



Ranganathan, Shiyali Ramamrita.  
Prolegomena to Library Classification. Assisted by M.A. Gopinath. 3<sup>rd</sup> edition.  
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Library Book Selection, Ed. 2, (1966)  
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Putting Knowledge to Work: An American View of the Five Laws of Library Science, 1970, Pauline  
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**PART P**

**FORMATION, STRUCTURE, AND DEVELOPMENT  
OF SUBJECTS**

## CHAPTER PA

### INTRODUCTION

#### 1 Introduction

It will be an advantage to examine the mode of formation and the structure of the subjects in the universe of subjects and of the isolate ideas in the universe of isolate ideas, as a preliminary to the theory of Freely-Faceted Classification—that is, the Analytico-Synthetic Classification Guided by Postulates and Principles.

#### 2 Formation of Subjects

The following are the five preliminary modes of formation of subjects and isolates that deserve study.

- |               |                         |
|---------------|-------------------------|
| 1 Dissection; | 4 Loose Assemblage; and |
| 2 Lamination; | 5 Superimposition.      |
| 3 Denudation; |                         |

We can also have all possible combinations of these four primary modes. Chap PB to PF deal respectively with the five primary modes of formation.

#### 3 Structure of Subjects

The very mode of formation leaves its impress on the structure of a subject. Apart from that, we can also examine the structure of the universe of subjects as a whole. The various kinds of structures will be studied in Chap PG to PK.

#### 4 Other Modes and Structures

It would be a good exercise to separate out other primary modes of formation and other structures of subjects.

#### 5 Development of Subjects

Apart from the formation and the structure of a subject, there is also the development of universe of subjects. This is described in Chap PM.

## CHAPTER PB

### DISSECTION

#### 1 Definition

Dissection is cutting a universe of entities into parts of co-ordinate status, even as we cut a slice of bread into strips. When the parts are ranked, they form an array. We shall call each such part a "Lamina". We shall illustrate this mode of formation in the case of the Universe of Basic Subjects and two typical Universes of Isolate Ideas.

#### 2 Universe of Basic Subjects

The following is a schematic representation of a few consecutive laminae of the dissected Universe of Basic Subjects.

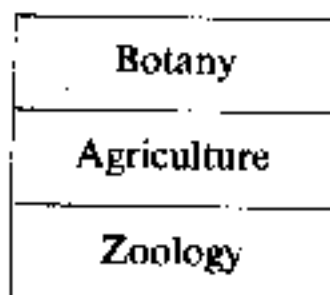


Fig 3

#### 3 Universe of Agricultural Plants

The following is a schematic representation of a few consecutive laminae of the dissected Universe of Agricultural Plants.

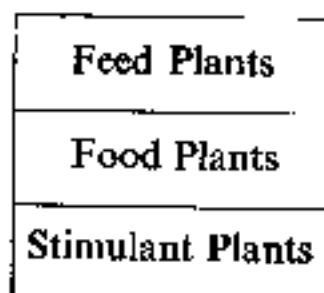


Fig 4

#### 4 Universe of Geographical Areas

The following is a schematic representation of a few consecutive laminae of the dissected Universe of Geographical Areas.

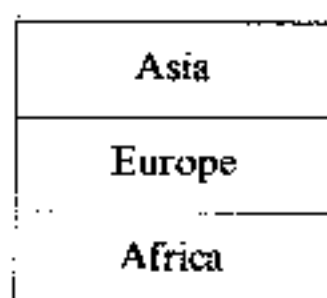


Fig 5

### 5 Continuation of Dissection

Each one of the Basic Subjects and of the Isolate Ideas resulting from dissection may be taken to be a Universe by itself. It can be dissected further into its own parts. This can be continued as often as necessary and possible. Any part formed by repeating the dissection of a universe, its sub-universes, and so on, any number of times, will also be called a "Lamina". In fact, any Basic subject or any Isolate Idea in an array of any order is a "Lamina" when viewed from this angle.

### 6 One Method of Formation

Dissection is one of the Methods of Formation of Basic Subjects and of Isolate Ideas in a Faceted Classification. In an Enumerative Classification it is one of the Methods of Formation of Subjects—Basic and Compound.

### 7 Enumerative Classification

In an enumerative classification, the term 'Dissection' applies not only to Basic Subjects but also to Compound and Complex Subjects.

## CHAPTER PC

### LAMINATION

#### 1 Definition

Lamination is construction by overlaying facet on facet, even as we make sandwich by laying a vegetable layer over a layer of bread. When the basic layer is a basic subject and the other layers are isolate ideas, a compound subject is formed. We shall illustrate the formation of compound subjects and also the prior lamination of the isolate ideas themselves.

#### 2 Compound Subject 1 with Two Laminae

The following is a schematic representation of the formation of the compound subject "Agriculture of Corn" by the lamination of the basic subject "Agriculture" and the isolate idea "Corn". The laminated subject "Agriculture of Corn" is represented by the enclosed area marked 1 in the diagram.

	Corn	
Agri-	1	culture
	Corn	

Fig 6

#### 3 Compound Subject 2 with Two Laminae

The following is a schematic representation of the formation of the compound subject "Agriculture in Java" by the lamination of the basic subject "Agriculture" and the isolate idea "Java". The laminated subject "Agriculture in Java" is represented by the enclosed area marked 2 in the diagram.

	Java	
Agri-	2	culture
	Java	

Fig 7

#### 4 Lamination of Two Isolates

The following is a schematic representation of the lamination of two isolate ideas "Corn" and "Java". Their lamination is represented by the enclosed area marked 3 in the diagram.

	Javr	
Corn	3	Corn
	Java	

Fig 8

### 5 Compound Subject 3 with Three Laminae

The following is a schematic representation of the formation of the compound subject "Agriculture of Corn in Java" by the lamination of the basic subject "Agriculture" and the two isolate ideas "Corn" and "Java". The laminated subject is represented by the enclosed area marked 4 in the diagram.

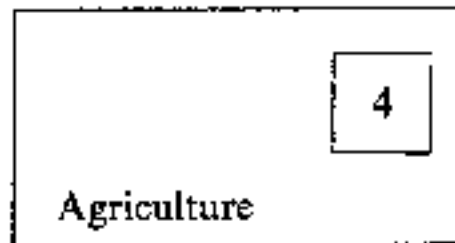


Fig 9

### 6 Continuation of Lamination

Compound subjects with two, three, four, etc facets are formed by lamination of one, two, three, etc isolate ideas on any basic subject as the basic lamina.

### 7 Enumerative Classification

In an enumerative classification, lamination does not arise.

## CHAPTER PD

### DENUATION

#### 1 Definition

Denudation is the progressive decrease of the extension and the increase of the intension (or the depth) of a Basic Subject or an Isolate Idea, even as we scoop out the flesh of a soft fruit from deeper and deeper layers or as we excavate a well. In the words of J H Shera, denudation is "the exposure of a new area of knowledge by erosion or divestment through research or enquiry" [169].

#### 2 Universe of Basic Subjects

The following is a schematic representation of the denudation of the Universe of a Basic Subject. The largest enclosed area represents the basic subject "Philosophy". The smaller enclosed area representing the basic subject "Logic" is got by scooping or denuding the basic subject "Philosophy". The smallest enclosed area marked 3 represents the basic subject "Deductive Logic". It is got by further scooping or denuding the basic subject "Logic".

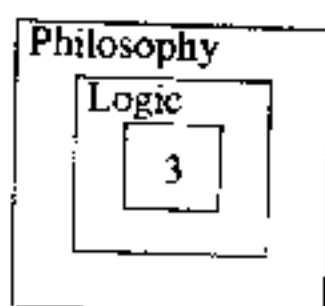


Fig 10

#### 3 Universe of Geographical Area

The following is a schematic representation of the denudation of a Universe of Geographical Areas. The enclosed area represents "Asia". The smaller enclosed area representing the isolate idea "India" is got by scooping or denuding the isolate idea "Asia". The smallest enclosed area marked 3 represents the isolate idea "Kerala". It is got by further scooping or denuding the isolate idea "India".

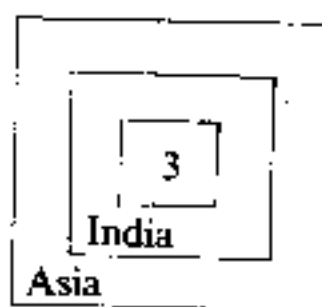


Fig 11



#### 4 Dualism

Consider the following schematic representation :



When viewed in the context of its chain, the isolate idea "Kerala" is the result of the successive denudation of the isolate idea "Asia". But when viewed in the context of its array, the isolate idea "Kerala" is one of the parts got by the dissection of the isolate idea "India". This dualistic view often puzzles beginners. It is like the puzzle of a person who saw the picture of a Lion in the sign board of a hotel when he approached it from the North and saw the figure of a Swan when he approached from the South. This made him enter the hotel and ask the manager, "What is the real picture on your sign board? Is it a Lion or a Swan?" The Manager replied, "It is both. What you see depends upon your approach to the hotel".

#### 5 Enumerative Classification

In an enumerative classification, the term 'denudation' applies not only to Basic Subjects but also to Compound and Complex Subjects.

## CHAPTER PE

### LOOSE ASSEMBLAGE

#### 1 Definition

Loose Assemblage is the assembling together of two or more of

- 1 Subjects (Basic or Compound)
- 2 Isolate Ideas (In one and the same facet, or isolate ideas in one and the same array).

Assembling is done to express one or other of possible relations between the components of the assembly. The result is a Complex Subject, or a Complex Isolate Idea, or a Complex Array Isolate Idea, as the case may be.

#### 2 Phase

Each component in the assembly is called a 'Phase'. They are called 'Phase 1', 'Phase 2', etc as determined by their sequence in the assemblage.

#### 3 Phase Relation

The following five kinds of phase relations have been recognised till now.

- 1 General Relation; 3 Comparison; 5 Influencing.
  - 2 Bias; 4 Difference; and
- Other kinds of phase relations may be recognised in course of time.

#### 4 Complex Subject

Here are examples of Complex Subjects

- 1 General Relation between Political Science and Economics.
- 2 Statistical Analysis for Railway Managers.
- 3 Influence of Geography on History.

#### 5 Complex Isolate Idea

Here are some examples of Complex Isolate Idea

- 1 Influence of Buddhism on Christianity.
- 2 Difference between Lemuroidea and Anthropeidea.

## CHAPTER PF

### SUPERIMPOSITION

#### 1 Quasi Isolate Idea

In some universes of isolate ideas, it is found helpful to enumerate in an array of order 1, the various characteristics for division, as if they were isolate ideas of order 1. When it is so done, each characteristic is called a 'Quasi Isolate Idea'. It is so called because it is not a true isolate idea, in the sense that it does not represent an isolate idea. It is only in the array of order 2 onwards that isolate ideas—that is, true isolate ideas—will appear.

#### 2 Definition of Superimposition

Superimposition is connecting together two or more isolate ideas belonging to the same universe of isolate ideas. Need for this will arise when an entity is eligible to be an isolate idea on the basis of two or more quasi isolate ideas. The isolate idea resulting from superimposition is called a 'Superimposed Isolate Idea'. Another name for it is 'Compound Isolate Idea'; but we shall prefer to use the term 'Superimposed Isolate Idea'.

#### 3 Examples

We have seen in Sec EN3 that the universe of professors can be classified both by Subject characteristic and by Rhetorical Ability characteristic. Here, "Subject" is a quasi isolate idea. "Rhetorical Ability" is also a quasi isolate idea. Fifteen of the 23 isolate ideas of the universe of professors are superimposed isolate ideas.

Further examples will be found in Chap RP and SF.

#### 4 Quasi Lamination

Lamination differs from Superimposition in one respect. In Lamination, isolate ideas of two different universes of isolate ideas are connected together. In Superimposition, isolate ideas belonging to one and the same universe of isolate ideas are connected together. Therefore, we may denote Superimposition also by the term "Quasi Lamination".

## CHAPTER PG

### DICHOTOMY

#### 1 Dichotomy

Dichotomy means division into two. It is also called a 'Binary Classification'.

#### 2 Tree of Porphyry

In Dichotomy two divisions are formed in the first stage. Two divisions of each of these divisions are formed in the second stage, and so on. The following schematic representation of dichotomy is called the 'Tree of Porphyry'.

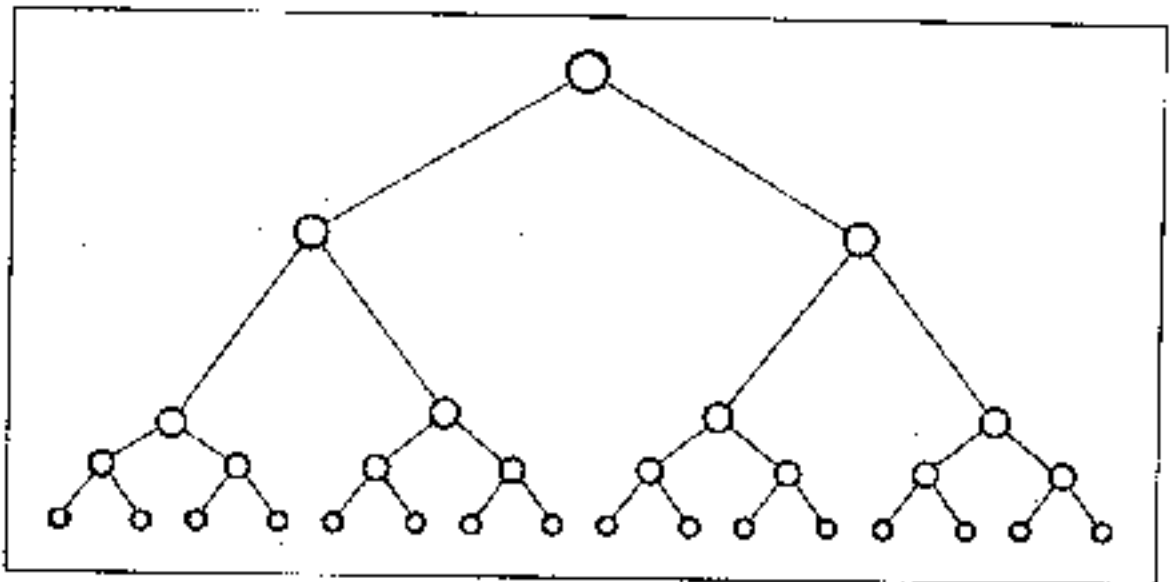
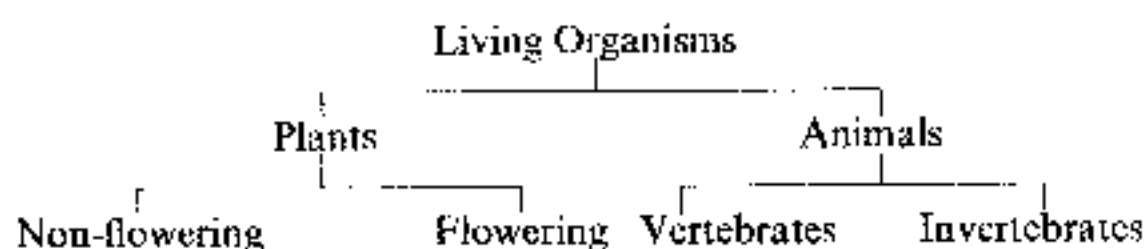


FIG. 12

#### 3 Rare Instance

Perhaps the early man would have found dichotomy sufficient. The picture of dichotomic structure is too oversimplified for the Universe of Subjects. Here is a rare example of its proving sufficient.



We cannot continue this dichotomic structure any further.

#### 4 Kant's Dichotomic Structure

Immanuel Kant attempted a dichotomic picture of the entire Universe of Subjects [73]. This kind of running Dichotomy to death will fail soon even in establishing a mere Scheme of Classes for the Universe of Subjects. The failure will begin very early in designing a Scheme for Classification for the Universe of Subjects. If Bentham were alive today, it is doubtful if he would speak of "the matchless beauty of the Tree of Porphyry".



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## CHAPTER PH

### DECACHOTOMY

#### 1 Definition

Decachotomy means division into ten.

#### 2 Impact of Decimal Classification

DC replaced Dichotomy by Decachotomy. This released classification from the undue restriction of the Tree of Porphyry. The very familiarity of the base 10 recommended itself and DC reinforced it with the words: "The field of knowleĳ is divided into 9 main classes . . . and form a tenth clas (formed of general documents not belonging to any of the main classes) . . . each is separated again into 9 special divisions and (a tenth division forming general works) . . . A 3d division is then made by separating each of these divisions into 10 sections, . . . this decimal sub-division is repeated till it secures as many subsections as may be needed in any topic" [41].

#### 3 Popularity of Decimal Classification

Actually there was even a greater admiration for the matchless beauty of dividing at each stage by 10 than what Bentham expressed about the Tree of Porphyry. Moreover, DC had been accepted widely before any other scheme could establish itself. Even today, there is an organisation to spread the use of DC as widely as possible.

#### 4 Arbitrariness of Decachotomy

All the same, Decachotomy is as arbitrary as Dichotomy. The Decimal Bed is as much a Procrustean Bed as the Binary Bed of Kant. The Universe of Subjects transcends the capacity of the one as much as that of the other. For, it is the creation of the intellect. The intellect cannot be tied down with a decimal thong. The Universe of Subjects created by it cannot be folded up into neat layers of ten. From the point of view of the natural unbridled voluptuousness of the Universe of Subjects and of its growing in different directions and at different stages, Decachotomy is unnatural and arbitrary.

## CHAPTER PJ

### POLYCHOTOMY

#### 1 Definition

Polychotomy means division into many.

The arbitrariness of Decachotomy had been seen by DC itself. For, it says, "Theoretically the division of every subject into 9 parts is absurd", in spite of the claim that Decachotomy "has proved wholly satisfactory in practis, though apparently destroying proper coordination in sum places" [42]. This compromise is the result of the control of the Idea Plane by the Notational Plane.

#### 2 Limited Polychotomy

In 1893, EC introduced limited Polychotomy by making the number of divisions, at each stage, 24. Within 50 years, the rate growth of the Universe of Subjects found even 24 divisions to be far too restrictive. The indication is that the number of divisions should at no stage be pre-determined.

#### 3 Unlimited Polychotomy

On the other hand, whatever be the number of divisions thrown forth by the Universe of Subjects at any stage, that should be recognised and provided for by the classificationists. This is the message of the Fifth Law of Library Science. An implication of it is that the Universe of Subjects is a turbulent ever-growing dynamic continuum. The maximum number of divisions, likely to be thrown forth by it in some array or other at some stage or other of its development, is unpredictable. The Idea Plane can spread its wings conterminously with the spread of the Universe of Subjects. It is only the Notational Plane that imposes any restriction. That is why we insist that it is only the Servant that must implement every finding in the Idea Plane (See Chap ME). Of late, the work in the Notational Plane of CC is beginning to free the Idea Plane from any control. It has already provided for more than a thousand divisions at any stage (See Chap HD). Polychotomy can be made really unrestricted.



## CHAPTER PK

### PROLIFERATION

#### 1 Many Ways

Various are the ways in which the Universe of Subjects going with a Basic Subject can get proliferated. For, a Complex Subject in that universe may be formed by attaching some other Basic Subject as a Phase (*See Sec PE2*). And, a Compound Subject may be formed by attaching one or more Isolate Ideas to the Basic Subject (*See Sec CR33*). And various are the ways in which such Isolate Ideas can themselves proliferate. Factors responsible for this proliferation are:

1 Availability of a number of first characteristics of different species for the formation of the Isolate Ideas of Order 1 forming an Array of Order 1;

2 Possibility of attaching to the Basic Subject some other Basic Subject as a Facet;

3 Availability of a second characteristic for use after a first characteristic for the formation of Isolate Ideas of Order 2 forming an Array of Order 2;

4 Availability of a third characteristic for use after a second characteristic for the formation of Isolate Ideas of Order 3; and so on, with successions of characteristics; and

5 Possibility of combining any Isolate Idea of an Array of Any Order with Any Isolate Idea of Any other Array of Any Order.

#### 2 Two or More Collateral Arrays

The Universe of Subjects going with any Basic Subject may have subjects in two or more Collateral Arrays of Order 1. In fact, it can have subjects in as many Collateral Arrays of Order 1 as the number of characteristics available for its first division. See Fig 13 in the penultimate page of this chapter. It shows three Collateral Arrays of Order 1. Here, the name of a Compound Subject should be got by combining the name of the Basic Subject and the name of the Isolate Idea concerned.

#### 3 Array by Linkage of Basic Subjects

We can also have a Collateral Array of Order 1 created by the linkage of one Basic Subject with another Basic Subject coming into Facet or Phase Relation (*See Sec PE3*) with the first. See Fig 14 in the penultimate page of this chapter. It shows six Arrays of Order 1 got by Phase Relation and two got by Facet Relation with a second Basic Subject. Here also the name of a Complex or Com-

pound Subject should be got by combining the name of the first Basic Subject and that of the second concerned.

#### **4 Exponential Rate of Proliferation**

Similarly, a number of Collateral Arrays of Order 2 can branch off from each focus in each Array of Order 1. So also with an Array of Order 2. And so on. Thus, the rate of increase of Collateral Arrays is exponential and not merely additive or multiplicative.

#### **5 Array by Linkage of Isolate Ideas**

The proliferation due to this exponential increase is intensified by another factor. Collateral Arrays of Order 2 can be formed not merely by the introduction of an additional characteristic of the same species as the first, down each of the chains of Utility, Problem, and Area shown in Fig 13, but also by the linkage of any Isolate Idea of any Array of Order 1 with any Isolate Idea of any one or more of the other Collateral Arrays of Order 1 (See Sec CE31). See Fig 15 in the penultimate page of this chapter. Here also the name of a Compound Subject should be got by combining the name of the Basic Subject and the names of each of the Isolate Ideas concerned.

#### **6 Further Linkage of Isolate Ideas**

The linkage of Isolate Ideas can be continued. Any of the Isolate Ideas of an Array of Any Order can be linked with any of the Isolate Ideas of one or more Collateral Arrays of Any Other Order also. In other words, an Isolate Idea of any Order in any Chain can be linked with any Isolate Idea of any Order in one or more of the other Chains.

#### **7 Unlimited Proliferation**

Such a combination of Isolate Ideas will intensify the proliferation of Isolate Ideas and of the Compound and Complex Subjects going with a Basic Subject. The 70 subjects listed in Sec RK7 illustrate the way of the reiteration of proliferation. Fig 16 in the last page of this chapter gives a schematic representation of proliferation. Even this gives only a fractional or limited view. For, it shows only two or three chains emanating from each Isolate Idea at the different stages. The tremendous unlimited proliferation can only be imagined.

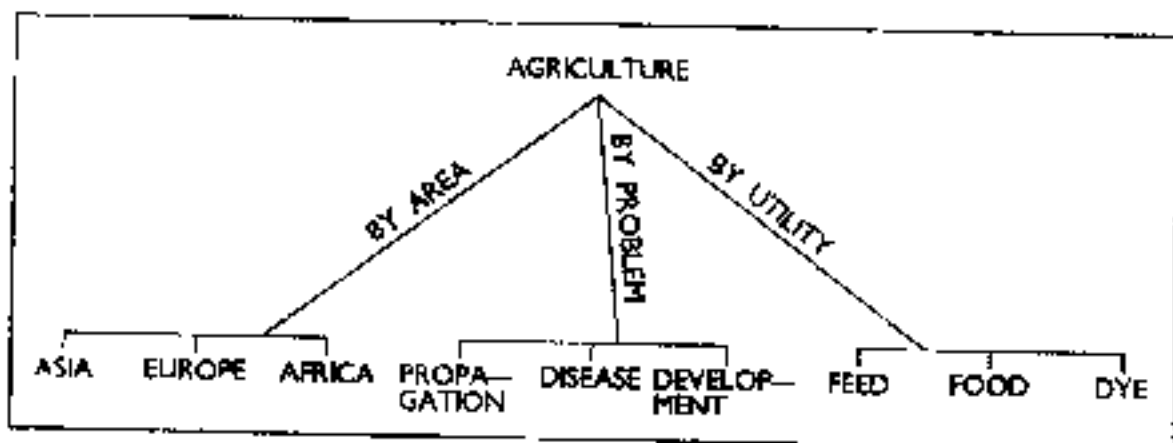


FIG. 13

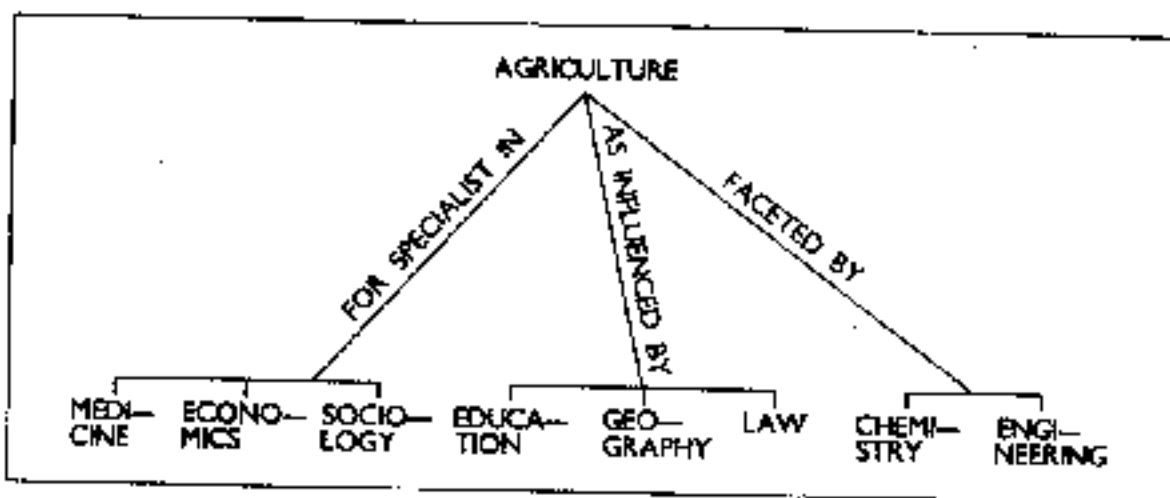


FIG. 14

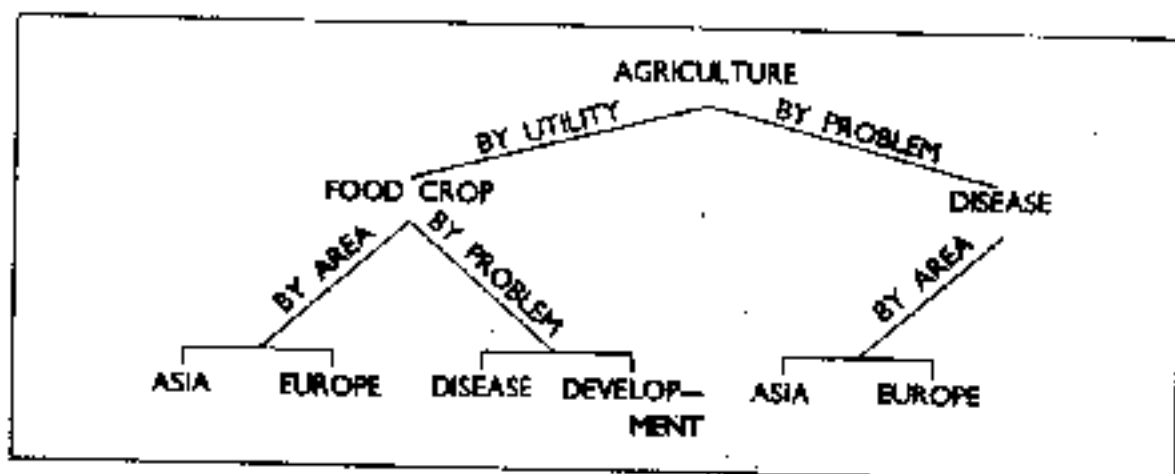
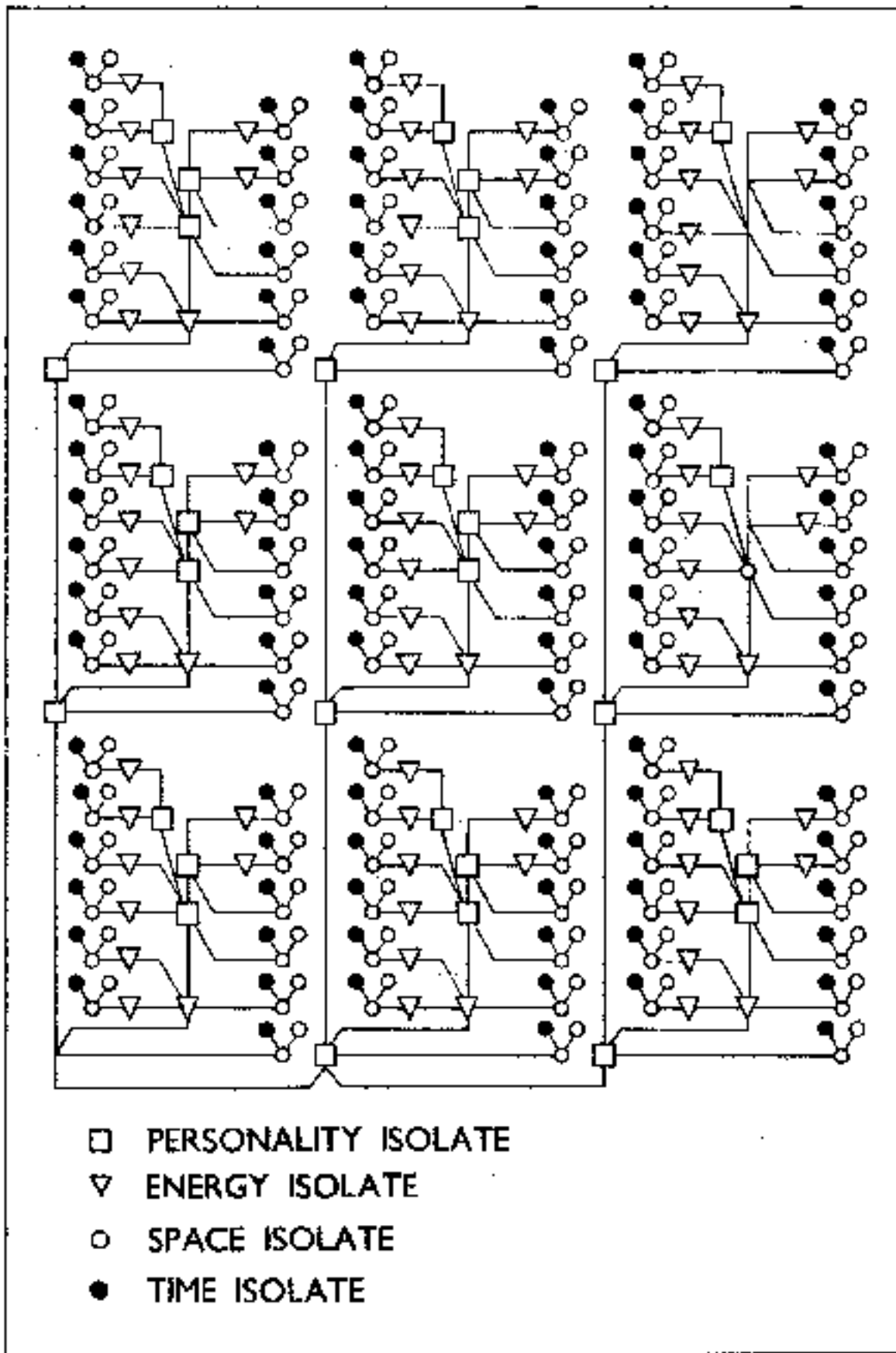


FIG. 15



SCHMATIC DIAGRAM OF THE TREE OF KNOWLEDGE  
 FIG. 16

## CHAPTER VI.

### GRAFTING

#### 1 **Banyan Tree**

A still closer approximation to the Tree of Classification is a century old Banyan Tree. Here, in addition to the original trunk, many secondary trunks are formed from time to time.

2 The following is a schematic representation

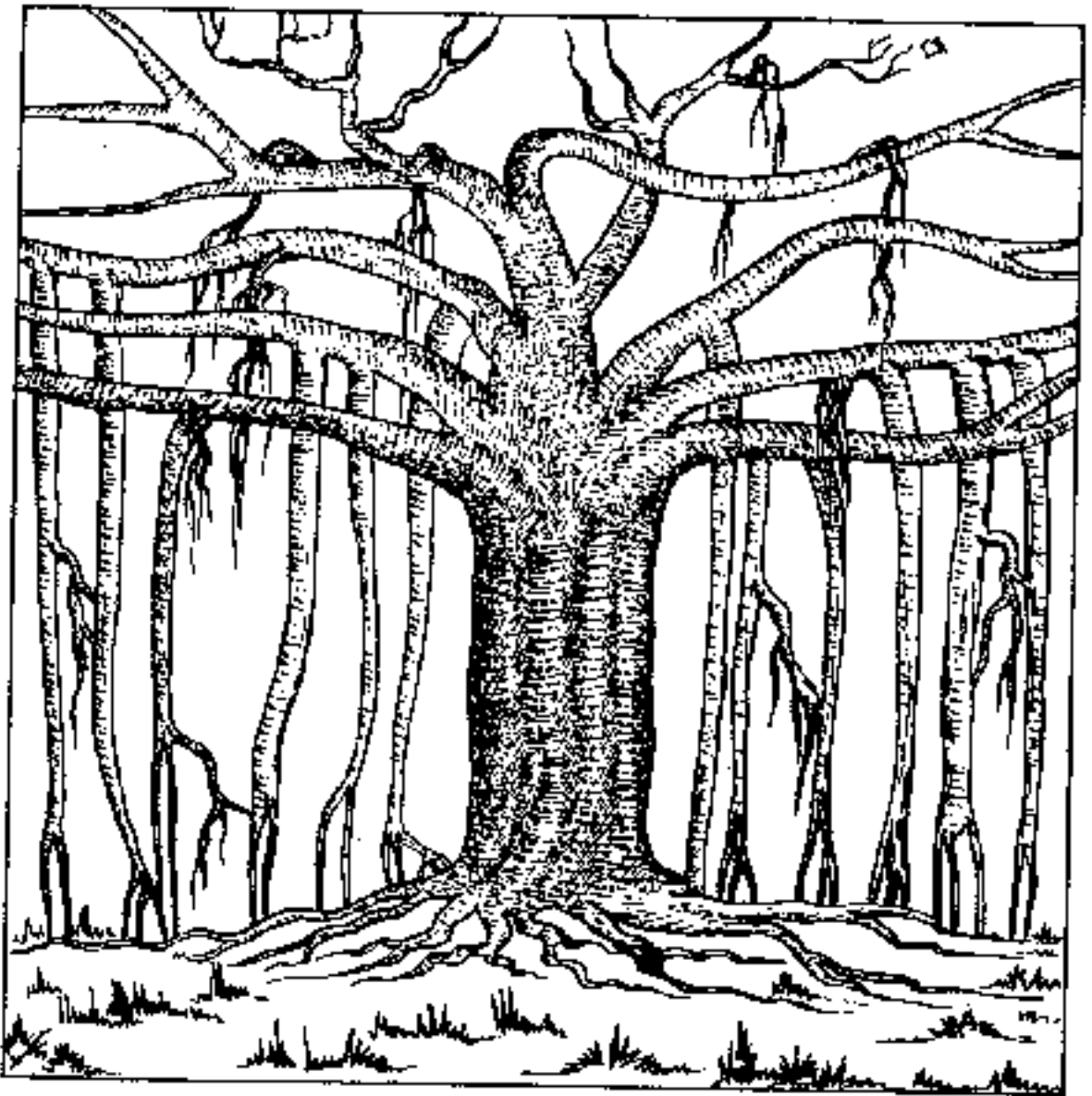


FIG. 17

#### 3 **True Tree of Subjects**

In the true tree of subjects, one branch is grafted to another at many points. Twigs too get grafted in a similar way among them-

selves. The branches from one trunk get grafted with those of another. It is difficult to say to which trunk such branches belong. The trunks get grafted among themselves. Even then, the picture of the Tree of Subjects cannot be said to be complete. It is far more complex than all these.

## CHAPTER PM

### DEVELOPMENT OF THE UNIVERSE OF SUBJECTS

#### 1 The Past and Casual Development

In the past, when population pressure and social pressure were low, there was no incentive for organised or co-operative development of the universe of subjects. Creation of new subjects was due mostly to the irrepressible inner urge to create, found in a few men of genius appearing here and there occasionally. It was a casual affair. A genius creates because he cannot help creating, even as a flower cannot help blossoming.

#### 2 Research in Parallel

There was seldom co-operation among the scattered men of genius. Many a person did his work without informing himself of what had been done or was being done in the other parts of the world. Further, there was considerable secrecy and even antagonism among their respective 'disciples'. Consequently, the research potential was often wasted by the same results being reached at different places and by different persons. The history of the differential calculus illustrates this. It was not till the last century that Cambridge voted in favour of changing over from the "Newtonian Dot-( $agc$ ) to the Leibnitzian  $D-(ei)-t-(y)$ ". Population pressure was too small to correct the tendency to work in parallel. The result was slowness in the development of the universe of subjects.

#### 3 Time-Lag

Again, in the past, sparseness of population and low social pressure were not able to create the incentive for the quick exploitation, for social use, of new developments in the fundamental subjects. There was, for example, a time-lag of more than a century between the discovery of the electrical form of energy and its extensive exploitation. The DDT discovered in 1874 came to be put to practical use as an economical insecticide only as late as 1939. Thus the development of the applied subjects was also a slow and casual affair.

#### 4 The Present and Organised Development

On the other hand, at the present time, when the essential needs have been shot up to a high level by population pressure and even the just-desirable needs are lifted up by the spread of democracy to the level of essential needs, social pressure is leading to a conscious, organised, and even State-planned development of the uni-

verse of subjects—fundamental as well as applied. As a result, the involuntary work of the stray genius is supplemented by the work of a hierarchy of persons of successive removes in the intellectual scale. With each man of genius is associated, directly or indirectly, an army of persons drawn from various intellectual strata to complete the task by a large volume of developmental research and pedestrian work. Taking Great Britain, for example, the organised research manpower is said to be nearly fifty thousand strong and to include about ten thousand university graduates. And yet not a week passes without vehement protest against the perpetuation of the social prejudices of the old, which keep away the abler brains from the research grid, set up for the development of the universe of subjects in order to provide for essential and desirable human needs. The present awareness of the need to get the best out of even the lower quartiles in the intellectual scale is evidenced by the current Productivity Drive. It seeks to improve efficiency even in the mechanical, repetitive sectors in the sphere of the production of commodities and provision of services, by aggressive reference service and the production of new books and periodicals, written down to the level of the semi-intellectual technician and of picture *cum* speaking books on every simple process in manufacturing work or service for the non-intellectual common labourer.

### 5 Relay Research

Further, wastage incidental to Research by isolated individuals is sought to be eliminated by organising Relay-Research. In spite of political barriers, except in the sector of Defence Science, there is now a tendency to allow the research grid pertaining to any subject to extend over the whole world. Recently, even nuclear physics and atomic fuel are being brought into this category of subjects. Prompt communication of new thought and myriads of more rapid index-services almost abreast of the appearance of the original periodicals themselves, make it unnecessary to repeat any investigation needlessly, unless it is done deliberately for confirmation. The more radical results are even flashed round the world through the wireless.

I remember the immediate cabling, by an international news agency in 1928, of the discovery of a "New Radiation" by C V Raman, announced by him in a public lecture at Bangalore. Several other scientists immediately turned their thought on the new radiation, which soon received the appropriate name of "Raman Effect". A few months later, Raman gave a course of lectures at the Madras University under the muffled title "Properties of Liquids". I obtained a preview of the subject from Raman, and found that it was to be on the application of his New Radiation.



This made me prepare and mimeograph an exhaustive bibliography on the Raman Effect. About sixty papers had already accumulated within a few weeks of its discovery.

#### 51 SPEED OF DEVELOPMENT

During the last few decades relay-research has been planned and arranged more consciously and thoroughly. As a result, the research potential of the world is less exposed to wastage. It is being used mainly for carrying developmental research continuously ahead. Time-lag is reduced considerably in the application of new discoveries and inventions to beneficial social use. We see it illustrated in the rapid progress being made in the application of nuclear physics to nuclear engineering and the supply of atomic fuel. Social pressure is causing the establishment, both at national and international levels, of a mixed agency for the promotion of relay-research, financed and sponsored jointly by State and private enterprises. Such an agency is intended to have at once the benefit of the resources, stability, and freedom from profit motive expected of a State enterprise on the one hand, and, on the other, of the capacity to harness initiative, sensitiveness to success and failure, and persistence of effort, expected of a private enterprise. A case for this type of organisation to carry forward from fundamental research to the stage of production of commodity or service has been made out in another book [146]. The result of such an organisation of relay-research is a considerable increase in the formation of new subjects.

#### 6 Spiral of Development of New Subjects

Relay-research organised on a national or international basis is leading to a spiral movement of short period in the development of new subjects. As the movement is spiral, we can begin its description at any point. Here is a description of the chief stages :

- 1 Fundamental Research—Research in pure science;
- 2 Applied Research—Application of the findings of fundamental research to a specific utility-field;
- 3 Pilot Project—Establishment of new process of production of an already known commodity or of a new commodity;
- 4 Design and production of new machinery;
- 5 New material;
- 6 New product;
- 7 Using the new product—either an intermediate or an ultimate commodity;
- 8 New problems created by the new product sooner or later;
- 9 Fundamental research again to solve the new problems, and the continuation of the spiral *ad infinitum*. The above is presented

schematically in Fig 18 in the last page of this chapter. In the past, the period of one cycle in the spiral was long—extending over centuries. But social urge caused by population pressure is now progressively shortening its period. For example, within the last twenty years nearly half the commodities in the chemical, textile, and metal range have come to involve materials and processes developed since World War II. This war gave an extraordinary acceleration to this spiral movement in the development of new subjects. The proliferation is greatest in the universe of commodities. Therefore, the Research cell of DRTC is now actively engaged in the design of depth schedules for commodities.

### 7 Dynamic Continuum

The Vedic Seers emphasised the inherent, though hidden, unity of the phenomenal world. This mystic experience had been re-lived and uttered by Francis Thompson in the rapturous lines

“All things by immortal power  
Near or far,  
Hiddenly  
To each other linked are,  
That thou canst not stir a flower  
Without troubling of a star.” [172].

In the intellectual universe of subjects, this phenomenon of inextricable interrelation is denoted by the term '*Ekavakyata*'. It emphasises that whatever the atomising intellect might do, no subject can be developed without its calling for some development in every other subject sooner or later; in other words, the universe of subjects at bottom is a continuum. In the past, at long intervals, the work of a powerful genius used to throw it into a state of turbulence. But the state of turbulence gave place to one of placidity in a fairly short time; and during the intervening long periods the universe of subjects was mostly static. But, at present, organised relay-research is producing a continuous cascade of new micro subjects, each stimulating another in succession in every area of subjects. This cascade makes the universe of subjects a growing and deepening continuum. Depth classification of micro subjects functions as a link in the chain of communication needed to prevent the reversion of relay-research into research by isolated individuals. This will be developed in the companion volume *Depth classification and its design*.

### Spiral of Development of Subjects

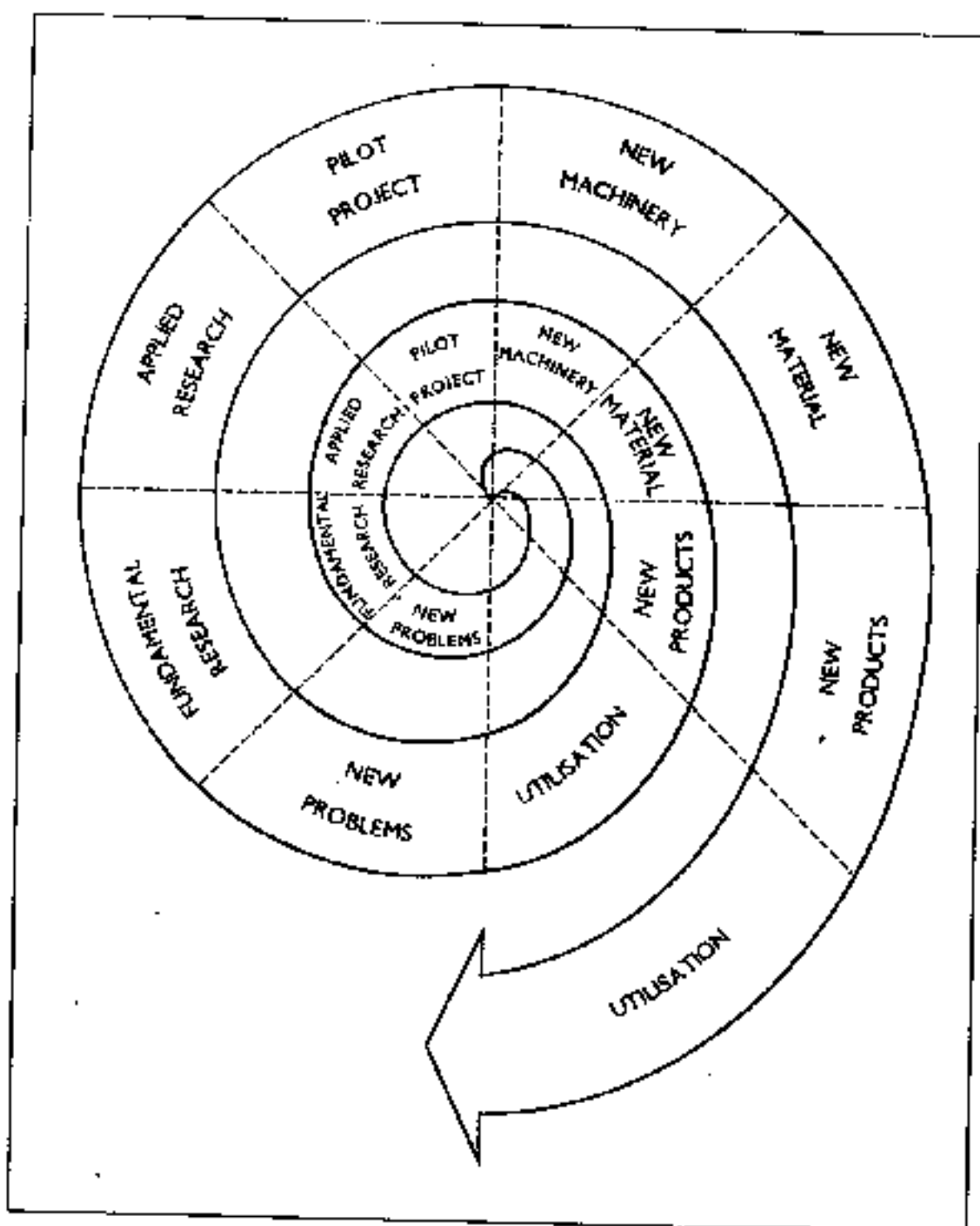


FIG. 18



Ranganathan, Shiyali Ramamrita.  
Prolegomena to Library Classification. Assisted by M.A. Gopinath. 3<sup>rd</sup> edition.  
Asia Publishing House, 1967.

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