SHORT COMMUNICATION

George Demetrius Sevastopulo (1941–2021), palaeontologist and stratigrapher: an appreciation

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Abstract
George Demetrius Sevastopulo (1941–2021) was a palaeontologist, stratigrapher and educator who made significant contributions in these fields and who was an inspirational teacher and mentor to his peers and to generations of students.

Keywords Palaeontology · Stratigraphy · Ireland · Crinoidea · Mississippian

Academic career

Born in November 1941 and raised in East Africa, India and the UK, George Sevastopulo (1941–2021) (Fig. 1) originally studied Physics in Cambridge but switched to Geology and graduated with a B.A., later taking an M.A. He first came to Ireland in 1963 when he assisted a Cambridge PhD student with fieldwork on the Mississippian limestones of the Dingle Peninsula in west County Kerry. At the end of their fieldwork, he visited Trinity College Dublin where he met R.G.S. Hudson, the noted Carboniferous stratigrapher and palaeontologist, who was Professor in a small Department. As a result of this meeting George moved to Trinity in 1964 and registered as a PhD student; his thesis focussed on Irish Carboniferous crinoids, a subject that remained a lifelong passion, and the degree was conferred in 1970.

George had an encyclopedic knowledge on all aspects of Ireland’s geology but especially in stratigraphy, macro- and micropalaeontology, and economic geology, all subjects that he lectured and published on. His whole academic career was spent at Trinity where he was appointed a Junior Lecturer in 1966, Lecturer in 1969 and Associate Professor in 1982. He retired in 2004 as Fellow Emeritus but continued to work in the Department until shortly before his death. His academic standing in Trinity was acknowledged through election to Fellowship in 1977 and further recognised nationally in being elected a Member of the Royal Irish Academy in 1988. Throughout his career he served both Trinity College and the Royal Irish Academy with great distinction, and recently chaired the latter’s Culture and Heritage Working Group.

Palaeontologist

George’s breath of palaeontological interests spanned nearly all areas of the subject and biological grouping. Aside from his research on crinoids and conodonts in particular, he taught undergraduate courses in the history of life, evolution and advanced palaeontological applications for many years, supervised numerous postgraduates and mentored several postdoctoral fellows.

Soon after his arrival in Dublin, he embarked on a collaborative project documenting the ‘reefal’ and ‘off-reef’ faunas of the Waulsortian mudmound exposed in a quarry at Feltrim in north County Dublin. This study he brought to fruition with Mike Clarke following the sudden death of Hudson (Hudson et al. 1966a, b).

A number of lifelong friendships and academic collaborations arose from his participation at international symposia and meetings on echinoderms. Both he and Gary Lane of Indiana had a mutual interest in microcrinoids, and they produced eleven publications, many appearing in Journal of Paleontology. These included various accounts of Silurian to Pennsylvanian faunas (Sevastopulo and Lane 1981; Lane and Sevastopulo 1982a), assessments of Kallimorphocrinus...
Fig. 1 George Sevastopulo at the 19th ICCP meeting in the Rhenish Mountains 2019 (Photograph courtesy of Hans-Georg Herbig)
species, some new (Lane and Sevastopulo 1981, 1982b). This collaborative work began in earnest during George’s sabbatical at Indiana University between March and September 1979 which also saw him work with Harold Strimple on a Permain microcrinoid from Sicily (Strimple and Sevastopulo 1982). Aside from working up microcrinoids from the Carboniferous of the US and Ireland he also delivered a six-week course on Carboniferous stratigraphy and correlation between Western Europe and North America. This was typical of George’s strong pedagogical outlook—if he had a chance to teach, he did. Many years later he continued to speak very fondly of his time spent in Bloomington, Indiana, and his love of the microcrinoids studied during this sojourn was emphasised by a beautiful print of Kallimorhocrinus by Susan Spencer which hung in his office in Trinity.

A later collaboration developed with Johnny Waters who spent some time in Dublin and the pair worked up accounts of Mississippian blastoid distribution in Ireland (Waters and Sevastopulo 1984) and both worked with Gary Webster on a long monographic study of a Carboniferous echinoderm fauna from Algeria (Webster et al. 2004).

When Bill Ausich spent a sabbatical in 1992 in Dublin hosted by George they embarked on revising the crinoids of Hook Head. Reworking George’s PhD thesis and utilising extensive collections in Dublin and elsewhere their monograph was published by the Palaeontographical Society in 2001 preceded by a paper on taphonomy of the crinoids (Ausich et al. 2000). In their authoritative monograph, they described 43 species contained in 25 genera of which seven were new, some of whose names honoured ancient Irish tribes or kings and queens. Their productive collaboration continued for over three decades and yielded several papers including a recent offer on homology in posterior interray plates in crinoids (Ausich et al. 2020).

His palaeontological research was not confined to echinoderms and his work on conodonts and other microfaunal elements did much to tie down the stratigraphic position of numerous sequences in Ireland and abroad (see for example, Coen et al. 2004; Ferretti et al. 2014).

**Stratigrapher**

Shortly after arriving in Ireland George’s work on fossil crinoids stimulated his burgeoning interest in stratigraphy, and together with colleagues such as David Naylor and his students Andy Sleeman and Ian Johnston worked on early Carboniferous sequences in southern Ireland some of which were affected by what was then normally referred to as the Variscan (Naylor et al. 1981). From this early period, the revision of the successions exposed at Hook Head (Sleeman et al. 1974) was of personal significance as it was an especially favoured location that had provided him with splendid crinoids as we have seen. Later he carried out a similar revision of the unusual muddy limestone, Calp limestone in its type locality (Marchant and Sevastopulo 1980a), and two years later published an important paper reviewing the age of Waulsortian limestones in Ireland, a unit that fascinated him (Sevastopulo 1982). He was later to investigate with Kathleen Histon the damage in nautiloids found in these mudmounds and showed how they provided bathymetric data (Histon and Sevastopulo 1993). In the late 1980s and early 1990s a series of studies of thermal and burial histories of Irish rocks were published in collaboration with his Trinity colleagues, with George providing stratigraphic context and data from conodonts with much of the fundamental framework for such schemes based on palynological data assembled and analysed by Geoffrey Clayton, a close colleague with whom he collaborated on fifteen publications (including Clayton et al. 1989a, b). Among his last contributions is a paper co-written with John Graham, another close Trinity colleague, on the stratigraphy of the Devonian and Carboniferous rocks of Ireland published only a few months before his death (Graham and Sevastopulo 2021).

It was not surprising that he also investigated aspects of the history of the study of Ireland’s geology. His paper with Marchant and Sevastopulo (1980b) on the work of Richard Griffith and that on the fossil crinoid collector Thomas Austin in collaboration with Bill Ausich et al. (2000) demonstrate the versatility of his writing and the width of his interests. Exploiting his stratigraphic and palaeontological background he was able to enliven and more fully understand the significance of these geological pioneers.

Later, in his retirement, he embarked on provenance studies of stone types utilised by the builders of early burial tombs and carvers of Irish High Crosses and other monuments in Ireland (Sevastopulo 2018). Unselfishly he edited and guided Mary Corcoran’s important studies on the celebrated tomb at Knowth, Co. Meath to publication after her untimely death (Corcoran and Sevastopulo 2017).

His expertise on Irish Carboniferous geology was utilised to good effect in syntheses on correspondence of such sequences in Britain and Ireland (George et al. 1976), on palaeogeography (Cope et al. 1992), and in the chapters published in three editions of the Geology of Ireland edited by his close friends and colleagues Charles Holland and Ian Sanders, the most recent of which appeared in 2009 (Sevastopulo and Wyse Jackson 2009). It is a testament to George’s depth of knowledge of Irish geology that he contributed four chapters to the first edition of this work.

George had a long association with the IUGS Subcommission on Carboniferous Stratigraphy which had been established in 1958 with the merger of two commissions concerned with aspects of Carboniferous stratigraphy. He was an active participant both at general meetings, symposia and field excursions. As a co-leader of the two-day SCCS
trip to Ireland in 1981 he brought delegates to examine the stratotypes of the Courceyan at the Old Head of Kinsale and the Arnsbergian further north in Co. Leitrim. He was a Voting Member from 1992 to 2004 and made valuable contributions to various Working Groups including that set up in 1988 on the International “Lower” Carboniferous subdivision established. An able, fair and considered chairman he oversaw the work of the ‘Working Group to establish a boundary close to the existing Tournaisian-Visean boundary within the Lower Carboniferous’ that began its deliberations in 1996. The first progress report appeared in 2000 which concluded that ‘the best criterion proposed so far to define the Tournaisian-Visean boundary is the transition from morphotype 1 to morphotype 2 in the evolutionary lineage of the foraminifer Eoparastaffella simplex’ (Sevastopulo and Hance 2000), and subsequent work concentrated on locating a complete Eoparastaffella lineage (Sevastopulo et al. 2001). Its work concluded with the adoption by the SCCS at its meeting in St Louis in 2001 of the Working Group’s recommendation that the base was defined on the first appearance of Eoparastaffella simplex (morphotype 2) in the lineage Eoparastaffella ovalis group to Eoparastaffella simplex (see Sevastopulo et al. 2002) which was best exposed at the Pengchong section in south China (Devuyst et al. 2003). The GSSP at Pengchong was ratified by the International Commission on Stratigraphy in 2008.

His standing amongst his peers was recognised when in 2000 he was nominated unopposed and ratified as Chair-elect of the SCCS; unfortunately, due to ill health he withdrew shortly afterwards. Nevertheless, typically he remained active and continued to work on unravelling stratigraphic conundrums and schemes to define precision in Carboniferous biostratigraphy and chronostratigraphy. Amongst his contributions to various Working Groups including that set up in the Tournaisian-Visean boundary is the transition from morphotype 1 to morphotype 2 in the evolutionary lineage of the foraminifer Eoparastaffella simplex’ (Sevastopulo and Hance 2000), and subsequent work concentrated on locating a complete Eoparastaffella lineage (Sevastopulo et al. 2001). Its work concluded with the adoption by the SCCS at its meeting in St Louis in 2001 of the Working Group’s recommendation that the base was defined on the first appearance of Eoparastaffella simplex (morphotype 2) in the lineage Eoparastaffella ovalis group to Eoparastaffella simplex (see Sevastopulo et al. 2002) which was best exposed at the Pengchong section in south China (Devuyst et al. 2003). The GSSP at Pengchong was ratified by the International Commission on Stratigraphy in 2008.

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Epilogue

George Sevastopulo made significant and lasting scientific contributions in the fields of palaeontology and stratigraphy in particular and these will inform our understanding of the geology of Ireland and the Carboniferous worldwide for a long time to come.

He will be remembered by his colleagues as a generous friend who was always great company and who liberally gave of his time and advice. His reach was global and he had many friends and colleagues in geological, palaeontological and gardening spheres in particular. He was a skilled Alpine gardener and with Rose his wife maintained a beautiful garden in north Dublin. Many students will recall his insightful teaching whether it was in lecture theatres, in the Palaeontological Laboratory in Trinity (which is being renamed in his honour), or in the field and for his encouragement that students should be curious and investigative.

He will long remain close to the hearts of those whose lives he touched.

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