

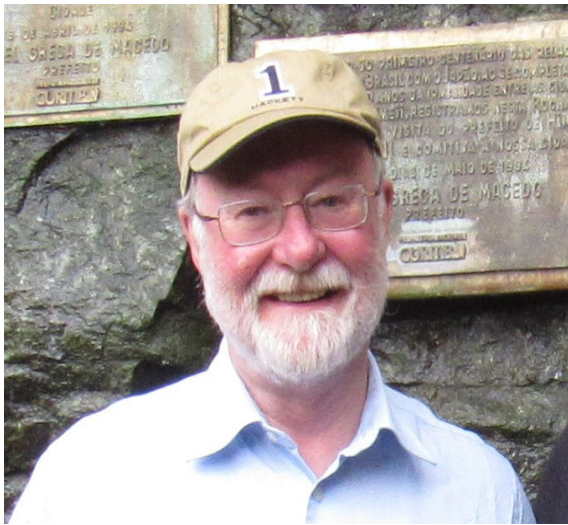
ENTREVISTA COM O PROF. DR. MURRAY GRAY - Queen Mary University of London - Inglaterra

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Geógrafo e professor emérito da Escola de Geografia da Queen Mary University of London (Inglaterra). Originalmente dedicado a pesquisas no campo da Geomorfologia Glacial e Geologia do Quaternário, a partir da década de 1990 passou a focar suas atenções para o estudo da geodiversidade e geoconservação e suas implicações, tais como no planejamento do uso da terra e políticas públicas. É autor de diversas publicações científicas, com destaque para aquela que é considerada a principal obra de referência da área, “Geodiversity: valuing and conserving abiotic nature” (edições de 2004 e 2013). Atua como conselheiro de diversas agências de conservação da natureza do Reino Unido, sendo membro do Fórum Inglês de Geodiversidade e do comitê editorial da revista científica *Geoheritage*.

Terr@Plural – *In Brazil there is still some resistance to studies focused on geoconservation and geotourism among some Geosciences professionals, mainly geologists. Is this an exceptional circumstance, or is widespread in other countries? And how can we overcome this situation? Would be a good solution to incorporate them as mandatory units on the programme of undergraduate courses?*

No, I don't think this is exceptional. A major reason may be because geology training has always involved a strong economic geology element as there are high employment rates in the extractive industries.

Geoconservation could be seen as anti-extraction, whereas in practice it should be about sustainable use of georesources, extracting in the least impacting places, minimizing environmental damage during extraction and restoring the land appropriately when extraction is finished. There could be mandatory units on geoconservation in undergraduate courses, but the principles of sustainable use of georesources ought to be part of economic geology units.

Terr@Plural – *The development of geoconservation procedures ideally should not be limited to the most restrictive protected areas, such as national and state parks of the Brazilian legislation. In this sense, how would you evaluate the success of adopting initiatives such as geoparks on a global/regional scale, or the Local Action Geodiversity Plans in Great Britain?*

The Global Geopark movement has been a tremendous success, even though it has become rather bureaucratic and expensive. Some countries have also established their own national or regional geopark networks and committees that seem to be working well. The Local Geodiversity Plan initiative in the UK was initially very successful with lots of plans being published and lots of enthusiasm among local groups. But it has proved difficult to maintain the early burst of activity, particularly because the initial funding has dried up. But I certainly agree that geoconservation efforts should not just be restricted to legally protected places.

***Terr@Plural** – Over the next few decades the need of a globalized society for natural resources will continue to place pressures on natural and cultural heritage, in general, and specifically on geological heritage. Do you see the international initiatives led by different bodies (UNESCO, IUCN, IUGS, ProGEO etc.) as successful to prevent geoheritage lost? And when comparing developing and developed countries, is the difference substantial?*

The geoconservation community has made substantial progress in recent years in engaging with these international bodies. This is important because it can be used to filter policy and practice down to national and regional levels.

I believe there is a substantial difference between developed and developing countries but even developed countries give much greater emphasis to biological conservation and our challenge is to get biodiversity and geodiversity recognised on an equal level.

***Terr@Plural** – The protection of natural landscapes with an outstanding historical/cultural meaning, the management of protected areas and also the mining activities often face conflicts between the values attributed to geodiversity. The economic value of geodiversity, seemingly, has a more immediate recognition than cultural, aesthetic or functional values. In your opinion, if the geoscientists come toward biological and human sciences professionals this situation could be balanced? And in concrete terms, how could this happen?*

Geomorphology as an “Earth surface science” has much in common with biology and indeed archaeology. “Landscape” is a combination of physical, biological and cultural factors while the definition of an ecosystem includes abiotic elements of habitats.

For several decades, biodiversity conservation has recognised the need to extend beyond protected areas to include a caring approach to endangered species wherever they occur and a need to protect ecological networks in the wider landscape. So, yes, there is a strong case for geoconservation to engage with biological and cultural conservation. In concrete terms, this can be done by publishing relevant papers in general science journals, writing articles for general conservation magazines, giving presentations at nature conservation conferences and engaging with decision-makers in local, regional and national governments.

***Terr@Plural** – A few years ago the expression Natural Capital appeared, treating the ecosystem services that nature offers to the humankind as financial assets. Many researchers use this concept as a valuing procedure of the environment, but there are criticisms regarding this transformation of other values to the term “capital”. What is your opinion about this and how do you see geodiversity in this concept?*

There is certainly opposition to the use of the term “Natural Capital” but this is a widely used approach and as such it ought to, and generally does, include geology/geodiversity as an important part of nature. The problem comes in the “ecosystem services” approach, since this generally only includes biodiversity. This has arisen because of the use of the word “ecosystem” in this phrase rather than using the term “natural services”.

Geodiversity provides so many benefits to human society yet these are rarely understood by the public. So again, geologists and geomorphologists need to try to get these messages across to decision-makers and the public.