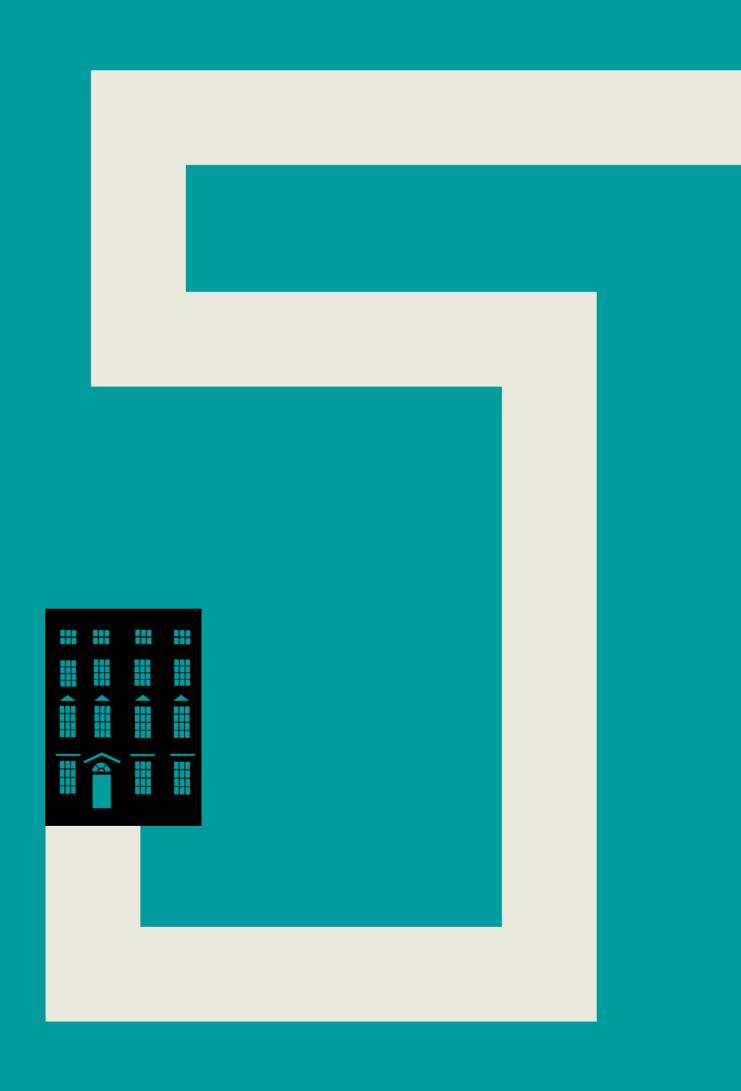
**Dr James Lyttleton** • Independent Scholar • A study of early seventeenth-century vernacular architecture in the Merchant Taylors' plantation village at Macosquin, Co. Londonderry

#### R.J. HUNTER RESEARCH FELLOWSHIPS 2015-16

#### **HUMANITIES AND SOCIAL SCIENCES**

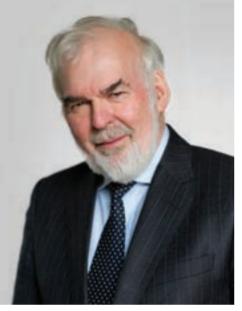
**Dr Gerard Farrell •** Trinity College Dublin • Commerce, consumption and change in Ulster and the Atlantic world, 1500–1700

**Dr David Heffernan** • Independent Scholar, associated with QUB • A model British colony? Theory and practice in the Ulster Plantation, c. 1609–1641



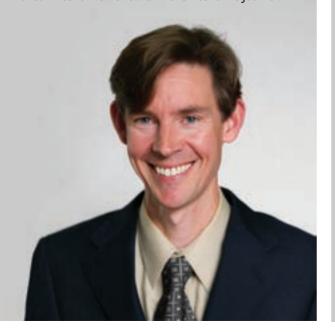


Tom Arnold is director-general of the Institute of International and European Affairs, Dublin. A former CEO of Concern Worldwide (2001–13), he has served on a number of high-level bodies, including the UN Millennium Project's Hunger Task Force, the UN Central Emergency Response Fund's Advisory Group and the European Food Security Group. In April 2012 he was appointed by UN Secretary-General Ban Ki-Moon to the lead group of the Scaling Up Nutrition (SUN) movement.



Catherine Day chairs the governing authority of University College Cork, having previously had a career of distinguished service in the European Commission. After posts in commissioners' cabinets and directorates-general, where she took the lead on many complex issues, she became secretary-general of the Commission in 2005, serving for two terms. She was the first woman to hold this post and her appointment—in succession to a co-national—departed from the convention of sharing its occupancy out among member states. EU commissioners paid her the unprecedented tribute of a standing ovation at her final meeting. She has received many prestigious awards.

**Paul Devereux** is professor of economics at University College Dublin, specialising in applied microeconomics. His research has spanned a wide range of topics, including the economic impact of education, intergenerational mobility and the effects of family characteristics and family structure on child outcomes. He has published in the top journals in economics, such as the *Quarterly Journal of Economics*, the *American Economic Review* and the *Economic Journal*.



Frédéric Dias is professor of applied mathematics at the UCD School of Mathematics and Statistics. He is at the forefront of research in water waves. He is particularly known for combining knowledge of advanced mathematical methods and real-world constraints applied to important hydrodynamic problems. He was awarded European Research Council Advanced and Proof of Concept Grants for projects on extreme nonlinear waves and their measurement.



Justin D. Holmes is professor of nanochemistry and head of chemistry at University College Cork. He is a principal investigator at the Tyndall National Institute and the CRANN and AMBER research centres. He is a world-leading nanoscientist, and is widely acclaimed for his academic and commercial achievements. His research publications on semiconductor nanowires have been recognised as some of the most significant papers in the field.



Walter Kolch of University College Dublin is an internationally renowned leader in the field of systems biology, and the director of Systems Biology Ireland. He has made seminal contributions that have had significant impact across a number of fields and disciplines. In particular, his work on quantitative biological mechanisms has led to new, fundamental scientific insights and improved therapies, particularly in the treatment of cancer.



Michael Marsh is a professor emeritus of Trinity College Dublin and a political scientist of international renown. His major fields of expertise include political parties, elections and voting behaviour. He is currently completing a study of Irish voting behaviour for Oxford University Press. He is the director of the Irish National Election Study, and has led extensive research on voting behaviour over the last four general elections.



William J. Mc Cormack is an independent scholar, editor, novelist, biographer and poet. He was professor of literary history at Goldsmith's College, University of London. He has published over twenty scholarly books, most recently Northman, a biography of the poet John Hewitt (2015, Oxford University Press), and Enigmas of sacrifice: a critique of Joseph Mary Plunkett and the Dublin insurrection of 1916 (2016, Michigan State University).



Andrew Mills is professor of materials chemistry at Queen's University Belfast. He has a world-wide reputation for pioneering research, both blue-sky and applied, in areas including semiconductor photocatalysis, optical sensors and redox catalysis. He has won the Royal Society of Chemistry's Meldola Medal and Prize, published over 250 research articles, been granted seven patents and produced two successful spin-out companies.



**Diane Negra** is professor of film studies and screen culture at University College Dublin. Her work examines the insights that popular media such as film and television offer into the societies that produce and view them. Her books include What a girl wants? Fantasizing the reclamation of self in postfeminism (2008, Taylor and Francis), and Extreme weather and global media (2015, Routledge), which she co-edited with Julia Leyda.



Máirín Nic Eoin is Cregan Professor of Irish at Dublin City University. She has published An litríocht réigiúnach (1982, An Clóchomhar), Eoghan Ó Tuairisc: beatha agus saothar (1988, An Clóchomhar), B'ait leo bean: gnéithe den idé-eolaíocht inscne i dtraidisiún liteartha na Gaeilge (1998, An Clóchomhar) and Trén bhFearann Breac: an díláithriú cultúir agus nualitríocht na Gaeilge (2004, Cois Life). She is the editor or co-editor of eleven volumes of essays on Irish language and culture.



Brian Norton is president of Dublin Institute of Technology. He is a solar energy specialist, and author or co-author of II books and more than 180 journal papers that have been cited over 3,000 times. Among the awards and honours he has received are the Napier-Shaw Medal of the Chartered Institute of Building Services Engineers (CIBSE), the Energy Institute's Roscoe Award, honorary fellowship of CIBSE (its highest honour) and fellowship of the Irish Academy of Engineering.



Geoffrey Roberts of University College Cork is an outstanding scholar of the Soviet Union. His work draws mainly on Soviet archives and publications and is characterised by his dispassionate and authoritative analysis of the domestic and external forces that shaped Soviet foreign policy and determined its military strategies. Amongst his key works are Stalin's wars: from World War to Cold War (2006, Yale University Press) and his prize-winning Stalin's general: the life

of Georgy Zhukov (2012, Random House).

**Stefano Sanvito** is a widely acknowledged leader in the theory of condensed matter, particularly its implementation in state-of-the-art computer codes for cohesive energies and related properties. These have growing predictive value, with practical applications in materials science. He is currently director of the Centre for Research on Adaptive Nanostructures and Nanodevices in Trinity College Dublin.

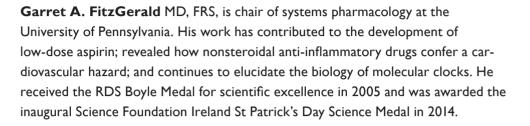


Emma Teeling is an associate professor in the School of Biology and Environmental Science at University College Dublin. She is one of the world's leading authorities on bat ecology and evolution. Her work combines field biology with population genetics, comparative genomics and phylogenetic analysis. In 2012 she received a European Research Council Starting Grant to study bats as a model system for longevity and ageing.



#### **HONORARY MEMBERS**







**Conor A. Gearty** is professor of human rights law and director of the Institute of Public Affairs at London School of Economics, and is also a practising barrister. He has a distinguished reputation for profound and provocative scholarship on civil liberties, human rights and issues posed for freedom and democracy by state security responses to terrorism. His publications include many books and almost annual articles in leading journals. His 2006 book, *Can human rights survive?* (Cambridge University Press), originates from his 2005 Hamlyn Lectures and is the biggest seller in the 50-year history of this prestigious lecture series.



**Paul M. Nurse** is director of the Francis Crick Institute, London. He identified the gene that controls the progression of the cell cycle, the process by which cells are formed, structured and destroyed. He received (with Leland Hartwell and Tim Hunt) the Nobel Prize in Physiology or Medicine in 2001 for the discovery of two proteins that control the transition between cell cycle phases. He was previously president of the Royal Society, director of Cancer Research UK and president of Rockefeller University, New York.



Louise M. Richardson became vice-chancellor of the University of Oxford on I January 2016, moving from the same role at the University of St Andrews. She has degrees from Trinity College Dublin, UCLA and Harvard University. Her research has focused on international security, with an emphasis on terrorist movements. She is a fellow of the Royal Society of Edinburgh and was awarded the Graduate School of Arts and Sciences Centennial Medal by Harvard in 2013.



**Timothy Williamson** is the Wykeham Professor of Logic at the University of Oxford. He has published over 200 articles and 7 books on logic, epistemology and metaphysics, the most recent of which is *Tetralogue* (2015, Oxford University Press). He is a fellow of the British Academy, a member of the Academia Europaea and a foreign honorary member of the American Academy of Arts and Sciences.



Clair Wills is the Leonard A. Milberg Chair of Irish Letters at Princeton University. She is an outstanding scholar whose interests and approach span the disciplines of Irish literature and recent Irish and British history. Her work is characterised by her delicate probing of poetry, fiction and other cultural artefacts and her authority as a meticulous archival researcher.



### PETER LYNCH, MRIA BENDING THE RULES TO SQUARE THE CIRCLE

Squaring the circle was one of the most famous Ancient Greek mathematical problems. Although studied intensively for millennia by many brilliant scholars, no solution was ever found. The problem requires the construction of a square having area equal to that of a given circle. This must be done in a finite number of steps, using only a ruler and a compass.

The ancient Greek philosopher Anaxagoras wrote on the problem. Archimedes managed to find a solution using the spiral curve that is now named after him, but his method goes beyond the limitations of Euclidean geometry and so does not qualify as a purely geometric solution. Many others tried to crack the problem, without success. It proved so difficult that the phrase 'squaring the circle' has become a metaphor for attempting the impossible.

#### An Impossible Task

Taking unit radius for the circle, the area is  $\pi$ , so the square must have a side length of  $\sqrt{\pi}$ . If we could construct a line segment of length  $\pi$ , we could also draw one of length  $\sqrt{\pi}$ . But it is not possible to construct line segments of arbitrary length using the permitted methods. The only constructable numbers are those arising from a unit length by addition, subtraction, multiplication and division, together with the extraction of square roots.

In 1882, Ferdinand Lindemann proved that  $\pi$  is a transcendental number; that is, not a solution of any simple polynomial equation with integer coefficients. Therefore,  $\pi$  is not constructable with ruler and compass: the circle cannot be squared within the rules of classical geometry.

#### **Amateur Interest**

The problem of quadrature of the circle has attracted the attention of amateur mathematicians as well as professionals. Indeed, thousands of false proofs have been produced by amateurs. In 1775, 'circle-squarers' had become so numerous that the Academy in Paris

passed a resolution that no alleged proofs would be examined. Purported solutions of the problem continue to appear from time to time.

Joyce's Leopold Bloom had a keen interest in the matter. There are at least three references in *Ulysses* to the quadrature of the circle. In the Ithaca episode, we read that Bloom had planned to devote the summer of 1886 to square the circle 'and win that million'. Later in the same episode, Joyce writes again of Bloom's dream of winning a government award of one million pounds sterling for the solution; in reality, no such prize was ever on offer.

#### **Bending the Rules**

There are many ways to construct a line of length  $\pi$ , given one of unit length, provided we are content to 'bend the rules'. Perhaps the simplest is to take the unit circle and roll it along a line for precisely half a revolution. Since the circumference is  $2\pi$ , the point of contact traces a line segment of length  $\pi$ .

The next challenge is to construct a segment of length  $\sqrt{\pi}$ . This is a standard problem in Euclidean geometry. We can use a result known as the intersecting chords theorem. If two chords of a circle intersect, dividing each into two segments, then the product of the two segments of one chord equals the corresponding product for the other chord. This result is easily demonstrated using the properties of similar triangles.

In the Figure, the line segment AC covered by the rolling unit circle has length  $\pi$ . We extend this segment by one unit and draw the circle of diameter  $\pi+1$  upon it. The line segment CD can then be shown to have length  $\sqrt{\pi}$ . Using CD as a side of a square, the area must be  $\pi$ , as required. Thus, by stretching the rules of the game, we have squared the circle.

Peter Lynch is emeritus professor at the school of mathematics and statistics, University College Dublin. He blogs at thatsmaths.com. His book *That's Maths* has just been published by Gill Books.

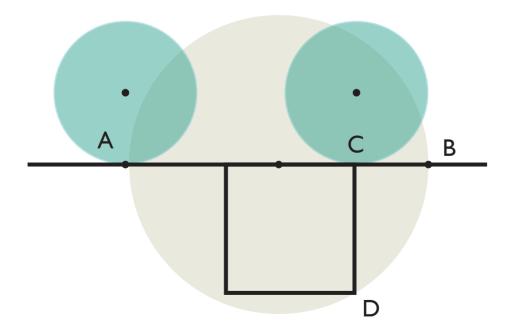


Fig. I. Quad Erat Demonstrandum — but not by the methods of classical geometry.



## IMELDA MAHER, MRIA, PL&A SECRETARY CHANGE AND REIMAGINING ACADEMIC LIFE: THE ROLE OF WOMEN

The change of name from Polite Literature and Antiquities to the Humanities and Social Sciences is symbolic of both continuity and of change (the name is still formally used even if it requires explanation).

We need to interrogate why institutions change, what are the unintended consequences of staying the same or of different changes, and whether in changing, the Academy in the broadest sense, is leading or catching up with society.

We have seen much change in academic life in a generation. The number of students and faculty has grown exponentially. There has been a vast increase in publication, research funding and increasing engagement internationally. There is also a growing emphasis on engagement with society about our scholarly work with this engagement facilitated by the extraordinary revolution in technology and especially social media. These changes have posed both challenges and opportunities. There is a crisis of higher education funding across the island of Ireland, but there are also opportunities for research that were unimaginable in the past due to cost and barriers to engagement across national and disciplinary boundaries.

These changes have mirrored an increase in the number of women academics in the sector, but poor representation of women in senior academic roles in higher education means that ongoing systemic bias remains endemic. Recent steps have been taken to address this issue with initiatives such as the British Equality Challenge Unit, the Athena Swan initiative and the Irish HEA Review of Gender in Irish Higher Education Institutions. However, further change is required in order for equality and diversity to become key values that ensure that the talents and genius of women are no longer side-lined to the impoverishment of society and the academy.



## EMMA TEELING, MRIA WOULD YOU LIKE TO HAVE YOUR PORTRAIT PAINTED?

Imagine sitting in your office on a normal day, working on a research paper, as I was, when the phone rings and someone on the other line says:

- We were wondering if you would like to have your portrait painted?
- Sorry, what did you say?
- We were wondering if you would like to have your portrait painted?
- My what?
- Your portrait.
- ...and so forth.

Eventually I began to understand what the caller was asking of me. I was being invited to have my portrait painted, along with seven other female scientists working in Irish universities, all of whom were awarded European Research Grants between 2012 and 2015.

This painting would hang in the main hall at the Royal Irish Academy, the first time a portrait of its kind would appear on the walls of Academy House.

The rationale for such a wild idea (if I'm allowed to say so!) was to address and correct the gender imbalance apparent on the walls of many prestigious institutes, whereby the majority of paintings celebrating their members and founders are of men.



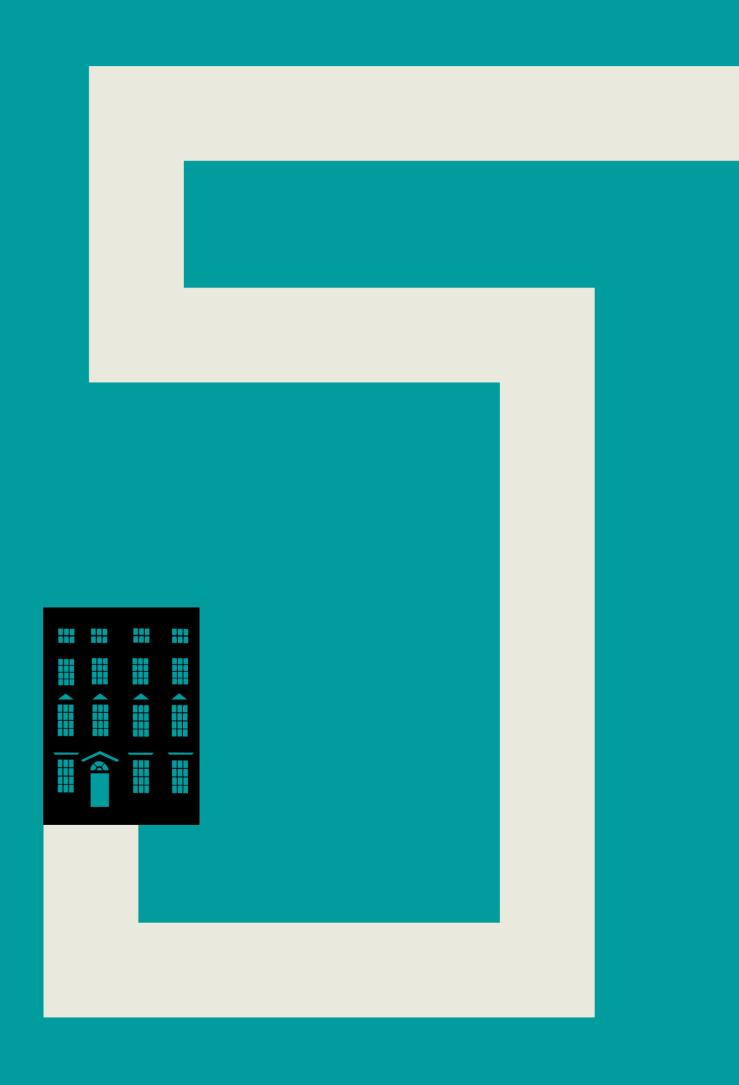
L-R Blaise Smith, artist; Alastair Blair, Country Managing Director, Accenture Ireland and Vera Klute, artist, at the launch of Women on Walls in 2016..

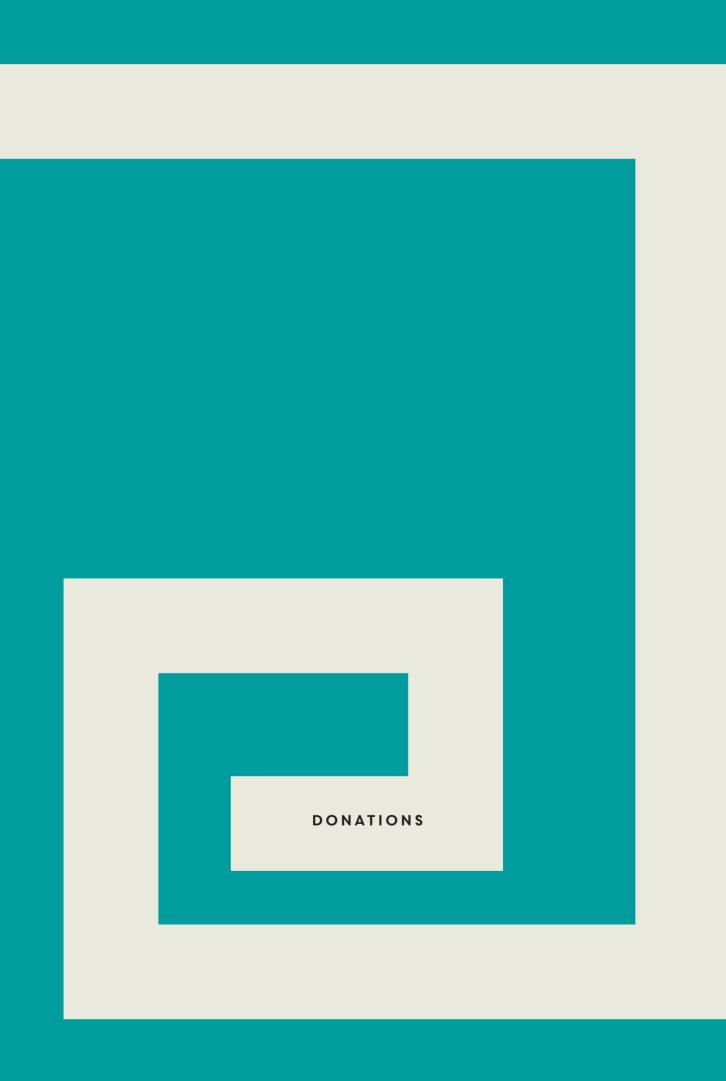
I was intrigued by the idea but I was apprehensive, given the length of time it would take to pose and the fact that an artist and potentially others would physically study me. However, I was struck by the power of this campaign to change minds and felt honoured to be invited to be part of it, and so I agreed.

After the phone call, I started to become more conscious of the lack of female portraits in public buildings everywhere. Where are our female role models? Where were the women leaders who came before us, where are the great women working in Ireland today?

Women on Walls is an exciting movement to make female leaders in Ireland visible. When people visit the Royal Irish Academy now, they will see portraits of women, which will help to re-programme any unconscious gender bias they may have. With campaigns such as this, if young people are asked to envision what a professor might look like, instead of thinking of a white bearded man in a lab coat, they can instead envision a woman equally as impassioned and just as capable. This is a message that we want our young future researchers, both male and female, to believe in to achieve our full societal potential.

So how did I find the experience? The posing wasn't too bad; having an artist observe me for hours was certainly new to me. However, if a painting of me or other individuals like me can change our world, then that has to be a great thing.





#### **NOWLAN ARCHIVE**

The archiving of the late Kevin B. Nowlan's papers was completed in September 2016. K.B. Nowlan, MRIA, 1921–2013, was professor of modern Irish history, UCD, and a champion of architectural preservation. His papers cover his academic career and his historical research, but of particular value are the papers relating to the Dublin Civic Group, the Irish Georgian Society, the Alfred Beit Foundation, Castletown Foundation and the Dublin Civic Trust.

## PRESERVING OUR NATIONAL HERITAGE ORDNANCE SURVEY MAPS

Ireland was mapped on the unprecedented scale of 6 inches to the mile by the Ordnance Survey, which produced maps for all 32 counties. The maps created between 1833 and 1846 describe the landscape of pre-Famine Ireland from coast to coast and provide a complete record of our cities, towns and villages. The Academy

Library holds a complete set of signed first-edition maps.

In July 2016, having been awarded a grant of €4,000 from the Heritage Council towards the conservation of these muchloved resources, the Library launched a fundraising campaign online through social media. Over €2,300 in supplementary funding was raised thanks to the generosity of our supporters in Ireland, France, Canada and the US.

### **OS Map conservation:**

T.A. Barrett and L. McNeece; A. Byrne; C. Casey; S. Coghlan; J. Day; K. de Lacey; J. Duffy; P. Filmer; K. Flood; W. and I. Galloway; J. Hussey; G.L. Huxley, MRIA; The Institute of Archaeologists of Ireland; J. Joy; Dr J. Keane; B. Koop; O. Lanigan; J. Little; R. Loeber, MRIA; R. Lunney; A. Mac Cready; Rev. J. McEvoy; J. McKiernan; P. Moloney; R. Murphy; S. Naughton; N. Sullivan; R. Ó Bléine; M. O'Carroll; B. Ó Cléirigh; D. and N. O'Loan; K. Owens;



C. Parsons; I. Robinson; L. Rogers; N. Weyer-Brown; D.G. Williams; B. Young; two anonymous donors.

### **NEW COLLECTIONS**

The Academy library acquired four new collections by donation during the year. Two are primarily book collections: over 80 titles were selected from the collection of the late Hilary Richardson, 1930–2015, a former lecturer in the Department of Archaeology, UCD. Thanks to Ms Richardson's niece, Ms Clare Lewis, for enabling the donation.

We thank the trustees of All Hallows College, Drumcondra, who donated a selection of monographs and serials and an album from the John Hand Library.

We received a donation of a collection relating to the Robinson family of north Kildare. Gifted by Dr James Robinson.

Mr David Elyan, London, has donated the papers and correspondence of New Square

Publications Ltd (1961–82), relating to *The Dubliner* and other publications, including correspondence with the Arts Council, writers, artists and distributors.

#### **Book Conservation:**

G.L. Huxley, MRIA.

#### Fenagh Series conservation:

P. Keane; N. McMorrow; R. McNicholl; B. Ó Cathaoir, Uas.; P. Ó Riain, MRIA; M. O'Gara O'Riordan; S. Ó Rodaigh; The Roddy family; L. Roddy; D. Stifter; C. Uí Fhearghail, Uas.; four anonymous donors.

### DONORS OF BOOKS AND ARCHIVES

Members: P. Bew; D.M. Clarke (obit Sept.); M. Clayton; J.S. Curl; M.E. Daly; T. Garvin; R. Gillespie; P. Harbison; K.T. Hoppen; G.L. Huxley; J.G. Lunney; W.J. McCormack; S. Mac Mathúna; M. McNamara; B. Murphy; D. Negra; B. Norton; M. O'Connell; J.P. O'Connor; D. Ó Corráin; N. Ó Muraíle; R. Ó hUiginn; R.M.O. Pritchard; R. Stalley; J. Waddell.



Friends: G. Beggan; Breifne Historical Society; M.P. Brown; N. Buttimer; The Charles Close Society for the Study of Ordnance Survey Maps; Cloyne Parish Office; Coiste Léann na Gaeilge; C. Cullen; W. Cumming; B. Cunningham; M. Cunningham; J.J. Davitt; The Discovery Programme; Doire Press; T.P. Dolan; B.M. Doran; M. Dowd; Dublin Global Gateway, University of Notre Dame; EastWest Mapping; D. Elyan; S. Fitzpatrick; M. Fomin; Four Courts Press; Foxrock Local History Club; Genealogical Society of Ireland; N. Harlos; R. Hegarty; R. Hensey; Heritage Council; Higher Education Authority; A. Ireland; IHTA; James Hardiman Library, NUI Galway; A. Kelliher; S. Kinsella; B. Lacey; C. Lewis; H.E. N.O. Londoño, Ambassador of Colombia; L. Lunney; D.R. O'Connor Lysaght; C. Mac Murchaidh; B. Maier; Marsh's Library; McMullen Museum of Art, Boston College; T. Moylan; H. Murtagh; C. Newman; P. Ní Mhurchú; T. O'Byrne; M. Ó Cearúil; F. Prendergast; J. Robinson; Royal College of Physicians of Ireland; Royal College of Surgeons in Ireland; RTÉ; B. Scott; P. Smith; R. Towers; The Trustees of All Hallows College; Ulster Historical Foundation; J.R.W. Weir; N.P. Wilkins; C.J. Woods.

#### **NEW HISTORY OF IRELAND**

The Academy is grateful to the following authors for donating their royalties:

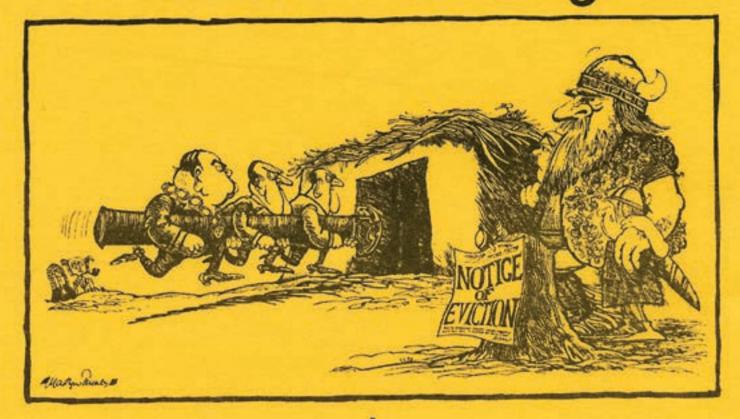
J.H. Andrews
Paul Arthur
Brian Barton
Jonathan Bardon
Carrie Barkley
Charles Benson
Barra Boydell
Paul Brand
Neil Buttimer

R.A. Butlin Wendy Childs Thomas Charles-Edwards Aidan Clarke, MRIA S. J. Connolly, MRIA John Coolahan P. J. Corish, MRIA Art Cosgrove, MRIA Mary Cullen Mary Dolley Ruth Dudley Edwards Steven G. Ellis Richard English Sean Farren Marie Therese Flanagan Maeve Fleischmann Desmond Gillmor Brian Girvin R. E. Glasscock John Gribbon Peter Harbison, MRIA J.P. Haughton, MRIA Jacqueline Hill Michael Kenny Liam Kennedy Joseph Long Jennifer Lyons Michael Muldoon Máire Ní Annracháin Lucy O'Keefe Eunan O'Halpin Susan Parkes Paul Russell Alexander Brian Scott, MRIA David Simms, MRIA

Opposite: Flyer for a Wood Quay rally and public meeting organised by the Friends of Medieval Dublin (1979). Kevin B. Nowlan papers.

Roger Stalley, MRIA

# FRIENDS OF MEDIEVAL DUBLIN Th. 14. 19.19. Save our National Monument at Wood Quay



### PUBLIC MEETING

"WOOD QUAY - A EUROPEAN HERITAGE"

MANSION HOUSE

Thursday, March 29th

at 7.30 p.m.

Admission Free

Chairman: Rev. Prof. F. X. Martin

Main Speaker:

Dr. Henrik Jansen (Svenborg Museum, Denmark)

### WOOD QUAY RALLY & MARCH

Saturday, March 31st at 11.00 a.m.

Assembly Point:

Leinster House

#### BEREAVEMENTS

January-December 2016

**Bell**, Kenneth Lloyd. BSc(QUB 1961), MA(UCLA 1964), PhD(QUB 1965). Fellow of Institute of Physics, Royal Astonomy Society and American Physical Society Physicist Emeritus Professor of Physics and former Pro-Vice-Chancellor, QUB. Born 03 January 1941, Elected 2001, On Council and in Office 2007–08, 2009–10 by co-option, 2010–14, VP 2011–14. Died 6 June 2016.

Butler, Richard Noel. BSc, PhD, DSc(NUI), FICI, FRSC, Boyle - Higgins Medal 1998, American Chemical Society, International Society of Heterocyclic Chemistry, President Institute of Chemistry of Ireland 1986–88, Chair Royal Society of Chemistry Republic of Ireland Section, 1993–96 Emeritus Professor of Chemistry, NUIG. Elected 1979. Died 10 February 2016.

Carroll, Peter Kevin. MSc, PhD, DSc(NUI) FInstP. Emeritus Professor of Optical Physics, UCD. On Council and in Office: 1968–72, 1973–77, 1982–83, VP 1983–84, 1984–85, VP 1985-86, 1994–98. Elected 1960. Died 8 December 2016.

Clarke, Desmond Matthew. BSc(NUI), PhD(Notre Dame, USA), L.Théol(Lyon), BPh(Louvain), DLitt(NUI). American Philosophy Association; History of Science Society (USA); British Society of Historical Philosophy. Professor of Philosophy, UCC. Elected 1999. Died 4 September 2016.

**Crookshank**, Anne Olivia. BA(Dubl 1949), MA(Lond 1952). FTCD(Emerita). Retired Art Historian, Professor Emerita of Art History, TCD. Elected 1985. Died 18 October 2016.

Hand, Geoffrey Joseph Philip. MA(NUI), DPhil(Oxon). FRHistS Historian, Barristerat-Law, Emeritus Professor and former Chairman, Irish Manuscripts Commission. Born 1931. Elected 1970. On Council and in Office: 1995–97, VP 1997–98. Died 26 February 2016.

Hardiman, Adrian Patrick. BA(NUI, 1972), BL(Kings Inns, 1974, Middle Temple, 1988), SC(1989), Bencher (Kings Inns, 2000), Master of the Bench(Middle Temple, 2006). Lawyer Judge. Elected 2006. Died 7 March 2016.

Herity, Michael. MA, PhD Archaeologist. Emeritus Professor of Archaeology, UCD. Elected 1980. On Council and in Office: 1981–85, 1986–90, 1995–96. President 1996–99. Died 23 January 2016.

Jeffery, Keith. BA, MA, PhD, LittD(Cantab 1974, 1978, 1979, 2010). Walter Frewen Lord Essay Prize (Royal Commonwealth Society 1975), Holland Rose Student in Imperial History (Cambridge 1975–77), Prince Consort Prize and Seeley Medal (Cambridge 1978). Lees Knowles Lecturer (Trinity College Cambridge 1998), Parnell Fellow in Irish Studies (Magdalene College Cambridge 2003–04), Templar Medal Book Prize (2007), Fellow of the Royal Historical Society. Professor of British History, QUB. Elected 2009. Died 12 February 2016.

Moiseiwitsch, Benjamin Lawrence. BSc, PhD(Lond). Emeritus Professor of Mathematics, QUB. Elected 1969. Died 16 September 2016.

Ó Fiannachta, Pádraig. BA, MA, HDip, DPh(NUI) SP, VF(Cantab), D.Litt Hum(hc). Canon Kerry Diocese, Sagart Paroiste. Former Professor of Early and Medieval Irish, Maynooth. Elected 1967. Died 15 July 2016. O'Reilly, Jennifer. BA(Nottm 1964), DipEd(Oxon 1965), PhD(Nottm 1972). FSA Statutory Lecturer in History, UCC. Elected 2007. Died 18 February 2016.

**Sexton**, Michael Cornelius. BSc, MSc(NUI), PhD(Liverpool), DSc(NUI) FIEE, FIEI, SMIEEE, FInstP. Engineer. Emeritus Professor of Electrical Engineering, UCC. Elected 1971. On Council and in Office: 1972–73, 1974–75, 1997–99, 2002–05; Secretary for Science 1975–80. Died 18 July 2016.

Thomas, Charles is a Former Professor of Cornish Studies at the University of Exeter, President of the Society for Medieval Archaeology and of the Cornwall Archaeological Society, and a member of the Royal Commission on Historical Monuments for England. Archaeologist. Former Professor of Cornish Studies. University of Exeter. Elected 1973. Died 7 April 2016. (Honorary member)

Walsh, Brendan M. MA, PhD. Economist. Emeritus Professor of Economics, UCD. Elected 1980. Died 17 May 2016.

### ARCHAEOLOGICAL MAN

In memoriam Michael Herity

A man strict in procedures Arranging the instruments Brushing clay Inspecting maps, diagrams

We climbed hills west of Lough Arrow
To views cairns in high places
Walked the meadows of Maeve's demesne
Reconnoitred a battleground in the Yeats country

On a bus tour he swept the horizon 'Eight o'clock' ... 'twelve o'clock high' We sang the miles home Sated on scholarship

Now that he is gone
I identify the demanding decencies

Maurice Harmon January 2016

Professor Michael Herity, PRIA (1996–99)

### SUMMARY OF ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2015

### General Purposes Current Account\*

Income	€
Grant-in-aid	2,642,000
HEA Funding - pension legacy	80,000
Members subscriptions Sale of Publications	47,500
	232,554
Sale of Proceedings	94,890
Miscellaneous	145,658
Room Rental	38,006
Dept of the Gaeltacht	142,822
Total Income	3,423,430
Diverse França ditama	
Direct Expenditure	100 220
Audit, Law, Bank, Professional Charges	100,320
Fuel & light	39,112
Furniture, Equipment & Household	52,077
Discourses	8,878
Miscellaneous	36,038
General Insurances	9,807
Information Technology	114,993
Supplementary Pensions	104,658
Postage and telephone	42,759
Printing Administrative	13,107
Salaries & Wages	1,193,560
Stationery & Office equipment	36,880
Training & Development	43,683
Total	1,795,872
Allocations to Special Associate	
Allocations to Special Accounts International Unions & General Assemblies account	31,028
Library account	322,720
Print Proceedings account	327,146
General Publications account	171,632
Foclóir na Nua-Gaeilge account	374,451
Celtic Latin Dictionary account	102,021
International Exchanges & Fellowships account	38,229
Irish Historic Towns Atlas account	134,360
Dictionary of Irish Biography account	280,506
Total of Allocations	1,782,093
Total of Expenditure	3,577,965
Income	3,423,430
Expenditure	3,577,965
Expenditure	3,377,703
Surplus/Deficit EOY	(154,535)
Carried forward from previous years	298,071
Balance going forward	143,536

<sup>\*</sup>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 2015

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/fs\_2015\_-\_c\_ag\_certified\_0.pdf

Statement of Income	and Expenditure
for the year ended 31	December 2015

	2015	2014
	€	€
Income		
Oireachtas grants	2,722,000	2,702,000
Funding and Other income	3,363,645	2,163,944
Income (released)/deferred in the period	(676,560)	310,620
Deferred Pension Funding	979,000	1,183,000
TOTAL INCOME	6,388,085	6,359,564
Expenditure		
Staff costs	4,742,699	5,058,213
Accommodation and establishment	132,893	134,215
General administration	536,739	697,814
Publication costs	256,050	368,373
Conference and meeting expenses	186,400	174,627
Book purchases and international subscriptions	69,955	72,608
Grants and awards	81,858	100,308
Depreciation	28,568	26,052
	6,035,163	6,632,210
Operating deficit	352,922	(272,646)
Unrealised gains on Investments	104,533	163,831
Transfer from Capital Account	27,419	(27,736)
Transfer (to) Endowment Funds	(574,429)	(165,312)
Deficit for the year	(89,555)	(301,863)

### Statement of Financial Position as at 31 December 2015

as at 31 December 2013		
	2015	2014
	2013	2014
	Ę	E
Fixed assets		
Property, Plant & Equipment	49,495	76,914
Heritage Assets	20,000	20,000
Funds and Projects Financial assets	3,176,184	2,652,152
	3,245,679	2,749,066
Current assets		
Stocks	211,088	199,882
Debtors	65,765	74,873
Cash at bank and in hand	2,359,496	1,737,443
	2,636,349	2,012,198
Current liabilities		
(amounts falling due within one year)		
Payables	(230,850)	(244,103)
Deferred Income	(3,254,214)	(2,577,653)
Net current assets	(848,715)	(809,558)
Total assets less current		
Liabilities before pensions	2,396,964	1,939,508
Deferred pension funding	14,150,000	12,400,000
Funded Scheme Assets	2,100,000	2,100,000
Pension Liabilities	(16,250,000) (14,500,000)	
Net assets	2,396,964	1,939,508
Financed by:		
Capital account	49,495	76,914
Endowment Funds – Expendable	1,932,018	1,357,589
Endowment Funds – Permanent	20,000	20,000
Income and expenditure account	395,451	485,005
	2,396,964	1,939,508

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 Oireachtais Grant, which is accounted for on a receipts basis.

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

