

Medical History

Dimitrios Oreopoulos, the Plane Tree of Kos and the Belfast City Hospital

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The Oriental Plane Tree (*Platanus Orientalis*), not to be confused with the better known London Plane Tree (*Platanus Acerifolia*), is one of Europe's longest-lived trees. A native of SE Europe and Asia Minor, it is occasionally found in British parks and gardens, having been cultivated there since the sixteenth century. It can reach 100 feet in height and grows well in open ground, its branches, with their broad palmate leaves, spreading widely from a relatively short and rugged trunk. Its longevity is well attested. A group of trees by the Bosphorus are said to have sheltered the crusading knights of Godfrey de Bouillon in the eleventh century. However, the specimen best known to the medical profession is the tree on the Aegean island of Kos (Fig 1), sometimes claimed to be over 2400 years old, under which Hippocrates, the 'father of medicine', who practised in the 5th century BC, reputedly sat to consult and teach¹.



Fig 1. Kos Island. It is close to the Turkish coast in the Dodecanese Islands, South-East Aegean Sea

Although a direct association with Hippocrates cannot be accepted, as it is only about 500 years old, the present Kos tree, which has a trunk circumference of 18 yards, certainly 'looks the part' and, if not the original Hippocratic tree, could well be descended from it (Fig 2). Cuttings, seeds and wood from its branches have spread all round the world, particularly to medical colleges, libraries and institutions in the United States and Europe. The exact reason for such interest is unclear, since the tree's provenance is speculative and modern medical practice has little resemblance to that of Hippocrates. However, his reliance on scientific observation rather than

mysticism, the aptness of his many attributed aphorisms and the importance he placed on the moral and professional aspects of Medicine, as revealed in the Hippocratic Oath taken by doctors on graduation, all continue to resonate today. Possession of a tree of Kos can be seen as a gesture of respect to the continuity of Medicine as a rational science and a humane art. It is likely to appeal to institutions which take pride in their achievements and are optimistic for their future development.



Fig 2. The plane tree in Kos town.

The Belfast City Hospital in the 1960s was just such an institution. Following its first appearance in 1847 as the Belfast Workhouse Fever Hospital, and later establishment (1875) as the Union Infirmary (Fig 3), it had gradually grown in stature, having been renamed the Belfast City Hospital (BCH) in 1941 and, in 1948, brought under the Northern Ireland Hospitals Authority as part of the new National Health Service. Subsequent development included, in 1959, a geriatric hospital (Wakehurst House) and a dialysis service, as well as (1960) an A&E Unit, a nursing school and a mental health centre (at Windsor House). There were schemes for cardiac and urology centres as well as for a renal transplant

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Fig 3. The Union Infirmary. Converted from the First School House in 1875, it was the main entrance to the hospital until the opening of the BCH Tower. Reproduced with permission of the Belfast Hospital Trust

unit². Beyond all these was the planned site redevelopment by the Hospitals Authority, which would bring into being the BCH Tower (Fig 4). The conditions, as proposed above, for an interest in acquiring plane trees of Kos were thus clearly present.



Fig 4. The BCH Tower. Patients began to arrive in November 1985. Reproduced with permission of the Belfast Hospital Trust

The story of the plane trees involved three exceptional individuals, whose careers met and became intertwined in the development of the BCH Renal Unit. They were: Mr John M Megaw (Fig 5); Dr (later Professor) Mary G (Mollie) McGeown (Fig 6); and Dr (later Professor) Dimitrios Oreopoulos (Fig 7).

John Megaw, a senior surgeon at the BCH, had a special interest in urology and became a determined and influential supporter of Mollie McGeown, who, as a clinical scientist, had gained an international reputation for her work on the parathyroid glands and renal stone disease with Ernest Morrison of the Royal Victoria Hospital. In 1959, when she



Fig 5. Mr John McIlroy Megaw. Consultant surgeon at the Belfast City Hospital 1948-71



Fig 6. Professor Mary G McGeown. Consultant Nephrologist, Belfast City and Royal Victoria Hospitals 1961-88



Fig 7. Dimitrios Oreopoulos

was asked by Graham Bull, Professor of Medicine at Queen's, to develop a renal service in Northern Ireland, it was John Megaw who provided her with space in his department in the BCH in which she was able to develop both acute, and later chronic, haemodialysis³. He further supported her in setting up specialised units at the back of the hospital – Renal I, in 1968 (Fig 8), for acute renal failure and transplantation, and Renal II, in 1969, for long-term haemodialysis. Here she devised the world-renowned 'Belfast Recipe'⁴ of low-dose steroid management, which was the first to show the way toward the goal of successful renal transplantation with low mortality⁵.



Fig 8. The Renal Unit, 1968. Dimitrios is 4th from left, rear row. Mollie McGeown is 3d from left, front row. Gerry Drain, theatre sister, is on Mollie's right. Miss Kay Maguire, senior nurse, is 2nd from right, rear row. Dr Joe McEvoy, consultant nephrologist, is on the far right, rear row. Mr Jack Lyness, chief technician, is 2nd from left, rear row. Dr M O A Soyannwo (Nigeria), British Council Research Fellow, is on the far left, rear row

Dimitrios Oreopoulos came to Belfast as a British Council research fellow in 1966. Born in Alexandroupolis, in Greece, he graduated in Medicine at Athens, where he also gained an MD on 'The Kinetics of Uraemic Toxins in the Artificial Kidney'. At Belfast, his doctorate was on metabolic aspects of urolithiasis. He also took part in clinical practice and teaching, which the author remembers as being of high quality. The assistance of research fellows was invaluable, since no junior clinical staff were at that time assigned to nephrology by the hospital service. In 1969 he moved to Canada, where he became Professor of Nephrology at Toronto, gaining international fame for his development of continuous ambulatory peritoneal dialysis. He also had an interest in medical ethics, particularly in geriatrics, and was a prominent promoter of Greek cultural traditions. Altogether he published over 500 original articles as well as over 200 chapters in books⁶. Although he never worked in Northern Ireland again, he remained in contact throughout his life, arranging training and research posts in Toronto for many young Belfast nephrologists and keeping a photo of Mollie McGeown on the wall of his office until his death in April 2012.

Before leaving Belfast, Dimitrios presented a number of seeds from the Kos plane tree to John Megaw and his wife. From these, the Megaws managed to raise five saplings, which were planted out in various parts of the BCH grounds. The intention was to later transplant them to suitable sites at the entrance of the new Tower which, in 1969, was expected to be completed within a few years. Unfortunately, events made this impossible. Although the site had been cleared in the 1960s and the foundations were laid by 1971, the Tower was not completed until 1984, the first patients arriving in November 1985 (Fig. 9-11). An important cause of this delay was the refusal of the University Grants Committee to recognise the new hospital for teaching purposes unless university facilities were provided. The resulting changes of design, which led to the embedding of the building's 'intercalated' floor, proved expensive and added nearly two years to the project, work stopping almost completely during the planning period. When it restarted, it was interrupted by sectarian strife, which included shootings on the site and the murder of one man on his way to work. Unusually bad weather, which prevented the use of cranes, further slowed progress, as also did the need to redesign the Special Investigations floors. By the time of its eventual completion, the cost of the Tower, from an original estimate of under £7 million, had risen to over £70 million⁷.

In 1985, when landscaping at last became possible, only three of the trees could be found. John Megaw had died in 1971 at the early age of 58. No exact record of the saplings' whereabouts had been kept and few remembered his project. In any case, the surviving trees were now too big to be transplanted. Of the trees which could be found, one was outside Renal I, at the back of the hospital, a second on the lawn behind Erskine House, then a nurses' home, and the third in the garden outside Wakehurst House. A small committee, consisting of Mollie McGeown, Dimitrios

(by correspondence) and the author, decided to provide identification for the trees. Two steel plaques (one funded by the BCH Medical Staff Committee and the other by the Nephrology Renal Fund), were constructed by Messrs Gilchrist and company, architectural engravers, setting out the story of the trees and adding one of Hippocrates best-known aphorisms – “O BIOS BRAXYS H TEXNH MAKPH” (Life is short, but the Art is long). Great care was taken to ensure the accuracy of this quotation, which both Dimitrios and Professor Williams of the Queen’s Department of Classics confirmed should be in the Ionian dialect. The plaques were placed beside the trees at Erskine House and Renal I. On January 30, 1987, at a ceremony attended by the committee, Mrs Megaw and other interested persons, including representatives of the medical staff and BCH management, the plaque by the Erskine House tree was formally unveiled. Dimitrios was unable to attend, but approved all the arrangements from afar - he had previously seen the tree when in Belfast for a nephrology symposium in 1984 (Fig 12). Following these efforts, we firmly believed that the trees’ future would be secure.



Fig 9. Foundations of the Tower, 1971. Reproduced with permission of the Belfast Hospital Trust

But time mocks human hopes. Even in 1987, it was foreseeable that the constant process of NHS and medical school reorganisation might soon become a danger, particularly since, because of the delays in the Tower project, it was easy to overlook the trees in their relatively obscure locations. However, the first set-backs were to the plaques. By 1994, both had rusted and partly disintegrated, possibly due to vandalism. A second set of non-metallic plaques was ordered from Messrs Gilchrist in 1995, bearing the same inscriptions as the first and with each plaque now physically attached to the trunk of its tree. But again time was an enemy. By 2012, the Renal I plaque had disappeared, while the Erskine House plaque had fallen, or been torn, off and lay at the foot of the tree, whence it was retrieved by Dr Maeve Rea of the Centre for Medical Education (Fig 13).

This decline, or neglect, was not really surprising, since, by 2012, both the old Renal Unit and Erskine House had themselves disappeared. Renal I had moved to the Tower in 1987 and Renal II to a new dialysis centre beside the Tower in



Fig 10. Progress of the Tower, 1969-1984. Reproduced with permission of the Belfast Hospital Trust

1998. Most of the former Renal Unit site is now an ambulance parking zone, the tree itself surviving unnoticed behind the wire fencing at the back of the area (Fig 14). The Erskine House building still exists, but is no longer hospital property, having been sold to a private developer in 1998. The nearby tree has been engulfed by university development in the last decade. It still stands, a lone outpost of greenery, but appears threatened on all sides (Fig 15).



Fig 11. BCH Tower Official Opening. HRH Prince Andrew and Miss Sarah Ferguson, June 26 1986. Reproduced with permission of the Belfast Hospital Trust.

The Wakehurst tree has so far fared better (Fig 16). It survives in a garden environment beside the hospital, surrounded by a circular wooden bench and an original steel plaque (Fig 17) identical to that placed on the other two trees in 1987. Its spreading branches suggest the extent of shade, and its seats the sort of facility for consultation, that Hippocrates might have desired, although transposition of his practice from Kos to Belfast might have called forth some fresh aphorisms on the relationship between climate and disease - such as ‘first, go indoors’! Who can have placed the plaque and paid for it remains a mystery to survivors of the 1987 committee,



Fig 12. The Erskine House tree, 1984. Dimitrios (centre), Dr Chisholm Ogg of Guy's Hospital (left) and the author (right) in front of the Erskine House tree during the Renal Unit 25th Anniversary Symposium

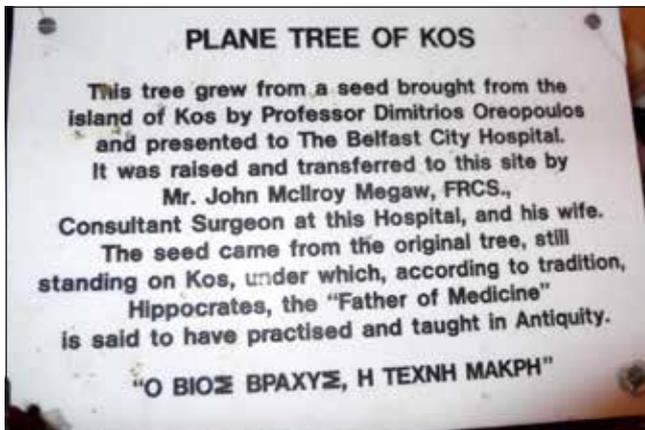


Fig 13. The Erskine House plaque, December 2012. Retrieved from the tree by Dr Maeve Rea



Fig 14. The Renal Unit tree, December 2012. It forms part of the ambulance park perimeter.

but the beneficence of members of the former Medical Staff Committee is suspected. At first sight, the tree seems to have a secure future. Unfortunately, the reverse may be true. This tree, the only flourishing survivor of the original donation, may now be scheduled for demolition as part of the development of acute mental health services on the site

occupied by Windsor and Wakehurst Houses and Dufferin and Ava Hospitals⁸. Because of its central position, no scheme for the its preservation currently seems practicable.



Fig 15. The Erskine House tree, December 2012. The tree is surrounded by University and private accommodation (formerly Erskine House)

Proposals have been made to preserve at least some part of the trees if they are cut down. In the cases of the Renal Unit and Wakehurst trees, their wood could be used in occupational, physiotherapy and psychotherapy projects, which would allow for some form of permanency and would be in keeping with Dimitrios's commitment to humanity in medicine (Fig 18) - he was the editor-in-chief of the Canadian journal 'Humane Medicine', founded in 1985. There is still an opportunity to preserve and cherish the Erskine House tree, which, although hemmed in by development, remains on University property and is close to both medical science buildings and the Ulster Medical Society's premises in the Whitla Medical Building. The author hopes that this article will act as a reminder of the need for such attention. Finally, it is possible that two other trees may still survive elsewhere on the BCH site, since five saplings were reported as having been raised by the Megaws.

The trees and their fate offer in microcosm a parable of the achievements and defects of medicine in our time.



Fig 16. The Wakehurst Tree, December 2012. This tree is on a good site and in good condition. Wakehurst House is in the background



Fig 17. The Wakehurst tree plaque. This is the original plaque

The achievements have indeed been great. Advances in nephrology (without which Dimitrios would not have come to Belfast) have led to both dialysis and renal transplantation, outstanding bio-engineering and medical triumphs of the twentieth century. The developments on the BCH site since 1987 are evidence of similar progress in other disciplines. But there are also faults. Prominent among these is the perennially recurring failure to remember that medicine, however well based in science, is also a humane activity that must be founded on a continuity of care, compassion and morality⁹. The story of the trees, their connection to the historical permanence of medical care, and their present plight may serve as a reminder of that obligation.

The author has no conflict of interest.

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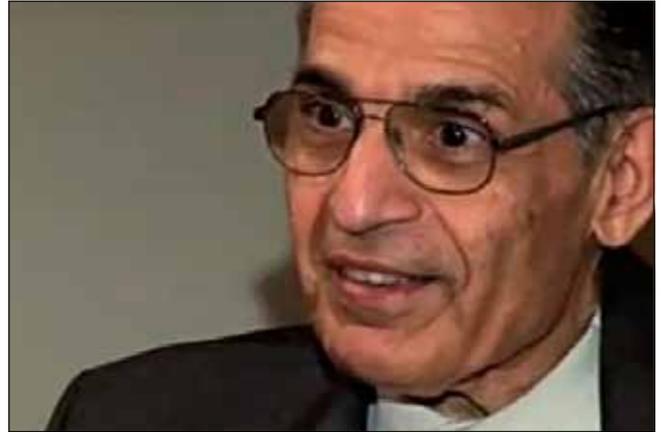


Fig 18. Dimitrios in later life. Dimitrios died in April 2012

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