

Knowledge Structure in Varna-Ratnakara: A Proposed Thesaurus of Maithili

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The Varna-Ratnakara is an early 14th century Maithili Thesaurus. The thesaurus is organized into eight chapters and ninety-six major subject groups. The vital theme of this thesaurus is the king and his kingdom. The various descriptors are from diverse subjects, such as social sciences, philosophy, religion, customs and culture, military science, arts, music, dance, sports, and literature. The arrangement of terms is constructed on the semantic relationship between terms and the group headings. Some groups have terms based on hierarchical relations, while others have associate relations. The thesaurus loosely complies with modern thesaurus but satisfies the pattern followed in the ancient and medieval Indian literary world. This thesaurus is an excellent documentation of terms and descriptors used in literary practices of ancient and medieval Maithili literature. The study analyses the knowledge structure, classification of descriptors and their relevance as modern thesaurus.

Keywords: *Maithili Thesaurus, Maithili Literature, Maithili Lexicon, Medieval-Maithili, Ancient-Maithili, Classification-Varna-Ratnakara*

O INTRODUCTION

The Varna Ratnakara by Jyotirishwara Thakur is the only Maithili thesaurus known to date. Jyotirishwara Thakur was in the Court of King Harsingh Dev of Mithila, also known as Tirhuta in historical literature. Harsingh Dev was defeated by Giasuddin Tughlaq in 1323 or 1324, as mentioned by different historians. Thakura was one of the renowned illustrious laureates, philosophers, and aristocrats in the court of King Harsingh Dev. His name is extremely well-known and famed in the literary culture of India. He has identified himself as

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Jyotirishwara in his famous works Dhoortasamagam, and Pancasayaka. The Dhoortasamagam is a drama, while Pancasayaka is based on the Kamasutra. Both works are written in the Sanskrit language. The manuscript of the Maithili version of the Dhoortasamagam has also been found, which is considered as the first and foremost Maithili drama known to date¹.

1 BACKGROUND OF THE SCRIPT

At the request of the Asiatic Society of Bengal and with the authorization of the Government of Bengal, Mahamahopadhyaya Pandit Hariprasasda introduced a search for the Sanskrit manuscript with two of his assistants, Pandit Candra Kavyatirtha and Vinod Vihari Kavyatirtha. They travelled all through Bengal, Mithila, Benares, and Nepal from 1895 to 1900. They found several valuable manuscripts during their search and reported them in 1901 to the Asiatic Society, Calcutta. Under this project, Pandit Vinod Vihari Kavyatirtha found the manuscript of Varna-Ratnakara in Mithila. The original work was written in ‘Tirhuta,’ a script (which was the popular script in the Mithila region till the early 20th century) on 77 palm leaves, out of which 17 leaves (leaves numbers 1-9, 11, 12, 14, 15, 17, 19, 26 and 27) were lost at the time of collection. The remaining leaves are retained in the Bengal Asiatic Society, Kolkata. It took an exceptionally long time for scholars to decode this work and publish it mainly due to the handwritten manuscript, which included the worst physical conditions of the leaves and the loss of some of the lost leaves. It started to come up in the references of scholars from 1901 onward. Finally, in 1940, it was published by the Bengal Asiatic Society under the editorship of Suniti Kumar Chatterjee and Pandit Bauaji Mishra².

2 DECODING TITLE OF THE BOOK

The Varna Ratnakara is a combination of two words: Varna + Ratnakara. Varna means class or group and Ratnakara denotes the mine of gems or the sea, which means the group or class of mines of gems. The author appears to have considered it a sea; hence, instead of using the usual heading of a chapter in Indian languages, “adhyaya”, “parva”, etc., he named it Kallola (which means tide of the sea)³. The work provides words as illustrations instead of verses, as in the Namalinganusasana by Amara Singh of the 8th century. The Namalinganusasana, popularly known as the Amarakosha, is one of the milestones in Indian literary history as it well-defined the structure of the thesaurus in the Indian context. Though Amara Singh has mentioned the names of lexicographers in one of the verses of Amarakosa as his predecessors, those works no longer exist⁴.

3 SCOPE

The Varna-Ratnakara is compiled into eight chapters (Kallolas). It illustrates the words of the ancient and medieval Maithili language. Apart from Maithili, words from Sanskrit, Prakrit, Avahatha, and Magdhi are also evident in the thesaurus. In those days, the Mithila language had extremely minimal influence from Arabic and Persian languages. Hence, there are hardly any words from these two except for the breed of horses⁵.

4 OBJECTIVES

The objectives of the present study are as follows:

- To decode the Varna-Ratnakara as a thesaurus
- To identify the knowledge structure in the Varna-Ratnakara
- To know the classification scheme adopted by the Author
- To acquire the relationship among the descriptors and terms
- To explore the grammar of thesaurus adopted by the Author and its relevance with modern thesaurus
- To discover the influence of other languages on Maithili languages in medieval and ancient Maithili languages.

5 DESCRIPTION AND CLASSIFICATION OF TERMS IN VARNA-RATNAKARA

The later edition of the Varna-Ratnakara, published by the Maithili Akademi, Patna (Mishra & Jha, 1990a) is more exhaustive. Hence, for analyses here, this edition has been considered. The terms under Kallolas (chapters) in the Varna-Ratnakara have been organized into various subject headings. Each subject heading contains varied terms and descriptors. The arrangement of the major subject headings and the subjects covered under these subject headings are based on the semantic values of the terms. The chapter-wise list of major subjects has been illustrated here to comprehend the pattern of classification of the descriptors in the thesaurus, the heading of each group of words listed here has been assigned the class number based on the Dewey Decimal Classification (DDC) Scheme, 21st edition⁶. The classification has been done here based on the syntactic and semantic values of terms with the logical approach of the author. The DDC class number of group and sub-group of terms has been provided in the tables below.

KALLOLA-1 (CHAPTER-1): DESCRIPTION OF CITY. (DDC NO. 301)

The first chapter comprises the Description of the City (Nagar Varnana). The initial nine leaves of this chapter are lost. The list of headings in the

remaining available leaves with their DDC number has been illustrated in the Table-5.1.

TABLE-1

51 LIST OF MAIN HEADING WITH DDC NO. OF CHAPTER 1.

Sr. No.	Headings	DDC Number
1	List of scheduled castes and scheduled tribes	306.0899145
2	List of Unsocial Elements	305.9008692
3	Physically and Mentally Deficient and Undignified People	305.90087
4	List of Different Herbs, Shrubs, and Species of Plants	580
5	List of Musical Instruments	784.1909541
6	List of Folk Dance	793.319541
7	List of different types of beggars	305.569
8	A list of good conditions, bad conditions, entertainment, and socialization	302

The Table-5.1. illustrates major groups of terms listed in the available manuscripts of Chapter One. As mentioned above, the initial 1 to 9 numbers of leaves of this chapter need to be recovered yet. Hence, a partial analysis of this chapter is only possible. In the available leaves of this chapter, terms are organized in eight major Subjects Headings. Out of these eight groups, five groups of terms are from Social Sciences, one from Plants, and one each from Music and Performing Arts.

KALLOLA-2 (CHAPTER-2): DESCRIPTION OF HERO (NAYIKA VARNANA) 808.8

The terms in this chapter are divided into two major subjects groups. Further, the terms are grouped under different attributes of these two major subjects. These subject groups are illustrated below in two tables.

TABLE-2*52 The Descriptions of Heroes (DDC No.808.8)*

Sr. No.	Headings	DDC Number
1	Physical Attributes of Heroes	808.80352
2	Mental Attributes of Heroes	808.80353
3	List of Attainments (Upa-Siddhis, Prakrit Siddhis, and Maha-siddhis)	291.4
4	List of thirty-six types of arms practices and war technique	355.8
5	Eighty-four kinds of Kingly devour and polity	352.23
6	Thirteen characteristics of lesser heroes	808.80352

TABLE-3*53 Descriptions of Heroines (DDC No. 808.8)*

Sr. No.	Headings	DDC Number
1	Descriptions of Physical Beauties	111.85
2	Attributes of attraction	111.85
3	Ornaments	745
4	Qualities of Confidential friend (emphasis is on physical attributes)	177.4
5	Types of Friends	177.62
6	Similes of beauty	111.85
7	Smiles and other characteristics	111.85

The first Table-5.2 illustrate the attributes of Heroes while the second Table-5.3 illustrates the characteristics of Heroines. These two major groups are divided into altogether thirteen sub-groups. Out of these thirteen sub-groups, the terms of four sub-groups are from ontology, three from literature, two from ethics of social relations, two from public administration and military science, and one from decorative arts.

KALLOLA-3 (CHAPTER-3): DESCRIPTIONS OF PLACES (STHAN VARNANA) (DDC NO.390.2)

The terms in the Third Chapter have been grouped under eight main Subject Headings. Out of these eight main subjects, four are divided further in different sub-groups. These descriptions are illustrated in the Table 5.4 below.

TABLE-4
54 Descriptions of places (Sthan Varnana)

Sr. No.	Headings	DDC Number
1	Royal Court	352.2
	List of Courtesans, Artisans, and Doctors.	352.2
	Laureates, Poets, etc.	158.4
	Characteristics of the King	
2	Royal Bath	391.64
	Thirty-six movements in the bath	391.64
	Water from 12 sacred rivers	398.364
	Costly clothes	391
3	Worship and related terms	294.543
4	Mid-day food	394.15
	List of delicacies of ancient and medieval Mithila	394.5
	Betel-leaf, limes, and spices	394.15
5	Bed and Bedroom	747.77
6	Description of Morning	398.3
7	Description of Evening	398.3
8	Description of Rainy Night	398.3
	Darkness	398.3
	Moon	398.3
	Cloud	398.3

Out of these eight major groups, Serial Number 1, 2, 4 and 8 have been further divided into 2, 3, 2 and 3 sub-groups respectively in the Table-5.4. The five groups in this chapter contain terms from customs, etiquette, and folklore,

and one from public administration, while another deal with interior decoration. Only one sub-group, that is Serial Number 1(b) contains terms from psychology that is the characteristics of the King. The terms of other sub-groups are within the subject scope of their major groups.

KALLOLA-4 (CHAPTER-4) DESCRIPTION OF SEASONS (RITU VARNANA) (DDC NO. 525.5)

The terms under chapter four are grouped into eighteen main subject Headings. These subjects are illustrated in Table-5.5 with DDC number.

TABLE-5
55 Description of Seasons (Ritu Varnana)

Sr. No.	Headings	DDC Number
1	Description of Spring	525.5
2	Description of Summer	525.5
3	Description of Rainy	525.5
4	Description of Autumn	525.5
5	Description of Pre-winter	525.5
6	Description of Winter	525.5
7	List of sixty-four arts	700.7
8	List of Sixteen great gifts of Indian Epics	294.548
9	List of eighteen Gems	553.8
10	List of thirty-two semi-precious stones	553.8
11	List of thirty types of clothes	746.92
12	Description of Abhishekha	394.543
13	Different types of Tents	796.54028
14	Topics of Astrology	523
15	Description of Gambling House	306.482
16	Description of Prostitutes	306.74
17	Messenger of Lovers	398.3
18	Descriptions of Erotica	700.4538

Out of these eighteen groups, first, six major groups of terms contain terms, describing different aspects of the six seasons; four major groups contain the terms from arts; two groups contain the terms from social science; two major groups contain the terms from customs, etiquette, and folklore; two major groups of the terms from gems and precious stones; one group of the terms are from astrology, and one group of the terms from Indian epic(religion).

KALLOLA-5 (CHAPTER-5): MARCH OF ARMY (PRAYANAKA VARNANA).
356

The terms under Chapter 5 are grouped into twelve main subject area. These subjects are illustrated in Table 5.6 below.

TABLE-6
56 March of Army

Sr. No.	Headings	DDC Number
1	Descriptions of horses	357.1
2	Thirty-six clans of Rajputs	356
3	List of arms, battalions, and animals as 8 types of elephants, 24 breeds of horses, 8 breeds of buffalos, 10 breeds of dogs, falcons, etc.	356
4	Hunter Team	799.26
5	Description of the forest	910.02152
6	Tribes of the forest	307.772
7	Description of cultivated gardens, fruits, and flowers	633
8	Description of Lake	577.63
9	Description of Aquatic Animals	577.6
10	Description of the pond	577.63
11	Description of Mountain, flora, and fauna	577.53
12	Description of Hermitages	291.657

The terms in chapter five are organized into twelve major subject headings, illustrated in Table-5.6. Out of these twelve groups, four major groups contain

the terms from military science; another four major groups contain terms from ecology; and one each group from religion, social science, geography, and hunting. The relation of each group of this chapter with the main subject of this chapter is based on the semantic value of terms.

KALLOL-6 (CHAPTER-6): ART OF POETRY, MUSIC, AND DANCING (BHATTAVARNANA). 780

The terms under Chapter-6 are segregated into five major subject area. Further dancing is divided into four sub-categories. These subjects are illustrated in Table-5.7 below.

TABLE-7
57 Art of Poetry, Music, and Dancing

Sr. No.	Headings	DDC Number
1	Court Bard	808.6
2	Linguist	410.92
3	Wrestling	796.812
4	Music and Musician	780
5	Dancing	792.8
	Drum music and Player	786.9
	Dancing Girl, 32 movements, 32 graces	793.319
	Male Dancer.	793.319
	Lute (Vina).	797.83

The terms in chapter six are organized into five major subject headings and illustrated in Table 5.7. Ought of these five groups, the terms of one group fall under literature while terms of another group fall in language. The terms of the rest three groups fall under arts, music, and dance subject. One major group Serial Number 5 in the table i.e., dance, has four subgroups, of which three sub-groups are related to dance subjects, while one sub-group falls under musical instruments. Most of the terms depicts hierarchical relation with the scope of the chapter.

KALLOLA-7 (CHAPTER-7): CEMETERY (SHMASANA VARNANA). 718

The terms under this chapter are grouped into twenty-seven major subject Headings. The terms under supernatural power are further divided into five subgroups. The Table-5.8, illustrates all those terms.

TABLE-8
58 Cemetery

Sr. No.	Headings	DDC Number
1	Super-natural Power:	294.54
	Eight Bhairavas	294.5422
	Eight Shakti	294.5422
	Sixty-four Yogini	294.5422
	Twelve Vet alas	294.5422
	Corpses	294.5422
		398.27
2	Description of Desert	577.54
3	Description of Sea	577.7
4	Pilgrim (list of seventy names)	291.35154
5	River (list of thirty-one names)	551.483
6	Sages (list sixty-eight names)	294.56
7	Mountains (list of Thirty-two names)	551.432
8	Sidhas or Yogis (list of eighty-four names)	294.56
9	Ten Incarnations	294.54
10	Eight Forms of Shiva	294.5513
11	Nine Planets	523.4
12	Eight Vasus (components of nature)	291.212
13	Eleven Rudras	294.5513
14	Ten Visvedeva (deities in Vedas)	294.592
15	Fourteen Manu	294.5926
16	Twelve Sadhyas	294.5436
17	Forty-nine Winds (32 available in Manuscript)	551.518
18	Twelve Adityas	291.212
19	Eight elephants of Quarters (Eight legendary elephants)	294.524
20	Eighteen Chaste wives	294.52114
21	Ramayana (Seven Kands)	294.5925
22	Mahabharata (Eighteen Parvas)	294.5923
23	Eight Dikpalas	294.52113
24	Eighteen Puranas	294.5925
25	Ten Upanishads	294.59218
26	Eighteen Smritis	294.5926
27	Agamas (Tantric descriptions)	294.5422

The terms in chapter seven are organized into twenty-seven major subject headings and illustrated in Table-5.8. Out of these major twenty-seven groups, the terms of twenty-one major groups are from religion (Hinduism). The terms of three major groups fall under geology, hydrology, and meteorology, Serial Number 5, 7 and 17 of Table-5.8. The terms of another two major groups are from ecology subjects, Serial Number 2 and 3 of Table-5.8, and one contains terms from astronomy, Serial Number 11 of Table-2.8. Major groups of terms are from Hinduism, the main subject of this chapter, which display the hierarchical relation. The relationship of terms of the rest of the major groups with the subject of the chapter are based on their semantic value.

KALLOLA-8 (CHAPTER-8): NO SPECIFIC TITLE TO THIS CHAPTER

The author has attempted to list all the subjects that have not been covered under distinctive chapters or are not elaborated in a manner as he wants. Some historians of literature wonder if Chapter-8 is separate from the original Varna-Ratnakara. It is the insertion by someone else as there is no title to this chapter, and some of the groups of terms are already in dissimilar chapters, as mentioned under Sr, No.1, or 2, etc. of Table 5.9 . Nevertheless, this is the only available manuscript of this work to verify. Hence, it has been considered part of this work, and here it has been classified as done with the previous seven chapters. The terms have been grouped into sixteen major subjects are in Chapter 8. These subjects are illustrated in Table-5.9 with the DDC number. The description of this chapter my put under “Miscellaneous”.

TABLE-9
59 Miscellaneous

Sr. No.	Headings	DDC Number
1	Rajput seventy-two Clans	305.5
2	Weapons thirty-six (Also in Nayaka Varnana Chapter-2)	355.8
3	List of States (Those days considered country)	954.02
4	Physicians and Works on Medicine	305.9
5	Ships and River-craft	623.82
6	Women from Different Cultures or States of the medieval period.	305.4

7	Ceremonies related to Weddings	392.5
8	Twelve Kinds of Sons	306.874
9	Eight Famous Heroine of Epics (Urvashi, Menika, etc.)	294.5925
10	Businessmen and Goods to be sold	381.1
11	Descriptions of Thieves	364.3
12	Descriptions of Fort	725.18
13	Descriptions of Boats	627.137
14	Eight Famous Physicians, Samhitas, and Medicines	615.53
15	Description of Ships.	623.82
16	Dinner, different dishes	394.15

The terms in chapter eight are organized into sixteen major subject groups. These groups have been selected from a wide range of subjects. Four major groups contain terms from social science, Serial Number 1, 4, 6 and 8 of Table-5.9. Three major groups contain terms from engineering, especially ship and boat engineering Serial Number 5, 13 and 15 of Table 5.9.; two are from customs and rituals Serial Number 7 and 16 of Table 5.9; and one is for each military science, geography, religion, commerce, criminology, architecture, and medicine, Serial Number 2, 3, 9,10, 11, 12 and 14 of Table 5.9. This chapter can be considered as miscellaneous, as it contains major groups of terms of a wide range of subjects.

6 ANALYSIS

The thesaurus has been organized in eight chapters. Each chapter has been given an appropriate title depicting the scope of the terms covered in the chapter. Further, chapters have been divided in sub-groups. The terms within the sub-group are related to the title of sub-group and all the sub-groups within the chapter is related to the subject of the title on the basis of their hierarchical relation or semantic relation. Chapter number eight has not been given any titles; hence it has been considered as the chapter of miscellaneous terms. The chapter-wise analyses of subgroups and the terms within each sub-group on the basis of the DDC Class Number of each sub-group describe the nature of relationship of terms with their sub-group, group and title of the chapter.

It has been observed that the relationship among the terms within a major group or sub-group or descriptors is based on hierarchical, related, equivalence, and associated relationships. However, the patterns of terms in the group are

not static. In the whole thesaurus, in one way or the other, the relationship of terms with descriptors is primarily based on their semantic value of terms. The relationship of major groups of terms (descriptors) with the title of the chapter is entirely dependent on the semantic value or associated relation, as observed from the DDC number of major groups, sub-groups, and the title of the chapters. It is evident from the selection, arrangement, groups, and sub-groups of terms that the center of the theme of this thesaurus is the king, kingdom, and related concepts.

7 CONCLUSION

The Varna-Ratnakara, the early fourteenth-century, a work of Jyotirishwar Thakur in the early 14th Century), is the only thesaurus in the Maithili language to date. The thesaurus is organized into eight Kallolals (chapters). Further, these chapters have been divided into ninety-six groups of major subjects. Some of the groups have been divided into sub-groups to safeguard various characteristics of the subject of the group.

The terms within the group establish hierarchical, relevance, associate, or equivalent. The relationship of terms can be seen clearly from the class number of the groups and sub-groups. The relationship of the group heading to their chapter heading is not always fixed on any pattern rather in lieu of the semantic value of the descriptor and the subject of the chapter.

The study is inimitable in nature as the arrangements of terms or descriptors has been analysed on the basis of standard classification schemes that is Dewey Decimal Classification Scheme, to appreciate the schema of knowledge structure in Varna-Ratnakara. The classification of sub-groups of terms sheds light on the relationship of terms with the subjects of their group, sub-group and the title of the chapter.

The study depicts that the Varna-Ratnakara is a thesaurus in Maithili language. The relationship of terms with their sub-groups are largely hierarchical for example Table-31, Group 1, or associated for example Table-32, group 2., likewise. Apart from these, some of the groups are depicting terms with relation of relevance, for example, Table-31, Group 6, the list of folk dances. The author has not adopted any unified pattern of classification scheme but the pattern adopted by the author was practiced in the ancient and medieval India. The pattern shows that there is an influence of Amarkosha on the Varna-Ratnakara so far as the arrangement is concerned. It has been observed that the thesaurus accommodates the words from Sanskrit, Prakrit, Avahatha, and Magdhi languages. The influence of languages other than the one mentioned before is negligible.

The present research is noteworthy since it is one of the first to shed light on the detailed review of the Varna-Ratnakara in the context of modern

thesaurus. It is hoped that this study will bring this noble work of early 14th century in the notice of indexers and library professionals as a thesaurus. This study may also help in designing and developing modern thesaurus in Maithili language.

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