

Henry James Mac Gillavry (Mac) 12th June, 1908 – 24th January, 2012



Henry James Mac Gillavry (left) with Peter Skelton on Bilthoven Station in 1993 (Picture Courtesy of Peter Skelton).

Half a year after the 9th International Congress on Rudists in Jamaica, the world of rudist studies and the Caribbean region lost one of its greatest geological figures, Professor Henry James Mac Gillavry, who died in Bilthoven in the Netherlands on the 24th of January, 2012, at the grand old age of 103. His wife Ip who had for so many years supported Mac, died on the 28th of September, 2012, just 8 months later. Her helping hand throughout Mac's career helped to overcome periods of stress and frustration, including long-lasting problems at the Geological Institute in Holland, and episodes of tension, including vehicle breakdowns, and the loss of a wallet during their fieldtrip to Jamaica in 1967. So a great chapter in palaeontology is finally closed forever, but Mac's work was not only on rudists but included larger

foraminifers, regional geology and even cosmology.

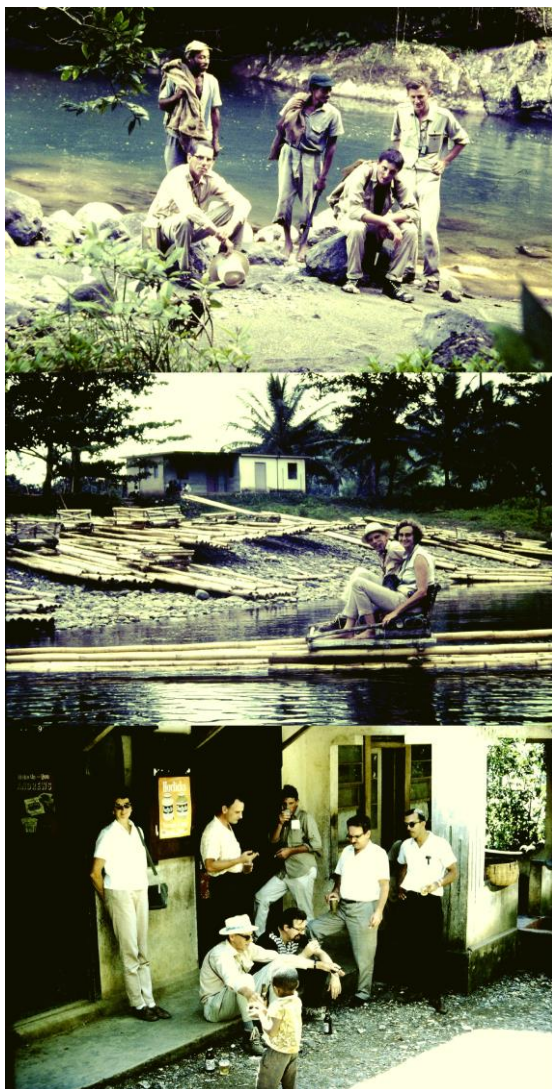
Henry James Mac Gillavry was born on the 12th of June, 1908, in Amsterdam, and he completing a 'classical high-school' education (gymnasium) in 1926. In those years he demonstrated a keen interest in biology and collected shells, fossils, bones, toadstools and bird skeletons wherever he could find them. He started studying geology under Prof Dr Louis Martin Robert Rutten who had become the professor of geology, palaeontology and crystallography at the University of Utrecht in Holland. Prior to his appointment in 1921, Prof Rutten had been employed by the Bataafsche Petroleum Maatschappij (a predecessor of Royal Dutch Shell) and had been on expeditions searching for oil in Borneo, Ceram, Argentina, Cuba, Mexico and Peru.

Prof Rutten continued his exploration activities now as an academic at the University of Utrecht, and in 1930, Prof Rutten and his wife together with four students, Mac, L. W. J. Vermunt, P. J. Pijpers and P. Wagenaar Hummelinck, undertook a geological excursion to the Dutch Antilles. In that same year Mac also took part in a geological excursion to Venezuela, which was paid for by Shell.

Three years later in 1933, Mac undertook seven months of fieldwork in Cuba. This included a regional study of the geology as well as the systematic collection of fossil material. It was this material that formed the basis of his Ph.D. thesis '*Geology of the Province of Camaguey, Cuba, with revisional studies in rudist paleontology (mainly based upon collections from Cuba)*' which was awarded in 1937. In those years there were few rudist specialists in Holland, and his thesis was noted by the Dutch Geological Society.

In the same year that he was awarded his Ph.D., he married Ip (J. L. A. van Santen) and was also appointed junior palaeontologist with the Koloniale Petroleum Maatschappij, later called Standard Vacuum. The Second World War began in 1939 and when the war reached Holland in 1940, Mac was enlisted in the Dutch East Indian Army. In 1942 the Japanese invaded the Dutch colony, and Mac survived the rest of the war as a POW, returning to Holland in 1946 at the return to peace.

In 1948 he went back to what was then Indonesia as Chief Palaeontologist with the Standard Vacuum Petroleum Company, and in the



Trip to Jamaica in 1967. Top: Working in the Rio Grande. Middle: Mac and Ip relaxing on the Rio Grande. Bottom: Break during Ted (Edward) Robinson's excursion to Tertiary deposits.

following four years he became heavily involved with studies on foraminifers. Mac was the first to apply the concept of Tan Sin Hok (1936) of a gradual shift of the first occurrence of a secondary stolon in equatorial chambers, from the periphery down to the second embryonal chamber in successive populations of orbitoidal foraminifers. It proved to be an important feature for understanding the embryonic chamber configuration in orbitoidal larger foraminifers, as well as a biometric method for age-dating and correlation of drilling profiles. In 1950 Mac was appointed chief geologist of the Standard Vacuum Petroleum Company.

He left the company in 1952 and took up the position of Professor of Stratigraphy and Palaeontology in the Faculty of Mathematics and

Natural Sciences (Subfaculty Geology and Geophysics) at the University of Amsterdam on the 15th of September, 1952. His inaugural lecture entitled “*Wat is stratigraphie*” was subsequently published (Mac Gillavry, 1952). On the 25th of May 1965 he became Professor of Palaeontology.

In 1967 he was awarded the yearly Shell prize for a proposed four month trip to Jamaica to study the geology and palaeontology of the Cretaceous inliers. Participants included his wife Ip and two of his students Jan Krijnen and Henk van Dommelen. Under Mac's supervision, Henk studied the vast numbers of rudists collected and was awarded a high distinction Ph.D. (*cum laude*) for this work. Jan Krijnen was awarded a Ph.D. for studying the pseudorbitoidal foraminifers which proved to evolve according to a pattern already observed by Mac in orbitoidal foraminifers in general.

The 8th Caribbean Geological Conference was held in Willemstad, Curaçao, from the 9th-12th July 1977, with Mac as chairman. The transactions, edited by H. J. Mac Gillavry and D. Beets, were published the following year as a special issue of *Geologie en Minjnbouw*, v. 57, p. 97-384.

He retired as Professor of Palaeontology from the University of Amsterdam on the 1st of September 1978.

Although only a limited number of Mac's publications directly concerned rudists (see appended Bibliography) it was with his magnificent doctoral thesis (1937) on “*Geology of the Province of Camaguey, Cuba, with revisional studies in rudist paleontology (mainly based upon collections from Cuba)*” that he became the natural successor to the great Henri Douvillé, who had died in 1936, as the world's most innovative luminary of rudist evolutionary systematics – a status duly recognized at the 8th International Congress on Rudists held in İzmir, Turkey, in 2008, where the session devoted to rudist systematics was named in his honour, in his centennial year. Any student of rudists fortunate enough to have come across a copy of his thesis lurking in a library or even in an antiquarian bookseller's catalogue discovers a veritable goldmine of valuable information and acute insight. Such was his careful attention to detail that when, in the 1990s, our Cuban colleagues Manuel Iturralde-Vinent and Reinaldo Rojas decided to re-sample some of his collecting sites, from over half a century before, they had little trouble in relocating them despite that notorious Caribbean phenomenon of ‘disappearing roads’. Also striking is the lively enthusiasm of his somewhat idiosyncratic writing style, peppered with occasional exclamation marks – even in taxonomic descriptions. His rudist collections are today housed in the Naturalis



Trip to Jamaica 1967. Outside Green Park House.

Museum in Leiden.

Otherwise particularly notable among Mac's published output and drawing on his later experiences as a petroleum geologist (see below) were his detailed analyses of variation and evolutionary change in larger foraminifers, especially orbitoids (e.g., Mac Gillavry, 1963, among others), which in turn led on to a highly technical exploration of multiparameter statistics (Mac Gillavry, 1996) as well as to the recognition of stasis (Mac Gillavry, 1968) some years before the literature storm stirred up by the punctuated equilibrium model of Eldredge and Gould (1972). Other works ranged from Caribbean geology in general to an online philosophical essay on cosmology (Mac Gillavry, 2007), reflecting both his geological and Masonic interests. A book version of the latter work (Mac Gillavry, 2010, in Dutch) also includes an informative autobiography, richly illustrated with personal photographs.

The most important legacy of Mac's work on rudists was its bearing on our understanding today of their phylogeny, hence classification. Following

the lead of Douvillé, though with the addition and correction of some key interpretative details, his analysis emphasized the importance of their myocardinal arrangements for interpreting relationships. Major results set out in his thesis (Mac Gillavry, 1937) were his recognition of the polyconitids as a coherent grouping of likely monopleurid origin and the splitting up of the 'caprinids' (*sensu lato*) – formerly a polyphyletic assemblage of various pallial canal-bearing rudists – into phylogenetically distinct groupings (Skelton and Smith, 2000). Moreover, the remaining caprinids *sensu stricto* were divided into two phylogenetic branches, largely separated between the Old World and the New World, a conclusion further supported by the detailed analysis of their myocardinal systems by Chartrousse (1998). Regrettably, these major advances in understanding from Mac's work were not adopted in the rudist classification set out in the 1969 *Treatise on Invertebrate Paleontology* for the Bivalvia (Dechaseaux et al., 1969), a lost opportunity that has happily been rectified in the classification proposed for the revised Bivalvia Treatise in the present volume, which thus provides a fitting memorial to his work on rudists.

Besides these and other contributions to rudist research in his published work, those who were fortunate enough to have met and/or corresponded with him will also treasure memories of his unbounded energy and enthusiasm. A letter from Mac, often partly typed but with appended handwritten afterthoughts invariably bubbled with pertinent observations and incisive questions, right through to his later years, and he was clearly delighted when the new genus *Macgillavryia* was named in his honour (Rojas et al., 1996), commenting in a letter to PWS in 1993 "I think that if anybody would have asked me: 'what genus shall we call after you?', I would have chosen this old friend of mine, old nicholasi, or the specimen that I denominated nov. sp. 4 (Pl 8, fig. 10)". So we salute in this volume the passing not only of a self-confessed 'old friend' to rudists, but also a continuing inspiration to those who study them.

Peter W. Skelton
Edward Robinson
Jan Krijnen

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