SOME IRISH QUAKER NATURALISTS

Introduction

Speakers are always advised to avoid apologies; none the less I think that some explanations are required before launching on my subject. First it is characteristic of the generosity of the Friends Historical Society that they from time to time ask an Irish Friend to act as President. Britain or to be more accurate England is the true centre of early Quakerism and it is inevitable that historical studies have their true root here. Other branches of the Society of Friends must first look to their English origins, but they have put down adventitious roots into their own soil; and it is good when this is recognised.

Amongst other Irish Friends recognised by the FHS have been Isabel Grubb, John M. Douglas and Olive Goodbody each of whom some of you will remember with appreciation. Unknown to them they taught me much of what I know, and each of them had particular scholarly abilities which I cannot copy. In fact although I have written abut *The Irish Quakers*, I am essentially a second handler, having spent little time on original sources.

I was asked about two years ago to join in a symposium on *Quakers in Irish Natural History and Medicine.* Why should Quakers have had any importance in relation to a country's natural philosophy? We had realised that the Quaker community had made a disproportionate contribution to the Irish economy; and that they had in a special way served the country in time of famine and even of rebellion; but that it had a special place in the development of Ireland's science and medicine seemed unlikely and was certainly unrecognised. It is from the work on this subject that I have been able to find the substance of this address.

First I must go back to the early days of Friends and say something about the Quaker movement in relation to science.

Quakers and Science

The development of Quakerism in the mid-seventeenth century is exactly contemporaneous with the development of Science as a few

dates will show. George Fox lived from 1624 to 1691 and Robert Boyle from 1627 to 1691; Isaac Newton, 1642-1727; Friedrich Leibnitz 1646-1715; William Penn, 1644-1718; John Bellers, 1654-1725. Boyle's *Skeptical Chymist* was published in 1661, only five years after the 'Declaration from the Elders of Balby' on which the discipline of Friends is founded. Newton's *Principia* is a little bit later in 1687. Other scientists of the period included Linnæus 1707-1778 which compares with one of the more remarkable of Irish Friends, Dr. John Rutty, 1697-1775.

The whole scientific movement had started earlier but those I have mentioned and their contemporaries laid the foundations of modern science. The foundation of the Royal Society in 1645 and its charter in 1660 provide a convenient peg for modern science, as 1656 does for the Quaker ethos.

The old science, like the old theology had been a matter for schoolmen. Academics who could repeat the opinions of Aristotle, Galen or the Fathers of the Church were considered the most learned and carried the most influence.

However the new leaders of science insisted on putting their speculations to the test of observation and experiment, and so too the new approach to religion was to personal experience and not to a religion taken from schoolmen or creeds laid down by other people. Today one of the most quoted passages from George Fox is; 'You will say "Christ saith this and the Apostles say this"; but what canst thou say?' Then while I take it that the word 'experimentally' used by George Fox, is properly understood as 'by personal experience', rather than in the scientific sense, is not so far away and had an element of testing in it.

The Quaker movement lay on the extreme wing of the reformation entirely rejecting hierarchical control and what they believed to be the superficial and unnecessary ceremonies of the church. This distrust of ancient authorities was shared by the scientists. In both Science and Quakerism the emphasis on *Truth* was fundamental. The attitude of mind which the scientists put to the exploration of the outer, phenomenal world, the Quakers put to the inner world of their religion.

It would not be correct to say that the Quaker movement was scientific, nor would it be sensible to expect many direct contacts between Quakers and these eminent and innotative scientists, but I do feel justified in considering that they had an approach in common. Quaker beliefs were to be founded on experience and their intuitions tested by practice and common sense and by the considerations of other Friends. This was at heart what scientists were also doing by

their insistence on observation and experiment and the presence of their findings to colleagues.

There were other ways in which Quakerism and observational science met. The Puritan reformers of medicine[1] were also concerned with the correction of academic traditions. To them the world, the flesh and the devil were to be found in human wisdom; think of John Bunyan's Mr. Wordly-wise-man and Legality against Mr. Valiant-for-Truth. Amongst those who became Quakers there were some who believed that the Fall was confined to the human species and that animals and plants were as they were before the Fall in Eden or the confusion in Babel. Some even considered that if they could know animals and plants as Adam knew them, his names for them would be explanatory.[2] God might be found directly in the observation of nature. Thus the natural world was part of the Kingdom and the references of George Fox to "unity with creation" is justified.

However there was a movement of medical reform even closer to Quakerism. There was the revival of hermetic medicine[3] and the establishment of what we might now describe as groups concerned with alternative medicine. These groups, especially across Protestant Europe, laid emphasis on the spiritual nature of healing and that all the substances needed for medicine were to be found in nature. This more radical movement in medicine is to be seen in the work of Bruno[4] burnt at the stake in 1600 and Paracelsus.[5] It is known that George Fox's library contained some references to these medical reformers, and that he himself had wished to study medicine and wondered whether he should "practice physic for the good of mankind, seeing the nature and virtue of the creatures was opened to me by the Lord". Penn and Fox seem to have had some contact with the Dutch iatro-chemist, van Helmont and the translation of his works into English appears to have been made by a Quaker.

The Quakers seem to have had both sympathy with the scientists and with the special reforms in medicine, while on the other hand the other established churches appear to have often resisted change and speculation and found them contrary to orthodoxy.

Penn on Education

The well-known comment of William Penn on education in *Some Fruits of Solitude* is relevant to what I wish to say.

> 'We are at pains to make them Scholars but not Men! To talk rather than to know. The first thing obvious to Children is what

is sensible; and that we make no part of their Rudiments. We press their memory too soon, and puzzle, strain and load them with Words and Rules; to know Grammar and Rhetoric, and a strange tongue or two, that it is ten to one may never be useful to them, leaving their natural Genius to Mechanical and Physical or natural Knowledge uncultivated and neglected. To be sure languages are not to be despised or neglected. But things are to be preferred.Children had rather be making Tools and Instruments of Play, Shaping, Drawing, Framing, and Building etc., than getting the rules of Propriety of Speech by Heart and those also would follow with more Judgment and less Trouble in Time. It were happy if we studied Nature more in natural Things, where Rules are few, plain and most reasonable. For how could Man find the Confidence to abuse Nature, while they should see the great Creator stare them in the face in all and every part thereof.'

This passage of Penn's shows clearly the Quakers' kind of educational reform: their utilitarian attitude, their respect for nature, and their attempt to understand the needs of the child. Science and natural history teaching for practical purposes, and a respect for the needs of the child are recurring themes throughout Quaker educational history.

Lawson and Bellers

I do not intend to deal with English Friends concerned with science beyond mentioning that there were many like the botanist Thomas Lawson, 1630-1691,[6] who was one of the Valiant Sixty; others more closely associated with members of the Royal Society: and John Bellers,[7] 1654-1725, who may be regarded as a social reformer rather than a scientist, but whose *Proposals for the Improvement of Physick* presented to Parliament in 1714 are so extraordinary. He not only advocates a state medical service, but special regional hospitals, specialist hospitals, a careful investigation of all medicine with circulars reporting the findings to all practitioners and the payment of doctors when their patients could not do so. When you consider that in addition to these modern matters he advocated a European Union and Parliament as well, his innovations are of unassailable interest.

Dr. John Rutty 1697-1775

The first Irish scientist I wish to mention is John Rutty 1697-1775. One should call him a second generation Quaker. He came from Melksham[8] in Wiltshire, obtained his Doctorate in Medicine from Leyden University and started to practice in Dublin in 1725. From the Quaker point of view he is known best both as the author of the posthumously published *Spiritual Diary and Soliloquies* and as the historian who brought up to 1750 Wight's unfinished *History of the Rise and Progress of the People called Quakers in Ireland.* Included with this book published in 1751 were two others *An Introduction Describing summarily the Apostacy of the Professors of Christianity* and *A Treatise concerning the Discipline of the People called Quakers.* These works remain the most important accounts of early Irish Quaker history.

Rutty was in religion a Quietist and recounts about the year 1751 reading the *Essays of Messieurs du Port Royal.* But one should not think of Quietism as separating an individual from his or her duties in the world or respect of nature.

Quoting from his *Spiritual Diary*:

> 'The earth and sea are full of thy glory.
> The Author of nature vouchesafeth to open its mysteries to the diligent inquirer.
> Now finished the transcript of my Materia Medica, a principal work of my life. A work of no present advantage to me, but I hope will prove so to others, but this is still far inferior to spiritual medicines.'

He saw his work as for the practical good of mankind but sets his spiritual life first.

Among his many medical and scientific publications (of which a list is appended) is *The Chronological History of the Weather and Seasons and the prevailing Diseases in Dublin with their various Periods, Successions and Revolutions during the space of Forty years.* The title goes on and on comparing the diseases of Dublin with London and other centres.This was addressed to the members of the Physico-Historical Society of which he was one of the founders and which established a number of surveys of the resources of several Irish counties.

He undertook for this society that of Dublin and County, *An Essay towards the Natural History of the County of Dublin* published 1772. This was the first regional natural history of Ireland based on direct

observations. There are a number of Quaker names in the list of subscribers – Bewly, Clibborne, Chandlee, Greer, Haliday, Lecky, Morris, Pim, Poole, Richardson, Strangman, Thacker, Watson. The contents are most comprehensive: the City of Dublin, medical statistics, esculent vegetables. There is considerable emphasis on practical resources throughout; use of plants, value of trees for timber, indigenous plants, their use in dyeing and painting, 'Poysanous' vegetables, flowering seasons, quadrupeds, birds, fishes, insects, soil, minerals, mineral waters, weathers etc. Clearly much of it based on his own meticulous records. His treatise on mineral waters and the flora of County Dublin are highly original. His *Materia Medica Antiqua et Nova,* his practical and consultative medical work and his great interest in education were each highly respected.

It is characteristic, I think, of the Quaker scientist that he applies his basic attitude to many branches of science and history. I think there was always a feeling that if the whole world was one creation, there was necessarily uniformity of reason behind it and what they thought of as Biblical or revealed religion could not lead to different conclusions.

Some institutions

Throughout his work on the health of the population and in particular in his descriptions of Dublin, Rutty frequently comments on the lack of hygiene, the depth of filth on the streets, the inefficient cesspits and sewers, the dung hills with heaps of discarded animal offal, the rotten wooden pipes and open conduits carrying drinking water, the tenements with many families in the same room and the complete lack of care for the aged and education for the young. It may be that this had a large influence on Friends. Their support of his book has been mentioned. However shortly after his death there was an outburst of Quaker effort to deal with some of these problems. Five institutions in particular were founded by committees of Quaker business men accompanied by several others including members of the well known Huguenot banking family of La Touch. These were:

1794 The Sick Poor Institution in Meath Street
1798 The revival of a school started earlier in School Street 'without interference with the religion of any'
1801 The Cork Street Fever Hospital, called the House of Recovery
1817 The Irish Savings Bank
1822 The Meath Hospital

All these institutions except the school have lasted until the middle of this century and have recently taken rather different forms. The school, partly on the Lancastrian system with both girls and boys, lasted for 40 years and budded a training college which became the Church of Ireland Training College. Three Friends and two others were founder members of all five boards. Samuel Bewley appears to have been the prime mover and he was also one of the instigators of Bloomfield Hospital.

John Eustace, 1791-1867, MD. FRCPI

The founding of Bloomfield Mental Hospital[9] began in 1807 but did not come into full use until 1811. It was founded on the model and with the advice of William Tuke's York Retreat and was called The Retreat for many years. It was at first solely for the use of Friends. The first Superintendent did not remain very long and the next appointment was the nephew of the Female Superintendent, Jane Eustace of Cork. This nephew was John Eustace[10], a medical student in Edinburgh of only 22 when he was recommended as lay Superintendent by his aunt and accepted the position, calling at York to discuss the matter with Tuke on his way over. He appears to have carried out the position satisfactorily as well as continuing his studies, qualifying as a doctor in 1828, and obtaining his own consulting rooms in town. He was also on the staff of Cork St. Fever Hospital for many years. By 1831 when he ceased to be physician to Bloomfield he had already established his own hospital for mental patients on the north side of Dublin. His three properties there (Hampstead, Hillside and Highfield) developed into valuable hospitals for 'the recovery of those affected with disorder of the mind'. They remain until today under the care of the family. John Eustace's great grandson, Dr. John E. Gillespie, will be known to many as having been in charge of the medical care at the York Retreat from 1962 to 1970.

Newtown School Library

I now wish to turn to a somewhat later date, and choose one which I came on by accident, the first of October 1844, in the schoolroom of Newtown School Waterford. Its significance will appear.

It was a general meeting of the Library: here are the minutes.

> 'At a General Meeting of the subscribers to the Newtown Library held 10th month 1st 1844.
> Peter Moor, Robert Russell and Dawson Harvey are appointed to examine the Library, Museum, Treasurer's accounts and Verse Books and to report to an adjournment to be held tomorrow at half past 6 o'clock P.M.
>
> '10th month 2nd. Met according to adjournment. The Committee appointed at our last sitting have brought in the following report.
>
> 'We your committee appointed to examine the Library, Museum, Treasurer's accounts and verse books report that we found the Library in good order, 3 of the books want binding. The following is a statement of the books – in the case 529, Encyclopaedias 22, Blank Nos. 6, Lost by J. Shannon 1 (No. 201), In possession of J.D. 1 (No. 365), As per catalogue 559. We examined the Museum and found it in good order. We examined the Treasurer's Account and found a balance of £0.12.4½d in favour of the Library. We examined the Verse books and found them in very bad order; the backs of some of them want to be sewed, two or three without covers and scarcely any in their numbers; but seem to be thrown in without any order. The following is a statement of them:...'

The statement follows. I have not yet got to the nub of this and should explain. The subscribers to the library were all the boys in the school who had paid subscriptions, which meant practically all. The General Meeting was held every three months. The chairman was a teacher or apprentice; all the other officers were pupils from 10 to 14 years old. At each general meeting a new librarian, assistant librarian, treasurer and committee of six was appointed and at times someone to superintend the Museum. The Library was founded in 1806 and the minutes have been preserved from 1811 to 1890.[11]

But to follow this particular meeting, after arranging for the appropriate repairs, for new appointments and the report of the committee of six, mostly about fines for the mishandling of books, and after paying a salary of 1/6d to the outgoing librarian provided he repaired the books, there is a note: 'Joseph Williams is required to getting Joseph Wright and Thomas Walpole admitted as subscribers'.

At another meeting Joseph Wright is mentioned as having read six books, and later to examine the Museum and then look after it. We can at least say that the talents of Joseph Wright were given an opportunity to develop his interest in geology and towards becoming an acknowledged expert on foraminifera.

Joseph Wright, 1834-1923, FRGSI, FRS

Joseph Wright[12] was born in Cork and worked in the grocery trade all his life. He was an active member of Cork's thriving Curveirian Society. He had no university education but worked for a time as assistant to the Rev. Samuel Haughton in the Geological Department of Trinity College Dublin. He worked on many local deposits and was made a Fellow of the Royal Geological Society of Ireland (in 1861) and of the Geological Society (in 1866). He moved to Belfast where he continued as grocer but also continued to produce paper after paper on both fossil and living foraminifera in rock and clay deposits and deep sea dredges throughout Ireland and the oceans around it. His collection of drawings is in the British Museum, where his macro fossil collection is. Many mounted specimens are in the Ulster Museum, the Hunterian in Glasgow and in Dublin. His first publication appears to have been on fossils in the Carboniferous limestone of Co. Cork. He also listed *The Irish Foraminifera.* He is described in the words 'A more kindly enthusiast than Joseph Wright never lived.'[13]

Walpoles[14]

We should not forget Thomas Walpole, asked with Joseph to join the Library, and his brother Edward who was at Newtown a year later.

Thomas Walpole was an engineer of considerable reputation and he built a weir, and several bridges, across the Vartry River at Ashford in Co. Wicklow, just above Mount Usher Mill. His father Edward senior had bought the old mill as a holiday retreat, and there had started a garden. Edward junior with his other brother George and the help of Thomas, the engineer, made a garden there and with the friendship of Sir Frederick Moore of the Botanical Gardens and the importatation of many plants and seeds from abroad created a garden full of unusual plants and illustrating the amiability of the soil and climate of Co. Wicklow to a worldwide variety of plants. The

garden became one of the outstanding sights of Ireland. Edward was the chief of the Walpole family to carry on the garden and succeeded by his son Horace.

This was against a background of the family business as high class retailers of Irish linens, laces and furnishings with premises in Suffolk Street, Dublin and New Bond Street in London.

Rev . Samuel Haughton, 1821-1897, MD, FRS

The Reverend Samuel Haughton[15], 1821-1897, MD, FRS has just been mentioned. Most Friends will recognise Haughton as a Quaker family name. He was Professor of Geology in Trinity College, Dublin, and although not a Friend is mentioned here partly for the interest that his grandfather who lived in Carlow, had left the Society during the Shackleton controversy about 1800. The division carried many of the most rational Friends out of the Society.

In Samuel Haughton's case it is clear from his involvement with anti-slavery, Catholic emancipation, opposition to the death penalty, and his organisation of students to do nursing duty during a cholera epidemic that the Quaker influence continued.

Samuel Haughton graduated in mathematics, was the youngest Fellow of his time, became interested in geology and was Professor for 30 years. The study of fossils led him to anatomy and medicine. He collaborated in the production of mathematics tables, worked on the tides and weather and like Rutty on the relation between wealth and health. Among the most curious of his researches was the establishment of a formula for the length of drop which would insure that a hanged person's neck would be broken.

The present geologist and former chairman of FWCC, Joseph P. Haughton is a somewhat distant cousin of Samuel. He again shows the characteristic Quaker scientists worldwide interests and was an active member and adviser to Gorta, the Irish state's organisation to relieve world hunger.

William Henry Harvey, 1811-1866, MD, FRC

I return to the Newtown Library because it raises other interesting names and shows in its catalogue the emphasis which Friends put on natural history, science, religion, historical works, business and farming enterprise.

Of course things did not always go well: on 1st 8th month 1838 we

read 'We have met to consider the conduct of our committee appointed this morning, who while examining the Library were engaged in a Quarrel. Robert J. Greer is appointed to keep them peaceful during the rest of their examination'. Robert Greer was a teacher at the time and characteristically there is first and second name and no "Mr": a practice continued almost to the end of the century.

On 3rd of 5th month 1822 we find William Henry Harvey is instructed to pay for Montgomery's *Poems*. Fortunately the minutes is marked "found". The *Memoir of W. H. Harvey*[16] ... *Professor of Botany TCD.* tells us that he was born in Limerick in 1811 and that he went to Newtown School where he soon outstripped his fellow pupils and was sent to the Quaker school at Baillitore. So much for Newtown! But we find the following in the Library minutes:

> 'We understand that a commencement has been made in forming a collection of minerals, shells and other natural curiosities and it is proposed that they should be under the care of the General Meeting, and additions thereto regularly reported every three months, the following boys have assisted in forming the collection viz. Willm. H. Harvey, Joseph Pike, John Wilson, Thomas R. White, Reuben Fisher J., and Albert White. The collection is to be styled the Cabinet of Curiosities and Joseph Haughton, W.H. Harvey and Francis Harvey are appointed to have care of them for the next three months and provide a case of drawers to keep them in.'

The case was duly completed, and once again we can say that William Harvey's school days were no hindrance to his development as one of Ireland's most respected botanists. He did go on to Ballitore where the Superintendent, James White, was himself an enthusiastic botanist.

Harvey's first outstanding work was in the Cape Colony where his brother had been appointed official Treasurer. Here he produced his *Genera of South African Plants* and the first *Flora Capiensis.* On his return to Ireland he became Professor of Botany in Trinity College. His greatest interest was in the Algae and he wrote a *Manual of British Algae, Phycolgia Britannica, a History of British Seaweeds.* He also commented on seaweeds from all over the world. In a more popular style his *The Seaside Book* went into a number of editions.

From the Quaker point of view he is of particular interest, as he was brought up at a very conservative period of Quakerism and found

the sect constricting. He had found much sympathy with a forward-looking and articulate group of Anglicans and eventually joined the church. He argued that the original testimonies of the Society were already generally accepted and the Society outdated. The Quaker idea of the Inward Light was in no way different from the general Christian view of the action of faith in the Christian Soul.

He put these thoughts down in the form of a dialogue; *Charles and Josiah: or Friendly Conversations between a Churchman and a Quaker.*[17] Having written this he decided to show it to his cousin Jonathan Pim and modified his views to some extent before publication.

The book describes facets of the Society critically but in a most sympathetic way. Harvey speaks as Charles and points out the difficulty which face Friends over the missionary movement. Nor does he agree with Josiah on war, finding that some armies are as necessary to international peace as a police force to civil order.

Professor Hooker named the genus Harveya after him. This is a group of parasitic plants found in Africa.

Isaac Carroll 1828-1880

Isaac Carroll, described by Lloyd Praeger,[18] as a good all round botanist, also appears in the Library minutes having lost one of the verse books. He was born in Aghada, Co. Cork, in 1828, a member of a timber-importing family. He became particularly knowledgeable about cryptogams and wrote a *Cryptogamic Flora of Co. Cork,*[19] which however was not published but exists in manuscript in Trinity College. He corresponded with many leading botanists, visited Lapland and Iceland and became an acknowledged expert on lichens. He planned an Irish lichen list but only part of it was done owing to his early death at 52.

Isaac Caroll was never robust[20] and although it was planned for him to go after Newtown to a new Friends school being set up in Dublin, he did not in fact go, but was taken on as an apprentice at the Shackleton Mill at Ballitore, where the school had just closed. From other sources it seems to me that Quaker families in Ballitore often provided a gathering place for younger Friends with wide sociological and scientific interests. Carroll was an active member in the Cork Quakers' own Cork Mutual Improvement Association.[21]

I have mentioned Newtown School and the Shackleton School at Ballitore on several occasions. This interest in natural history and science is a characteristic of Friends schools: elsewhere latin, greek, mathematics and divinity were still overwhelmingly dominant. I

should like to move temporarily across the water to the Friends' Educational Society. But Lloyd Praeger's comment on Joseph Wright, that he was 'educated at Newtown, which in its day launched many a pupil upon the path of Natural History' is, I think, justified.

Friends' Educational Society 1836

I had realised that natural history had been something of a speciality in the Friends' schools but I had not known that it had a systematic history until I discovered the proceedings of the Friends' Educational Society of 1836.[22] The first meeting was held at Ackworth on the day after the General Meeting, with Samuel Tuke in the chair. My knowledge of it comes, and it must be familiar to many here, from the first eight *Annual reports* bound together in the second edition in 1847. The volume includes the minutes and all the papers and surveys prepared for the Society. So far as I can see all the Friends schools in the United Kingdom, then of course including the whole of Ireland, whether official Quarterly or Yearly Meeting schools or independently run, contributed something.

The subjects considered are by no means outdated and they looked back especially to Penn and Bellers, one question being whether physical labour towards the income of the institution should be undertaken by the pupils. From my point of view two topics are of special interest: the report concerning the Friends schools in Ireland, presented by Joseph Bewley of Dublin in 1843, so far as I know the first paper on the history of Friends' education in Ireland. Secondly the intervention of John Ford, superintendent of the York School at the first meeting. In this he described the establishment of a Juvenile Natural History Society in 1834. This society remains in existence to this day and at the time of its centenary claimed with confidence that it was the oldest school Natural History Society in existence.

The discourse on natural history led to a consideration of the whole problem of the use of leisure. The advantages of the leisure time study of hatural history were set down as follows:

Profitable employment of leisure time.
Absorption of energies frequently misapplied.
Mutual instruction leading to friendliness and understanding.
Friendly relations between teachers and scholars.
Exercise of arts of composition.
Quickening of interest in other subjects.
Health promoted through mental and bodily exercise.

To a lesser or greater degree all the Friends' schools took this to heart,

if indeed, they had not already done as we have seen with Newtown and Ballitore. I am confident that this emphasis was to be found in Ackworth 1779 and in Mountmellick 1786.

Perhaps it is of interest that the Friends' Educational Society 1836 compares with Dr. Arnold's start in the regeneration of Rugby School in 1828, where classics were still in the ascendancy.

Botham School 1823

Amongst the Friends' schools interested in natural history and science Botham School must be given the pride of place. Its records are quite exceptional and it appears to have been the first school to employ a science graduate as teacher. It was from Botham that *The Natural History Journal and School Recorder*[23] under the editorship of J. Edmund Clark was circulated and contributed to by all the Friends' schools, including those in Ireland from 1878 to 1898. This had reports on weather, birds, insects and plants, and articles by specialists in these subjects as well as diaries of school events and accounts of sports.

Why consider the York School here? It also is of interest to Ireland and had many Irish pupils. My father has told me that when he was at Botham in 1892 of the 80 boys there 20 were Irish. I shall mention just three Botham Old Scholars, although in looking at the register I note that there were a number of other Irish Friends amongst them who became medical men.

John Todhunter, 1839-1916

John Todhunter, born in Dublin in 1839, is of particular interest. He qualified in medicine and became medical superintendent at Cork Street Fever Hospital and Bloomfield Mental Hospital. After a considerable period he relinquished his medical career in favour of literature and is better known as a poet. He produced several volumes of poetry including *Songs and Sheet Airs,* wrote a *Life of Patrick Sarsfield* and other works in prose and verse, and was a member of the London branch of the Gaelic League. Although his involvement with the literary world of the time might not have been acceptable to all Friends at the time the introduction to his poem *The Mystic* shows his Quaker views.

Joseph Barcroft, 1872-1947

Another Bootham boy was Joseph Barcroft of Newry, born in 1872. He took the Natural Science Tripos at Cambridge and worked on the respiratory function of the blood, at that time a controversial subject. He was appointed Professor of Physiology at Cambridge and during the First World War did considerable work on the treatment of gas casualties.

Joseph T. Wigham, 1874-1951, MD, FRCPI

A third Irish Bootham boy who I mention was my father Joseph Wigham, who must have overlapped with Joseph Barcroft, and was incidentally a cousin of John Todhunter mentioned before. He became the second Professor of Pathology in Trinity College Dublin. Like Barcroft who had connections with the Student Christian Movement in Cambridge, Joe Wigham had many contacts with student bodies including the Student Christian Movement and the Dublin University Fabian Society as well as with the League of Nations Society of Ireland, The Irish Society for the Preservation of Birds, and An Taisce, the equivalent of the British National Trust. He took a large part in the ecumenical movement, and so illustrated again the wide interests of Quaker scientists. One of his first pieces of work was a study with H.H. Dixon on the effect of radium on the growth of bacteria, an experiment carried out with less protection than we would expect today.

Joshua Reuben Harvey, 1804-1887, AB, MD, FRCSI

Professor Reuben Harvey, born in Cork in 1804, is another doctor who should be mentioned. He was the first Professor of Midwifery in the new Queen's College in Cork. He maintained a dispensary at his own expense for eye affections as there was no opthalmic hospital in Cork, and used to begin the day with gratuitous attendance on the poor before going to work.[24]

His *Fauna and Flora of Co. Cork* was looked on as a standard work. His collection of wild birds and their eggs was presented to the Queens College Museum, later to be University College Cork.

A relative of his, William Harvey Church, was a chart maker to the Royal Navy, particularly working from Rockall to the Canaries.

Two doctors who I have not been able to obtain information about

are Dr. Mary Strangman, a city counsellor in Waterford, and Dr. Helen Webb. Each of these was among the first Irish women who obtained medical degrees.

Variety

I have wisely said *some* Irish Naturalists and my consideration today has been largely confined to those from the South. Even in this it has been far from comprehensive. I have omitted to mention the geologist, Isaac Swain; Usher and Barrington the ornithologists, the latter kept an extensive record of the birds collected by Irish lighthouse keepers adding a number of new species to the Irish list; the teachers at Friends' schools including, Robert Greer, Edward Garnett and Joseph Neale at Newtown, and Joseph Radley and Charles Bennington at Lisburn. The latter also taught at Brookfield, the agricultural school near Moira in Co. Down, and was the father of another naturalist, the well known Ulster Nature broadcaster Arnold Bennington. Nor have I mentioned two botanical artists of note, Lydia Shackleton and Alice Jacob, represented in the collections at the Botanic Gardens.

One other fact I should like to add is that the steamship *Erne*,[25] under Captain William Carroll and with William Todhunter on board, which had been sent out by the Central Relief Committee 150 years ago, at the time of the famine to survey and report on the difficulties and prospects for the Irish fisheries, were able to add four new species to the list of fish in Irish waters.

This has been a very partial and incomplete review of Irish naturalists. I have used the term broadly yet have failed to cover astronomical, optical and meteorological achievements of considerable note. I have attempted to show that these people exhibited the broad Quaker approach, not entirely without criticism of the Society. I have hoped to add a number of names to those with which you are familiar in the United Kingdom, and provide enough information on which to base further study.

Maurice J. Wigham
Presidential Address given at
Friends House, London, 28 September 1996

NOTES AND REFERENCES

1 Peter Elmer, 'Medicine, Science and the Quakers', *JFHS* vol. 54, (1981), 265.
2 For Adamic language see R. Bauman, *Let Your Words be Few*, Cambridge 1983.

3 Elmer, *op. cit.*
4 Giordano Bruno (1548-1600).
5 Paracelsus was the pseudonym for Theophrastus Bombastus von Hohenheim, (1493-1541). See Elmer.
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24 Obituary kept in family records by Margaret, widow of C. Harvey Jacob.
25 Helen E. Hatton, *op. cit.*