Lib sc. 5; 1968; PAPER J.

INTERPOLATION OF BASIC SUBJECTS IN COLON CLASSIFICATION.

(Classification problems. 29).

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[Defines the necessary technical terms. Points out the need for provision for the interpolation in the schedule of (BS) in a scheme for classification. Describes the various devices used by CC for such interpolation — Greek Letters, Sector Device, Emptying Digit, and Empty and Emptying Digits — at different times. Points out the resulting problems in the co-ordinate and subordinate status of (BS) with particular reference to the Canonical (BS) of the (MS) "M Useful

Arts" and the (MS) "N Fine Arts". Shows, with the help of the Mimamsa principle of "Burnt-Chariot Lost-Horse", that these problems are apparent but not real when examined at a deeper level. Explains the use of the digit-pair "-Z" (hyphen Z) for interpolating a Partial Comprehension of the Canonical (BS) between a (MS) and its first Canonical Division, and discusses the possible alternatives to this device.]

ABBREVIATIONS USED

(ACI)	= Anteriorising Common Isolate	(CN)	= Class Number
(AD)	= Alphabetical Device	(MCN)	= Main Class Number(s)
(BCN)	= Basic Class Number(s)	(MS)	= Main Subject(s)
(BS)	= Basic Subject	(PCI)	= Posteriorising Common Isolate
CC	= Colon Classification	[P]	= Personality Facet

1 Terminology

The definitions alone are given; examples will be found in the paper 'Basic subjects and their kinds', by S R Ranganathan (8).

1 *Idea.*— The product of thinking, reflecting, imagining, etc, got by the intellect by integrating with the aid of logic a selection from the apperception mass, and/or what is directly apprehended by intuition, and deposited in the memory.

2 *Subject.*— An organised or systematised body of ideas whose extension and intension are likely to fall coherently within the field of interest and comfortably within the intellectual competence and the field of inevitable specialisation of a normal person.

3 *Isolate Idea.*— Any idea or idea-complex fit to form a component of a subject, but not by itself fit to be deemed to be a subject.

4 *Basic Subject.*— A subject without any isolate idea as a component.

41 Main Basic Subject (Short Form: Main Subject).— There is no means of defining a (MS). It is to be postulated. Some (MS) are traditional; some are not, but only recent.

42 Canonical Basic Subject (Short Form: Canonical Subject).— A traditional subdivision of a (MS), the subdivision *qua* subdivision part of it is not an (ACI) and does not lend itself to be treated as an isolate idea falling within an array of isolate ideas which can deemed to be a manifestation of one and only one or other of the five Fundamental Categories Personality, Matter, Energy, Space, or Time.

43 Bundle of Subjects.— A (MS) with canonical divisions. Such a (MS) and its canonical divisions are believed to have hierarchical filiation and to be capable of forming a chain, unlike a Subject-Bundle. They have also more essential attributes in common than the subjects in a Subject-Bundle.

44 System Basic Subject (Short Form: System).— A (MS) expounded according to a specific system.

45 Specials Basic Subject (Short Form: Specials).— A (MS) whose exposition is restricted to the special features of the entity concerned while within a specific environment or restricted in some other special manner not amounting to any of the (ACI) or any other isolate idea falling within an array of isolate ideas which may be deemed to be a manifestation of one and only one or other of the five Fundamental Categories Personality, Matter, Energy, Space, or Time.

46 Superimposed Basic Subject.— A (BS) formed by the superimposition of two or more of the (BS) going with one and the same (MS).

47 A (BS) may have as its host subject a (MS), or a (BS) of an order lower than that of itself. It can be of any of the four kinds mentioned in categories 41 to 44.

5 *Compound Subject.*— A subject with a (BS) and one or more isolate ideas as components.

6 *Complex Subject.*— A subject in which two or more (BS) or Compound Subjects are brought into relation.

7 *Partial Comprehension.*— A subject comprehending several succeeding consecutive (BS) and having some essential attributes in common. A Partial Comprehension and any of the subjects comprehended by it have the essence of a chain relation.

8 *Subject-Bundle.*— A set of subjects expounded in one and the same book (other than a periodical or a reference book) and having the following attributes:

1 The individual subjects in a Subject-Bundle do not belong to the same chain and not even to collateral ones. There is no hierarchical filiation among them; but, however,

2 When the subject-areas within a Subject-Bundle are developed, there are organisational and other advantages to be gained by the expert-groups, specialising in the different subject-areas, working as a team and having concurrent mutual consultation and check-up in the early course of investigation; and further,

3 It is found helpful to release a preliminary publication containing a short account of the provisional results obtained in each of the subject-areas of the Subject-Bundle. This is useful for frequent reference by all the expert-groups even later on when they work out the details — each in its own laboratory. This is

now happening largely in the field of Natural Sciences. The treatment of the subjects of the Subject-Bundle is disjunctive in such publications. The Subject-Bundles, Pure Sciences and Applied Sciences are traditional ones. The others represent the recent trend.

2 Need for Interpolation

21 Infinite Number of Subjects

The Universe of Subjects tends to become infinite, and also to become a continuum. It is turbulently dynamic. As a result, new subjects and new isolates of different intension and extension are being thrown forth from time to time. Fallow and uncultivated regions in the Universe of Subjects are now getting filled up much faster than ever before. A new (BS) or a new isolate may turn up at any point in the Universe of Subjects at any moment. The Idea Plane recognises a new (BS) or a new isolate. It determines the most helpful and filiatory position in which it should be placed among those already existing. These findings of the Idea Plane are to be implemented by the Notational Plane. In CC, a number of devices were used to implement the findings of the Idea Plane in the Notational Plane, in respect of the (BS). These devices are briefly described in Sec 3 and its subdivisions.

22 Number of Basic Subjects

The following table gives the number of various kinds of subjects — (MS), other (BS), Partial Comprehensions, and Subject-Bundles — provided with (CN) in Ed 1 to Ed 7 of CC. Edition 7 of CC is in preparation (9).

221 *Table* 1. *Census of Subjects*

SN	CC Edition	(MS)	Other (BS)	Partial Comprehensions	Subject-Bundles	Total
1	1 (1933)	37	346	4	—	387
2	2 (1939)	38	349	5	—	392
3	3 (1950)	38	375	5	—	418
4	4 (1952)	48	344	7	—	399
5	5 (1957)	32	364	7	—	403
6	6 (1960)	39	369	8	—	406
7	*7 (In preparation)	82	462	28	14	586

*(As given in advance in Paper C of this volume).

222 *Annotation*

1 Ed 1.— This recognised "Generalia" as a Partial Comprehension; but no (CN) was used to represent it. Further, it comprehended only 13 (MS), namely, "1 Bibliography", "2 Library Science", "3 Dictionaries, encyclopaedias", "4 Societies", "5 Periodicals", "61 Congresses", "62 Commissions", "63 Exhibitions", "64 Museums", "7 Biographies", "8 Year-books", "9 Miscellaneous", and "98 Theses, abstracts and collections".

2 Ed 2.— This recognised "Generalia" and "Humanities" as Partial Comprehensions; but no (CN) were used to represent them.

3 Ed 3.— Similar to that of ed 2.

4 In the first three editions of CC, the (CN) "Y" represented the Partial Comprehension "(Other) Social Sciences including Sociology". In the later editions the (CN) "Y" represents the (MS) "Sociology".

5 Ed 4.— The decrease in the number of "Other (BS)" is due to the fact, that the divisions of the Canonical Subject "R6 Indian Philosophy" were no longer taken as Canonical Subjects. These were taken to be isolates in [P] in Round 1. However, in ed 7 the divisions of the Canonical Subject "R6 Indian Philosophy" have been restored to the status of Canonical Subjects.

6 Ed 5.— Similar to that of ed 4.

7 Ed 6.— Similar to that of ed 4.

8 The decrease in the number of (MS), in ed 5 and ed 6 is due to the fact, that the "Prels" (18) were no longer taken as (MS) in ed 5 and ed 6. However, in ed 7 the "Prels" have been restored to the status of (MS).

9 Ed 7 (in preparation).— The Partial Comprehensions consist of 17 Partial Comprehensions of two or more (MS), and 11 Partial Comprehensions of two or more Canonical Subjects.

10 In the census of the "Other (BS)", the Specials (BS) have not been included, for the following reasons:

1 In ed 1 to ed 6, the Specials were enumerated *ad hoc* in each case; whereas,

2 In ed 7, the 'Environment Device' (11) is provided for the formation of Specials on the basis of the Environment Characteristic. For this purpose a Schedule of Common Environment Isolates is also given (10). In the Notational Plane this device consists of adding successively to the (ES) Number concerned the Sectorising Digit "9" and the specific number of the "Environment" concerned taken from the Schedule of Common Environment Isolates. Thus, we have

D9UC4 Desert Engineering, where

1 D is the (BCN) representing "Engineering";

2 "9" is the sectorising digit; and
3 "UC4" is the Environment number representing "Desert"

and

3 Because of the indefiniteness and extensibility of the Schedule of Specials by a device in ed 7 (in preparation), it was felt that inclusion of Specials in the census will not give a true picture.

223 *Fig* 1. *Number of Basic Subjects in CC*

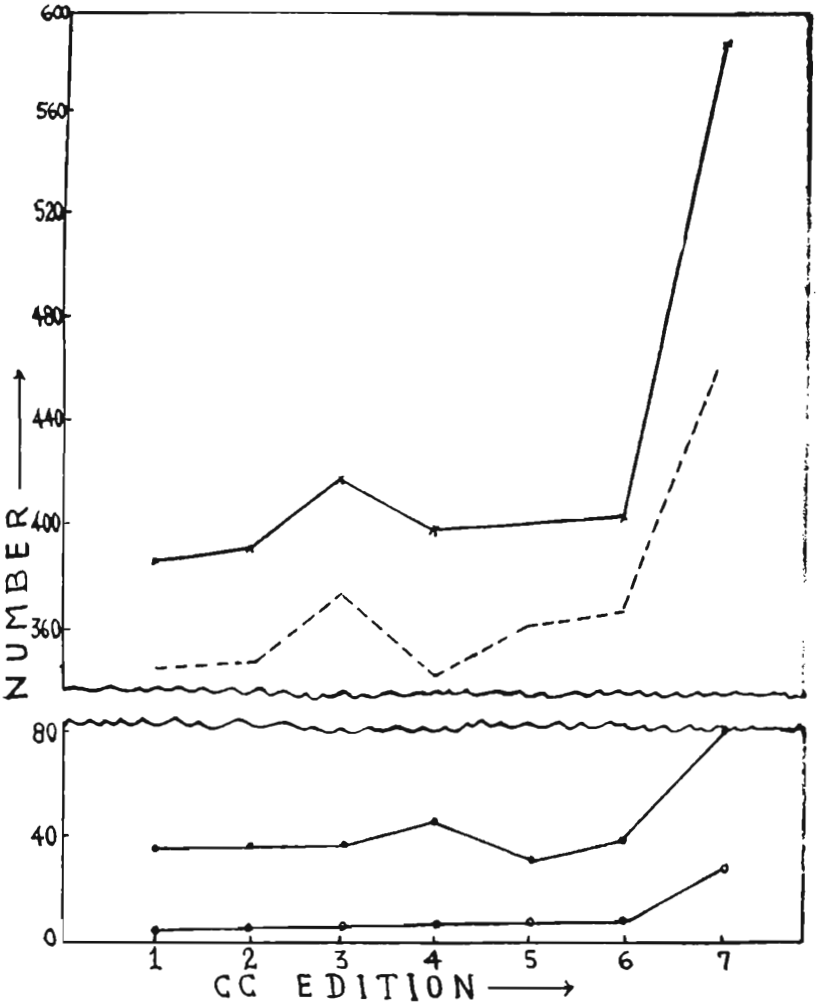

FIG. 1. Number of Basic Subjects in CC.

o—o—o Partial Comprehension
•–•–• Main Subjects
- - - - Other Basic Subjects
x—x—x Total Number of Basic Subjects

Devices for Interpolation

Since its first publication in 1933, CC has developed a number of devices for the interpolation of newly emerging and newly recognised (BS) in a helpful sequence, in the Array of (BS). The succeeding sections give a brief account of such devices.

GREEK LETTERS — METHOD 1 (NOW OUTMODED)

In ed 1 (1933), the Indo-Arabic numerals and the Roman capital letters were used to represent (MS) in the Array of (MS). In ed 2 (1939), the new (MS) "Mysticism and Spiritual Experience" was recognised and represented by the Greek Letter "Δ" (delta) in the notational plane. "Δ" is the international symbol for Mysticism. Its value was fixed between the (MS) "M Useful Arts" and the (MS) "N Fine Arts", as determined by the Idea Plane. This was the first case of interpolation in the Array of (MS) in CC. In ed 4 (1952), Greek letters were used for two purposes — *viz*,

1 Accommodating newly emerging and newly recognised (MS); and

2 Accommodating the Partial Comprehensions of two or more succeeding consecutive (MS).

These were as follows:

Table 2. Greek Letters Representing Subjects

Greek Letter	Subject	Nature of the Subject
(beta)	Mathematical Sciences	Partial Comprehension
(gamma)	Physical Sciences	Partial Comprehension
(lambda)	Animal Husbandry	Main Subject
(mu)	Humanities and Social Sciences	Partial Comprehension
(delta)	Spiritual Experience and Mysticism	Main Subject
(nu)	Humanities	Partial Comprehension
(sigma)	Social Sciences	Partial Comprehension

The ordinal value of a Greek letter was determined in correlation to its phonetic equivalent in the Roman alphabet, "Δ" being an exception. These were continued in ed 5 (1957).

DISCARDING OF GREEK LETTERS

The Greek letters helped in providing hospitality in the Array of (MS); they helped in accommodating a new (MS) between

two existing (MS) as determined by the Idea Plane. This is the kind of interpolation needed. Thus the Greek letters filled the need. However, they were deliberately used merely as a temporary make-shift arrangement. Because in meeting the situation, priority had to be given to exploring fully the Idea Plane and implementing the result somehow or other — provisionally though it be — in the Notational Plane. All considerations of notational elegance and other matters connected with the notation had to be postponed and taken up only later (21). When the time came to turn attention to the notation, the use of Greek letters was considered to be unsatisfactory for the following reasons:

1 Unfamiliarity of the Greek letters to most readers;

2 The difficulty in remembering the ordinal values of the interpolated Greek letters; and

3 Non-availability of the keys for Greek letters in most of the typewriters.

These factors led to the search for a better and simpler device for interpolation in the Array of (MS). In ed 6 (1960), the new (MS) were interpolated by the use of the digit "Z" which was taken to be an Emptying Digit. The Greek letters were retained only to represent the Partial Comprehension and the (MS) "Spiritual Experience and Mysticism". Further, in ed 6 (with amendments) (1963), the practice of representing Partial Comprehensions by Greek letters was also discontinued. This was done with the help of the concept of Emptying Digits, and Empty and Emptying Digits (*See* Sec 34 and 35). The only (MS) still represented by a Greek letter is "Δ Spiritual Experience and Mysticism". This is because, as has been stated in Sec 31, of the fact that "Δ" is the international symbol for "Spiritual Experience and Mysticism". The Mystics themselves prefer it. Thus in 1963 all the other Greek letters were removed from the Notational System of CC.

Note.— There is an unfortunate printer's error; "SZ" has been misprinted as "Σ" in the schedule of (MS) in ed 6 (with amendment) (1963) of CC.

33 Octave Device — Method 2

The second device to be used for the interpolation of new (MS) was the Octave Device. This device was used to accommodate the (MS) called "Prels" in ed 4 (1952) (18). In 1961 the device was renamed as Sector Device. Further, this device has been of immense help in accommodating the various newly recognised kinds of (BS) namely the Specials (BS) and the Detailed (BS) (12), and also the new Canonical (BS), in the schedules of (BS), in the forthcoming ed 7 of CC (9).

EMPTYING DIGIT — METHOD 3

The third device to be used for interpolation of new (MS) was the use of the three digits "T", "V", and "X" as Emptying Digits. The digit "Z" was used as Emptying Digit in ed 6 (1960) (*See* Sec 32). In 1963, the digit "Z" was made merely Emptying when used to represent Partial Comprehensions; and otherwise it is both Empty and Emptying (16).

EMPTY AND EMPTYING DIGITS — METHOD 4

The fourth device to be used for interpolation of new (MS) was the use of the three digits "U", "W", and "Y" as Empty and Emptying Digits (17). In a recent paper by Ranganathan it has been shown that if we restrict the (MCN) to have not more than three digits, all these devices together provide for 1520 places in the Array of (MS) (13).

Persistence of Wrong Impression

In spite of all the progressive purifications of the Notational System of CC leading to expunging of Greek letters in 1963, and in spite of all these having been expounded in articles, one occasionally comes across faulty statements about the notation of CC. Here is an example: "The use of different species (Roman and Greek alphabets) in the Main Classes has rendered the scheme quite clumsy. The Main Classes of practicable classification must be represented by distinct signposts of only one and the same species to avoid confusion" (1). This statement was made in a paper as late as 1965, either ignoring or ignorant of the fact that Greek letters had been withdrawn in 1963, and when it had been often explained that Greek letters were used only as temporary expedient till the related work in the Idea Plane could be completed (*See* Sec 32). The following table gives the equivalents of Greek letters in the different editions of CC.

41 TABLE 3. EQUIVALENTS OF GREEK LETTERS

SN	Greek Letter Representing Subject				Changed to		Changed to	
	Greek Letter	Introduced in CC Edition	Subject	Digits	CC Edition	Digits	CC Edition
1	β (beta)	4 (1952)	Mathematical Sciences	AZ	6 (with amendments) (1963)		
2	Γ (gamma)	4 (1952)	Physical Sciences	BZ	6 (with amendments) (1963)		
3	η (eta)	5 (1957)	Mining	HZ	6 (1960)	HX	6 (with amendments) (1963)
4	λ (lambda)	4 (1952)	Animal Husbandry	KZ	6 (1960)	KX	6 (with amendments) (1963)
5	μ (mu)	4 (1952)	Humanities and Social Sciences	MZ	6 (with amendments) (1963)		
6	Δ (delta)	2 (1939)	Spiritual Experience and Mysticism (Reasons for Retention *See* Sec 32)				
7	ν (nu)	4 (1952)	Humanities	MZA	6 (with amendments) (1963)	MZZ	7 (in preparation)
8	Σ (Sigma)	4 (1952)	Social Sciences	SZ	7 (in preparation)		

5 Homonymous Class Numbers

51 Formation of an Array

The use of the digits T to Z as Emptying Digits as well as for (AD) in arrays other than Array of Order 1 has been shown to give rise to homonyms. This problem has been discussed in detail (3). The method suggested for resolving the conflict was to use a distinct digit '∧' (inverted 'V') — not included in the Roman alphabet to indicate that what follows it is an interpolation *qua* interpolation, the next digit after it representing the interpolated idea. The ordinal value of '∧' (inverted 'V') was fixed suitably — namely, greater than that of the Starter Bracket. Other digits were also suggested as indicator digit and their respective advantages and disadvantages were compared (5). The advantages of having an indicator digit were also pointed out (6).

52 Homonyms in an Array of Basic Subjects

The Indo-Arabic numerals and the Roman capital letters have been made use of to represent Canonical (BS) belonging to one and the same (MS). In 1965, it was shown that the use of the digits T to Z for the interpolation of new (MS) gives rise to ambiguity in the notational plane. "If the use of this 'interpolation device' is continued in its present form for the cononical expansion of Main Classes, the CC will have to find alternative places for the displaced subjects, such as denoted by NT, NU, NW, and NX in the Main Class 'N Fine Arts' ···" (1). Further, it has been shown that this difficulty will arise in the case of the (MS) "M Useful Arts" also (22).

521 *Useful Arts*

In "M Useful Arts"

MV4	Science of War	MY411	Traffic Regulation
MV41	Military Science	MY	Physical Training
MV45	Naval Science	MYX46	Philately
MV48	Air Fight		

Each of the subjects represented by MV, MX, MY, and MYX will appear to be coordinate with the (MS) "M Useful Arts" instead of being subordinate to it.

522 *Fine Arts*

In "N Fine Arts"

NT	Theatre	NV	Shadow Play
NU	Puppet Play	NW	Cinema
		NX	Talkie

Each of these classes will appear to be coordinate with the (MS) "N Fine Arts" instead of being subordinate to it.

53 SUGGESTED SOLUTIONS

To resolve this problem of homonyms, the following suggestions were made:

1 According to Sharma and Aggarwal, the use of Roman capitals for canonical division of a (MS) should be abandoned and canonical division should be represented only by the addition of Indo-Arabic numerals (23);

2 Use of the digit "S" as Sectorising Digit. Thus, instead of NS, NT, NU, NV, ··· we may have NSA Dance, NSB Theatre, NSC Puppet Play, NSD Shadow Play, NSE Cinema, and NSF Talkie (2); and

3 An indicator digit for interpolation (4).

6 Revision of the Arrays of Basic Subjects

61 NO NEED FOR CHANGE

When the revision of the schedules of (BS) in the forthcoming ed 7 was taken up, the above-mentioned problems and the suggested solutions were kept in mind. However, it was decided to retain the use of Roman capital letters to represent the Canonical divisions of a (BS). The use of "S" as a Sectorising Digit was felt unnecessary. However, a few changes in the placing of the (BS) and the terms to denote them were made in the (MS) "M Useful Arts". These are as follows:—

(CN)	Subject	(CN)	Subject
ML	Physical Exercises, Games and Sports	MMC	Chance Games
ML1	Physical Exercises	MMD	Betting Games
ML2	Gymnastics	MMG	Watching Pastime
ML4	Acrobatics	MMK	Occupational Amusement
ML7	Athletics	MML	Hobby
MLA	*Games and Sports*	MMN	Entertainment
MLB	Tug of war	MMP	Carnivals (Funfairs)
MLC	Throwing Games	MMR	Circus
MLD	Ball	MMZ1	Group by Origin *By* (GD)
MLE	Aiming	MMZ42	Japanese
MLF	Chasing	MMZ44	Indian
MLG	Hunting	MMZA	SPECIALS
MLK	Attack and Defence	MMZC	Child
MLM	Ice and Snow	MMZD	Boy
MLN	Water	MMZG	Girl
MLP	Air	MMZH	Women
MLQ	*By* Locomotion	MMZJ	Invalid
MLQ1	Unaided	MMZM	Indoor
MLQ2	With Animal Aid	MMZN	Outdoor
MLQ4	With Vehicle Aid	MN1	Hair Dressing
MMA	Mental Games	MN5	Beauty Culture
MMB	Skill Games	MU8	Tourism

(CN)	Subject	(CN)	Subject
MV	War Science	MV8	Air
MV1	Land	MX4	Traffic Regulation
MV5	Naval		

"Philately" will be an isolate in [1P1] got by (SD) for the (BS) "MML Hobby".

Note.— For a complete schedule of (BS) in the forthcoming ed 7 (in preparation) *See* Paper C of this volume.

6.2 BURNT-CHARIOT LOST-HORSE PRINCIPLE

The decision mentioned in Sec 61 was guided by Mimamsa Principle of Burnt-Chariot Lost-Horse. According to this Principle, if we have no potential use for certain numbers and there are certain subjects without numbers, we must explore the possibility of using those numbers for these subjects. Such a use should of course be adopted only if it is consistent with the Principles for Helpful Sequence (19).

6.3 APPLICATION OF THE PRINCIPLE OF BURNT-CHARIOT LOST-HORSE

6.3.1 *Useful Arts*

The application of the Principle of Burnt-Chariot Lost-Horse can be explained as follows:

1 The (MS) "M Useful Arts" is a kind of hold-all waste paper basket. It is used to accommodate all the arts and crafts — applications of pure sciences — not provided for in the other (MS);

2 Division of (MS) "M Useful Arts" can only be canonical, and it is ever increasing;

3 It is anticipated that there is not likely to be any interpolation of any (MS) between the (MS) "M Useful Arts" and the (MS) "Spiritual Experience and Mysticism";

4 It is equally anticipated that there is not likely to be any interpolation of any (MS) between the (MS) "M Useful Arts" and the Partial Comprehension "MZ Humanities and Social Sciences"; and

5 If at all any unforeseeable interpolation is needed, at a future date, the digit "Y" can be used as Empty and Emptying Digit, and a large number of interpolations can be possible. And hence, the use of Roman capital letters T to X has been retained for the canonical divisions of the (MS) "M Useful Arts" in the forthcoming ed 7. Further, a number of new canonical divisions has been added to those already provided for in ed 6.

632 *Fine Arts*

The application of the Principle of Burnt-Chariot Lost-Horse can be explained as follows:

1 It is anticipated that there is not likely to be any interpolation of any (MS) between the (MS) "N Fine Arts" and the (MS) "O Literature";

2 It is equally anticipated that there is not likely to be any interpolation of any (MS) between the (MS) "N Fine Arts" and the Partial Comprehension "NZ Literature and Language"

Note.— There is an unfortunate printer's error; "NZ" is misprinted as "NX" in the schedule of (MS) in ed 6 with amendments (1963); and

3 If at all any unforeseeable interpolation is needed, at a future date, the digit "Y" can be used as Empty and Emptying Digit, and a large number of interpolations can be possible. And hence, the use of Roman capital letters T to X has been retained for the canonical divisions of the (MS) "N Fine Arts" in the forthcoming ed 7. Further, a number of new canonical divisions has been added to those already provided for in ed 6.

7 Physical Geology and the Principle of Burnt-Chariot Lost-Horse

71 CANONICAL BASIC SUBJECT

Literary warrant required the provision of "Physical Geology" as a Canonical (BS) of the (MS) "Geology". Further it should be a Partial Comprehension comprehending the Canonical (BS) Mineralogy to Geomorphology in CC. To implement these findings of the Idea Plane, the Subject "Physical Geology" should have the position immediately preceding the earliest of the Canonical (BS) comprehended by it — that is, the position immediately preceding any Compound Subject formed by adding an (ACI) facet directly to the Basic Facet "H1 Mineralogy". Thus, in the Notational Plane the (CN) for "Physical Geology" should have an ordinal value securing position later than that of any (CN) beginning with "H Geology", that is "H" followed by any of the connecting digits "0" (zero) " ' " (single inverted comma) " . " (point) " : " (colon) " ; " (semi-colon) and " , " (comma); but earlier than the earliest of the (CN) made of "H1 Mineralogy" followed by (ACI) numbers.

72 FINAL SOLUTION

After pursuing a few possible paths, Ranganathan finally decided to use the (CN) "H-Z" to represent the Partial Comprehension Canonical (BS) "Physical Geology". The number "H-Z" secures the position in the Notational Plane as demanded by the Idea Plane. Here we have interpolated between the (MS)

H Geology" and its very first Canonical division "H1 Mineralogy". This is equivalent to saying that the Partial Comprehension "H-Z" is extrapolated in the Array of Order 2—H1, H2, H3 ···. This is a new application of the digit-pair "-Z" (hyphen Z). This decision of using "H-Z" to represent "Physical Geology" was guided by the Principle of Burnt-Chariot Lost-Horse (4). Thus we have the following:

CN	Subject	CN	Subject
	Bibliography of Geology	H:f	Research in Geology
	···	H,b	Geologist's profession
	Collected works of Geology	H-Z	Physical Geology
	Geology	H1a	Bibliography of Mineralogy
U	Relation between Geology and Geography	H1	Mineralogy
44	Geology of India		

Note.—

1 This use of the digit-pair "-Z" (hyphen Z) is restricted to extrapolation in the Array of (BS) only;

2 It cannot be extended to the Array of Isolate Facets, where it will result into the formation of a superimposed isolate, and therefore lead to a homonym.

Disadvantage

This solution has a few obvious disadvantages:

1 The (BCN) contains a connecting digit in it, though it is not a superimposed (BCN);

2 Gives the impression of superimposition; and

3 This may tempt one to extend its use to the Array of Isolate Facets where it will result into a superimposed isolate.

ALTERNATE SOLUTION 1

Use of Zero

The digit "0" (zero) has been assigned a number of roles in the notational system of CC. These are as follows:

1 As a rich digit in Chronological Numbers;

2 As a rich digit in the representation of cardinal values and measures of entities;
3 As a connecting digit in phase relation;
4 As an indicator of a level later than Level 1 of [P] in Round 1 when Level 1 of [P] in Round 1 and the later levels are coincident; and
5 As a Sectorising Digit (7).
These roles are being re-examined.

732 *New Role Given to Zero*

Can we give a still another role to the digit "0" (zero). Can we use "0" (zero) with an ordinal value between z and and at the same time keep it semantically empty? With this quality "0" (zero) can be a Sectorising Digit like any other Empty Digit as a result, a large number of sectors can be extrapolated before the digit 1. If this is agreed upon, then "Physical Geology" can be represented by the (CN) "H0Z" instead of the (CN) "H-Z". This secures the desired position in the Notation Plane also. Taken along with this proposal, the digit "0" (zero) will have three different ordinal values with semantic richness in only one of these cases.

733 *Advantage*

This use of 0 (zero) has the following advantages over the use of "-Z" to represent "Physical Geology":
1 The (BCN) is free from any connecting digit in it; and
2 It does not give the impression of superimposition.

Whether these different uses of "0" (zero) are desirable and will not lead to difficulties needs examination. This will be taken up in another paper.

74 ALTERNATE SOLUTION 2

741 *Use of "z"*

In CC, the digit "z" has been used
1 To represent the Comprehension "z Generalia"; and
2 As a Sectorising digit, to provide for hospitality in an Array. Further, the Roman small letters are used for Common Isolates — both (ACI) and (PCI). In case of (ACI), the digit is attached to the host (CN) without a connecting digit. And the resultant number will have precedence over the host (CN). The Rule 02 in Part 1 of CC states, "Any number followed by a Roman small ··· shall have precedence over the original number" (15). This rule endows Roman small letters with anteriorising value. However, in ed 6 of CC, the digits "a" to "y" alone have been used for (ACI). And in the forthcoming ed 7 of CC, even the digit "y" may not be used for (ACI). Thus, the digit "z" is

ed to represent (ACI) and is not likely to be used for this rpose.

2 *New Role Given to "z"*

Here, it is suggested that the digit "z" be declared not have anteriorising value even if attached directly to a (CN). us any (CN) followed by "z" will not have precedence over host number. And since, "z" is already a Sectorising Digit, large number of Sectors can be extrapolated before the digit 1". And the (CN) "HzZ" will represent "Physical Geology". is secures the desired position in the Notational Plane also.

3 *Advantage*

This use of the digit "z" has the following advantages er "-Z" to represent "Physical Geology":

1 The (CN) is free from any connecting digit in it;
2 It does not give the impression of superimposition;
3 This use can be extended to Array of any Order; and
4 No new ordinal value is endowed to "z", as in the case the digit "0" (zero).

However, it has to be examined whether it is safe and wise take away the anteriorising value of the digit "z", and thus ferentiating it from the other Roman smalls.

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