



${}^7\text{Li} + {}^1\text{H} = {}^4\text{He} + {}_2\text{He} + \text{Energy(E)}$

$E = mc^2$



## Úlla agus Adaimh le hEilís O'Connell RHA

Ceiliúradh ar Ernest T.S. Walton 1903-95, Buaiteoir Dhuis Nobel  
cruach dhosmálta shnasta, airde 420cm, 2013

Ollamh Erasmus Smith le Fealsúnacht Nádúrtha agus Turgnamhach, Coláiste na Tríonóide, Baile Átha Cliath (1946-74)

Duais Nobel don Phisic, 1951, a comhbhronnadh air féin agus ar Sir John D. Cockcroft as an obair cheannródaíoch a rinne siad ar chlaochlú núicléas adamhach ag cáithníni adamhacha luathaithe saorga.

Sa bhliain 1932, scoilt Ernest T.S. Walton agus John Cockcroft núicléas adamh Li (litiam), an rud ar an dtugtar go minic 'scoilteadh an adaimh'. I Saotharlann Cavendish in Ollscoil Cambridge, Sasana, a rinneadh an turgnamh. D'fhogair Albert Einstein gurbh é an turgnamh sin an chéad léiriú riamh ar an gcothromód iomráiteach dá chuid féin  $E=mc^2$ .

Mar chomóradh ar chothrom 80 bliain ó aimsir an turgnaimh, d'íarr Coláiste na Tríonóide, Baile Átha Cliath ar sheisear ealaíontóir dearadh a chur isteach a thiofadhl leis an gcúram comóradh a dhéanamh ar ar éirigh le Ernest Walton a bhaint amach ina chuid taighde agus le fónamh 30 bliain don oideachas san eolaíocht. Ba é dearadh Eilís O'Connell a roghnaigh painéal idirdhisciplíneach lenar bhain ionadaithe thar ceann mhuintir Walton, Scoil na Fisice, Bailyúcháin Ealaíne an Choláiste, na mic léinn agus daoine gairmiúla seachtracha i réimse na n-amharcealaíon.

### Ealaín agus Eolaíocht le chéile, focal ón dealbhóir Eilís O'Connell RHA

"Ar shaothar línlíochta Walton a scrúdú dom i gCartlann Churchill in Cambridge, thug mé faoi deara go raibh ar a chumas cuid mhór eolais a chur in iúl le línlíocht agus téacs arbh é a laghad an tréith ba shainiúla mar gheall air. Tháinig an saothar a chuir mise chun cinn faoi anáil loime an mhodh oibre agus glaine na haeistéitice sin aigesean.

Thaitin sféir liom mar ghné fhóirmiúil den dealbhóireacht mar gheall ar an leas a baineadh astu chun bearnaí spréach a chruthú don luasaire cáithníni a d'úsáid Walton agus Cockcroft ag 'scoilteadh an adaimh' sa bhliain 1932.

Frithchaitear sa charnán sféar crainn úll de dhúchas na hÉireann a cuireadh go speisialta. Is léargas iad ar shaol príobháideach an eolaí agus an spéis mhór a bhíodh aige i gcrainn torthaí agus a bhfás.

Tá ómós á thabhairt sa saothar dealbhóireachta seo do na tréithe ba thrise i Walton - an téagar intleachta, an cumas luasaire cáithníni a dhéanamh le stuaim na lámh agus an acmhainn in athair agus in oide dó cumas dhaoine eile a chothú agus a thabhairt chun cinn. Ní saothar acadúil amháin atá teist ar an bhfeir ach sa chuimhne a mhaireann ag daoine eile air ina dhiaidh."

Níor bhféidir an coimisiún seo a dhéanamh murach an cúnamh ó mhuintir Walton, an Propast, Scoil na Fisice, Cumann agus Lontaobhas Choláiste na Tríonóide, Baile Átha Cliath, an Roinn Oideachais agus Scileanna, Institiúid na Fisice in Éirinn, Comhaltaí agus alumni Choláiste na Tríonóide, Baile Átha Cliath, agus Gailearaí na hEolaíochta.

Bailyúcháin Ealaíne Choláiste na Tríonóide, Baile Átha Cliath a rinne an obair bhainistíochta i leith an choimisiúin [www.tcd.ie/artcollections](http://www.tcd.ie/artcollections)

## Apples and Atoms by Eilís O'Connell RHA

Celebrating Ernest T.S. Walton 1903-95, Nobel Laureate  
polished stainless steel, height 420cm, 2013

Erasmus Smith's Professor of Natural and Experimental Philosophy, Trinity College Dublin (1946-74)

Nobel Prize for Physics, 1951, jointly awarded with Sir John D. Cockcroft for their pioneering work on the transmutation of atomic nuclei by artificially accelerated atomic particles

In 1932, Ernest Walton and John Cockcroft split the nucleus of a Li (lithium) atom, often termed 'splitting the atom'. The experiment was carried out in the Cavendish Laboratory at the University of Cambridge, England. Albert Einstein declared that their experiment was the first demonstration of his famous  $E=mc^2$  equation.

Commemorating the 80<sup>th</sup> anniversary of the experiment, Trinity College Dublin invited six artists to submit a design responding to a brief to commemorate Ernest Walton's research achievements as well as over 30 years of dedication to science education. Eilís O'Connell's design was selected by an interdisciplinary panel including representatives from the Walton family, the School of Physics, the College Art Collections, the students, and external visual arts professionals.

### Art meets Science, a word from the sculptor Eilís O'Connell RHA

"Having researched Walton's drawings at the Churchill Archives in Cambridge, I noted that he could convey the maximum amount of information with minimal line drawing and text. His minimal, reduced aesthetic approach influenced what I proposed to make.

Spheres as a formal sculptural element appealed to me because they were used to create spark gaps for the particle accelerator with which Walton and Cockcroft 'split the atom' in 1932.

Reflected in the stack of spheres are specially planted native Irish apple trees that refer to the private man and his keen interest for growing fruit trees.

The sculpture pays homage to Walton's most important characteristics – his intellectual rigour and hands-on ability to physically build the particle accelerator and his nurturing ability as teacher and father. A man is not defined solely by his academic achievements but also by the memories he leaves behind in others."

The commission was made possible by the support of the Walton family, The Provost, the School of Physics, the Trinity College Dublin Association and Trust, the Department of Education and Skills, the Institute of Physics in Ireland, the Fellows and alumni of Trinity College Dublin and the Science Gallery.

The commission was managed by the Trinity College Dublin Art Collections  
[www.tcd.ie/artcollections](http://www.tcd.ie/artcollections)