

The

Bliss

## CLASSIFICATION BULLETIN

ISSN 0520-2795

No. 47, 2005

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### EDITORIAL

#### *Another honour for Jack*

LAST YEAR these pages were darkened by the obituaries of Douglas Foskett and Martin Williams. I am glad to report that, up to the time these words were written, I have had no further reports of this nature.

Indeed, on the contrary, we have recently heard the excellent news that **Jack Mills** is this year's recipient of the **Tony Kent Strix Award** made by UKeIG (the UK eInformation Group, formerly UKOLUG). The award is presented by the Group in honour of Dr Tony Kent, a past Fellow of the Institute of Information Scientists, who died in 1997. Jack was unable to travel to Manchester for the awards ceremony at the CILIP Umbrella Conference on 30 June, and Vanda Broughton accepted it on his behalf. The name 'Strix' reflects Tony

Kent's interest in ornithology, and is also that of the last and most successful of his information retrieval packages. For the full citation and information about the Group and the Award, go to

[www.ukeig.org.uk/content/public/activities/awards/tonykentstrix.html](http://www.ukeig.org.uk/content/public/activities/awards/tonykentstrix.html)

(apologies for the length! I haven't got a tiny url for it). You will see that Jack is in the excellent company of other wise old owls!

### ***Editors and Editorials***

THE LAST EDITORIAL contained a deliberately provocative section expressing the views of many discontented people who have been wondering why the Association has not made more and quicker progress with BC2. Perhaps rashly quoting Voltaire, the Editor of the *Bulletin* in essence challenged the Editor of BC2 to consider calling a halt to much of the work of intellectual and technical polishing of the classification and instead concentrate on publishing the remaining classes, quickly.

I sat back and waited for a flood of contributions from our members and readers, both for and against this proposition, optimistically hoping to make this issue rich with controversy. *Where were you? Is there really no one out there who has any opinions, no one who cares, no one who can be bothered to put pen to paper (or electronic equivalent)?* I am still waiting; apart from a few comments conveyed privately, I received no responses at all, with one important exception.

The exception, fortunately, is Jack Mills himself, who, following consultation with Eric Coates, has taken the time and trouble to produce a lengthy, reasoned and robust response which is printed here in full. (Surely Jack cannot be *less* busy than the rest of us?) Even if some may not agree with it totally, it is an important and revealing account of the work involved in the creation of the classification, not least for those readers who are not on the BCA Committee and therefore not so familiar with the process. Apart from that, it is a pleasure to have a major contribution from JM in the *Bulletin* once again.

On one point, not specifically mentioned in last year's editorial or in JM's response, I dig my heels in : granted that the intellectual structure of the schedules and the techniques for preparing the page layout and the indexes should be as near right as possible, let us nevertheless be quite ruthless about drawing a line when it comes to trawling and gathering more and more terms for the vocabulary of a class, particularly in the more dynamic subject areas. This is a definitely a never-ending task and we must not let it be an excuse for delaying publication.

### ***The annual lecture***

Other commitments meant that Mark Corderoy was unable to provide a print version of his lecture *Classifying the world: new challenges and opportunities for faceted classification*, given after the AGM last year. It is hoped that this regular feature will re-appear next year.

### ***Thoughts from Pavia***

Editors are always pleased to receive good contributions without having to take drastic action to secure them. The article about the problem of the Phenomena classes was kindly submitted by **Carlo Gnoli**, who will be remembered by delegates to last year's ISKO Conference.

### ***London, today***

These words are being written on 7 July 2005 after the news of the bombings broke. None of our BCA colleagues working in or visiting central London suffered death or injury, I am glad to report. We think of all those people who did, and their families.

*Tony Curwen, Aberystwyth*

## **BLISS CLASSIFICATION ASSOCIATION**

Minutes of the ANNUAL GENERAL MEETING of the Bliss Classification Association held at 2.15pm on Friday 26th November, 2004 in the Centre for Manuscript and Book Studies Seminar Room, University of London Library, Senate House, Malet Street, London.

**Present:**

Jean Aitchison (Personal member)  
Jane Alderson-Rice (General Teaching Council)  
Vanda Broughton (University College London)  
Eric Coates (CRG)  
Mark Corderoy (Adiuri Systems Ltd) (*guest speaker*)  
Richard Crabtree (Senate House Library, University of London)  
Tony Curwen (Personal member)  
Adrian Dover (Personal member)  
Frank Emmott (Barnado's)  
Angela Haselton (Tavistock & Portman NHS Trust Library)  
David Johnson (St Peter's College, Oxford)  
Heather Lane (Scott Polar Research Institute)  
Jeremy Larkin NCH  
Helen Mackin (Barnardo's)  
Marion MacLeod (Fitzwilliam College, Cambridge)  
Jack Mills (BCA);  
Julie Robinson (CILIP)  
Liz Russell (Personal member)  
Miriam Shaughnessy (Department of Health)  
Angela Upton (SCIE)  
Leonard Will (Willpower Information)

1. **Apologies** were received from Karen Attar, Aidan Baker, Karen Begg, Ken Best, Philip Defriez, Angela Douglas, Alex Perkins, Chris Preddle, Robert Rosset, Alan Thomas and Rhona Watson
2. **Minutes of the previous meeting**  
The minutes were circulated. The minutes were **approved** and signed as a correct record.  
*Proposed: Angela Haselton; seconded: Jean Aitchison*
3. **Matters arising**  
There were no matters arising from the previous minutes.
4. **Progress of BC2: Editor's report**
  - 4.1 Mr Mills commented on his written report, which had been circulated to the meeting and would be appended to the minutes.
  - 4.2 The Editor highlighted the scale of the project, conducted using very slender resources, to produce the new edition of the Bibliographic Classification.
  - 4.3 Consolidation work had continued on the Prolegomena and Phenomena (numeric) classes, including Communication and Information and Computer Science, which had been examined in relation to Class U/V Technology. The editor explained the role of the Classification Research Group in this process.

- 4.4 Class C (Chemistry) had been considered ready for camera-ready copy to be prepared in 2002. Since that time the BCA had commissioned a new suite of software and the production of an alphabetical index had disclosed serious errors in the structure of this class. Revision has been very time-consuming, particularly as the notation has had to be amended, but the final version is currently in preparation.
- 4.5 Andrew Watson is currently engaged in inputting the manuscript of Class GS (Applied Biology) to provide an electronic form for revision.
- 4.6 Class VT-VY (Housekeeping, Recreation and Leisure) is now in an advanced state of preparation.
- 4.7 Jean Aitchison and Vanda Broughton have been asked to prepare a set of guidelines for schedule editors, which take account of the needs of thesaurus construction. They have also developed a specification for thesaurus software.
- 4.8 The Editor expressed his thanks to the BCA Committee and to Eric Coates.
- 4.9 The Editor announced the resignation of the present Hon. Secretary, Heather Lane, with effect from 31 December 2004. He thanked her for her efforts on the Association's behalf during the past nine years.

## 5. Other activities in 2004

- 5.1 Leonard Will commented on his investigation into the new crc software. He was impressed by the quality of the programs, which run on Windows 2000 and provide good error messaging. Paul Coates had fixed the majority of the bugs in the system.
- 5.2 It was clear that the editor's guidelines would prove useful in tidying up the input schedules. In a test run of 6510 classes, 18 had failed and 39 examples of unmatched brackets were disclosed.
- 5.3 An example of the hard copy output was available to members for examination. The software produces a draft alphabetical index ready for a human indexer to manipulate.
- 5.4 Following the acceptance of the business plan, the BCA Committee had drawn up a list of possible donors and were planning to start fund raising in earnest in 2005.

## 6. Treasurer's report

- 6.1 Ms Haselton tabled a written report.
- 6.2 There had been an anonymous donation towards the work of the BCA, for which the Association was most grateful.
- 6.3 Expenditure included a payment to Paul Coates for the new software.
- 6.4 The Treasurer proposed a motion to increase institutional subscription to the BCA to £30 for 2005-06. the increase was justified on the basis of the need to fund current developments in software and schedule creation. The motion was **passed** *nem. con.*
- 6.5 The accounts were unanimously **approved**.  
*Proposed:* Vanda Broughton; *seconded:* Elizabeth Russell
- 6.6 Mr Mills expressed the Association's thanks to the Hon. Treasurer for her work during the year.

## 7. BC Bulletin

- 7.1 The Chairman thanked Mr Curwen for his work on the Bulletin, which was of a consistently high quality, and invited him to make his report.
- 7.2 The Editor thanked the contributors to the 2004 edition and appealed for copy for the next issue. The deadline would be 1 May 2005.

- 7.3 Following the lack of response to his latest, possibly controversial editorial, he would be grateful for a greater range of contributions and feedback on articles. Mr Mills and Mr Coates both agreed to provide comments.
- 7.4 Mr Curwen also suggested that the Association make better use of the discussion list LIS-BCA. As Editor, he would undertake to post proposals for revisions and corrections and possibly portions of draft schedules for more detailed discussion by the membership at large.
- 7.5 Any member wishing to take on the role of BCB editor was invited to contact Mr Curwen!

#### **8. Auditor's election**

Ken Best was thanked for his continued help as the Association's Honorary Auditor. His re-election was proposed by Angela Haselton and seconded by Heather Lane, and unanimously approved. Members are asked to notify the Treasurer of anyone who would be willing to act as Auditor in the future.

#### **9. Committee elections**

- 9.1 The posts of Hon. Secretary and one further vacancy had arisen, owing to the resignation of Robert Rosset. Dr David Johnson, Librarian of St Peter's College, Oxford had been nominated as a new member of the committee. As there were no further nominations at the meeting, he was elected as an ordinary member of the committee by unanimous vote. Elizabeth Russell and Marion MacLeod had expressed willingness to be co-opted and this was agreed unanimously. Mrs Lane would also continue to serve the last year of her three year term as an ordinary member. As no one had been nominated to the post, the Committee asked that the Association permit them to appoint a new Hon. Secretary at their next meeting. This was **agreed** *nem. con.* Vanda Broughton agreed to act as Secretary in the interim.
- 9.2 Mr Mills explained that the duties of the committee were not particularly onerous and encouraged the wider membership to consider standing for election in the future.

#### **10 A.O.B**

- 10.1 As there was no further business, the meeting closed at 3.10 p.m.

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### *X Snippets*

In Cambridge **Christine E RobertsLewis** is Heather Lane's successor at **Sidney Sussex College**. She writes:

"I trained first as a primary school teacher specialising in Music. I didn't return to teaching after the birth of my son and instead began working part-time in the village library. From there I moved to a larger public library and then into Further Education. I graduated in 2000 from Aberystwyth having studied by distance learning. I have spent the last six years as solo librarian in the Department of Physiology –reference only, with an in-house classification and no schedules.

"I have a hard act to follow here, but am thoroughly enjoying my new post at Sidney Sussex. I have been here almost five months now [May 2005] and light is beginning to dawn on me regarding Bliss, thanks to advice from Heather Lane and also to a very able assistant, Tana, who not only maintains a regimentally tidy library but who also enjoys joining in the challenge of classifying a 'difficult' title. The students are currently studying very hard and the atmosphere in the library is very tense, but they generally remain good-natured and well-behaved. I have the perfect job – tidy shelves, an organised environment and lovely users!"

*Tel: 01223 338852; E-mail: cer34@cam.ac.uk*

## BLISS CLASSIFICATION ASSOCIATION

### Consolidated Receipts and Payments for the Year Ending 31st July 2004

#### RECEIPTS

<u>2003</u>	Balance brought forward at 1st August	<u>2004</u>
7199.64	Deposit account	6303.28
798.55	Current account	605.67
374.74	Reserve account	377.09
	<i>Subscriptions</i>	
140.00	Personal	170.00
315.00	Institutional	705.00
21.60	Royalties on 2nd edition (Bowker-Saur)	83.08
51.53	Distribution from M & G (Charibond)	51.53
99.75	Alliance & Leicester share dividend	109.75
	<i>Donations</i>	
300.00	Anonymous gift	500.00
35.00	Supply of out-of-print schedules	36.50
	<i>Interest payments</i>	
34.89	Deposit (Nationwide) a/c	59.65
2.35	Reserve a/c	3.84
<u>9373.05</u>		<u>9005.39</u>

#### Current Assets at 31st July

<u>2003</u>		<u>2004</u>
800.13	Charibond (at cost)	800.13
605.67	Cash in Current account	525.14
377.09	Cash in Reserve account	380.93
<u>6303.28</u>	Cash in Deposit (Nationwide) account	<u>4897.68</u>
<u>9503.06</u>		<u>9502.99</u>

## PAYMENTS

<u>2003</u>		<u>2004</u>
198.40	Committee expenses	459.00
405.55	AGM expenses	259.16
35.06	Stationery, postage and photocopying	29.40
117.00	Bulletin expenses	181.51
1331.00 <sup>(2)</sup>	BC2 expenses (computer equipment, printer paper, publicity)	2272.57 <sup>(1)</sup>
<b>Balance in hand at 31st July</b>		
6308.28	General deposit account (Nationwide)	4897.68
605.67	General current account	525.14
<u>377.09</u>	Reserve account	<u>380.93</u>
<u>7286.04</u>		<u>5803.75</u>
<b><u>9373.05</u></b>		<b><u>9005.39</u></b>

<sup>(1)</sup> Includes payment to a consultant for work on upgrading & cleaning of existing computer files.

<sup>(2)</sup> This figure includes the purchase of an upgraded second-hand PC for BC2 production and payment for assistance with proof-reading and is reflected in the reduced balance totals.

**Angela Haselton**

Honorary Treasurer  
40c Morpeth Road  
LONDON  
E9 7LD

**Auditor's Report**

I have examined the books, bank statements and other relevant papers of the Bliss Classification Association and find the above statement of accounts to be correct.

**Ken Best**

Honorary Auditor  
30 Cissbury Close  
HORSHAM  
West Sussex  
RH12 5JT

19 November 2004

## **PROGRESS OF BC2 IN 2004: Editor's report to the AGM**

### ***Design and Compilation of Schedules***

**Classes 2/9 Prolegomena to the general classification.** An outline schedule on the status and structure of Class 5 Computer Science & Technology was presented to the Classification Research Group (CRG) and the relations between this general class at 5 and the Computer Technology class at U9 were examined, *inter alia*.

**Class C Chemistry.** The unforeseen delay in the publication of this class, reported last year, has unfortunately persisted. Eric Coates's work on the production of an A/Z index which will serve as a model for all subsequent classes and, eventually, a consolidated index to the whole classification has continued. The structural faults in the existing schedule are now mostly corrected, but the extensive changes in notation that these corrections have necessitated (any change in one class reverberating in many others) have proved very time-consuming. But this work is now nearly complete and it is hoped to have the final class ready for publication early in the new year.

**Class DG Earth Sciences.** The draft schedule for this is virtually complete and is, in fact, in successful use in Sidney Sussex College. Following a proposal by the CRG to base its agendas on final looks at BC2 classes high on the list for publication, a schedule for one serious gap in DG, Mineralogy, was prepared and fruitfully discussed at a CRG meeting.

**Class E/G Biological Sciences.** Some problems in the structure of this very large class (which has the biggest penultimate draft of any BC2 class) were discussed by CRG, with special reference to the biochemistry and genetics classes.

**Class GS Applied Biology.** This was discussed in some detail by the CRG. This was partly in response to a welcome grant to BC2 made by CILIP to enable us to convert to electronic form the large draft schedule, at present only in typed (and even mss!) form. The discussion included consideration of the Ecology class, which, although appearing first in general biology, has developed mainly in the context of applied biology – i.e., the human environment, filing immediately before the human sciences beginning at H.

**Class W The Arts.** Finalizing this large class has proved more time-consuming than we had envisaged. Although more comprehensible to the layman than chemistry, it has presented a strangely analogous situation between the concept of style and the functional groups in chemistry. In both cases, these concepts and the notational as well as conceptual problems they present, have proved to be major headaches. But as with chemistry, it is hoped to complete this class early in the new year.

**Class WQ/WS Music.** A good deal of work by members of the Committee and others was devoted to amplifying the existing draft (which was otherwise near complete) with the vocabulary of developments such as World music and to problems of developing the Thesaurus which it is proposed to add in the published (and separate) volume. A one-day course on developing a faceted classification and thesaurus for music was held at Jesus College, Cambridge, and was attended by fourteen music librarians. Jean Aitchison is also exploring the problems of a program for computer assistance in the production of the thesaurus.



### ***Development of BC2 in general***

Your Committee has been very active, as usual, in other areas in the development of BC2. The ISKO [International Society for Knowledge Organization] Conference was held this year at University College, London, and involved Vanda Broughton and others in a great deal of work. Updated leaflets on different classes, as well as a Conference paper, were produced as part of the excellent publicity given to BC2.

Heather Lane gave a talk on BC2 to the CILIP London Group and a one-day training course at the British Empire & Commonwealth Museum in Bristol. Jack Mills, in response to some pressure, wrote a fairly lengthy article on faceted classification and logical division for the Winter 2004 issue of *Library Trends*, devoted to the Philosophy of Information.

The *Bulletin* provided its usual excellent and highly readable forum, but it included one note that, perhaps, might be misconstrued by BC2 supporters; this editorial suggested that a policy of perfectionism was contributing to the worryingly slow publication of new classes. One can only say that the conceptual analysis in depth of any subject can only be done properly if it is done thoroughly and that this is inevitably time-consuming. Eric Coates and Jack Mills hope to reply in the next issue of the *Bulletin*.

More work has been done designing appeals to different funding bodies for what are becoming desperately needed funds to enable BC2 to be completed in the fairly near future. One area that particularly calls for help is the work entailed in producing the camera-ready copy for the publisher, using the new software. Heather Lane has struggled valiantly to do this, but it has imposed a severe burden on Heather and an already over-burdened Committee.

Finally, three pieces of news – two sad and one cheerful. The sad news is that of the deaths of Martin Williams, the greatly respected librarian of Queens' College, Cambridge, and Douglas Foskett, an eminent and sturdy supporter of BC2, who, with his wife, Joy, contributed indefatigably to the production of schedules. Obituaries of both much-missed colleagues appeared in the *Bulletin*.

The cheerful news is that an Oxford college – St Peter's College – has decided to reclassify by BC2; congratulations – and welcome!

J.M.

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### *X Snippets*

#### ***OxBUG of one?***

**Dr David Johnson**, Librarian of St Peter's College, is experiencing the problems familiar to colleagues everywhere. Hoping to make a good start on reclassification by BC2, beginning with Philosophy, he faced initial staffing problems followed soon after by the introduction of a new security system (the whole stock had to be tagged) and inevitable teething problems. And then who could be better than the College Librarian to organise a round-table session to be held at the College to discuss 'the future of the journal' with the participation of eminent philosophers, academic publishers and librarians and others? He is hoping that the Long Vac this summer will be free of committees, conferences and other diversions and provide him with the opportunity to get to grips with the reclassification.

David was elected to the BCA Committee at the last AGM, a welcome representative from The Other University. As far as BC2 is concerned he forms an Oxford Bliss Users' Group of one at the moment (there are four BC1 libraries), but we hope that he will not remain the only one for too long.

**The Bliss Classification Association**

**an association to develop and promote the  
Bliss Bibliographic Classification**

(Registered Charity no. 270580)

**Officers and Members of the Committee 2005**

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Mrs Vanda Broughton, *Hon. Secretary (University College London; UDC Observer)*

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Dr David Johnson (*St Peter's College, Oxford*)

Mrs Heather Lane (*Scott Polar Research Institute, University of Cambridge*)

Miss Marion MacLeod (*Fitzwilliam College, Cambridge*)

Ms Julie Robinson (*CILIP*)

Mrs Elizabeth Russell (*Personal member; c/o Mrs H.E. Lane, Cambridge*)

Mr Leonard Will (*Willpower Information*)

## PERFECTION AND GOODNESS IN DESIGNING BC2

**Jack Mills**

*I am indebted to Eric Coates (who largely agrees with all that's said in this article) for carefully reading it and making numerous very helpful suggestions, which have been incorporated in it. – J.M.*

*'We' and 'our' in what follows are to be read variously as referring to the discussions between E.C and J.M or to all who are involved in the task of producing BC2, according to context. – Editor.*

THE EDITORIAL in last year's *BC Bulletin* contained a lucid (and far from pompous) plea for an acceleration in the production of BC2. It almost certainly expressed the concern felt by other BCA members at its dreadful slowness – no new volume published since 1999. It did not elaborate on the cost to BCA and its hard-working and loyal supporters of this delay. But this is indeed obvious. It imposes a severe brake on the acceptance of BC2 by new and reforming libraries as a viable alternative to the antiquated systems of the late 19th century to which they must otherwise lamely and tamely turn. It puts a severe burden on the enthusiasm of its overworked present users – not to mention its financial resources (via royalties) – for the continued maintenance of the system. This was not the first time such concerns have been expressed and it seems timely for a cogent and detailed explanation from the coal face – the day by day work on the design and construction of its schedules and their A/Z indexes.

AT THE HEART of the concern expressed was an invocation of Voltaire's aphorism "The best is the enemy of the good". How relevant is this to the work on BC2? As all who are concerned with classification know, context is crucial to any argument ("only connect"). Voltaire was expressing his extreme scepticism over the optimistic dictum of Leibnitz, that God must have created the best of all possible worlds (lampooned in the person of Dr Pangloss and added to acerbically by a later English philosopher "and everything in it is a necessary evil"). The context Voltaire had in mind was clearly the actions of humans in their social relations and his aphorisms usually cited in that context. This was illustrated clearly in democratic action of the kind we have just seen in the British general election and the French and Dutch referendums on the EU, where electors often had to choose between two options, neither of which they thought ideal, i.e., "best", or even particularly good, but one of which had to be decided on.

But when we turn to the field of action represented by academic research and development and intellectual analysis, the relevance of the aphorism is much less certain. Whilst the practical task of applying the fruits of research to some utilitarian product would seem to come within its compass, it is not at all clear how the research per se could possibly do so. Research (a much over-worked term, not least in the field of information work) usually implies the close examination of the applications of a basic theory or set of assumptions to a given set of circumstances in order to test or validate those assumptions. The only criterion is the truth of the matter; it is not amenable to a judgement as to whether it is best or just good. A fact is a fact. We are not saying that the facts analyzed in BC2 work are always as precisely recognizable as those usually found in purely scientific research, but the principle is the same. The fundamental task in facet analysis of a field is first to recognize a limited number of categories into which the concepts underlying the vocabulary can be marshalled. These categories are then defined, in terms of the field, with maximum precision and each concept considered as to whether its definition does or does not match that of the category. There is no question of its being best or good.

### *A fair analogy?*

THE EXAMPLE taken in the *Bulletin* editorial as being closely analogous to the problem of BC2 production was that of the preparation of a new edition of the British Museum's General Catalogue. This was begun in the 1930s; by the early 1950s it was clear that progress at the existing rate would see the century out before it was completed. Also, the meticulous standards of checking and revising were proving prohibitively expensive. So the degree of editing was reduced, new methods of photographing the existing guard-book catalogue developed and the catalogue was completed relatively quickly. First reactions to reading the Editor's very clear description of this were to agree that the BM's decision was sensible. Second ones were to reflect that BC2 was likely, even at the present rate and with its much more limited resources, to be completed in roughly the same time. Thirdly, (but this, we realized, was probably unjustifiably complacent) to remember that BC2 had already produced, *inter alia*, a Law classification every bit as specific as, and much more logically structured than, the massive Library of Congress one, which had taken over a century to complete.

Finally, we considered how comparable the two tasks were in terms of the relevance of best and good. The BM catalogue is an author/title one. It is arguable that the work of subject indication (to use a sensible term to describe the problem which avoids the confusing nuances and ambiguities of the term "indexing") is even more time-consuming, if done properly, than that of author/title cataloguing. The author/title catalogue is almost entirely a locating device, with a very limited function as a relating device. BC2 is both a relating and locating device. Even the A/Z component of a classification, which is primarily a locating device involving the names of subjects, raises formidable problems of citation and filing order. The heading of an entry in the A/Z author and title catalogue rarely presents more than two or three possibilities. A not particularly specific subject heading may present many more; e.g., an Economic history of Victorian Britain presents 24 (1x2x3x4). Add an industry concept (coal mining, say) to the subject and the possibilities exceed a hundred. The structure of a subject A/Z index is heavily dependent on the classification system it serves and the reconciliation of the two systems offers further problems when the assistance of a computer is sought.

OUR CONCLUSION was that the analogy between the BM's problem and that facing the BC2 is not close enough to claim that the former's decision, which we agree can justifiably be said to reflect the implications of Voltaire's aphorism, could be a precedent for a change of policy in BC2. It is likely that the patient reader has found so far that the claims made above for the greater difficulties of applying the aphorism to BC2 are somewhat abstruse. So we give below two examples of the practical problems which attend the design of BC2 most of the time. They are, appropriately, taken from the current work on chemistry and the arts. We say "appropriately" because these two classes have proved to be the most difficult so far tackled. Before the finalization of chemistry began, Mathematics had been considered the high tide of difficulty. Luckily, we can say with some confidence (since virtually all other subjects already have detailed schedules drafted, some of which are in active use ahead of publication) that these really will prove to have been the high tide of time-consuming difficulty.

### *Indexing BC2*

Before instancing a problem in the design of the chemistry schedule, it is worth noting that the delays accompanying the finalization of that class began with another factor not so far mentioned and to which the question of best *versus* good scarcely applies. This was that the old software used by BC2 for the production of its camera-ready copy was not matching up to the needs and required replacement. When the excellent new software arrived it helped identify the rules needed to guide human intervention which would result in simpler yet fuller indexes. The A/Z indexes have long been the weakest feature of BC2 volumes, suffering

from a failure to bridge the gap between the crude index produced by purely automatic procedures and those required for the published version. The overhaul of these rules includes the development of rules which provide for the future publication of a unified A/Z index to the whole of the completed BC2.

The preparation of these A/Z indexes is by no means a vain pursuit of perfection. It is, like facet analysis itself (which, of course, it uses) the application of a well-trying and proven methodology. In the context of this debate on the best versus the good we have a startling example of a descent from "perfectionism" in the sad state of the current BNB. In the claimed interests of economy and "practicality" it has abandoned (particularly in its A/Z subject indexes) the coherent and consistent principles established in the earlier BNB. These gave a high degree of predictability, the hallmark of an effective retrieval system, to the location of the most complicated subjects. Anyone consulting the indexes now provided and finding the long columns of undifferentiated and unguided headings which often occur, may take warning of what a descent from "perfectionism" may lead to. We are not saying that such a steep descent is being suggested for BC2, but it does demonstrate what inclines that road possesses.

### *Concepts and definitions : getting the chemistry right*

WORK ON THE NEW A/Z INDEX TO CHEMISTRY revealed schedule errors which had not been detected under the editing procedures as envisaged in the old programs. These errors, if left uncorrected, would result in loss of information, and dilemmas for both classifiers and other searchers trying to locate subjects within the classified schedule. This could seriously lower the reputation BC2 has for greater accuracy and comprehensibility compared with other subject retrieval tools. So the best had to be pursued. One such schedule defect exposed was the result of a decision at the design stage to conflate the two arrays in the major Substances facet of "Kinds of compounds defined by their constituent elements" and "Kinds of compounds defined by possession of a particular functional group". A functional group is probably best defined as a group of elements (or, very rarely, a single element) which, when possessed by a compound, give it characteristic properties in reactions, which then define that compound; e.g., a compound which contains the functional group Alcohol (-OH) will be called an alcohol and behave in a way characteristic of all alcohols, whatever the other elements they are combined with.

The conflation mentioned above had been deliberate; it was the result of time-consuming examination of the literature on functional groups and of the definitions in different chemical dictionaries. This examination had revealed a widespread ambiguity in the way chemists themselves referred to functional groups. Facet analysis is based on logical division, which implies definition. According to the definition, Group (which is how most of the chemical literature refers to functional groups) as a concept would appear not to be in the "Kinds of substance" facet but in a different one – "Parts of substances". But the A/Z index revealed clearly that there was no distinction made in the schedule between the two concepts. Should the schedule recognize three different arrays: Functional groups, Compounds defined by possession of a group, Compounds defined by possession of constituent elements? In the chemical literature on the subject there is a widespread terminological confusion over the different concepts. A concept like Alcohol will sometimes be called a compound, sometimes a group; a table labelled as being one of functional groups will refer to its constituents as compounds. It is not clear on some occasions whether a compound possessing particular elements (O and H, say) are reflecting these as constituting a group or simply constituent elements. So it would invite confusion to provide two separate categories "Compounds possessing a functional group" and "Compounds possessing particular elements".

In addition to the above problem, which is peculiar to organic chemistry, there is its relation to the general concept of a radical in chemistry. This was the term used for many years to

represent the concept of a particularly reactive component in a compound. Now, it is used only in relation to inorganic chemistry, although it is obviously a fundamental concept in all chemistry. Some chemical dictionaries, which may be very good in most respects, fail even to have an entry for them. But it would be very careless of BC2 to fail to have the general concept. But where should it go? In the general “Kinds of substances facet”, since some groups do have a fleeting existence as individual entities? By the principle of integrative levels it should file in the sequence *Elements... Radicals... Compounds*. This is because (a) a radical implies an element or elements; (b) the radical could be something less than a compound (because its transitory existence would not give it that status); (c) the compound may include particular combinations of elements which behave as radicals. This solution is a simple example of what BC2 does – apply a general theory to the interpretation of particular cases.

### *The Arts and the art of classification*

WE WILL INFLICT ONE MORE EXAMPLE of what detailed facet analysis involves and in an area very different from chemistry and probably more congenial to most BC2 users (although we hope that this situation will change as BC2 publishes the rest of the natural sciences and the Technology class). In the large Arts class W (now, like chemistry, nearly complete) three concepts frequently encountered are Styles, Movements and Abstract art. BC2 conflates the first two, even bearing in mind the dangers of this procedure disclosed in the design of the chemistry schedule. The definition of style in BC2, taken from a standard dictionary of art, is: (1) The manner of execution in writing, painting, etc, as opposed to its subject matter or organization (form); (2) The common characteristics of an art in a given period (e.g., Louis XIV style) or of a school or movement. This is a good example of the relative fuzziness of the terminology in art compared with the relative (but, as we have seen, by no means complete) precision in science and technology.

It is, of course, typical of the basic problem of classification – to seek out the concepts from underneath the disguises they wear in the unruly language. The criterion of perfection *versus* compromise does not arise; the classifier (in this case, the schedule designer) simply has to compare the varying definitions, consult the literature, look at physical collections, consult knowledgeable authorities and then decide on an accurate definition which nails down the concept. As a result of this sort of time-consuming hunt, BC2 finally conflates the different, but seriously overlapping concepts into one array, under the heading: Styles, movements, schools. But it also makes provision for general works on each of these when, as sometimes happens, it is treated as a separate concept; e.g., when “school” is used narrowly for artists, perhaps otherwise unidentifiable, following an established master (e.g., School of Giotto).

There is a very large literature on styles and movements. There is also, particularly in the past century, a large literature on abstract art. Enter logical division: to define abstract art we quickly realize it is the opposite of figurative art – i.e., art with a clear subject. So it belongs to what BC2 is calling “Kinds of art by the representation factor”. We must avoid the term by which it is usually identified, which is “Subjects of art” since abstract implies not representing any object in nature. But abstract art has degrees of interpretation in its definition; the acknowledged pioneer of modern abstract art, Kandinsky, called it Non-objective art, which others translate as Non-representational. But other definitions allow degrees in the matter, accepting as semi-abstract art works in which natural objects are just about recognizable (e.g., in Cubism or Surrealism) but where considerations of form and colour are dominant. The problem for the schedule designer now worsens. If we think of moving, say, Cubism and Surrealism into the “Representation factor” facet we have to ignore the fact that Cubism and Surrealism are usually regarded as major movements in 20th century art. Also, form and colour are major ingredients in the concept of style, which also points towards the other facet as the best (that word again!) location for these concepts. Examples of these conflicting situations abound; e.g., a major movement of mid-20th century art was Abstract Impres-

sionism, in which the two opposing facets both appear (Impressionism being indubitably a style). We could go on forever weighing up the pros and cons of such matters. The criterion of collocation was advanced by Bliss in the original system and it might be thought that the collocation of the two facets “Movement, styles, etc.” and “Representation factor” would be an acceptable compromise. But on other, theoretically sound, considerations, the latter facet files just before the primary facet “Medium of art” and is separated from the “Movements & styles” facet by the huge Place and Period facets:

- W4 Movements, styles, schools
- W7 Periods
- W9 Places
- WB Representation factor
- WC Medium of art... Visual arts...

So it would seem, in this situation, that there is no 100% “best” solution. But it does not prevent us from making a decision, nor does it mean that we can avoid the time-consuming job of weighing up the different factors before making it.

### *The way ahead for BC2*

**WE** APOLOGIZE TO READERS for the technicalities in the above examples, but they are absolutely typical of what happens all the time in designing BC2 schedules. It is simply not possible to entertain the distinction between a best and a good solution – only to find the logical one which fits the facts as we find them. Neither is it a question of seeking more and more specificity to an unrealistic degree. It was noted above that there is a very large literature on styles and on abstract art. There is also a vast literature on functional groups in organic chemistry and the concept pervades the whole subject. Not to get right their position in the hierarchy of the subject would compromise the validity of the whole classification.

IN PRACTICAL TERMS, also, it should be remembered just how far we have come along this rocky road, however depressed we all are sometimes by the slowness in completing. As the editorial observes, a substantial number of classes are very near to completion. It sets out the advantages of diverting our energies to finalizing and publishing a selection of these so that BC2 can achieve wider recognition and use as well as a quicker return in terms of publication. But such a strategy does not seem to us to be that much better, if at all, than continuing with the present one, which is to rectify the imbalance, as a general classification, which BC2 at present shows in its relatively scanty provision for science and technology. The rectification of this is just as clearly in sight as would be the completion of the social sciences and humanities area which the editorial suggests.

FROM THE ABOVE ARGUMENTS, it looks as though this response to the challenge that BC2 production could be speeded up by a judicious lowering of sights, from the best to the good, is echoing a somewhat infamous contemporary claim that “There is no alternative”. BCA set its sights in supporting the production of BC2 as an excellent instrument for the organization of knowledge. This seems to us to be very similar to the notion of the best instrument. The task facing the librarian, which is to organize all knowledge in a comprehensive and comprehensible (i.e., relatively clear and simple) fashion, is, on the face of it, an impossibly ambitious one and one which faces no other profession to the same degree. Yet it has to be attempted; and if the above examples give the impression that facet analysis is complicated when it comes to detail, it must be realized that the complication is in the outside world and that facet analysis, an extremely powerful instrument, albeit basically simple, attempts to give a clear picture of it.

## **What every student should know (and too few do)**

### **Some reflections upon reading Vanda Broughton's *Essential classification***

At a time when one could be forgiven for thinking that the majority of library school students nowadays emerge from their courses with only the slightest passing acquaintance with the theory and practice of classification and other aspects of subject specification it is an especially great pleasure to welcome *Essential classification*<sup>1</sup>. Here is a book, firmly based on wide and wise teaching experience at the School of Library, Archive and Information Studies, University College London, which can be unhesitatingly recommended to any student. Let me amend that : to *every* student who is either a beginner or else one who has passed through the system and feels, too late, that this is an area in which he or she had received and absorbed far too little. It will serve as a basic text for those undergoing full-time professional education and also equally well for those taking part-time distance learning courses, provided that the student has access to copies of the schedules, etc., under discussion. It should serve, too, as a refresher for those who may be surprised to find themselves having to use the knowledge and skills of a classifier after all, having been led to believe that these were outdated and superseded by modern technology and outsourced data supply.

The title gives a clue. It is *not* a rigorous, exhaustive manual which goes into the theory of classification in great depth and applies this to a detailed critical analysis of the various competing schemes. Rigour is there, all right, but it is discreet and wears a kindly disguise. *Essential classification* is what it says, setting out to give the possibly apprehensive novice the basics of the subject and, one hopes, encouragement, confidence and the interest to take it further. Vanda achieves all this with a relaxed style, plain language (while not fearing to introduce, define and use necessary technical terminology), lucid exposition and not least a host of good illustrations with examples to be worked. These are genuine titles of books and articles which not only fit their purpose admirably but are often entertaining as well (e.g., *Knitting with dog hair*, p.116), as is the text from time to time (e.g., Unicorns, p.14-15), bringing a smile and helping to enliven the subject while pursuing a serious purpose.

Although entitled '*Essential classification*', the middle of the book moves on after general considerations of classification to Controlled indexing languages, Word-based approaches to retrieval, and thence to two chapters on LCSH before tackling Library of Congress in the first of the chapters on individual classification schemes. There follow DDC and UDC. "But this is Vanda Broughton – where is the chapter on BC2?" we cry. She has been very restrained and self-disciplined. BC2 does indeed make its appearance in passing at several places in the opening chapters, and also in the penultimate one on Faceted classification. However, this is a book to be marketed widely and it must appeal primarily to those who are going to encounter the most-used schemes. When BC2 has gained a much greater number of users, we may perhaps expect a whole chapter devoted to it in a later edition.

No textbook like this could ever be expected to be a masterpiece of the typographer's art, but *Essential classification* is well planned, clearly presented and easy to read. Nits to pick? There are inevitably a few – e.g., tuberculosis is commonly but definitely not solely a respiratory disease (p.8), DDC doesn't always use 09 on the end of a number to introduce place (p.33), and while retroactive notation in BC2 is simple in its basic form (p.283), it is by no means so easy when intercalators have to be used, explicitly or implicitly! But these are the merest quibbles; the reviewer has to find *something* to criticise, after all.

*Antonio*

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<sup>1</sup> *Essential classification* / Vanda Broughton. – London : Facet Publishing, 2004. – ISBN 1-85604-514-5



## ***BC2 classes for phenomena***

### ***An application of the theory of integrative levels***

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#### **Let's be undisciplined...**

**L**IKE THE OTHER MAJOR BIBLIOGRAPHIC CLASSIFICATIONS, both enumerative and faceted, BC2 is based on a disciplinary approach. This means that every class represents a concept not as an independent phenomenon, but only in the context and perspective of a given discipline. This is a deliberate choice, as we can read in BC2 introduction itself [1, section 6.211]. A remarkable consequence is that a given phenomenon is often expressed by completely different symbols according to the discipline in which it is treated.

The discipline-based approach is not the only possible one: the obvious alternative would be to enumerate the known phenomena occurring in the world as such, with no bias from any particular discipline. It is usually believed that this latter kind of classification is less useful for the practical purposes of library classification: no medical doctor, it is said, needs to browse the shelf for works on the physiology of the human heart together with those on **that** of the horse or lettuce hearts or paintings of hearts or poems about the heart. An objective comparison between the two approaches, anyway, would be hard to carry out, as no widely used library classification scheme based on phenomena exists: the only serious attempt to give life to such a beast is the draft developed by the Classification Research Group during the 1960s, which never reached the stage of a full usable scheme [2].

However, classifying documents dealing with a phenomenon from a multidisciplinary point of view under a single discipline is problematic. Beghtol notes how the recent growth of interdisciplinary literature makes disciplinary classification schemes inadequate [3]. Works in such fields as **environmental sciences, biotechnologies, management**, can have problems in finding their places among the limited number of disciplines listed in a classification scheme. There is a danger of twisting the content of documents by forcing **it** into a discipline-based scheme. Austin expressed this situation in a bright way:

“Since, however, authors have a disconcerting way of seeing things from new points of view not represented in the schemes we use, or even of inventing new things, this discipline-centred approach leads to continual trouble on three main counts. First, and most obviously, is the problem of currency, or keeping the scheme up to date. A new idea or a new discovery may not yet have appeared in that part of the schedules we happen to need, even though it appears somewhere else. For example, although "iron" may appear in the chemistry tables, we might have to wait while the editor establishes the right number for iron in, say, a schedule of drugs. This brings us to the problem of hospitality. When the scheme we are using does decide to recognize such a new subject, the problems of fitting it into an established scheme of notation may be considerable. Thirdly is the awkwardness of authors, who take a perverse delight in writing about things which fit as logically into one discipline as another, or even into no known discipline at all, so that we fall straight into the trap of cross-classification”. [2, p. 151]

General classification schemes have devised various solutions to deal with documents discussing phenomena in multi- or non-disciplinary ways. One precursor of the phenomena-based approach was J.D. Brown [4]. In the introduction to his Subject Classification he wrote:

“The universal schemes, which try to specialise for everybody, fail because they are swollen by endless and needless repetitions, and then do not meet the minor needs of the specialist. It is inevitable that these failures should result from any attempt to classify human knowledge from particular standpoints. The departments of human knowledge are so numerous, their intersections so great, their changes so frequent, and their variety so confusing, that it is impossible to show that they proceed from one source or germ [...]. Every subject is capable of being treated from a large number of standpoints, and each of these may be the centre of an enormous literature, and form an important study. To illustrate this, I shall assume that there are some thousands of books existing, which have for their theme the Rose in every conceivable aspect. This subject may be considered from any of the following standpoints: biological, botanical, horticultural, historical, geographical, ethical, decorative, legal, emblematical, bibliographical, poetical, musical, sociological, and so on, to any extent. [...] I incline to think that, in book classification, the constant or concrete subject should be preferred to the more general standpoint or occasional subject” [5, p. 8-9].

DDC provides single classes, like 306.81 “marriage”, for some phenomena which are often discussed across several disciplines, but these are only occasional cases. Common subdivisions used in many general schemes are another step towards the idea of expressing a given phenomenon with a constant notation. This idea has been developed very much in modern editions of UDC [6, p. 107]: though still being discipline-based, it now provides common isolates not only for forms, languages, times and places, but also for *processes* (e.g. isolation, separation, independence, starting, stopping), *properties* (e.g. relative, equivalent, horizontal, complete), *persons* (woman, man, child, prisoner, fat person, rich, poor, lame, visually challenged, sister, brother, parent), and *materials* (e.g. water, glass). Such general concepts can both stand alone or come in any combination while retaining their concept meaning. Ranganathan’s *subject device* is a similar mechanism, by which symbols in his Colon Classification can be built using notation from a different discipline, by putting it in round brackets, e.g. S:55 Love (Psychology), and O,1:g(S:55) Love in poetry (Literature).

## **Phenomena in BC2**

Separate classes for phenomena have been introduced both in BC2 and in BSO (Broad System of Ordering), arguably as a heritage of the earlier research by the CRG, of which their editors are members. BSO has a 088 class for “phenomena & entities from a multi- or non-disciplinary point of view”, occurring at the beginning of the general schedules, as in BC2.

BC2 classes 4/9 are devoted to “multi-disciplinary treatments of particular phenomena”. Among them, classes 7/9 are provided for “Universe of knowledge” and “Communication and information”, including the media, the recorded supports, and the processes involved in knowledge considered as observable phenomena; that is, they provide for those particular phenomena which are of special interest to library classification, as they are the physical embodiment of recorded knowledge.

On the other hand, classes 4/6 provide for all other common phenomena, from gases to whales and symphonic concerts. “Ideally this would be enumerated fully in the schedules with the unique classmark for each concept attached.” Unfortunately, in the published schedules of BC2 they are not developed at all, and even the Third outline of the scheme in the Introduction volume [1, p. 202] only devotes three lines to them. Nor is it expected that these classes will be developed before at least one edition has been published for each of the main disciplinary classes A/Z, which is BCA's main concern for the immediate future. However, in the Introduction we are given clues on how to use them already, as we will see below. The three published lines concerning classes 4/6 are the following:

- 4 Attributes (e.g. structure, order, symmetry, colour)
- 5 Activities and processes (e.g. organising, planning, change, adaptation)

- 6 Entities (e.g. particles, atoms, molecules, minerals, organisms, communities, institutions, artefacts)

This tripartite division of the phenomena, and its order, are clearly derived from the structure of the general classification by phenomena drafted by the CRG at the end of the 1960s [2]. There, indeed, phenomena are firstly divided into Entities and Attributes (the latter including both Properties and Activities). Their order in the schedules is *Properties - Activities - Entities*, as an application of the principle of increasing concreteness, while to synthesize compound subjects the inverted order is supposed to be applied, in the same way as with the PMEST citation order of faceted schemes [7, pp. 33-34].

Increasing concreteness was also applied by the CRG to establish the order of arrays within the schedules of Properties and Activities: e.g., a property like red “can be applied widely to things throughout the universe. It must therefore appear earlier than wooden, which is obviously far more restricted in application” [2, p. 160]. As for Entities, their sequence would be that of the integrative levels of natural phenomena, starting from subatomic particles, through crystals, organisms, until artefacts and mentefacts: indeed, this was one main point in CRG's basic research during the 1960s [8].

The theory of integrative levels is also used in BC2 as a principle regulating the sequence of main classes, though this time in a disciplinary context: what are ordered are disciplines rather than phenomena, and in this context the correlate of integrative levels is the principle of gradation in speciality [1, section 6.213.32]. Clearly the principle of integrative levels could be applied to the phenomena class with even better reason, given its origin and the apparent intentions of the editors. Hence, in a future schedule of classes 4/6, Entities could be listed according to the sequence of integrative levels (but a similar principle could be applied to Attributes and Activities too: see the example of red and wooden above). This would make a consistent use in BC2 of the results of CRG research into a new general scheme of phenomena, which otherwise are yet largely unexploited.

While we wait for developed schedules of phenomena, the BC2 Introduction suggests that the phenomena classes can be obtained just by adding a prefix to existing disciplinary classes. The classic example of the horse is used: the digit 6 can be prefixed to the notation for horses from the Zoology class, GYH J, to mean horses from a multi- or non-disciplinary point of view, so obtaining 6GY HJ (the original example has a 5 instead of 6, but this appears to be inconsistent with the fact that horses are entities not activities). The notation for the concept horse is taken from the schedules for zoology, rather than those for veterinary medicine, horse racing, history of transport, etc., because horse's *place of unique definition* is zoological; in other words, horses are first recognizable as such at the integrative level of animals, not those of veterinary institutions, or means of transport, etc. This important principle was introduced in classification theory by Jason Farradane.

## **An accordion-like scheme**

The suggested provisional solution for dealing with phenomena appears to be a compromise. Furthermore, if applied extensively, it could yield some weird results: properties of animals such as albinism would go under 4G, as they are attributes rather than entities, but in this way they would get scattered far from their naturally corresponding entities (6G animals). One wonders whether attributes, activities and entities could be better grouped all together in a single list of phenomena, sorted by integrative levels, instead of listing all the levels three times.

Actually the relation between phenomena and disciplines could be considered the other way around: disciplines can be seen as a particular kind of phenomena, standing at the cultural

level together with science and culture, their diffusion, development, etc. As human culture is one of the most complex and evolved integrative levels, in a schedule of phenomena it would appear towards the end. Hence, if we now take phenomena as the main constituent of the scheme, we can see disciplines as a part of it, which in turn could be expanded by listing all possible objects of disciplinary studies, just by combining notation for phenomena with a prefix meaning "discipline". This situation reminds me of an accordion, where the player can expand the bellows either **on one side** (expanding phenomena schedules while leaving discipline ones compressed and short, like in CRG draft scheme) or on the other (expanding disciplines while leaving phenomena compressed, like in current BC2). Let's imagine an example:

*configuration 1: bellows expanded on the phenomena side*

4/6	<b>phenomena</b>
6DH	Earth
6DHD	lithosphere
6DJ	fossils
6DK	valleys, mountains, ...
A/Z	<b>disciplines</b>
DH	Earth sciences

*configuration 2: bellows expanded on the discipline side*

4/6	<b>phenomena</b>
6DH	Earth
A/Z	<b>disciplines</b>
DH	Earth sciences
DHD	geology
DJ	palaeontology
DK	geomorphology

An ideal classification scheme could be thought as providing fully developed schedules for both phenomena and disciplines, leaving a library free to choose which parts of the schedules to use in an expanded way and which ones only in a short form. Clearly, notation of the two parts would be correlated through rules telling how to shift from one part of the scheme to the other by simple addition or removal of short codes.

While all this is probably well beyond the possibilities and aims of BC2 development in the near future, the idea could deserve more research and experimentation. A good way to test it would be to apply little accordion-like schemes to limited samples of documents. The schemes can be constructed independently of BC2, while keeping the spirit of that CRG research which produced BC2 and PRECIS as its more tangible results. This would allow, among other things, the definition of an independent expressive notation, which could be useful both for showing the structure of the system and its way of working, and for exploitation in digital environments. A research project along these lines is described at the ISKO Italy website [9].

Focusing on phenomena and on universal structural principles to arrange them, such as integrative levels, can be considered a scientific approach to classification. I am aware that this approach is not very fashionable in present-day classification research: one can find it in past decades in work by CRG members and by Dahlberg, while today people appear to be more concerned with relativistic issues such as locality, cultural biases, social use of information, etc. One main development of classification research in the 1990s, domain analysis, is based on the assumption that knowledge is dependent on separated communities

of users, acting in different ways and using different languages. Still, it looks desirable to have a general frame of conceptual reference, based on criteria not dependent on particular disciplines or domains, if we really want to make steps towards interdisciplinarity, interoperability, and global sharing of information regardless of the cultural background of the users.

### ***Acknowledgments***


Thanks to Kathryn La Barre, Aida Slavić, Eugenio Gatto, Jack Mills and Vanda Broughton for information and stimulating discussion on classification schemes (SC, UDC, CC, and BC2 respectively); and to Daniele Scurati and other traditional musicians from Northern Apennine for the great way they play accordion, which suggested the metaphor!

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### *✂ Snippets*

**WebWatch**  Watch the web grow – there are now lots more serious pages concerned with faceted classification; BC2 features frequently. Have a look at, for example., [www.miskatonic.org/library/facet\\_web\\_howto.html](http://www.miskatonic.org/library/facet_web_howto.html) for a North American library school project and [www.cais-acsi.ca/proceedings/2005/tanaka\\_2005.pdf](http://www.cais-acsi.ca/proceedings/2005/tanaka_2005.pdf) for the method applied to a special subject (with help from a well-known BCA member duly acknowledged!

The projects are often disguised as “taxonomies”, of course, but it is heartening to see that there is a revival of attention being paid to classificatory techniques in some quarters.

*And please make use of our own Web pages and Discussion list – “underused” and “unused” are words which come to mind . . .*

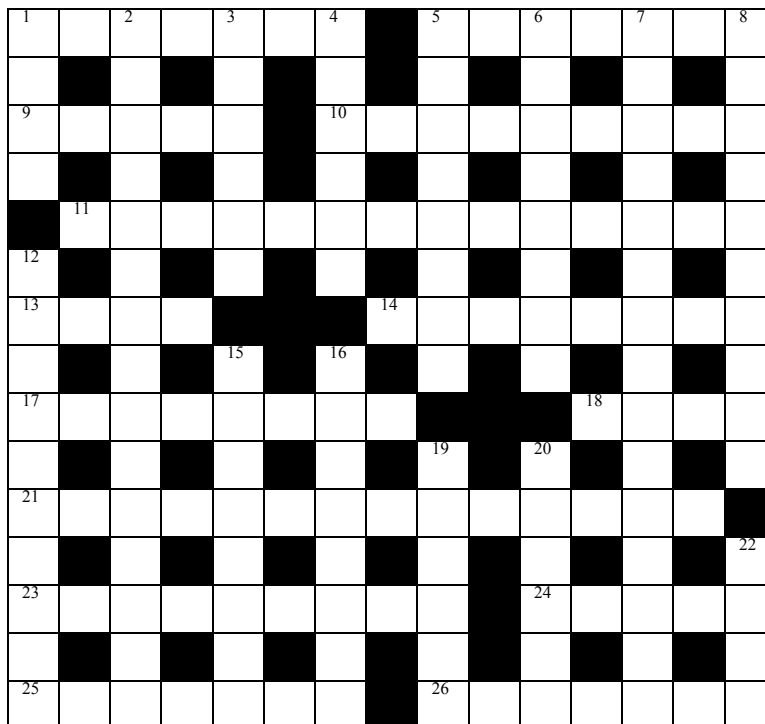
**<http://www.sid.cam.ac.uk/bca/bcahome.htm>**

**<http://www.jiscmail.ac.uk/lists/LIS-BCA.html>**

**Twelve years in the making! *Cast of thousands!!*  
**No effort or expense spared!!!** *What the*  
*world has been waiting for!!!!* **At last – the sequel to****

*BLISSWORD 5*

Blissword Puzzle No.6



The answers are all words, single or in combination, suggested more or less closely by the meanings of BC2 classmarks. They do *not* try to reproduce the captions in the BC2 text exactly. ‘Of’, ‘in’, ‘by’ etc., may have to be taken as read! Some lateral (or maybe bizarre) thinking may be required, especially in 17 ... Numbers in [ ] refer to Auxiliary tables 1-4.

**ACROSS**

- 1 QSQU (7)
- 5 (see 11)
- 9 (see 1 down)
- 10 (see 11)
- 11, 5, 10 S9B SAG (5-9,7,9)
- 13 [4C, T2] YX (4)
- 14, 15 down S9F P (3,5,8)
- 17 AM9QY, KSGML, [1A] X, [2] YWS 59 (8)  
(in desperation – couldn’t wait for WV...)
- 18 KPF PHG (4)
- 21 HUC OXH VOK B (7,7)
- 23 HVF NI (4,2,3)
- 24 HTGY (5)
- 25 QFB CQS (7)
- 26 QEF DD (3,4)

**DOWN**

- 1, 20, 9 HRP ET (4,6,5)
- 2 SVK AXT KJ 9QV (8,7)
- 3 RDO RB DW (6)
- 4 HPW W (or just IFG K??) (6)
- 5 HNT RV (3,5)
- 6 QPL R (8)
- 7 THE (7,8)
- 8 [2] EYR 56 (4,6)
- 12 S8Q 59F (not SBG NV9 PH!) (2,8)
- 15 (see 14 across)
- 16 HQA V (8)
- 19 HID N (6)
- 20 (see 1 down)
- 22 RTN MCJ K (4)

E. & O.E. !