Forty-five numbers for snow: a brief introduction to the UDC for Polar libraries

Mark Gilbert Heather Lane Scott Polar Research Institute University of Cambridge

ABSTRACT: This paper discusses the development of the Polar UDC. It examines some elements of the UDC specific to the Polar context, in particular the geographical auxiliary schedule. Some future plans for the implementation of UDC in a library and also in a museum context are outlined.

KEYWORDS: Polar regions; Classification schemes; UDC; Scott Polar Research Institute

Although the Scott Polar Research Institute (SPRI) has overseen the development of the UDC to suit the changing needs of the Polar library community, it cannot take credit for the idea of doing so. Indeed, it was Paul Otlet, the father of the Universal Decimal Classification system, who first proposed the use of UDC in a Polar context, as early as 1906. His proposal was acted upon just a year later, in the archive of Belgium's Institut Polaire International. Before the outbreak of the First World War (and just after the death of Captain Scott), J.L. Denucé's influential 'Bibliographie Antarctique' also utilised UDC, setting in motion a growing move towards the system. That a committed internationalist and pacifist such as Otlet should see such an inherently multinational field as Polar research united by a common classification system, seems a fitting tribute; some 100 years later the Polar UDC links libraries across the globe in common purpose.

It took SPRI some time to adopt the UDC, having experimented with a variety of classification systems through the 1930s and early 1940s. Its principle champion at SPRI was former diplomat and Research Associate, Brian Roberts who, with extraordinary energy, set about rewriting the UDC to suit the needs of his chosen field. "The primary purpose of the UDC is to co-ordinate the work of many bibliographers, so that the entries they prepare can form part of a comprehensive, universal catalogue of recorded information" (Roberts, 1965, p. 4). Roberts was, like many of the researchers of the post-war years, dedicated to improving library systems and a great advocate of what could be described as 'Web 0.5'. His introduction of the Polar UDC for the organisation of materials in the SPRI Library and Archives had a profound effect on the Institute's ability to provide detailed subject retrieval from its collections.

The International Geophysical Year (IGY) of 1957-58, and the subsequent signing of the Antarctic treaty in 1959, gave further impetus to the adoption of a universal Polar classification system, as many more countries around the world acquired a political interest in the Polar regions. UDC allowed an exchange of ideas across huge political and geographic divides. As well as close cooperation with libraries in the Americas, Australasia and Western Europe, the level of interlibrary cooperation between SPRI and libraries of nations within the Warsaw Pact was noteworthy at this time - especially with regard to the exchange of scientific literature. This spirit of collective academic endeavour survives to this day, and a number of libraries in Russia use variants of the Polar UDC, adapted for local needs.

Initially the Polar UDC was a distillation of relevant codes taken from the general English, German, French and Dutch UDC schedules, translated where appropriate. With the help of the British

Standards Institute and the Fédération Internationale de Documentation (FID), discrepancies between these schedules were resolved and the work was published and enlarged with eight subsequent supplements between 1950 and 1956. The initial edition was intended purely for use in SPRI (as reflected in the title 'Abstract of the UDC for the use of SPRI'). It quickly became apparent that this approach of amalgamating existing codes into a new schedule was insufficient for the complexities and specialisms of Polar studies. Roberts cited various areas that would require the codification of a raft of new terminology, in areas as diverse as frozen ground engineering and skiing (Roberts, 1960, p. 4).

With the help of the British Glaciological Society and a variety of experts from within the Institute and beyond, the schedule was adapted and expanded. The increase of interest in the schedule amongst Polar libraries in other countries was reflected in the change of title, henceforth it would be 'the UDC for use in Polar libraries'. Since the first edition in 1950, the UDC schedule has been updated regularly in response to developments in the field. Many more codes have been added in areas such as ice physics, economic geology and climatology, echoing the explosion of research interest in these areas.

The Polar UDC schedule retains many of the features of the standard UDC, namely the hierarchical structure, the controlled vocabulary and many of the standard codes. Indeed, it can be seen as an extension of the UDC, rather than an alternative. The numerical codes will be familiar to those acquainted with the standard UDC, though many are missing, as they are deemed to be of minor interest to the Polar user. The more streamlined approach allows subject-specific terminology to be added, without encumbering the user with a vast systematic subject list. To some extent, the limited range of general terminology also alleviates the bibliographer's dilemma of exhaustivity; knowing when sufficient codes have been added to a record to allow effective subject-based searching. Another example of streamlining is the removal of much of the auxiliary notation. Although colon relation is used, there is no use of intercalation; other auxiliaries, such as time, are rarely used.

The decision to adopt regional classification as the first principle of division necessitated an entirely new auxiliary schedule, incorporating a more detailed view of the geography of the Polar Regions than is used even in the current edition of UDC. Perhaps the most striking feature of the Polar UDC is this addition of an auxiliary of place specific to the Polar Regions. This is denoted by brackets, as per the standard UDC practice, but with the addition of an asterisk before the number. These can, of course, be subdivided to allow great specificity, e.g.:

(*7) Antarctic Regions (in general)

(*726) Maritime Antarctic

(*726.3) Antarctic Peninsula (Graham Land and Palmer Land)

(*726.31) Bruce Plateau region (inland portion of the Antarctic peninsula)

The success of the Polar UDC is evident in its adoption by libraries across the globe, and can be attributed to a variety of factors. The enormous amount of intellectual capital invested in the project by Roberts and his peers ensured its initial success, but other factors have allowed it to thrive through more than half a century. The development since 1971 of the Polar Libraries Colloquy (formerly the Northern Libraries Colloquy) has promoted use of the scheme amongst member organisations, now numbering over one hundred worldwide. As mentioned earlier, the inherent flexibility of the UDC has allowed new developments to be assimilated; recent additions include digital mapping and newer remote sensing techniques, such as Light Detection and Ranging (LIDAR). The UDC strikes a balance between ease of use and sophistication of expression. The wide range of specialist schedules deriving from UDC is testament to this and the Polar UDC is no exception.

But what of the future? The most recent edition has over 3000 separate subject headings (including 45 for different aspects of snow) and 500 specific geographical headings. The inhe-rently flexible nature of UDC allows the addition of regional and subject headings of an increasingly precise nature, depending on the requirements of the user community. Specific geographic areas of what was previously *terra incognita* - or at best wilderness - take on huge social, economic, political and scientific significance with the increased interest in mineral and bio-resources; the ability to append regional codes in an ever more specific manner will be of great benefit in an uncertain geo-political climate.

Bioscience, climate modelling, glacial melt and the implications of climate change can be explored and expressed using increasingly precise codes and keyword terminology. The ability to use specific, controlled vocabulary to search for relevant material is of enormous benefit in a shifting academic landscape. In recent years research into Polar history has taken on new dimensions, with an explosion of interest in aspects of gender, media, culture and social history. Complex post-coordinate searches can be achieved in multi-disciplinary research, allowing users ever greater accessibility. The planned 5th edition of the Polar UDC, now at an advanced stage, is also taking advantage of the ease of communication between libraries which have adopted the scheme, to solicit feedback on local practice, corrections and requirements for new terminology.

Apart from its traditional use in the classification of printed material, SPRI is looking at other uses for the Polar schedule. In the spirit of enquiry and adaptation engendered by the early exponents of UDC, SPRI is experimenting with ways to use the Polar schedule as a basis for the classification of museum artefacts in the Institute. The majority of its photographic holdings are classified using Polar UDC at collection level, for subject, geographic area and, in some instances, specific expedition or historical period. Work is also under way to develop an object thesaurus, using subject terms derived from UDC as a starting point.

Every language has specific terminology to express ideas important to its user group; the famous analogy of a hundred Inuit words for snow may be a fallacy, but UDC allows us to reach beyond the limitations of our own language or subject base, to codify as many concepts as we need to express ourselves fully. The Polar UDC's forty-five separate codes for different aspects of snow would be superfluous to the generalist, but are of great importance to the specialist. The ability to code and decode at whatever level the user requires, ensures that the UDC is a genuinely universal meta-language, crossing linguistic and subject barriers.

Behind the subject lists and codes of the UDC lie certain universal principles; amongst which one could count equality of access, international cooperation and responsive flexibility. These core principles are as important now as they were in UDC's genesis, and SPRI, like many other libraries throughout the world, aspires to reflect them in its actions, and in its response to the challenge of building collections for the future.

References

Roberts, B. B. (1956) *Abstract of the Universal Decimal Classification for use in polar libraries*. Cambridge: Scott Polar Research Institute, University of Cambridge.

Roberts, B. B. (1960) *The organisation of polar information*. Occasional Paper 1. Cambridge: Scott Polar Research Institute, University of Cambridge.

Universal Decimal Classification for use in polar libraries. 4th rev. ed.; edited by William Mills. Cambridge: Scott Polar Research Institute, University of Cambridge, 1994.