CHAPTER 7

Facet Analysis: Facet and Focus

THE COLON CLASSIFICATION was responsible for the introduction of the concepts of "Facet" and "Focus". These concepts and the terms in which they are expressed have been found to be more elegant than "Train of characteristics" and "part of the class number corresponding to a single train of characteristics" which were first used for these ideas. Using the method employed in the elucidation of the canons, a new list of 48 specific subjects, divided into groups, is now given, and through the manipulation of these, the concepts of facet and focus will be brought out.

GROUP 1. Medicine (General)

1. Medicine

SUBGROUP 1·1. Disease

2. Disease
3. Treatment of disease
4. —do—by physical energy
5. —do—by radiation
6. —do—by X-rays

SUBGROUP 1·2. Infectious Disease (General)

7. Infectious disease
8. Treatment of infectious disease
9. —do—by physical energy
10. —do—by radiation
11. —do—by X-rays

SUBGROUP 1·3 Tuberculosis

12. Tuberculosis (general)
13. Treatment of tuberculosis
14. —do—by physical energy
15. —do—by radiation
16. —do—by X-rays

GROUP 2. Respiratory System

17. Respiratory system

SUBGROUP 2·1. Disease of Respiratory System

18. Disease of respiratory system
19. Treatment of disease of respiratory system
20. —do—by physical energy
21. —do—by radiation
22. —do—by X-rays

SUBGROUP 2·2. Infectious Disease of Respiratory System

23. Infectious disease of the respiratory system
24. Treatment of infectious diseases of the respiratory system
25. —do—by physical energy
26. —do—by radiation
27. —do—by X-rays

SUBGROUP 2·3. Tuberculosis of the Respiratory System

28. Tuberculosis of the respiratory system
29. Treatment of tuberculosis of the respiratory system
30. —do— —do—by physical energy
31. —do— —do—by radiation
32. —do— —do—by X-rays

GROUP 3. *Lungs*

33. Lungs

SUBGROUP 3·1. *Disease of the Lungs*
34. Disease of the lungs
35. Treatment of disease of the lungs
36. —do— —do—by physical energy
37. —do— —do—by radiation
38. —do— —do—by X-rays

SUBGROUP 3·2. *Infectious Disease of the Lungs*
39. Infectious disease of the lungs

40. Treatment of infectious disease of the lungs
41. —do— —do—by physical energy
42. —do— —do—by radiation
43. —do— —do—by X-rays

SUBGROUP 3·3. *Tuberculosis of the Lungs*
44. Tuberculosis of the lungs
45. Treatment of tuberculosis of the lungs
46. —do— —do—by physical energy
47. —do— —do—by radiation
48. —do— —do—by X-rays

An example of facet analysis

Consider first subject number 48. Its name can be thrown into the following "skeleton" form:

Medicine [Lungs] : [Tuberculosis] : [X-ray treatment].

This skeleton form really separates the terms in the name of the subject in accordance with the trains of characteristics of classification to which they each relate. "Lungs" relates to the "Organ" characteristic, "Tuberculosis" to the "Problem" characteristic, and "X-ray treatment" to the "Handling (of disease)" characteristic. The skeleton form of the name of the subject suggests the appropriateness of saying that it has three "Facets", and that these may be called respectively:

(1) Organ facet, (2) Problem facet, and (3) Handling facet.

We shall also find it convenient to use the following mode of expression in describing the parts of the subject:

(1) "Lungs" is a "Focus" in the Organ facet of subject 48;
(2) "Tuberculosis" is a "Focus" in the Problem facet of subject 48; and
(3) "X-ray treatment" is a "Focus" in the Handling facet of subject 48.

Using the same mode of expression, we can now go on to make the following statements about subject number 47.

(1) "Lungs" is a focus in the Organ facet.

(2) "Tuberculosis" is a focus in the Problem facet.

(3) "Radiation treatment" is a focus in the Handling facet.

Subject 47 may itself be thrown into the following skeleton form:

Medicine [Lungs]: [Tuberculosis]: [Radiation treatment].

By comparing the skeleton forms and the above statements about subjects 48 and 47, we may make the following further statements:

(1) Subjects 47 and 48 have each three facets.

(2) The three facets are of the same quality in both the subjects.

(3) The focus in the Organ facet is of the same degree of sharpness in each subject.

(4) The focus in the Problem facet is of the same degree of sharpness in each subject.

(5) The focus in the Handling facet is sharper in subject 48 than in subject 47.

In fact, if we go back to subject 45, and move on towards subject 48 again, we find that the foci in the Organ and Problem facets continue to be the same, but that the focus in the Handling facet goes on getting sharper and sharper.

Let us throw subject 44 into the skeleton form: we then get

Medicine [Lungs]: [Tuberculosis].

In this we find that there is no Handling facet. Now a book on Tuberculosis of the lungs may devote a chapter, or some pages explicitly to each division based on the Handling characteristic, or at least to each of several of these divisions of knowledge, if not all of them. It may deal explicitly with, say, Nursing for tuberculosis of the lungs, Etiology of tuberculosis of the lungs, Diagnosis of that disease, Preventative methods, Treatment, Surgery, Diet regulation, After care and so on, for Tuberculosis of the lungs. In such cases, the Handling facet may be said to be "multi-focal". Or it may happen that the book does not deal with each of these independently and in such a clear cut fashion; but deals with them in a diffuse way. Then we can say that the facet is "diffuse". Ordinarily we can treat both these cases alike, and regard the

corresponding facet as being vacant. In accordance with this convention, a fuller skeleton form for subject 44 would be

Medicine [Lungs] : [Tuberculosis] : [Vacant].

Now let us throw into this skeleton form subjects 34, 39 and 44. This gives us the following:

34 Medicine [Lungs] : [Disease] : [Vacant]
39 —do—[Infectious disease] : [Vacant]
44 —do—[Tuberculosis] : [Vacant]

As we go down the above sequence we get the following:

(1) The focus in the Organ facet remains of the same degree of sharpness;

(2) The focus in the Problem facet gets progressively sharper; and

(3) The Handling facet remains vacant in every case.

As a further exercise, let us throw into this skeleton form subjects 3, 19 and 35 and compare them. We get:

3 Medicine [Vacant] : [Disease] : [Treatment]
19 —do—[Respiratory system] : [Disease] : [Treatment]
35 —do—[Lungs] : [Disease] : [Treatment]

As we go down the above sequence we get the following:

(1) The Organ facet is without a focus (i.e. it is vacant) in subject 3, and it has a sharper focus in subject 35 than in subject 19;

(2) The focus in the Problem facet is the same in all three cases; and

(3) The focus in the Handling facet is also the same in every case.

Here is yet another exercise, involving subjects 1, 17 and 33. This time we get:

1 Medicine [Vacant] : [Vacant] : [Vacant]
17 —do—[Respiratory system] : [Vacant] : [Vacant]
33 —do—[Lungs] : [Vacant] : [Vacant]

We observe here that:

(1) All the facets are vacant in subject 1;

(2) The Problem and Handling facets are vacant in subjects 17 and 33; and

(3) The focus in the Organ facet is sharper in subject 33 than in subject 17.

It is important for the student to familiarise himself with the ideas of Facet and Focus. This can be done by making a comparative study of as many different groups as possible, selected from the 48 subjects with which this chapter started. This process of setting out subjects in their skeleton form is called "Facet Analysis".

The 48 subjects are all set out below in their "skeleton form", and are also provided with their Colon and Decimal class numbers in parallel columns. The table thus shows at a glance the extent to which each scheme responds to the demands of facet analysis by the provision of numbers reflecting the analysis.

Subject	Colon No.	Subject analysed into facets	Decimal No.
1.	L	Medicine [Vacant]:[Vacant]:[Vacant]	610
2.	L:4	Medicine [Vacant]:[Disease]:[Vacant]	616
3.	L:4:6	Medicine [Vacant]:[Disease]:[Treatment]	
4.	L:4:62	Medicine [Vacant]:[Disease]:[Treatment by physical energy]	615·83
5.	L:4:625	Medicine [Vacant]:[Disease]:[Radiation treatment]	615·831
6.	L:4:6253	Medicine [Vacant]:[Disease]:[X-ray treatment]	615·84
7.	L:42	Medicine [Vacant]:[Infectious disease]:[Vacant]	
8.	L:42:6	Medicine [Vacant]:[Infectious disease]:[Treatment]	
9.	L:42:62	Medicine [Vacant]:[Infectious disease]:[Treatment by physical energy]	616·91
10.	L:42:625	Medicine [Vacant]:[Infectious disease]:[Radiation treatment]	
11.	L:42:6253	Medicine [Vacant]:[Infectious disease]:[X-ray treatment]	
12.	L:421	Medicine [Vacant]:[Tuberculosis]:[Vacant]	
13.	L:421:6	Medicine [Vacant]:[Tuberculosis]:[Treatment]	
14.	L:421:62	Medicine [Vacant]:[Tuberculosis]:[Treatment by physical energy]	616·995
15.	L:421:625	Medicine [Vacant]:[Tuberculosis]:[Radiation treatment]	
16.	L:421:6253	Medicine [Vacant]:[Tuberculosis]:[X-ray treatment]	

17.	L4	*Medicine [Respiratory system]: [Vacant]: [Vacant]	?
18.	L4:4	Medicine [Respiratory system]:[Disease]: [Vacant]	
19.	L4:4:6	Medicine [Respiratory system]: [Disease]:[Treatment]	
20.	L4:4:62	Medicine [Respiratory system]: [Disease]: [Treatment by physical energy]	616·2
21.	L4:4:625	Medicine [Respiratory system]: [Disease]: [Radiation treatment]	
22.	L4:4:6253	Medicine [Respiratory system]: [Disease]:[X-ray treatment]	
23.	L4:42	Medicine [Respiratory system]:[Infectious disease]:[Vacant]	
24.	L4:42:6	Medicine [Respiratory system]:[Infectious disease]:[Treatment]	
25.	L4:42:62	Medicine [Respiratory system]:[Infectious disease]:[Treatment by physical energy]	
26.	L4:42:625	Medicine [Respiratory system]:[Infectious disease]:[Radiation treatment]	616·2
27.	L4:42:6253	Medicine [Respiratory system]:[Infectious disease]:[X-ray treatment]	
28.	L4:421	Medicine [Respiratory system]:[Tuberculosis]:[Vacant]	
29.	L4:421:6	Medicine [Respiratory system]:[Tuberculosis]:[Treatment]	
30.	L4:421:62	Medicine [Respiratory system]:[Tuberculosis]:[Treatment by physical energy]	
31.	L4:421:625	Medicine [Respiratory system]:[Tuberculosis]:[Radiation treatment]	616·2
32.	L4:421:6253	Medicine [Respiratory system]:[Tuberculosis]:[X-ray treatment]	
33.	L45	Medicine [Lungs]:[Vacant]:[Vacant]	?
34.	L45:4	Medicine [Lungs]:[Disease]:[Vacant]	
35.	L45:4:6	Medicine [Lungs]:[Disease]: [Treatment]	
36.	L45:4:62	Medicine [Lungs]:[Disease]:[Treatment by physical energy]	
37.	L45:4:625	Medicine [Lungs]:[Disease]:[Radiation treatment]	616·24
38.	L45:4:6253	Medicine [Lungs]:[Disease]:[X-ray treatment]	
39.	L45:42	Medicine [Lungs]:[Infectious disease]: [Vacant]	
40.	L45:42:6	Medicine [Lungs]:[Infectious disease]: [Treatment]	

41.	L45:42:62	Medicine [Lungs] : [Infectious disease] : [Treatment by physical energy]	⎫
42.	L45:42:625	Medicine [Lungs] : [Infectious disease] : [Radiation treatment]	⎬ 616·24
43.	L45:42:6253	Medicine [Lungs] : [Infectious disease] : [X-ray treatment]	⎭
44.	L45:421	Medicine [Lungs] : [Tuberculosis] : [Vacant]	⎫
45.	L45:421:6	Medicine [Lungs] : [Tuberculosis] : [Treatment]	⎪
46.	L45:421:62	Medicine [Lungs] : [Tuberculosis] : [Treatment by physical energy]	⎬ 616·246
47.	L45:421:625	Medicine [Lungs] : [Tuberculosis] : [Radiation treatment]	⎪
48.	L45:421:6253	Medicine [Lungs] : [Tuberculosis] : [X-ray treatment]	⎭

Colon Classification

Some obvious comments can be made about the handling of these 48 subjects by the Colon Classification.

(1) It preserves the helpful sequence we had arrived at in dealing with the first series of subjects.

(2) It satisfies the Canon of hospitality in chain in all cases: i.e. it individualises each of the 48 subjects by providing a distinctive number for each of them.

(3) It satisfies completely the Canon of mnemonics: i.e. the same idea is represented by the same number wherever it occurs.

(4) The Canon of relativity is observed throughout.

(5) The Colon numbers reflect the facets very markedly, the symbol ":" indicating a change of facet; or, to put it another way, acting as the "Connecting symbol" between two adjacent facets.

(6) The formation of distinct facets in the Colon number gives freedom for the sharpening of the focus in any facet at need, without in any way affecting the focus in any other facet: there is also freedom to keep any facet vacant without in any way being affected by what happens to any of the other facets.

Decimal Classification

Comment on the handling of these 48 subjects by the Decimal Classification may be made as follows:

(1) There is no Decimal number which can represent the subject of a book dealing with the Respiratory system or with the Lungs or, indeed, with any other specific organ in a general or comprehensive way. To use our technical terminology, a subject in Medicine which is "Unifocal" in the Organ facet but "Multifocal" in the Problem facet cannot be accurately translated into a Decimal number. There are two such cases, noted in the table above by putting a question mark in the column for DC numbers.

(2) Only 10 of the remaining 46 subjects have close-fitting Decimal numbers. This leaves 36 subjects which cannot be distinguished from the classes of which they are subclasses. This shows how much the Decimal Classification violates the Canon of hospitality in chain.

(3) As for the 10 properly translated subjects, the Decimal numbers throw them into a different sequence from the preferred helpful sequence. In particular, while general accounts of certain modes of treatment like Radiation treatment and X-ray treatment of disease, without reference to the organ affected, come earlier than diseases of particular organs, general accounts of diseases like Infectious diseases and Tuberculosis, without reference to the organ affected, come later than diseases of particular organs. This violates the Canons of helpful sequence and consistent sequence.

(4) No special provision for the observance of the Canon of mnemonics appears to have been made. Note, for example, that the final digit 6 represents Tuberculosis in the Decimal number 616·246 for subject 44, whereas the digit 5 represents the same idea in the Decimal number 616·995 for subject 12.

(5) The absence of a special connecting symbol between facets prevents the sharpening of the focus of any but the last facet. This causes violation of the Canon of hospitality in chain in many cases.

This last point is a very serious one, and deserves more detailed consideration. We will therefore begin by constructing the facet analysis of the Decimal number 616·2 for subject 18. This gives us:

<pre>
61 = Medicine
 6 = Diseases [Problem facet]
 2 = Respiratory system [Organ facet]
</pre>

The incidence of the Organ facet after the Problem facet makes it impossible to sharpen the focus in the latter by the addition of extra digits. We are, therefore, forced to use the same Decimal number (616·2) for three successive links in the same chain:

Diseases of the respiratory system.
Infectious diseases of the respiratory system.
Tuberculosis of the respiratory system.

But the Organ facet does admit of its focus being sharpened by the addition of extra digits. For example, we get the Decimal number 616·24 for subject 34. Here facet analysis gives:

<pre>
61 = Medicine
 6 = Diseases [Problem facet]
24 = Lungs [Organ facet]
</pre>

Now consider Decimal number 616·246 for subject 44. On analysing it we get:

<pre>
61 = Medicine
 6 = Diseases [Problem facet]
24 = Lungs [Organ facet]
 6 = Tuberculosis [Problem facet]
</pre>

When hard pressed to sharpen the focus in the Problem facet, the Decimal Classification is driven to the necessity of attaching a further Problem facet after the Organ facet. This is a remedy of despair. As a result the facet formula becomes:

Medicine [Problem] : [Organ] : [Problem]

This is not a very happy solution, for if we are forced by the appearance of a new class of books to sharpen the focus of the Organ facet, either we must admit inability to do so as a result of the development of that facet having been blocked by the reappearance of the Problem facet after it, or we can add further to

the confusion by making the Organ facet appear once more after the second appearance of the Problem facet, which gives us the following:

Medicine [Problem] : [Organ] : [Problem] : [Organ]

This alternation might go on indefinitely. The world of knowledge is sufficiently varied and turbulent to bring about such a *reductio ad absurdum.*

And all this trouble is traceable to there being no connecting symbol between adjacent facets in the Decimal Classification. To put it another way, there is no means of indicating a change of the train of characteristic in Decimal numbers. The chief contribution of the Colon Classification to library science is the implementation of the results of facet analysis by providing just such connecting symbols.

A suggestion to the editors of the Decimal Classification

B. I. Palmer has gone into the question of adapting Decimal notation to the findings of facet analysis. He did this in a paper entitled *Does Colon point a way?* presented to the sixth All-India Conference of librarians held at Jaipur in April 1944. The paper has been published by the Indian Library Association in the *Proceedings* of that conference. At present the decimal point in the Decimal Classification notation is virtually functionless and has no ordinal value. Why not give it a value between 0 and 1, and so make it function? Or, to use Palmer's words, "use the point as a separating device, to indicate a change of characteristic in the subdivision". Palmer goes still further, and adds: "The most drastic step is to abolish the existing schedules as they stand. Doubtless this strikes fear into the heart of every hearer. Abolish the schedules and you abolish Dewey, they will say. Yet what is the purpose of DC? Is it to maintain an out-of-date conception, or is it to reduce to some sort of order the welter of books and ideas that pour in upon us from day to day? There is no point in retaining the physical form of DC unless we retain its spirit." He then refers to what has already been done in the Colon Classification and says: "The point there has become a colon; but we cannot therefore decide that a revised DC would only be half as good."

Facets intrinsic in subjects

In concluding, it must be emphasised that facets are not qualities of class numbers alone; nor are they peculiar to the scheme of classification used. On the contrary, facets inhere in the subjects themselves: that is, they exist in the subjects themselves, whether we sense them or not. Subjects will be helpfully featured, and their arrangement will be made filiatory and helpful within any scheme of classification if such a scheme is based upon facet analysis, and if the class numbers reflect the facets properly. Particularly will this be so if the method of building class numbers admits of each facet being kept intact, and of its focus being sharpened to any desired degree, as is the case in the Colon Classification. It should not allow the dismemberment and scattering of a facet, nor the alternation of facets in order to arrive at the required sharpness of focus in each facet, as happens in the Decimal Classification.

Facet Analysis: Fundamental Categories

WE MUST NOW take a fuller view of the useful concept of Facet Analysis. This view is best reached through a series of postulates. The basic postulate is concerned with the concept of Fundamental Categories. Here it is:

Postulate 1

Each facet of any subject can be deemed to be a manifestation of one and only one of the Five Fundamental Categories—Personality, Matter, Energy, Space and Time. We may call a facet a general manifestation, and a focus in it a particular manifestation, of the fundamental category concerned.

For example, let us take subject 18 of those given in Chapter 7— Diseases of the respiratory system. We have said that "Respiratory System" is a focus in the "Organ" facet of Medicine. The Organ facet of Medicine is a general manifestation of the Fundamental Category "Personality". The focus "Respiratory System", which subject 18 has in that facet, is a particular manifestation of the same Fundamental Category "Personality". So also, we have said that "Disease" is a focus in the "Problem" facet of Medicine. The Problem facet of Medicine is a general manifestation of the Fundamental Category "Energy". The focus "Disease", which subject 18 has in that facet, is a particular manifestation of the Fundamental Category "Energy".

The connotation of the terms Personality, Matter, Energy, Space and Time will gradually clear itself in the context of the examples given in this chapter, and of the various subjects encountered in exercises in classifying. Perhaps the category Time gives the least difficulty, being self-evident. The category Space usually manifests itself as a Geographical Area; and it should not be difficult to spot this facet in any subject presenting it. The category Energy requires a little more circumspection. Generally speaking, it can be recognised if we remember that it connotes

action of one kind or another; we also consider that it comprehends structure (morphology), function (physiology), malfunction or disease, environmental action or ecology, phylogeny, ontogeny, and some other similar ideas. Generally speaking, the category Matter manifests itself as Material or any equivalent of it; this category should not be difficult to recognise in any subject; moreover, the Matter facet does not occur in many of the subjects embodied in general books. The category Personality is, however, a rather difficult concept. It is often only recognisable by elimination. After separating out the manifestations of Time, Space, Energy and Matter in a subject, the residue will often turn out to be Personality. For the residual facet must be a manifestation of one of the five fundamental categories, and by assumption the manifestations of all the other four fundamental categories have been separated out before reaching the residue. This may be called the Method of Residues. Experience will lead to the establishment of a reflex action in recognising the fundamental category of which any particular facet of a subject is a manifestation, even as experience leads to the establishment of a reflex action in recognising faces.

For brevity, we shall use the contractions and symbols mentioned below:

[P] = Personality Facet.   (MC) = Main Class.
[M] = Matter Facet.   (CC) = Canonical Class.
[E] = Energy Facet.   (BC) = Basic Class =
[S] = Space Facet.   (MC) or (CC).
[T] = Time Facet.

Examples from Agriculture

We shall now consider a few subjects in Agriculture, presenting different kinds of facets. The subjects are set out with the words in their respective names analysed into facets. After each word or word-group forming a facet, the appropriate facet-symbols are added within square brackets. So also the other contractions will be found enclosed in curved brackets.

Analysis into Facets

1. Agriculture (BC).
2. Agriculture (BC) in India [S] brought up to 1950s [T].

3. Manuring [E] in agriculture (BC).

4. Manuring [E] in agriculture (BC) in India [S] brought up to the 1950s [T].

5. Agriculture (BC) of food crops [P].

6. Agriculture (BC) of food crops [P] in India [S] brought up to the 1950s [T].

7. Manuring [E] for food crops [P] in agriculture (BC).

8. Manuring [E] for food crops [P] in agriculture (BC) in India [S] brought up to the 1950s [T].

9. Agriculture (BC) of cereals [P].

10. Agriculture (BC) of cereals [P] in India [S] brought up to the 1950s [T].

11. Manuring [E] for cereals [P] in agriculture (BC).

12. Manuring [E] for cereals [P] in agriculture (BC) in India [S] brought up to the 1950s [T].

13. Agriculture (BC) of rice [P].

14. Agriculture (BC) of rice [P] in India [S] brought up to the 1950s [T].

15. Manuring [E] for rice [P] in agriculture (BC).

16. Manuring [E] for rice [P] in agriculture (BC) in India [S] brought up to the 1950s [T].

17. Manuring [E] for rice [P] in agriculture (BC) in Uttar Pradesh [S] brought up to the 1950s [T].

18. Manuring [E] for rice [P] in agriculture (BC) in Benares District [S] brought up to the 1950s [T].

Now come two more postulates.

Postulate 2

The five fundamental categories fall into the following sequence, when arranged according to their decreasing concreteness: P, M, E, S, T.

Postulate 3

The facets of a subject should be arranged in the sequence of the decreasing concreteness of the fundamental categories of which they are respectively taken to be manifestations.

Let us now restate the names of the 18 subjects in agriculture:

(1) with the facets arranged in accordance with the above-mentioned postulates; and

(2) with each word-group replaced by the focal term in it, omitting all the auxiliary words such as prepositions, conjunctions and articles. Here is the result of such a transformation of the names of the subjects, presented in tabular form.

Transformation

Ser. No.	(BC)	[P]	[M]	[E]	[S]	[T]
1.	Agriculture	nil	nil	nil	nil	nil
2.	—do—	nil	nil	nil	India	1950s
3.	—do—	nil	nil	Manuring	nil	nil
4.	—do—	nil	nil	Manuring	India	1950s
5.	—do—	Food Crops	nil	nil	nil	nil
6.	—do—	Food Crops	nil	nil	India	1950s
7.	—do—	Food Crops	nil	Manuring	nil	nil
8.	—do—	Food Crops	nil	Manuring	India	1950s
9.	—do—	Cereals	nil	nil	nil	nil
10.	—do—	Cereals	nil	nil	India	1950s
11.	—do—	Cereals	nil	Manuring	nil	nil
12.	—do—	Cereals	nil	Manuring	India	1950s
13.	—do—	Rice	nil	nil	nil	nil
14.	—do—	Rice	nil	nil	India	1950s
15.	—do—	Rice	nil	Manuring	nil	nil
16.	—do—	Rice	nil	Manuring	India	1950s
17.	—do—	Rice	nil	Manuring	Uttar Pradesh	1950s
18.	—do—	Rice	nil	Manuring	Benares	1950s

(Uttar Pradesh is the new name for the state which appears as "North West Provinces, Oudh", in the schedules of the Decimal Classification.),

Translation into Numbers

We may next translate the focal terms in the above table into their respective Colon numbers and Decimal numbers. As Decimal Classification has no provision for the accommodation of [S] and [T] in any subject whatever, we shall use the Universal Decimal Classification, which provides for the attachment of these and other facets to the Decimal number. The translation is given in a tabular form.

Ser. No.	Colon Number						Universal Decimal Number					
	(BC)	[P]	[M]	[E]	[S]	[T]	(BC)	[P]	[M]	[E]	[S]	[T]
1.	J	—	—	—	—	—	63	—	—	—	—	—
2.	J	—	—	—	44	N5	63	—	—	—	54	195
3.	J	—	2	—	—	—	63	—	18	—	—	—
4.	J	—	2	—	44	N5	63	—	18	—	54	195
5.	J	3	—	—	—	—	63	3/5	—	—	—	—
6.	J	3	—	—	44	N5	63	3/5	—	—	54	195
7.	J	3	2	—	—	—	63	3/5	18	—	—	—
8.	J	3	2	—	44	N5	63	3/5	18	—	54	195
9.	J	38	—	—	—	—	63	31	—	—	—	—
10.	J	38	—	—	44	N5	63	31	—	—	54	195
11.	J	38	2	—	—	—	63	31	18	—	—	—
12.	J	38	2	—	44	N5	63	31	18	—	54	195
13.	J	381	—	—	—	—	63	318	—	—	—	—
14.	J	381	—	—	44	N5	63	318	—	—	54	195
15.	J	381	2	—	—	—	63	318	18	—	—	—
16.	J	381	2	—	44	N5	63	318	18	—	54	195
17.	J	381	2	—	4452	N5	63	318	18	—	542	195
18.	J	381	2	—	445213	N5	63	318	18	—	54213	195

Postulate 4

In Colon Classification, the connecting symbols to be inserted in front of the various kinds of facets are as given in the following table. The table gives also the corresponding connecting symbols in the Universal Decimal Classification.

Facet	Connecting Symbol in	
	Colon Classification	Universal Decimal Classification
[P]	,	-
[M]	;	-
[E]	:	) -
[S]	.	(...) (enclosure within curved brackets)
[T]	.	"..." (enclosure within inverted commas)

Postulate 5

In Colon Classification, the connecting symbol need not be inserted before [P], if it immediately follows (BC).

In Universal Decimal Classification, there is not a clear distinction between [P], [M] and [E]. In the case of some (BC), these facets are provided for under the name Analytical Divisions; and the connecting symbol for them is a hyphen as given in the above table. Where analytical divisions are not provided, combination of facets is secured by the device of a colon linking numbers, as shown in the succeeding table.

In the light of the above postulates, we may synthesise the focal numbers given in the above table into the Colon Numbers and the Universal Decimal Numbers given in the succeeding table.

Synthesis

Ser. No. of Subject	Colon Number	Universal Decimal Number
1.	J	63
2.	J.44.N5	63(54) "195"
3.	J:2	631·8
4.	J:2.44.N5	631·8(54) "195"
5.	J3	633/5
6.	J3:44.N5	633/5(54) "195"
7.	J3:2	633/5-18
8.	J3:2.44.N5	633/5-18(54) "195"
9.	J38	633·1
10.	J38.44.N5	633·1(54) "195"
11.	J38:2	633·1-18
12.	J38:2.44.N5	633·1-18(54) "195"
13.	J381	633·18
14.	J381.44.N5	633·18(54) "195"
15.	J381:2	633·18-18
16.	J381:2.44.N5	633·18-18(54) "195"
17.	J381:2.4453.N5	633·18-18(542) "195"
18.	J381:2.445213.N5	633·18-18(54213) "195"

There is a convention in the Universal Decimal Classification that, whenever the number of digits within a facet exceeds 3, a dot should be inserted after each group of 3 digits. The dot has no substantive significance nor ordinal value.

It should be observed that the class numbers given in the above table preserve the sequence of the 18 subjects decided upon in course of the analysis already made in the idea plane.

It would be an interesting exercise to compare the Colon

numbers and the Universal Decimal numbers given in the above table, in regard to their length, structure, expressiveness, etc. For example, the average number of digits in the Colon numbers is 7; and the average number of digits in the Universal Decimal numbers is 9.

The Isolate

Discussions of problems in classification will be facilitated if we can introduce a new term—Isolate—to denote the focus in a facet. If we are concerned only with the idea plane, we may speak of the focus in a facet as an Isolate Idea. Similarly, if we are concerned only with the notational plane, we may speak of the focus as an Isolate Number. So also we may speak of Isolate Term when we are concerned only with the verbal plane. A (BC) differs from an Isolate in one important respect: A (BC) can be a subject by itself, but an Isolate cannot be a subject by itself; an Isolate must combine itself with a (BC) to yield a subject.

Three Planes of Work

The division of work between the three planes—the Idea, the Verbal and the Notational is very useful. The work of Analysis with which we began is entirely in the Idea Plane; and there need not be any thought of notation at the stage of analysis. The work of transformation of the name of a subject by a re-arrangement of the word-groups in it, and by the replacement of each word-group by its focal or isolate term, preferably in terms of standard terminology, belongs largely to the verbal plane. The transformation is done in accordance with the postulates prescribed by the scheme of classification used. The Translation of the Isolate Terms into Isolate Numbers, and of the Basic Term into the Basic Number lies jointly in the verbal and the notational planes. The final Synthesis of the Basic and the Isolate Numbers into the Class Number belongs solely to the notational plane. This synthesis is done in accordance with the postulates prescribed by the scheme of classification used.

Example from Medicine

Subject 48 given in Chapter 7 is "X-ray treatment of tuberculosis of the lungs". We shall decrease its extension by the addition of a

[S] and a [T]. Let us take the resulting subject to be "X-ray treatment of tuberculosis of the lungs in India brought up to the 1950s". We shall now pursue systematically the process of classifying the above subject, demonstrating the work to be done in each of the three planes—idea, verbal and notational.

Preliminary Steps in the Verbal Plane: Filling up Ellipsis

The (BC) is not stated explicitly in the above name of the subject. But though implicit only, the (BC) is obviously Medicine. This happens quite often. The first step in the Idea Plane is to supply the name of the (BC), in the appropriate place among the words in the name of the subject. So also any other word implied in the expressed words in the name of the subject must be made explicit in the first step. We may call this step "Filling up Ellipsis in the Name of the Subject".

Breaking Up Derived Composite Terms

The word "Tuberculosis" is a Derived Composite Term. It hides in itself the manifestation of Energy and Personality. This term should be broken up and expressed in terms of its Fundamental Constituent Terms. In fact it must be replaced by the expressive term "Disease caused by tubercular bacillus"..

Full Expression of the Name of the Subject

As a result of the above two steps, the name of the subject becomes "X-ray treatment of the disease of lungs caused by tubercular bacillus, in Medicine, in India brought up to the 1950s". We shall call this the Fully Expressed Name of the Subject.

Analysis into Facets in the Idea Plane

A systematic procedure in the analysis of a subject into its facets is to identify in its Fully Expressed Name the word-groups which are manifestations of the successive fundamental categories. We have already stated that the fundamental category Personality is the most elusive one, and that it is helpful to catch it as the residual facet, after all the other facets have been separated out. We have also seen that, arranged according to the ease of recognition, the

remaining four fundamental categories fall into the sequence: Time, Space, Energy and Matter. It is wise to begin with the easiest. As each such category is recognised and separated out, the remaining defiant ones will be smaller in number and this should make the task comparatively easier.

Time and Space Manifestations

The two following results are obvious:
Focus in [T] i.e. Time Isolate = "Brought up to 1950s".
Focus in [S] i.e. Space Isolate = "India".

Energy Manifestation

Let us remove these two word-groups mentally and concentrate on the remaining ones. We must now pick out the manifestation(s) of Energy. We find there are two of them.
Focus in [E] i.e. Energy Isolate = (1) "Treatment"; and
(2) "Disease".

Matter Manifestation

Examining the remaining word-groups for any manifestation of Matter, we find none.

Personality Manifestation

The word-groups still left are (1) X-ray, (2) Lungs, (3) Tubercular bacillus and (4) Medicine. Of these, Medicine is the (BC). We have thus only three word-groups still defying assessment. We are satisfied that none of them is a manifestation of Time or Space, or Energy, or Matter. Therefore by Postulate 1, they must be taken to be manifestations of Personality.

Facet Analysis

As a result of the above steps, we are now able to give the result of the Facet Analysis by writing out the full name of the subject as follows:
"X-ray [P] treatment [E] of the disease [E] of lungs [P] caused by tubercular bacillus. [P], in Medicine (BC), in India [S] brought up to 1950s [T]."

Transformation in the Verbal Plane

This subject presents a new phenomenon, not found in the agricultural subjects considered earlier. [P] as well as [E] occurs more than once. In arranging them, we should be guided by our common method of thinking of them. With regard to [T] and [S], however, we shall be guided by the following postulate:

Postulate 6

Ordinarily, [S] and [T] should be put last.

ARRANGEMENT OF FACETS

We shall now go through the thought processes of arranging the various [E] and [P] in a more or less helpful sequence. We know that "Treatment" cannot arise unless there is "Disease". Therefore, we can agree to arrange the two [E] in the sequence (1) Disease and (2) Treatment. We next seek to place the three [P] in relation to these two [E]. We can say that "X-ray" will not be thought of unless we think of "Treatment". Therefore, we can agree that the [P] "X-ray" should succeed the [E] "Treatment". We may then say that "Tubercular bacillus" is not likely to be thought of unless we think first of "Disease". Thus the [P] "Tubercular bacillus" should succeed the [E] "Disease". Again, "Treatment" cannot begin until the cause of the disease is determined. This makes us say that the [P] "Tubercular bacillus" should precede the [E] "Treatment". This fixes the position of the [P] "Tubercular bacillus" just between the two [E] "Disease" and "Treatment". This leaves us with only "Lungs" to be placed. We know that the disease in question is affecting the lungs. We therefore feel that the [P] "Lungs" should come before the [E] "Disease". Thus the resulting transformation in the verbal plane is:

(BC) Medicine	[P] Lungs	[E] Disease	[P] Tubercular bacillus	[E] Treatment	[P] X-ray	[S] India	[T] 1950s

Rounds among Facets

In the above table of Facet Analysis, we find that [E] occurs more than once. We also find that each [E] gives rise to a new [P]

succeeding it. Since we have postulated that the normal sequence is [P], [M] and [E], we presume that [M] too can come more than once and that if it does, it may occur after the successive [E], even as [P] does. The subject we have used as the sample does not present any [M], however, and it can only be said here that the conjecture we have made is found to be true in subjects having [M]. At any rate, we make the following postulates, which are found to be helpful:

Postulate 7

Energy may manifest itself in one and the same subject more than once.

We now introduce some new terms and the symbols to represent them. The Second, Third, etc. Manifestations of Energy in one and the same subject will be respectively called Second Round Energy Facet, Third Round Energy Facet, etc. These will be represented by the respective symbols [2E], [3E], etc. Analogously, the first manifestation of energy may be called First Round Energy Facet and be represented by [1E], if we so desire.

Postulate 8

It is possible for a manifestation of Personality and Matter to occur after [1E], again after [2E], again after [3E], and so on.

These manifestations will be called respectively, Second Round Personality Facet, Second Round Matter Facet, Third Round Matter Facet, etc. These will be represented by the respective symbols [2P], [2M], [3P], [3M], etc. Analogously, the first manifestations of Personality and Matter may be said to belong to the First Round, and may be represented by [1P] and [1M] respectively, if we so desire.

Restatement of the Transformation

In the light of these postulates and the associated symbols, we may rewrite the transformation of the subject under consideration in the following form:

(BC)	[1P]	[1E]	[2P]	[2E]	[3P]	[S]	[T]
Medicine	Lungs	Disease	Tubercular bacillus	Treatment	X-ray	India	1950s

Translation from the Verbal to the Notational Plane

The result of translating the (BC) and the Isolate Terms into the (BC) and Isolate Numbers is as follows, if we use the Colon Classification:

(BC) L	[1P] 45	[1E] 4	[2P] 21	[2E] 6	[3P] 253	[S] 44	[T] N5

Synthesis in the Notational Plane

To do the synthesis in the notational plane, we shall use the following additional postulate:

Postulate 9

In Colon Classification, the connecting symbol need not be inserted before [2P], [3P], *etc., if these follow immediately after* [E], [2E], *etc.*

In the light of the postulates, we get the following Colon Number for the subject under consideration: L45:421-6253.44.N5. The Universal Decimal Number is 616·24-002·5:615·849, where

$$61 \quad = \text{Medicine (MC)}$$
$$6 \quad = \text{Disease [E]}$$
$$24 \quad = \text{Lungs [P]}$$
$$002·5 = \text{Tubercular bacillus [2P]}$$
$$61 \quad = \text{Medicine (MC)}$$
$$5 \quad = \text{Therapeutics [E2]}$$
$$849 \quad = \text{X-ray [P3]}$$

Note the scattering of the facets and the use of colon which converts a facet into a phase.

Example from Literature

Let us next apply the procedure mentioned above in classifying the subject numbered as 28 in Chapter 3, assigned to Group 10 in Chapter 4, and classified in Chapter 6. Its name is given a. "Criticism of *Hamlet*". This name is extremely elliptical. In the first instance, we have to supply the word "Literature" as the name of the (BC). We have next to recall that "*Hamlet*" implies that it is a work of Shakespeare, the English dramatist. If we fill

up the ellipsis fully, the Full Name of the Subject becomes "Criticism of the *Hamlet* of Shakespeare, the English dramatist, in the literature of the English Language, in literature".

Analysis in the Idea Plane

Obviously there is no [T] or [S] or [M]. "Criticism" is [E]. The Isolate Idea denoted by the respective residual word-groups has to be taken as a manifestation of Personality. This is indicated by the method of residues. Thus, the facet analysis of the Full Name of the Subject gives the result:

"Criticism [E] of the *Hamlet* [P] of Shakespeare [P] the dramatist [P] in the literature (BC) of the English language [P], in literature (BC)."

Here we have one [E] and four [P]. This is a new type of phenomenon, not found either in the agricultural or the medical subjects considered so far.

Transformation in the Verbal Plane

Our thinking in arranging the five facets will run along the following lines:

"Criticism" presupposes the work criticised. Therefore, we agree that the [E] "Criticism" should come only after the [P] "*Hamlet*". Similarly, "*Hamlet*" presupposes "Shakespeare"; "Shakespeare" presupposes "Drama"; and "Drama" presupposes "English Language". Thus the transformation in the verbal plane will give the result shown in the following table:

(BC) Literature	(P) English	[P] Drama	[P] Shakespeare	[P] *Hamlet*	[E] Criticism

Levels among Facets

In the above table, [P] occurs four times in the first round itself. Subjects such as this give rise to the following postulate:

Postulate 10

Personality may manifest itself in one and the same round in a subject, more than once.

So also in the case of Matter.

We now introduce some new terms and the symbols to represent them. The Second, Third, etc. Manifestations of Personality in one and the same round of a subject shall be respectively called the Second Level Personality Facet, the Third Level Personality Facet, etc. These will be represented respectively by [P2], [P3], etc. So also with manifestations of Matter, of a similar nature.

A little consideration will show that the second and later levels of [P] in the second round should be represented by [2P2], [2P3], etc. Analogously, the first level of [P] in the second round may be represented by [2P1], if so desired.

Analogously, the levels of [P] in the first round may be represented by [1P1], [1P2], [1P3], etc., if so desired.

So also with manifestations of Matter, of a similar nature.

Restatement of the Transformation

As a result of these postulates and the associated symbols, the statement of facet analysis will take the following form:

(BC) Literature	[1P1] English	[1P2] Drama	[1P3] Shakespeare	[1P4] *Hamlet*	[1E] Criticism

Synthesis

As a result of the translation of the (BC) and Isolate Terms into the respective (BC) and Isolate Numbers and of their synthesis, we get the following Colon Number for the subject:

$$O111,2J64,51:g$$

The omission of the connecting symbol (which in this case is a comma) between the Isolate Numbers 2 and J64 is due to the following postulate:

Postulate 11

Of two consecutive facets, if all the isolate numbers in the earlier facet are known to consist of the same number of digits, the connecting symbol between the two facets may be omitted.

Easily Recognised Levels

In the case of a concrete entity, organs of the first remove constitute the Isolates in the second level; organs of the second remove

constitute the isolates of the third level, etc. For a bicycle for example, the isolates of the first level are, proceeding from bottom upwards, tyre, wheel, drive mechanism, frame, handle, seat, etc. Some of the isolates of the second level are rim, spokes and hub. A similar objective way of recognising levels has not yet been discovered for non-concrete entities.

The Limit to Levels of Personality

An examination of the levels of [P] in a bicycle will show how the limit of the levels of [P] is reached and where the change over to [M] comes in. A modulated sequence of levels is given by Bicycle, Wheel, Spoke. If we go further down this sequence, we come ultimately to steel. But steel is not an organ of a spoke. Therefore, it is not a level of [P]. It is only a constituent of a spoke; it is the material of which the spoke is made. It is therefore [M]. In the context of the Bicycle, "Spoke" is a Personality and "Steel" is Matter. The shape, the thickness, the rigidity, the colour, etc. of the spoke impress a distinctive character on the material "Steel" and thereby endow it with a Personality recognisable as a "Spoke". Steel *qua* steel does not have this Personality; it forms merely the basic Matter out of which the Personality of the Spoke is shaped.

Personality and its Ineffability

We have by now seen enough to say that Personality is an ineffable or undefinable fundamental category. That is why we have to locate it by the method of residues—that is locate it as the residue which is left over after the removal of all the [T], [S], [E] and [M] from the fully expressed name of the subject. This really amounts to a negative way of picking out the [P]. Such a negative way is known to be the only way open to recognise or point out any ineffable entity. In the Vedic tradition, God is defined only in such a negative way. "Not this, not this" is the translation of the Sanscrit name given to this method of definition and recognition.

Personality and an Illusion

There is another complication met with in recognising the [P] in the name of a subject. This is caused by a practice in the verbal plane. A word, which is apparently the name of an isolate belonging

to some other fundamental category, is often used to
an isolate belonging to [P]. This illusion generated in
plane has to be dissolved in the idea plane. This will be
in the succeeding sections.

Personality vs. Matter

We have seen that "Steel" is only [M] in the context
Bicycle. On the other hand, in the context of Metallurgy,
is [P]. In Metallurgy, it is the distinguishing characters
different substances and materials that we concentrate
Rubber also is therefore only [M] in the context of Bicycle
but it is [P] in the context of Technology of Rubber. Again
context of the Wall of a Building, a Brick is [M]; but in t
text of Brick-laying it is [P].

Personality vs. Space

Consider the subject "Functions of the Second Cham
India brought up to the 1950s". Here "the 1950s" is easily
out as [T]. So also "Functions" is easily recognised as [I
is it difficult to regard "Second Chamber" as [P]. But what
"India"? Viewed purely from the verbal plane, it looks like
it is the name of a geographical area. But there is an illusion
verbal plane; and it must be dissolved. It is done as f
"India" is really used to represent the "Indian Communi
case of the name of the container being used to represent tl
tained. Expressed in this true form, it becomes obvious
"Indian Community" is [P]. We further see that "
Chamber" is an organ of the "Indian Community" and
[P2]. According to Colon Classification, the (BC) of this
is "History". Then the facet analysis of the full name
subject, as transformed, will be as follows:

History (BC) Indian Community [P] Second Chamber [P2] Funcxi
1950s [T].

The synthesised Class Number of the subject will be V44,32
The number for the Personality Isolate "Indian Commun
obtained by the Geographical Device.

The schedules of the Decimal Classification and of the
versal Decimal Classification imply that the (BC) of the su l

taken by them to be "Political Science". Then "India" becomes merely [S]. According to the Universal Decimal Classification, the facet analysis of the full name of the subject as transformed, will be as follows:

Political Science (BC) Second Chamber [P] Functions [E] India [S] 1950s [T].

The synthesised Class Number of the subject will be 328·31: 328·2(54)"195".

It is worth reflecting on the difference between the two schemes of classification, in the classification of this subject—particularly in regard to the (BC) to which the subject is assigned. Whatever be your opinion in the matter, as a classifier you have to carry out the intention of the classificationist as he has expressed it through the schedules furnished by him.

New Concepts and Terminology

In this chapter, we have introduced many new concepts and terms. Considerable practice is necessary to handle these concepts and use these terms with the familiarity felt for words like food, clothes, etc. These concepts base the work of the classificationist as well as that of the classifier on foundations that reach the primordial rock, as it were. This postulational approach to classification helps to see the discipline objectively and provides a safeguard against loose or hazy thinking. It makes each subject bring its own facet formula in its pocket, so to speak. One must have constant drill in the recognition of the fundamental categories, and of rounds and levels of facets in the formation of the full name of a subject and of its transformation according to the postulates, the separation of the work in the idea, verbal and the notational planes, the translation of the (BC) and the Isolate terms into numbers, and in synthesising the (BC) and the Isolate Numbers into the Class Numbers. Then classification will become an interesting piece of work. The Colon Classification gives a facet formula for most of the (BC) in part 2, and names those facets in colourful significant terms in part 1, just to help beginners to get familiar with the procedure of classifying set out in this chapter. After some experience, students outgrow the need for such props. They become able to analyse the name of any subject into its facets

straight away, and to arrange those facets in proper sequence with the aid of the postulates and the concept of fundamental categories. The postulates also provide a tool for comparing the efficiency of different schemes of classification. Most of the work in the idea plane is intrinsic to the universe of knowledge. The results of the work in the idea plane should be binding on any scheme of classification.

Analytico-Synthetic Classification

It may be further stated that a scheme of classification which admits of facet analysis, provides rules for the arrangement of facets, provides schedules for the different kinds of facets needed in diverse subjects, provides connecting symbols, and admits of the synthesis of the (BC) and the Isolate Numbers of a subject into its Class Number, is called an Analytico-synthetic Scheme of Classification. The Colon Classification and the Universal Decimal Classification are analytico-synthetic schemes. The former is more thoroughly so than the latter.

Enumerative Classification

On the other hand, an Enumerative Scheme does not rest on facet analysis. It does not, in general, give a multiplicity of schedules for (BC) and different kinds of isolates. Generally speaking, it gives only a single schedule which enumerates full-fledged classes with their ready-made class numbers. It would be a good pastime to reflect on the relative advantages and disadvantages of the two kinds of classification schemes. In this reflection, the Canons of Classification and the more fundamental Laws of Library Science should be used as guides.

The Common Isolate

CONSIDER THE SUBJECTS of "Group 8, Geography". Subject 48 is the (MC) Geography itself. A treatise or textbook in the normal form of exposition will go into this class. The other five subjects in the group also have Geography as their subject-matter; but they are different from subject 48 in an important respect. They do not imply a normal continuous exposition of Geography. Subject 17 is "Bibliography of Geography". Items 58, 68 and 97 are names of periodicals in Geography. Item 65 is "Proceedings of a Geographical Conference". These are not really subjects. However, it is usual to make them classes in most schemes of classification. In all these cases the (BC) is "Geography". The isolates in the facets are respectively "Bibliography", "Periodical" and "Conference Proceedings". These are not divisions of knowledge. It is only by convention that they are called Isolates. Cyclopaedia, Biography, History, Collected Works and Catechism are other isolates of this kind. Isolates of this kind have two properties in common:

Ubiquity

Each of them can be attached to any class whatever, or at any rate to a great many classes, belonging to several (BC). For example, we can have a bibliography of any subject—e.g. Oceanography, the Ocean floor, the Ocean floor of the Indian Ocean, the Ocean floor of the Bay of Bengal, the Ocean floor of the Gulf of Mannar; Literature, English Literature, English Drama, Shakespeare, *Hamlet*, Criticism of *Hamlet*, Croce's Criticism of *Hamlet*; Economics, Public Finance, Income Tax, Double Taxation on Income, Double Taxation on Income in India, Double Taxation on Income in India in the Twentieth Century; and so on. The same is true of the other isolates of this kind mentioned in the preceding paragraph. These isolates are truly ubiquitous. They are therefore called Common Isolates. "Common Subdivisions", and "Form Divisions", are terms which have been

used in the past to denote them. We are now using "Common Isolate" as the standard term to denote this kind of ubiquitous isolate. We shall give a more rigorous definition of this term at a later stage.

Anteriorising Common Isolate

Secondly, the books belonging to a class to which such a Common Isolate is attached are not, generally speaking, read through at a stretch. They are more or less (some like Bibliography more, and some like History, less) looked up for some specific information, or as a help before entering into the region of the general books in the class to which they are attached. From this point of view, they are called Approach Materials on the host class. Accordingly, it would be a help if a book admitting of any such Common Isolate were placed Anterior to the regular books in the host class. In view of this, this kind of Common Isolate goes by the name of "Anteriorising Common Isolate". This is in the Idea Plane. It is the duty of the Notational Plane to implement this. To do so, the Colon Classification denotes anteriorising common isolates by lower case letters, and postulates that any class number followed by a lower case letter attached to it directly without a connecting symbol intervening, shall have precedence over the host class number. In other words, each lower case letter is invested with "Anteriorising Value".

At present, the number of an Anteriorising Common Isolate begins with "o" in Decimal Classification and with "(o" in the Universal Decimal Classification. The attachment of any such isolate number to a host class number does not lead to an anterior value. Thus, the notation of either of these schemes of classification is unable to implement the finding of the Idea Plane in this respect. However, as the Rapporteur of the FID/CA—the Committee of the International Federation for Documentation for the General Theory of Classification—the author has suggested that the "(o" be invested with anteriorising value.

Even if this suggestion is accepted, the result will lack the elegance we get in the Colon Classification. For, after this symbol "(o", it will be necessary to insert some digits to represent the Common Isolate concerned and then close the brackets. Whereas,

the Colon Classification bypasses the need for a connecting symbol. The following examples will bring out the difference in elegance.

Class	Universal Decimal Number	Colon Number
Cyclopaedia of mathematics	51(03)	B*k*
Collected works in mathematics	51(08)	B*x*
Mathematics	51	B

Posteriorising Common Isolate

Next consider the following table giving the class numbers of subjects 28, 29 and 30 of "Group 10, Literature" and a few additional ones:

Colon Number	Subject
B*x*M88:*g*	Criticism of the works of Ramanujan
O:*g*	Literary criticism
O111:*g*	Criticism of English literature
O111, 2:*g*	Criticism of English drama
O111, 2J56:*g*	Criticism of Shakespeare
O111, 2J56, 51:*g*	Criticism of Hamlet
O111, 2J75:*g*	Criticism of Marston
V56:19. N56:*g*	Criticism of the foreign policy of Great Britain in 1956
X724.56.N57:*g*	Criticism of the income tax in India in 1957

Obviously, "Criticism" is as ubiquitous as any Anteriorising common isolate we have considered. Therefore, "Criticism" also is a Common Isolate. But it is a Posteriorising Common Isolate. The connecting symbol ":" preceding the digit *g* shows this. The Notational Plane makes it posteriorising, as the Idea Plane requires it. For, as we have already seen, while studying the subjects in "Group 10, Literature" in Chapter 5, the criticism of a class is later-in-evolution than the class itself. Therefore, the criticism should succeed the class criticised. The use of ":" as the connecting symbol implies that "Criticism" is an Energy Isolate. It is so as viewed from the Idea Plane; for it is an action—intellectual action. It is, therefore, a Posteriorising Common Energy Isolate. There are also other such isolates. We can also conceive

of Posteriorising Common Personality Isolates and Posteriorising Common Matter Isolates. These are still in the stage of investigation.

Definition of Common Isolate

The following is a working definition of "Common Isolate":
An Isolate Idea, which is denoted by the same Isolate Term in the Verbal Plane and is represented by the same Isolate Number in the Notational Plane, whatever be the host class to which it is attached, and which admits of being attached to several classes belonging to several (BC), is a Common Isolate.

Time and Space Isolates

It may be verified that Time and Space Isolates satisfy this definition. We have therefore to regard them as Common Isolates. These isolates will be attached only in the case of a local description or history of the host class. The resulting class should, therefore, come only posterior to the host class. In other words, these are Posteriorising Common Isolates. This finding of the Idea Plane is implemented in the Notational Plane by the fact that the isolate numbers of all such isolates should be preceded by their connecting symbols.

Facets of Anteriorising Common Isolates

Here are the Colon and the Decimal translations of the names of four of the items of "Group 8, Geography", which present Anteriorising Common Isolates.

CC No.	Item Classified	DC No.
Um44, N	Indian journal of geography, 1926	910·5
Um56, M	Journal of the Royal Geographical Society, 1830—	910·5
Um56, M8	Scottish geographical magazine, 1884—	910·5
Upi, M50	Proceedings of the International geographical conference, 1850	910·63

The above table shows that the different periodicals in a host class get individualised in the Colon Classification. Indeed, each periodical is converted into a class, even as a work in literature such as *Hamlet* gets converted into a class. Such a class, formed by

a periodical or by a work in literature, or a sacred work in religion, or a classic in any subject, is called a Quasi Class. This term is introduced to emphasise that such a class is not a class of the universe of knowledge, as Mathematics or Child Psychology is. It is converted into a class only by classifying convention. The class number of a Quasi Class is a Quasi Class Number.

The Decimal Classification has not provided for Quasi Class Numbers, so that all the periodicals mentioned in the above table get one and the same class number. The result is that the Decimal Classification does not mechanise the keeping together of the volumes of a particular periodical, or the maintenance of a preferred sequence among the different periodicals within the same host class. As they all get the same class number, all the volumes of the periodicals in a given host class will be mixed up promiscuously, if we depend for their arrangement on their class numbers alone. This is a negation of classification.

In the Colon Classification, the periodicals in a given host class are grouped by their countries of origin; and those originating from the same country are arranged among themselves by their respective years of commencement. Further, the volumes of one and the same periodical get arranged by their years of publication, as a result of the Colon Book Number being based on the year of publication. This kind of helpful individualisation of the periodicals and other approach materials in a host class is made possible by the Rules of Colon Classification which provide Facets for the Common Isolates. They are all mostly [P] got by the Geographical and Chronological Devices. Take it as a warning that, because you find geographical and chronological numbers in these facets, these facets are not [S] or [T]. Look up the rules of Chapter 2 of the *Colon Classification.*

It would be a help if the Universal Decimal Classification also fitted up similar facets to the Common Isolates. There is nothing in its notational system to prevent this. Indeed, this is one of the author's recommendations to the International Federation for Documentation, which is in charge of the development of that scheme.

Phase Analysis

ANOTHER USEFUL CONCEPT developed by the Colon Classification is that of "Phase analysis". We will find it easy to grasp if it is approached through a number of concrete examples, as was facet analysis.

Bias Phase

Returning to the groups of subjects to be found set out in Chapter 4, consider subject no. 36 in Group 7, Psychology. It is Educational psychology. It involves two main classes, Education and Psychology, and is therefore said to be of two "Phases". Of the two subjects it is Psychology that is the subject of exposition, and that is said therefore to be the "Primary Phase". The subject "Education" is said to be the "Secondary Phase" because it merely indicates the subject towards which the exposition of Psychology is biased. A secondary phase of this kind is called a "Bias Phase". The connecting symbol in the notation of the Colon Classification in such a case is "0b", and in the notation of the Decimal Classification it is "0001", the Colon number for Educational psychology is therefore

$$SobT,$$

where $\quad$ S = Psychology,
$\qquad$ o = the connecting symbol for phase relation,
$\qquad$ b = bias relation
and $\qquad$ T = Education.

Similarly the Decimal number ought to be

$$370 \cdot 00115,$$

where $\quad$ 37 = Education,
$\qquad$ 0001 = the connecting symbol and phase relation,
and $\qquad$ 15 = Psychology.

But the complete tables in the *Decimal Classification* give the *ad hoc* number 370·15, thereby adding to the length of the schedule and putting "0" to more than one use, thus necessitating a cautionary note like the following, which occurs in the

introduction to "Table 2. Common subdivisions" on page 1628 of the thirteenth edition.

"These divisions introduced by 0, 00 or 000 may be annext to the number for any subject if 0 or 00 divisions are not already specifically provided under that subject."

Even in cases where "0001" is used as the connecting symbol, it must be remembered that the bias phase cannot be distinguished from other kinds of phase relation in Decimal numbers as the same connecting symbol is prescribed for all cases.

Influencing Phase

Consider next subject 50, occurring in Group 15, Political Science. It is called "Geopolitics". It stands for the study of Political Science as influenced by Geography. It thus involves two different main classes, and its two different constituent subjects form its phases. Political Science is the subject of exposition and is therefore the primary phase. Geography is merely the subject whose influence on the primary phase is studied: it is therefore the secondary phase. In Colon Classification it is called the "Influencing Phase". The digit in the Colon notation for "Influencing Phase relation" is g. The Colon number for Geopolitics is, therefore, WogU.

There does not appear to be a suitable connecting symbol for the influencing phase in the notation of the Decimal Classification. But this concept is not altogether foreign to that scheme as can be seen from the following note which occurs in the complete tables under "150 Psychology". "For interrelations of psychological topics use 0005 divided like 150, e.g. Conception and perception 153·1000527."

153·1 = conception,
0005 is the connecting symbol,
27 is extracted from 152·7 and = perception.

Can we therefore use "0005" as the connecting symbol for the influencing phase?

Other Phases

The Colon Classification has recognised and provided for three other kinds of phases: Comparison, Difference and General

Relation phases. New kinds of books, not yet encountered, may call for the recognition of other kinds of phase relation in the future.

Complex Class

A class which comprehends two or more classes brought into mutual relation can be called a Phased or Complex Class. The constituent classes are called its phases, and their relation is called a phase relation.

The difference between the phase constituent and the facet constituent of a complex class is that the phase constituent can be a subject in its own right, but the facet constituent cannot.

To quote B. I. Palmer (L.A.R. v. 46, 1944, p. 185) "The reason for the growing failure of Dewey to cope with the demands of books and articles at the deeper levels is at once revealed to be due to a confusion of phase, facet and focus." This remark is equally true of the Universal Decimal Classification.

Like facets, phases too are inherent in the subjects themselves. They are not created by a scheme of classification. It is the duty of a scheme of classification to recognise the presence of phases and facets in specific subjects, and to represent them truly in its class numbers. Only then will the arrangement brought about by the class numbers be helpful, and satisfy the various Canons of classification.

The "How" of Library Classification

WE BEGAN WITH the statement that class numbers constitute an artificial language of ordinal numbers designed to mechanise the filiatory arrangement of subjects. The determination of helpful sequence does not necessarily require a scheme of classification. As we saw in Chapters 4 and 5, this can be achieved from first principles. But to preserve the sequence arrived at, to keep that sequence consistently adhered to by whoever deals with it and whenever he deals with it, and to restore the preferred sequence among books which have been disturbed without the necessity of reading them every time, for these purposes we do need a scheme of classification. That scheme will prove helpful which recognises the facets and phases in subjects, and provides for them in its class numbers.

Dictionary and Grammar

The schedules of a classification form the dictionary of the classificatory language. If it is to be a true dictionary and not just a phrase-book, the schedule will list not the names of subjects, but only basic concepts (or isolates) that occur as foci in their facets; and out of which the translations of the names of subjects can be built up. And for building them up, rules are necessary. These rules correspond with the grammar of a natural language.

Classificatory translation

Classificatory translation, however, differs from ordinary literary translation in one respect. A classificatory language is invariable, and translation into it is, therefore, a steady one-way process which can have only one conventionally perfect result. In the process of literary translation, on the other hand, a continual subtle interchange takes place between two equally plastic elements, till their differences are resolved in a final adjustment. Since both parties to the intercourse (both languages) are, so to

speak, living personalities, only a living personality can result. And the same partnership may produce other "children", each perfect in its own way as an expression of their union, but bringing out now more, now less of this or that capacity or characteristic of their "parents": the same text then, if it is at all highly organised, may be "perfectly" translated in different ways. Perfection here is not scientific because both terms are almost indefinitely variable.

It is not so in the case of translation into a classificatory language, however. If it were, it would be fatal to the very purpose of classification, which is to preserve a preferred sequence without variation, in as mechanical a manner as possible. A classificatory translation is not only formally pre-determined, but the process is also governed by the fact that one pole is fixed: the whole operation is canalised in the translator's mind by the facets and phases. For the classifier in whom facet- and phase-analysis have become second nature, classification is an almost automatic process: his thought is guided from the start by those postulates of classification pertaining to the idea plane.

Canalisation

A critical examination of the title and contents of the book to be classified is a necessary precaution against ambiguity, vagueness and rhetoric. This examination should follow the route prescribed by the postulates of classification. The classifier must have a keen eye for specific details. His purpose must be to bring out the dominant subject (primary phase) in full, and the adjectival ones (secondary and other phases) in due subordination and in proper sequence so as to expose the author's intention and achievement. To lay bare the subjects of every book in this way would be a tortuous and wasteful task without the aid of the matrix supplied by the postulates of classification. All this preliminary analysis for the enunciation of the specific subject in the form demanded by classificatory language is called "canalisation". Proper translation depends on correct canalisation.

Translation Proper

Once canalisation is completed and the name of the specific subject has been settled by pouring, so to speak, the properly

selected, prepared and amplified words of ordinary language into the mould made with the aid of phase- and facet-analysis, the final step is a simple affair of substituting from the dictionary (schedules) occasionally with the aid of the grammar (rules), equivalent ordinal numbers for the selected words. This last step is translation proper. It is here that the real metempsychosis takes place. The same soul now appears in a new body, the old having been made of the words and the new one being made of ordinal numbers.

From Flair to Science

Apart from the fulfilment of the Canons of classification, a secondary measure of the value of a scheme of classification is the extent to which it provides clear-cut matrices to help the enunciation of the specific subject of a book by correct canalisation. In this, the Colon Classification, which is a late-comer in the field, naturally scores over the Decimal Classification, which was the very first.

Let us use a simile. A classifier may be compared with a person working his way through a forest at night towards the home of a friend (specific subject) who lives somewhere in the heart of the forest. The difficulties, the uncertainties, the disappointments caused by the difficult terrain, treacherous with its hillocks, valleys, unfordable streams and so on, the absence of a guide to the direction in which the friend's house lies, and the multitudinous division of pathways, the signposts which are invisible in the dark, all these will be similar for both the traveller and the classifier. But suppose the friend puts up a powerful lamp on the roof of his house, so that it is visible from the distance: then this will act as a beacon to the traveller, and help him in his trials. Any good scheme of classification gives this sort of help to the classifier who is working his way towards the specific subject of a book. The Decimal Classification gives just that much help.

The traveller will be helped much more, however, if the light put up by the friend is a floodlight, which not only acts as a beacon, but also lights up the region through which he has to walk. Then not merely will the goal be glimmering, but every inch of the path will be lighted. The formula of facets for each main class and canonical class (or alternatively and more generally, the postulates

on facets based on the five fundamental categories) furnished by the Colon Classification, coupled with phase-analysis which is adopted by the scheme quite consciously, serve as just such a floodlight to the classifier.

To quote from *New vistas in classification* by B. I. Palmer, which appeared in the October 1944 issue of The Library Association Record, "For the first time, practical classification can claim to approximate to a science. . . . Normally, while most students could grasp the theory of classification, when it came to the practice they found it demanded an elusive gift called 'flair'. For 'flair', Ranganathan has substituted reasoned analysis: perhaps flair was an intuitive form of the same process. Ranganathan's new book brings the whole problem from the regions of subconscious perception to those of the intellect. This act makes it at once possible to train any intelligent person to classify, instead of merely demonstrating to the classification-aspirant, and then hoping for the best.

"In using such a scheme as Dewey, we are instructed to classify 'first by subject, then by form'. But is it always as simple as this? Too often the subject is lost in a welter of relationships, and the task of deciding to which class a subject belongs can be quite a major task when it rests on flair. And as A's flair is not always B's flair, anomalies creep in which can vitiate the work of the classifier: a work which aims at reducing conflicts to a minimum.

"Now apply the method taught in this new work [*Fundamentals*] and the task becomes susceptible to a methodical approach."

In these few pages have been set out the elements of library classification, and it is hoped that they have not proved altogether incomprehensible. To the author they are fascinating. They seem to have a value beyond the narrow and immediate purpose which makes him pursue them. Classification is a way of thinking. It is a way of thinking systematically and purposefully. It has, therefore, the same general value as any academic subject like the mathematics, linguistics or philosophy to be found in a university course.

CHAPTER 12

EPILOGUE

To My Brother Librarians

THE REASONS for which books are studied ought not to be very different from the reasons for which they are written. Why are books written? Am I asking too much of my brother librarians who are my readers in expecting my reasons to be theirs also? Every writer should face this sort of question, and so should the readers of books. An ambiguous situation arises when books are read for reasons other than those for which they are written; or when the writer, conscious that the reasons for writing books are frequently not the reasons for reading them, allows himself other reasons in order to gain readers.

My writings on subjects other than classification have been described as simple, lucid, gripping and so on. Some have even been described as "thrillers". But as a writer on classification, I have been persistently accused of difficulty. I therefore feel that there is due from me some explanation of the bafflement that my writings on classification have on a large number of librarians. It would be unpleasantly disingenuous of me to publish yet another book on classification without acknowledging a complaint which I know to be common among friends and foes alike. I do not think that the complaint is a legitimate one; but, on the other hand, I am not indifferent to it. No classificationist genuinely moved by the reasons of classification can be indifferent to the accusation that his writings on classification make inaccessible to classifiers the very ideas he is trying to communicate.

Why does a librarian classify at all? He classifies to uncover to himself, in order to make it readily available to readers, everything that a library has on any subject. Comparatively few devote any time at all to practical classification, yet many would agree that the resources uncovered by minute classification are extremely important to know. This raises the question, "Why do so many not practise minute classification?"

Some do not classify minutely because it embarrasses them to try to be as serious as such classification demands. Others disbelieve in the sincerity of classificationists, feeling that they affect a humanly impossible seriousness. Then there is a class of librarians who have a vague goodwill towards classification and classificationists, but who feel that the rewards are small compared with the amount of time and energy necessary, in that minute classification is too much like hard work.

Some librarians have a natural and wholesome disinclination to classify minutely. And these deserve to be respected, as we respect those who, conscious that they lack the proper qualifications of experience or judgment, modestly refrain from advancing opinions on some controversial subject. But there are also some, who from their education and sensibility of mind, might be expected to practise minute classification, and yet do not. The most important single reason why they do not is miseducation as to the reasons for classification. They have acquired the impression either that classification is based upon fancied experience and yields only a fanciful kind of result, or that the full benefits of classification can be obtained in ordinary ways, without minute classification which involves the tedium of reading books through and discovering all their important foci in their accurate sharpness and location.

Because of this background of miseducation from which most librarians seem to come to classification, I utilised the opportunity offered by the University of Bombay to begin an exposition of the subject upon the most elementary plane of understanding, and to proceed to the plane of minute classification (or uncovering) by steps which deflect the reader from false associations and false reasons for classifying. This book is the result. No librarians but those who insist on classifying for the wrong reasons should find minute classification difficult: no librarian who classifies for the right reasons should find it anything but proper.

But what are the right reasons for classifying? If there is so much miseducation, do most librarians who classify broadly do so for the wrong reasons? And, a still more pressing question, is a scheme of classification that does not aim at minuteness, but finds a large number of users, likely to have been designed for the wrong reasons?

Library classification is an uncovering of the thought-content of a book. It is what it should be only when the thought-content as a whole is uncovered, including the primary and secondary phases, the facets of each of the phases, and the foci in each of the facets, by those faculties which apprehend in terms of entirety rather than in terms merely of parts. The classificationist who designs a scheme for the right reasons has felt the need to exercise such faculties. The classifier who applies a scheme for the right reasons is asking the classificationist to accentuate these faculties and to provide him with occasions to exercise them. But corruption of the reasons for classification sets in, in both classifier and classificationist, when the classifier comes to classification with no notion whatever of the faculties required. The history of the design of classifications, and of classifying is to a great extent a history of such corruption.

Not only am I aware of the effect of extreme difficulty that my books on classification and my scheme of classification have had for the majority of readers, but I offer voluntarily the statement that in one sense of difficulty, more difficult schemes would be hard to find. My awareness of exactly how difficult my scheme is gives me, however, the right to say why it is so. It is because it has been designed for all the reasons of classification. If you accuse me of unnecessary difficulty after an honest attempt to classify at least a thousand assorted works in the wave front of knowledge today for the full reasons of classification, you must realise that you will be implying that a classification scheme should be designed only for just a few of the reasons of classification. If you approach my scheme and my books on classification without restricting the reasons of classification within the confines of convention, and after at least a hundred hours of intensive reference service in a busy library, you will not only see that they are not difficult, but you will also discover in yourself reasons for classifying to a degree of minuteness that you have largely neglected in any classificatory work you have done previously. An account of the variety of purposes to be served by classification will be found in the *Prolegomena*, Chapter 37 of ed. 2.

If you desire to view the whole subject of classification from the position taken up by me, you must know readers and know books inside and out. You must not feel shy of either. Take as your

mission the establishment of contact between the right reader and the right book exactly and expeditiously and without any fumbling. You will then see that no scheme of classification can be too minute or too complicated. You will also see that the reader is not concerned with your notation, or with the "how" of your classificatory technique, except in its very superfices. The service of classification can reach him in difficult situations only through you; in other words, classification in its deepest embellishments has to be intelligible only to you, though an intelligent reader may be prepared to share them with you. You will even find that the extent to which a reader in a library contacts the profound manifestations of class numbers will be proportional to his capacity to face them, to understand them and to put them to helpful use. It will also be proportional in the same measure to the depth, the profundity and the subtlety of the thought he seeks to feed upon or the library provides.

If these points are conceded, you will realise what an escapist attitude is that of the librarian who says, "Don't be minute in your classification. Don't divide more minutely than Dewey did about half a century ago." For the public cannot stand it: they will be scared away by it: I too, therefore, dislike it." You will realise too that the length of a class number is determined only by the degree of specialisation of the book classified and, in particular, that most of the books in a general library tend to have only short and simple class numbers.

You will also realise that what should be aimed at is the translation into ordinal numbers of the entire thought-content of the book—all its foci, all its criss-cross of subjects and forms and all its interlacings—fully and literally. Yes, fully and literally!

Francis of Assisi is said to have ascended a mountain to formulate a more precise Rule for his Order. Then he wrote the Rule down and gave it to his vicar, Elias. But Elias either lost the Rule, or secretly destroyed it, finding it too severe. So Francis ascended the mountain again. While he was meditating there, Elias and a group of brethren appeared before him, to protest that they did not want a severe new Rule. Whereupon Francis appealed to his Holy Conscience, which, speaking into the air, affirmed that the Rule must be observed "literally, literally, literally, without gloss, without gloss, without gloss".

And so I say, not within the suppositious context of religion, but within the actual context of library service: literally, literally, literally; fully, fully, fully! So classify, so serve, so exist: for the very best reasons. Any other reasons are not reasons, or no longer reasons. They are mere compulsions from without or mere glosses upon nightmares long ago ridden off the map of experience in the world of knowledge and of libraries, which are the worlds of total integration between books and human beings, as *Granthalaya*, the Sanscrit word for library, means.

Documentation

We now use the term "depth-classification" to denote classification carried to the point of individualising even the tiniest micro-thought.

It has been found necessary in documentation service, which is the name given to reference service with extra emphasis on the exhaustive, expeditious, pin-pointed service of nascent micro-thought such as that embodied in articles in periodicals, to specialist readers engaged in research. 'Such a documentation service, using such depth-classification has now become a social necessity. This has been brought about by the inadequacy of natural and near-natural commodities to satisfy the needs of the overgrowth of the population of the world. The making of artificial commodities, whether for food, clothing or shelter, has therefore become a continuing and urgent necessity. This demands research-in-series in place of the research-in-parallel of the past. This research-in-series implies the elimination of unintended wasteful repetition of the same investigation, in the world taken as a whole. This elimination calls for division of labour, and the task of the library profession is to make the communication of all nascent micro-thought exhaustive, expeditious and pin-pointed. The fulfilment of this task by the library profession needs documentation, and documentation needs depth-classification.

Now the depth-classification of the ever-turbulent, ever-developing universe of knowledge must be analytico-synthetic in nature. The Universal Decimal Classification made a beginning in this direction at the turn of the present century. Colon

Classification has shown the way to move towards the ideal in this direction. The chief character of this way is the basing of classification on postulates involving facet analysis and fundamental categories.

The Canons of Classification

as delivered in edition 2 of the *Prolegomena*

1. Canons for Characteristics

1 Canon of Differentiation (131)
2 Canon of Concomitance (132)
3 Canon of Relevance (133)
4 Canon of Ascertainability (134)
5 Canon of Permanence (135)
6 Canon of Relevant Sequence (136)
7 Canon of Consistency (137)

2. Canons for Array

8 Canon of Exhaustiveness (141)
9 Canon of Exclusiveness (142)
10 Canon of Helpful Sequence (143)
11 Canon of Consistent Sequence (144)

3. Canons for Chain

12 Canon of Decreasing Extension (151) 13 Canon of Modulation (152)

4. Canons for Filiatory Sequence

14 Canon of Subordinate Classes (161) 15 Canon of Co-ordinate Classes (162)

5. Canons for Terminology

16 Canon of Currency (171)
17 Canon of Reticence (172)
18 Canon of Enumeration (173)
19 Canon of Context (174)

6. Canons for Notation

20 Canon of Relativity (1881) 21 Canon of Expressiveness (1882)
22 Canon of Mixed Notation (1883)

7. Canons for Knowledge Classification

23 Canon of Hospitality in Array (221) 26 Canon of Verbal Mnemonics (253)
24 Canon of Hospitality in Chain (231) 27 Canon of Scheduled Mnemonics (261)
25 Canon of Mnemonics (241)
28 Canon of Seminal Mnemonics (271)

8. Canons for Book Classification

29 Canon of Classics (621)
30 Canon of Local Variation (631)
31 Canon of Book Number (662)
32 Canon of Collection Number (678)
33 Canon of Distinctiveness (685)

ANNEXURE 2

Principles for Helpful Sequence

1 Increasing Quantity (1431)
2 Later-in-time (1432)
3 Later-in-evolution (1433)
4 Spatial contiguity (1434)

5 Increasing Complexity (1435)
6 Canonical Sequence (1436)
7 Favoured Category (1437)
8 Alphabetical Sequence (1438)