

CHAPTER - V

SCIENCES IN SOMEŚVARA'S MĀNASOLLĀSA

The applications of science are playing a very important part in our daily life. Some people are wonder-struck by the tricks the science can do, and they would like to know how these remarkable powers have been developed. Such information is probably even more important than a knowledge of the result of science. What was the 'last word' on some subject a year ago, may have been left behind by today. These changes in the scientific picture are puzzling the layman who thinks that once something is 'discovered' or 'proved', nothing can alter it. A study of the history of science shows that its results are true only within specific limits. When we can state fairly and exactly the conditions under which a particular result will be obtained, we can be confident of applying it under such circumstances. This is a part of all the methods of science.

A definition of science may be advisable here. For the present, we can take it to mean the conscious effort that man has made to understand and control his environment. This clearly throws a very wide net, and nobody would be surprised to find the multifarious,

divisions which have to be made according to the different aspects of nature. Most of the people think of science in terms of subjects such as Astronomy, Physics, Chemistry, Biology, Medicine and so on. These certainly are the best-developed branches, and when we come to consider them, we find that they in turn are divided into many sub-sections.

A leading question is that which asks for the motive behind scientific study. If we refer to the statement of scientific aims that is 'to understand and control man's environment', this suggests that there are two principal usages - sheer inquisitiveness and the hope of practical gain. These two are certainly the main ones activating the scientist.

In ancient India Astronomy, Astrology and Mathematics formed the three main divisions of 'Uyotisa'. The movements of planets were studied from very early period and their influence on the weather, the plant life and human life was also recognised and studied. This resulted in the development of Astronomy and Astrology. Calculations of the movements of the celestial bodies and working out their positions gave rise to the science of mathematics. The Śulba Sūtras which are part of the

Śrauta Sūtras point to some progress in the field of geometry. The numerical figures used all over the world and the decimal system of reckoning depending on those figures were invented by the Indians, who were the teachers of the Arabs in arithmetic and algebra. The Arabs got the writing of Āryabhaṭa translated to their language in the 8th Century A.D. As regards Astrology and Astronomy the ancient Indians attained some progress independently. But soon they came under the influence of the Greek Astronomy and Astrology. The work on Jyotiṣa generally treated all the three divisions (Astronomy, Astrology, and Mathematics) or one or two of them.

We find in a dialogue between Nārada and Sanatkumāra in the Chāndogya Upaniṣad¹ that the science of the

1. छान्दोग्योपनिषद् - 7.1

अधीहि भगव इति होपससेद सनत्कुमारं नारदः ।
 तं होवाच यद्वेत्य तेनसोपसीद ततस्त ऊर्ध्वं वक्षामीति ।
 स होवाच ऋग्वेदं भगवोऽध्येमि यजुर्वेदं ॥
 सामवेदमथर्वणम् चतुर्थमितिहासपुराणं पञ्चमं वेदानां
 वेदं पित्र्यं शक्तिं दैवनिधिं देवविद्यां ब्रह्मविद्यां
 भूतविद्यां क्षत्रविद्यां नक्षत्रविद्यां
 सपदिवजनविद्यामेतद्भगवोऽध्येमि ॥

Nakṣatras and the Rāśis was quite popular even from the earliest times. The word 'Astrology', the science of stars, derived from the Greek word 'Astron', meaning 'a star' hinges round the twelve signs of the Zodiac belt, which the Atharvaveda refers to in the mantras.²

Varāhamihira, the great Indian Astronomer, has mentioned Asita, Devāla, Garga, Nārada, Parāśara and others as the early Astronomers. But their works are available only in fragments. Āryabhaṭa, who wrote the 'Āryabhaṭīyaṃ', is the earliest of the Indian Astronomers whose works have been preserved. Thirty-three stanzas in the Āryabhaṭīyaṃ are on Mathematics while others are Astronomical in content. He also had a correct conception of the eclipse. His stanzas on Mathematics show considerable progress made by the Indians in that field.

Varāhamihira's work 'Pañcasiddhāntikā' gives an account of the five schools of Astronomy:

2. अथर्ववेद : 10.8.4.

द्वादश प्रथमश्चक्रमेकं त्रीणि नभ्यानि क उ तच्चिकेत ।

तत्राहतास्त्रीणि शतानि शंकरः षष्टिश्च खीला अविचाचलाये ॥

- 1 Paitāmaha Siddhānta
- 2 Romaka Siddhānta
- 3 Pailiśa Siddhānta
- 4 Sūrya Siddhānta
- 5 Vaśiṣṭha Siddhānta

The most accurate among these is the Sūrya Siddhānta. The Br̥hat-Saṁhitā in 106 chapters treats Astrology, Geography, Weather, Characteristic marks on the bodies of men, women etc., Omens and many such things. Pṛthuyāśas, son of Varāhamihira, is the author of 'Horāṣaṭpañcāśikā', which along with the works of his father has been commented upon by 'Bhaṭṭotpala' of the 10th Century A.D.

In the year 1172 A.D. the great mathematician Bhāskarācārya wrote the Siddhāntaśiromaṇī consisting of four parts - (1) Līlāvati, (2) Bījagaṇitaṁ, (3) Graha-gaṇitaṁ and (4) Gola.

Astronomy and medicine are the two branches of science, the development of which started with the dawn of civilization. The curiosity about the heavenly bodies and their movements prompted the ancient mankind to become star-gazers. These observers of the sky attributed some definite shapes to the different clusters resembling

animals, birds and human beings and associated many allegories and legends with them. All the countries of the world have contributed to the naming and grouping of stars, but the work of India, China and Egypt in this respect has been remembered by the subsequent generations. The ancient R̥sis of India had embodied the results of sky-gazing even in the Vedas, the earliest scripture of the world, now available to us.

In the Atharvaveda³ the Nakṣatras are prayed to - 'Bening to me, be all those Lunar Mansions to which are Moon as she moves on, doth honour'. Further in this Atharvaveda⁴ the names of the Nakṣatras are also mentioned

3. अथर्ववेद - 19.8.1.

यानि नक्षत्राणि दिव्यन्तरिक्षे अप्सु भूमौ यानि नगेषु दिक्षु ।
प्रकल्पयंश्चद्रमा यान्येति सर्वाणि ममैतानि शिवानि सन्तु ॥

4. तदेव - 19.7.2-5.

सुहवमग्ने कृत्तिका रोहिणी चास्तु भद्रं मृगशिरः शमार्द्रा ।
पुनर्वसू सूनृता चारु पुष्यो भानुराश्लेषा अयनं मघा मे ॥
पुण्यं पूर्वाफल्गुन्यौ चात्र हस्तश्चित्रा स्वातिः सुभोमे अस्तु ।
राधे विशाखे सुहवानुराधा ज्येष्ठा सुनक्षत्रमरिष्टमूलम् ॥
अन्नं पूर्वा रासतां मे अषाढा ऊर्ध्वं देव्युत्तरा आवहन्तु ।
अभिजिन्मे रासतां पुण्यमेव श्रवणः श्रविष्ठाः कुर्वतां सुपुष्टिम् ॥
आ मे महच्छतभिषग् वरीय आ मे द्वया प्रोष्ठपदा सुशर्म ।
आ रेवती चाश्वयुजौ भगं म आ मे रथिं भरण्य आ वहन्तु ॥

in the serial order. Just as the geographer must know the globe, the astronomer must know the names and positions of the stars and the star-clusters in the celestial sphere. The knowledge of the names of the stars and the constellations and their mapping out is a primary necessity of all Astronomers. This has now assumed a great importance in view of the present day advancement of mankind, whose astronauts are soaring deeper and deeper into the outer space having the vast stellar sphere as their only guide.

In *Mānasollāsa* Someśvara discusses the sciences like Astrology, Mathematics, Medicine etc. He also describes Cookery, Preparation of liquors and so on.

Astrology in *Mānasollāsa*

Someśvara opines that the directions regarding the auspicious day of the week given by the ancestors are to be followed. He tells the traveller that on Friday and Sunday one should not go in the direction of the West. On Wednesday and Tuesday one should not go to the North. On Monday and Saturday one should not travel to the East, and on Thursday one should not

go in the direction of the South.⁵ He says that this was the opinion of the ancestors also. Further he mentions the Nakṣatras, and says: "A person who wants to travel on Sunday, should not do so, if one of the un-auspicious Nakṣatras, namely Dhanīṣṭhā, Kṛttikā, Maghā, Anurādhā, Āśleṣā, and Bharanī, is there on that day. Similarly he gives the list of un-auspicious Nakṣatras pertaining to the other days of the week as detailed below:-

<u>Day of the Week</u>	<u>Un-auspicious Nakṣatras</u>
I. Monday	Pūrvāṣādhā, Uttarāṣādhā, and Viśākhā
II. Tuesday	Dhanīṣṭhā, Āridrā, and Śatatarā.
III. Wednesday	Kṛttikā, Revatī, Mūlā, Āśvinī and Śatatarā
IV. Thursday	Mṛgaśīras, Śatatarā and Revatī

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5. शुक्रादित्यदिने गन्ता वर्जयित् पश्चिमां दिशम् ।
 बुधे भौमे च कौबेरीं ककुभं परिवर्जयित् ॥
 सोमे शनैश्चरे वारे दिशं प्राचीं परित्यजेत् ।
 गुरोवरि न गन्तव्यं दक्षिणां ककुभं प्रति ॥
 वारशूलमिदं प्रोक्तमाचार्यैः कैश्चिदेव हि ।
 तस्मादस्मिन् न गन्तव्यं वारशूले विचक्षणैः ॥ 2.13.796-798.

V. Friday	Puṣya, Āśleṣā, Maghā, and Rohiṇī
VI. Saturday	Pūrvāṣādhā, Uttarāṣādhā, Hastā, Cittā and Uttara Phālgunī. ⁶

In Mānasollāsa, Someśvara tells that each Nakṣatra has its own Padārtha. The traveller must take in the form of food the concerned object in respect of the Nakṣatra that is there at the time of starting of the journey. Thus he will be successful in his journey. Someśvara mentions almost all the Nakṣatras and their concerned Padārthas⁷ (2.13.804-810) as listed below:

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6. आदित्यस्य दिने वर्जा धनिष्ठा कृत्तिका मघा ।
 अनुराधा तथाऽश्लेषा भरणी गमने बुधैः ॥
 आषाढे द्वे विशाखा च त्याज्याः सोमस्य वासरे ।
 धनिष्ठाऽऽर्द्रा शतभिष्ग् भौमवारे विवर्जिताः ॥
 कृत्तिका रेवती मूलमनुराधा तथाऽश्विनि ।
 वर्ज्या शतभिष्क् चैव बुधवारे शुभेच्छुभिः ॥
 मृगं शतभिष्क् पौष्णं वर्जयेद् गुरुवासरे ।
 पुष्याश्लेषामघा ब्रह्मीं याने शुक्रदिने त्यजेत् ।
 आषाढयुगलं हस्तं चित्रमुत्तरफाल्गुनीम् ।
 मन्दवारे त्यजेत् प्राज्ञो यात्रायां पार्थिवोत्तमः ॥ 2.13.799-803.
 C.ि. मुहूर्तचिन्तामणिः- नक्षत्रप्रकरणम्, श्लोक - 2-9.
7. बहुलासु दधि प्राशयं ब्राह्मे च घृतपायसम् ।
 ऐन्दवे माषवटिका रौद्रे च मधुरं दधि ॥ 2.13.804.
 मूले मूलकमास्वाद्यं पूर्वाषाढे घनं दधि ।
 उत्तरायां जलं शीतं श्रवणे श्लक्ष्णसक्तवः ॥ 2.13.808.
 ऐवत्यां सिद्धमुग्दाः स्युरश्चिन्यां स्वाद् भोजनम् ।
 भरण्यां सतिलं तोयं प्राशय यात्रा सुखी भवेत् ॥ 2.13.810.

<u>Nakṣatra</u>		<u>Paḍārtha</u>
1. Kṛttikā	..	Curds
2. Rohiṇī	..	Pāyasa mixed with ghee
3. Mṛgaśīrṣ	..	Vaṭikā of black gram
4. Ārdrā	..	Sweet curds
5. Punarvasu	..	Paṭola (cucumber)
6. Puṣya	..	Pāyasa mixed with ghee
7. Āśleṣā	..	Sesame
8. Maghā	..	Spiced rice
9. Pūrvā	..	Pāyasa
10. Uttarā	..	Vegetables
11. Hasta	..	Things prepared from barley flour
12. Citrā	..	Varieties of food
13. Svāti	..	Mýrobalan
14. Viśākhā	..	Rice mixed with jaggery
15. Anurādhā	..	Kulattha (pulse)
16. Jyēṣṭhā	..	Things prepared from barley flour
17. Mūla	..	Radish
18. Pūrvāṣādhā	..	Concentrated curds
19. Uttarāṣādhā	..	Cold water
20. Śravaṇa	..	Fine barley
21. Dhanīṣṭhā	..	Rice
22. Śatatārā	..	Śaṣṭkuli
23. Pūrvabhādrapada	..	Honey

24. Uttarābhādrapada ..	Bījapura (Citrās)
25. Revatī ..	Boiled green gram
26. Aśvini ..	Sweet food
27. Bharanī ..	Water mixed with sesame

Svarabala, Bhūmibala, and Yoginībala

In the Mānasollāsa, Someśvara has mentioned a chart showing the position of Svarabala. He gives the definition of Svara as follows: "The Varna which is the first in a noun is called Svara. If it is a Saṃyuktākṣara, the first Varna is the Svara."⁸ According to Someśvara the king must act after knowing the strength of the Svarabala and Bhūmibala for the success of the work.⁹ Especially at the time of war, this is quite necessary. Further, he divides Svarabala into ten types: The main five types are: (1) Mātrābala, (2) Varṇabala, (3) Grahabala, (4) Jīvabala, and (5) Rāśibala. And the sub-types are

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8. नामादौ यो भेद वर्णः स स्वरः परिकीर्तितः ।
संयोगे प्रथमो ग्राह्यः स्वराणां नियमो न हि ॥ 2.20.1090.
9. ज्ञात्वा स्वरबलं राजा बलं भूमेस्तथैव च ।
कुर्वीत सर्वकार्याणि सङ्ग्रामं तु विशेषतः ॥
अतः स्वरबलं वक्ष्ये दशधा प्रविभाजितम् ।
मात्रा वर्णो ग्रहो जीवो शशिरेवं च षडधा ॥
बलाः कुमारस्तरुणो वृद्धश्चास्तङ्गतः स्वरः ।
द्वितीयः षडभेदोऽयत्नमित्थं दशविधः स्मृतः ॥ 2.20.1082-1084.

(1) Bāla, (2) Kumāra, (3) Taruṇa, (4) Vṛddha, and
(5) Astaṅgata. Someśvara gives the meaning of each type
of Svarabala as follows:

(1) Mātrābala or Svarabala:¹⁰ The vowels 'A', 'I',
'U', 'E', and 'O' are the five consecutive Mātrās or
Svaras (2.20.1085).

(2) Varnabala:¹¹ 'The conſonants from 'K' to 'H'
are also Varnas. But here ṅ, ṅ, ṇ, are not used. Hence
the Varnas and Mātrās or Svaras are totally 35 in number.'

(3) Grahabala:¹² Here the Grahas are used. Graha-
bala is stated on the basis of Rāśi. Meṣarāśi, Vṛścika-
rāśi, and Siṃharāśi have the 'A'Kāra as Grahasvara.

10. अकारः प्रथमस्तस्मिन्कारस्तदनन्तरम् ।

उकारश्चैवमेकार ओकारो मातृका पुरा ॥ 2.20.1085.

11. ककारादि हकारान्तान् वर्णान् झणवर्जितान् ।

फञ्चत्रिंशत्सु कोष्ठेषु फञ्च फञ्च क्रमान्न्यसेत् ॥ 2.20.2086.

12. मेष्पृश्चिकसिंहानामकारः स्याद् ग्रहस्वरः ।

स्वं ग्रहस्वराः प्रोक्ताः कथ्यन्ते जीवसंज्ञिताः ॥ 2.20.1093.

(4) Jīvabala:¹³ The Varṇas including Svaras are to be counted according to their Vargakrama. The Rāśi thus counted, is to be divided by five. The remainder indicates the Jīvabala.

(5) Rāśibala:¹⁴ Here the Rāśi is important. Beginning from Revati, seven Nakṣatras have the 'A'kāra as the Rāśisvarabala. Remaining Nakṣatras are divided into four groups. Each of these groups has a Rāśisvarabala ranging from 'I' kāra to 'O' kāra. Someśvara has said that the king must follow the directions corresponding to the Svarabala of the first alphabet of his name, at the time of war. The details of the directions for the various Svarabalas is as shown in the following chart.

13. यत्र नामानि यावन्तो वर्णाः स्वरसमन्विताः ।
ताश्च वर्णक्रमेणैव गणयेच्च स्वरांस्तथा ॥
गणयित्वा कृतं शशिं विभजेत् पञ्चभिः पुनः ।
अविशिष्टस्तु यो शशिर्जीवस्वर इतीरितः ॥ 2.20.1094-1095.

14. प्रोक्तो शशिस्वरोऽकारो रेवत्यादिषु सप्तसु ।
स्वं परेष्विकाराद्याः स्वराः पञ्चसु पञ्चसु ॥ 2.20.1097.

'A'	'I'	'U'	'E'	'O'
Ka	Kha	Ga	Gha	Ca
Cha	Ja	Jha	Ṭ	Ṭha
Da	Dha	Ta	Tha	Da
Dha	Na	Pa	Pha	Ba
Bha	Ma	Ya	Ra	La
Va	Śa	Ṣa	Sa	Ha

The subsections of the Svarabalas as given by Someśvara are Bāla, or Udaya, Kumāra, Taruṇa, Vṛddha and Astaṅgata. Here tithis are very important. Nandā-tithis (1,6,11) have the 'A'kāra Svarabala, it is Udita or Bāla. 'I'kāra is for the Bhadra-tithis (2,7,12). 'U'kāra is for the Jayā-tithis (3,8,13). 'E'kāra is for the Riktā-tithi (4,9,14). 'O'kāra is Udita in the Pūrṇā-tithi (5,10,15). First day of the Svāra is Udita, or Bāla. Second day is called Vṛddha. But it will be Astaṅgata on the fifth day.¹⁵

15. शशिस्वराः समाख्याता वक्ष्यन्ते उदितादयः ।
उदेत्यकारो नन्दायां भद्रायामिः स्वरः सदा ॥

जयासूकारस्सर्वस्तु भवेदुदयवान् सदा ।
उदेति रिक्तास्वेकार ओकारः पूर्णं तिथौ ॥

उदितः प्रथमेऽहनि स्याद् द्वितीयेऽहनि कुमारकः ।
तृतीये तरुणः ख्यातश्चतुर्थे स्थविरो भवेत् ॥

पञ्चमेऽहनि पञ्चत्वं स्वरौ याति विनिश्चितम् ।

अकारादिषु सर्वेषु क्रमोऽयं परिकीर्तितः ॥ 2.20.1098-1101.

Someśvara further mentions the importance of these Svaras. If the Mātrā-Svara is Udaya or Bala, the king must do Garbhādhānakarma, accumulation of wealth, auspicious work, agriculture, opening of new houses, Rasāyana Prayogas, treatment of diseases and so on (2.20.116-117). If the Mātrāsvara is in the Kumārāvasthā it is advisable for the king to go in for the marriage of himself, his children, relatives etc. Such time is also advisable for appointing new servants, to go in for wars, and collect wealth from the enemies. The servants have to obey their masters during such time. If the Mātrābala is in Taruṇāvasthā, the king must go in for the Paṭṭabandha, Abhiṣeka, learning the Aśva and Gajaśāstra, and so on. If the

	1	2	3	4	5
	6	7	8	9	10
	11	12	13	14	15
स्वर	नन्दा	भद्रा	जया	रिक्ता	पूर्णा
अ	उदय	कुमारक	तरुण	स्थविर	अस्तंगत
इ	अस्तंगत	उदय	कुमारक	तरुण	स्थविर
उ	स्थविर	अस्तंगत	उदय	कुमारक	तरुण
ए	तरुण	स्थविर	अस्तंगत	उदय	कुमारक
ओ	कुमारक	तरुण	स्थविर	अस्तंगत	उदय

Mātrābala is in Vṛddhāvasthā, the king must bring about the saṁdhi with his enemy, and take up the Śāntikarmas etc. If the Mātrābala is Astaṅgata, the king must perform the Upoṣaṇavrata and so on (2.20.118-1123).

After discussing in detail the Svarabalas and the works to be undertaken during the time of each subsection of each Śvarabalas, Someśvara begins with the description of the importance of all the Rāśis and their masters or Adhipatis. The details of the same are noted in the following table:

<u>Rāśis</u>		<u>Adhipatis or Masters of Rāśis</u>
Siṁha Rāśi	..	Sūrya
Karka Rāśi	..	Candra
Meṣa and Vṛścika Rāśi		Maṅgala
Kanyā and Mithuna Rāśi		Budha
Dhanu and Mīna Rāśi ..		Bṛhaspati
Tulā and Vṛṣabha Rāśi		Śukra
Kumbha and Makara Rāśi		Śani ¹⁶

-
16. सिंहस्याधिपतिः सूर्यः कर्कटस्य निशापतिः ।
 मेषवृश्चिकयोर्भीमः कन्यामिधुनयोर्बुधः ॥
 चापमीने सुराचार्यस्तुलायां वृषभे कविः ।
 कुम्भे च मकरे सौरिः प्रभुरूपेण कीर्तिताः ॥ 2.20.1105-1106.

Continuing the discussion Someśvara refers to the subject of horoscope. To begin with this, he has not forgotten to mention about the Grahas. Following is the table, which gives the details of the Grahas and their serial numbers of houses in the horoscope to yield auspicious results.

<u>Grahas</u>		<u>Sl.No.of the houses in the Horoscope</u>
1. Sūrya	..	6,3,10 and 11
2. Candra	..	1,2,6,10, 11 and 12
3. Maṅgala	..	3,6 and 11
4. Budha	..	2,4,6,8,10 and 11
5. Guru	..	2,5,7,9, and 11
6. Śukra	..	1,2,3,4,5,8,9 and 12
7. Śani	..	3,6 and 11. ¹⁷

-
17. श्रुतकाल-दिशा-स्त्रैः सूर्यः शुभकरो भवेत् ।
जन्मसन्ध्यत्तुसूर्याश्च दिगीशानैः शुभः शशी ॥
हरनेत्र-कुमारस्य स्त्रैर्भौमः शुभावहः ।
पक्षाब्धि-रस-दिङ्नाग पङ्क्तिस्त्रैर्बुधः शुभः ॥
नराङ्घ्रि-बाण-मुनिभिर्गह-स्त्रैर्गुरुःशुभः ।
एकद्वित्रिचतुःपञ्च षट्सु रत्नेश भास्करैः ॥
सुराणां च गुरुः शुक्रः स्थानैरेभिः शुभावहः ।
कृशानु रस-स्त्रैश्च शुभकारी शनैश्चरः ॥ 2.20.1107-1110.

Thus it is clear from Someśvara's views, that the king must go through the horoscope and act according to the strength of the Grahas in it. In the Mūhūrta-Ciñtāmañī also, mention is made about the Rāśis. According to this work, 'If Sūrya is in the house of Lagna, Śani in the sixth house, and Candra in the tenth house it is auspicious for the king!'¹⁸ Further this work gives all the information about these Grahas (yātrā-prakarāṇa, 11.64-77).

Mānasollāsa deals with the twelve houses in an exhaustive manner and introduces the principles of Astrology which the reader may not have come across. One cannot say with any definiteness as to why particular events of human life are attributed to particular houses in a horoscope. For instance, the first house represents the body while the fourth refers to the mother. The rationale of this allocation is still a mystery. The ancient Rṣis must have had some scientific basis or experience for the allocation of all the events of

18. मुहूर्तचिन्तामणिः. पण्डित श्री कपिलेश्वरशास्त्री ।
(चौखम्बा संस्कृत सीरीज आफिस, वारणासी- 1976,) पृ.294.
उदये रविर्यदि सौरिररिगः शशी दशमेऽपि ।
वसुधापतिर्यदि याति रिघुवाहिनी वशमेति ॥

human life to the twelve houses. Each house has its own merits and demerits. B.V.Raman has given the normal position of all the houses.¹⁹

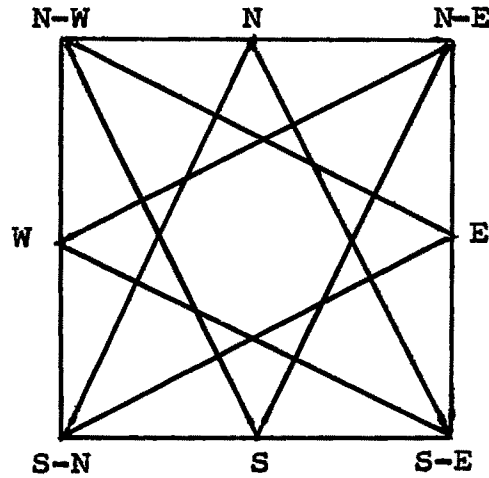
Further Someśvara tells about Bhūbala or Bhūmibala. A king must work according to the Bhūmibala especially at the time of war. First of all Someśvara tells about Rekhās, and he gives the details of Cakra. The Rekhā must start in the East. Other starting points and ending points of the Rekhās are shown in the following table.

<u>Starting points</u>		<u>Ending points</u>
East	to	North-West
North West	to	South
South	to	North-East
North-East	to	West
West	to	South-East
South-East	to	North
North	to	South-West
South-West	to	East ²⁰

19. B.V.Raman. How to Judge A Horoscope, Volume One (I.B.H.Prakasana, Bangalore 1941), p.4.

20. पूर्वान्नयेत वायव्यं वायव्याद् याम्यमानयेत् ।
याम्यादीशानदिग्भागमैशानात् पश्चिमं नयेत् ॥
पश्चिमात् कोणमाम्नेयमाग्नेयाद्दुत्तरं नयेत् ।
उत्तरान्नैश्रतं कोणं नैश्रुतादैन्द्रमानयेत् ॥ 2.20.1124-1125.

By the help of this information we sketch the Cakra as below:



Here, Someśvara gives the names of each direction of each angle of the Cakra or Rekhās. In the angle of the Cakra in the East, there will be full Caitramāsa and half Vaiśakhamāsa. The details of other directions in the angles of the Cakra and the corresponding names of the months are listed in the following table.

Direction in the Triangle
of Cakra

Names of Masas

East	.. Full Caitra, and half Vaiśākha
North-West	.. Half Vaiśākha and full Jyeṣṭha
South	.. Full Āṣāḍha and half Śrāvaṇa
North-East	.. Half Śrāvaṇa and full Bhādrapada
West	.. Full Āśvija and half Kārtika
South-East	.. Half Kārtika and full Mārgaśīra
North	.. Full Pūṣya and half Māgha
South-West	.. Half Māgha and full Phālguna

After explaining all this, Someśvara gives the definition of the Bhūmibala. 'The direction is said to be Udaya, if one and half māsas exist along it. Such Udaya has the strength upto four nādīs and Bhūbala of the Cakra has the strength upto Ardhayāma.²¹ The author further directs especially the king that 'he must take the Bhūbala on his backside or on his right-side, so that he will succeed in all types of works undertaken by him during that period.²² Someśvara has included all these points in the directions given by him to the kings to be followed especially at the time of war.

Further with the help of the Cakrarāja, the Mānaso-llāsa has stated the following for the king to follow at the time of war and all auspicious works. Already, the Cakra is mentioned above. This Cakra is beginning from the rightside to put the eight vargas from A to S in it in the clock-wise direction.²³ Further Someśvara tells

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21. यस्यां दिशि स्थितो मासः सार्द्धस्तत्रोदयो भवेत् ।
तावत्कालं भुवः सोऽपि यावन्नाड्यितुष्यम् ॥
यामार्द्धं तु बलं भूमेः क्रमाद् दिक्षु व्यवस्थितम् ।
रेखाविन्यासमार्गेण क्रमाद् भ्राम्यति मेदिनी ॥ 2.20.1131-1132.
22. भूबलं पृष्ठतः कार्यः दक्षिणे वा जिगीषुणा ।
स्वमन्यानि कार्याणि सिद्धिं यान्ति विनिश्चयम् ॥ 2.20.1134.
23. अस्त्यैव चक्रराजस्य कोणानाश्रित्य विन्यसेत् ।
अष्टौ वर्णनिकारादीन् प्रादक्षिण्येन पूर्वतः ॥ 2.20.1135.

that each varga gets its own animal. In the angle of 'A' varga, the animal is an 'Eagle'. In the angle of 'K' varga, the animal is 'Cat'. In the angle of 'Ca' varga the animal is 'Lion'. In the angle of 'Ṭ' varga the animal is 'Dog'. In the angle of 'T' varga the animal is 'Snake'. In the angle of 'P' varga the animal is 'Rat'. In the angle of the 'Y' varga, the animal is 'Deer'. In the angle of 'S' varga the animal is 'Sheep'. In this way, Someśvara gives the names of the angles and their animals.²⁴ Mānasollāsa further says, "Beginning from the east-direction upto South-West direction there are the Bhakṣaka animals. And beginning from the direction of West upto North-East, the animals are Bhakṣya". Hence, Someśvara rightly tells the king "The fifth number from the Bhakṣakasthāna, is the best for the king". Further he, mentions that the king must work according to the Nāmabala as directed by the Cakra.²⁵

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24. अवर्गे गृहः प्रोक्तः कवर्गे वृषदंशकः ।
 चवर्गे मृगराजः स्यात् टवर्गे सरमासुतः ॥
 तवर्गे पन्नगः प्रोक्तः पवर्गे मूषकस्तथा ।
 यवर्गे तु मृगः प्रोक्तः शवर्गे मेष इष्यते ॥ 2.20.1136-1137.
25. पूर्वान्निष्ठतपर्यन्तं भक्षकाः समवस्थिताः ।
 पश्चिमाद् रौद्रदिग्भागं यावद् भक्षया व्यवस्थिताः ॥
 भक्षकात् पञ्चमे स्थाने स्थितौ भजति भक्षताम् ।
 तस्माद् विचार्य यत्नेन शत्रुतुं पञ्चमतां नयेत् ॥
 स्वं नामबलं चक्रे विचार्य पृथिवीपतिः ।
 धूर्तं समाह्वयं युद्धमारभेत जयोत्सुकः ॥ 2.20.1138-1140.

The summary of information given by Someśvara is as follows:

<u>Sthānas</u>	<u>Vargas</u>	<u>Animals</u>
East	'A'	Eagle
S-East	'K'	Cat
South	'Ca'	Lion
S-West	'Ṭa'	Dog
West	'Ṭa'	Snake
N-West	'Pa'	Rat
North	'Ya'	Deer
N-East	'Śa'	Sheep

Someśvara tells here at this stage the deity of each direction he calls it as the Yoginībala. Apart from the above mentioned balas, the Yoginībala is also helpful to the king for undertaking the works of all types. The Yoginībala of the deity Brahmāṇī exists on Pratipadā and Navamī in the Eastern direction. Similarly, the Māheśī Yoginībala exists on Dvitiyā and Daśamī in the North direction. The Yoginībala of the deity Kauberī exists on Ekādaśī and Tṛtīyā in the South-East direction. Vaiṣṇavi's Yoginībala exists on Dvādaśī and Caturthī in the South-West direction. The Yoginībala of the deity Vārāhī exists on Pañcamī and Trayodaśī in the Southern

direction. The Yoginībala of Indrāṇī exists on Caturdaśī and Ṣaṣṭhī in the Western direction. The Yoginībala of the deity Candrikā exists on Saptamī and Paurṇimā in the North-West direction. And lastly the Yoginībala of Mahālakṣmī exists on Amāvāsyā and Aṣṭamī in the North-East direction.

The following table gives the details of Yoginībala (2.20.1141-1144).

<u>Yoginīs</u>	<u>Tithis</u>	<u>Directions</u>
1. Brahmāṇī	Pratipadā and Navamī	Eastern
2. Māheśī	Dvitiyā and Daśamī	Northern
3. Kauberī	Ekadaśī and Tṛtīyā	South-East
4. Vaiṣṇavī	Dvādaśī and Caturthī	South-West
5. Vārāhī	Pañcamī and Trayodaśī	Southern
6. Indrāṇī	Caturdaśī and Ṣaṣṭhī	Western
7. Candrikā	Saptamī and Pūrṇimā	North-West
8. Mahālakṣmī	Amāvāsyā and Aṣṭamī	North-East

In this way, Someśvara gives information about Yoginībala. The king must take the Yoginībala on his backside or on his right side so that he succeeds in his

works.²⁶ Further Someśvara explains the Kūṭacakra according to the Nakṣatras also (2.20.1048-1058). He tells the common man about the works to be undertaken on the various days, Nakṣatras, tithis, etc. He mentions the Nakṣatras which are good for wearing a new dress, the Nakṣatras which are good for accumulation of wealth and so on.²⁷ He tells us also about the Vāra or week days and the effects of wearing various coloured clothes on the various days of the week. "Wednesday, Thursday, and Friday are the good days for wearing a new dress."²⁸ According to Muhūrtaciñtāmaṇī, Rāśi is more important than the week days. It is mentioned in this, that a person of Makara Rāśi should not start a good work on Tuesday. One who belongs to Vṛṣabha, Siṃha, and Kanyā Rāśi, should not start a new work on Saturday. A person

26. दक्षिणे पृष्ठतः कार्या योगिन्यो विजगीषुणा ।

योगिनीनां बलं चैव कथितं सोमभूभुजा ॥ 2.20.1145.

Cf. In Viveka Ciñtāmaṇī only seven Yoginis are there, namely, Brāhmī, Māheśvarī, Kaumārī, Vaiṣṇavī, Vārāhī, Indrāṇī and Camuṇḍī. (Viveka-Ciñtāmaṇī, 6-Prakaraṇa, Matrakāyoginī śakti).

27. अश्विनी वस्त्रदा प्रोक्ता रोहिणी धनवर्धिनी ।

पुनर्वस्वोर्वसुप्राप्तिः पुष्ये सौख्यं प्रवर्धते ॥

उत्तरायां भवेल्लामो हस्ते सिद्धिस्तु कर्मणाम् ।

चित्रायां सुखसम्प्राप्तिः स्वात्यां सौभाग्यसंपदः ॥ ३.6.1054-1055.

28. बुधे धनागमं विन्धात्प्रज्ञावृद्धिर्भविद्गुरौ ।

आयुः प्रवर्धते शुके नूतनाम्बरधारणे ॥ 3.6.1058.

of Mithunarāśi should not start a new work on Monday. A person belonging to Meṣarāśi should not start a fresh work on Sunday. A man of Karkarāśi should not start a fresh work on Wednesday. Dhanu, Vṛścika, and Meenarāśi persons should not begin a new function on Friday, and those who have Kumbharāśi and Tulārāśi, should not start a new work on Thursday.²⁹ In spite of all this, Someśvara says 'at the time of festivals, marriages, meetings of the neighbour kings, songs, dances, gifts, sacrifices, fightings, and battles etc. the wearing of new dress is not prohibited to the people of all Rāśis.³⁰

In this way, Someśvara discusses Nakṣatras, Rāśis, Svarabalas, types, positions and effect of Bhūmibala, varieties of Cakras, Yoginībalas and so on.

29. मुहूर्त्तचिन्तामणि. यात्राप्रकरणम्-31.

नके भौमो गोहरिस्त्रीषु मन्दश्चन्द्रो द्वन्देऽर्कोऽजभैश्चर्के ।

शुक्रः कोदण्डालिमीनेषु कुम्भेज्जे जीवो घातवारा न शस्ताः ॥

30. नृपोत्सवे विवाहे च परभूपालसङ्गमे ।

उत्सवेषु च सर्वेषु गीतनृत्यविनोदने ॥

दानकर्माणि यज्ञे च तथा युद्धमहोत्सवे ।

जनैर्नवाम्बरं धार्यं न दुष्यति कदाचन ॥ 3.6.1059-1060.

Mathematics in Mānasollāsa

Mathematics is considered to be the most important and essential science. Mathematics helps the growth of other sciences. Mathematics did not develop in ancient India as a separate branch of knowledge. It was one of the important accessories to a body of knowledge which was helpful to the practical interest in the life of ancient Indian people. Like other Śāstras and Vidyās, the study of the science of Mathematics was also connected with their religious life.

In Vedāṅga-Jyotiṣa it is said, "As the crests on the heads of peacocks, as the gems on the hoods of serpents, so is Mathematics (to be reckoned) at the crown of the sciences known as 'Vedāṅga'".³¹ So, Mathematics is very important among all the sciences. Rgveda, Yajurveda, and Atharvaveda mantras make several references to arithmetic principles. The Yajurveda appears to mention additions of two, and additions of four.³²

31. वेदाङ्गज्योतिष. शास्त्रमुखं - 4.

यथा शिक्षा मयूराणां नागानां मणयो यथा ।
तद्भेदाङ्गशास्त्राणां गणितं मूर्धनि स्थितम् ॥

32. यजुर्वेद. 18.24-25.

एका च मे तिस्रश्च मे $1+2=3$

तिस्रश्च मे पञ्च च मे $3+2=5$

पञ्च च मे सप्त च मे $5+2=7$

सप्त च मे नव च मे $7+2=9$.. ॥ 24 ॥

...

In the 19th Mandala of the Atharvaveda, there seems to be a reference to multiplication. "The ninety-nine supervisors (sentinel stars), O night, who look upon mankind, eighty eight in number or seven and seventy are they, sixty and six, O opulent, fifty and five. O happy one, forty and four and thirty three are they, O though enriched with spoil, twenty and two hast thou O might, eleven, yes and fewer still"³³ (Griffith).

In the Atharvaveda, there is the consecutivity of of numbers from one to ten, and additions of numbers with

चतस्रश्च मे अष्टौ च मे $4 + 4 = 8$
 अष्टौ च मे द्वादश च मे $8 + 4 = 12$
 द्वादश च मे षोडश च मे $12 + 4 = 16$
 षोडश च मे विंशतिश्च मे $16 + 4 = 20$.. ॥ 25

33. अथर्ववेद - 19.47.

ये ते रात्रि नृक्षसो द्रुष्टारो नवतिर्नव ।
 अशीतिः सन्त्यष्टा उत्तो ते सप्तसप्तति ॥
 षष्टिश्च षट् च रेवति षचाशत षच सुम्नयि ।
 चत्वारश्चत्वारिंशतिश्च त्रयस्त्रिंशच्च वजिनि । ।
 द्वौ च ते विंशतिश्च ते रात्र्येकादशावमाः ॥

multiples of ten.³⁴ The Yajurveda mentions, the decimal numerical system. "O Agni, may bricks be mine own milchkine, one and ten, ten and a hundred, a hundred and a thousand, a thousand and ten thousands, myrical and hundred thousand, a million and a hundred millions, an ocean, middle and end, and hundred thousand millions, and billion. May these bricks be mine own milchkine in yonder world and in this world."³⁵(Griffith).

34. तदेव. 13.4. 16-18.

य एतं देवमेकवृतं वेद
न द्वितीयो न तृतीयश्चतुर्थो नाप्युच्यते ।
न पञ्चमो न षष्ठः सप्तमो नाप्युच्यते ।
नाष्टमो न नवमो दशमो नाप्युच्यते ॥

तदेव. 5.15.1-5.

एक च मे दश च मे $1 + 10 = 11$
द्वे च मे विंशति च मे $2 + 20 = 22$
तिस्रश्च मे त्रिंशच्च मे $3 + 30 = 33$
चतस्रश्च मे चत्वारिंशच्च मे $4 + 40 = 44$
पञ्च च मे पञ्चाशच्च मे $5 + 50 = 55...$

35. यजुर्वेद. 17.2.

इमा मे अग्न इष्टका धेनवः ।
सन्त्वेका च दश च दश च शतं च
शतं च सहस्रं च सहस्रं चायुतं च
अयुतं च नियुतं च नियुतं च प्रयुतं च
अर्बुदं च न्यर्बुदं च
समुद्रश्च मध्यं चान्तश्च परार्धश्चैता मे
अग्न इष्टका धेनवः सन्त्वमुत्रामुष्मिल्लोके ॥

About this numerical system, D.D.Mehta says that 'The extensiveness of this numerical system is unique in the world.'³⁶ Dr.Shiva Shekhara Misra tells - "Hindu Science, indeed, especially in the sphere of mathematics, reaches a high standard, and the tendency to employ figures even in the other branches of learning which this people cultivated is unmistakable."³⁷

Someśvara's Mānasollāsa gives us a very vast numerical system. He says, 'there are eighteen place values of numbers. And further he mentions all the names of eighteen place values of numbers. If there is a zero after one, the place value of number one is called Daśa. Similarly, if there are two zeros after the number one, the place value of number one is called Śata. Further details of the names for the place value of one, corresponding to the number of zeroes after it, are listed in

36. D.D.Mehta, 'Positive Sciences in the Vedas'. (Arnold Heinemann Publishers, Delhi 1974), p.114.

37. Dr.Shiva Shekhar Misra. 'Fine Arts and Technical Sciences in Ancient India'. (Krishnadas Academy, Varanasi, 1982), p.149.

the following table.³⁸

Number	No. of Zeros after the number One	Name of the Place Value of One
1,000	3	Sahasra
10,000	4	Ayuta
1,00,000	5	Lakṣa
10,00,000	6	Prayuta
1,00,00,000	7	Koṭi
10,00,00,000	8	Arbuda
1,00,00,00,000	9	Paḍma
10,00,00,00,000	10	Kharva
1,00,00,00,00,000	11	Nikharva
10,00,00,00,00,000	12	Mahāpadma
1,00,00,00,00,00,000	13	Śaṅkha
10,00,00,00,00,00,000	14	Samudra
1,00,00,00,00,00,00,000	15	Antya
10,00,00,00,00,00,00,000	16	Madhyama
1,00,00,00,00,00,00,00,000	17	Parārdha

38. बिन्दुरेको दशस्थाने शते बिन्दुद्वयं भवेत् ।
 बिन्दुत्रयं सहस्रे स्यादयुते तच्चतुष्टयम् ॥
 बिन्दवः पञ्च लक्षे स्युः प्रयुते बिन्दवस्तु षट् ।
 बिन्दवः सप्त कोटौ स्युरर्बुदे चाष्ट बिन्दवः ॥
 बिन्दवो नव पद्मे स्युः खर्वे स्युर्दश बिन्दवः ।
 सकादश निखर्वे तु द्वादश स्युर्महाम्बुजे ॥
 शङ्खे त्रयोदश प्रोक्ताः समुद्रे मनुबिन्दवः ।
 अन्त्यसङ्घे पसमाख्याता बिन्दवस्तिथिसंज्ञया ॥
 द्विरष्ट-बिन्दवो मध्ये परार्धे दश सप्त च ।
 स्वमष्टादशस्थानं गणितं व्यावहारिकम् ॥ 2.2.98-102.

According to D.D.Mehta, "It is admitted by scholars that the modern decimal value notation was known in India in the 4th Century B.C... paying a tribute to Indian genius, Laplace, the great scientist says, 'How grateful we should be, to the Hindus who discovered this great decimal system that did not occur in the minds of such mighty mathematicians as Archimedes and Apollonius'."³⁹

In Mānasollāsa, it is stated, "By writing a zero after the number one (1), the value of the number one will be ten (10). But by writing the same zero after the number two (2), the value of the number two will be twenty (20). Similarly by writing a zero after the numbers three (3), four (4), and five (5), the values of them will be 30, 40, 50 etc., respectively."⁴⁰

Cf. तर्कसंग्रहः. हरिदास संस्कृत ग्रन्थमाला. 160 पृ. 16.

एकं दश शतं चैव सहस्रमयुतं तथा ।

लक्षं च नियुतं चैव कोटिरर्बुदमेव च ॥

वृन्दं खर्वो निखर्वश्च शङ्खः पद्मश्च सागरः ।

अन्त्यं मध्यं परार्धं च दशवृद्धयो यथाक्रमम् ॥

39. D.D.Mehta. Op.cit. p.116.

40. सकाङ्के बिन्दुरेकश्चेद् दशकं तत् प्रकीर्तितम् ।

द्वितीयाङ्के पुरो बिन्दौ सङ्ख्या विंशतिरिष्यते ॥

एवं तृतीयाङ्केषु बिन्दुः स्यात् पुरतो यदि ।

त्रिंशदाद्या तदा सङ्ख्या नवत्यन्ता प्रकीर्तिता ॥ 2.2.103-104.

Similarly, the value of the number two (2), by placing two zeros, three zeros... seventeen zeros after it, will be two hundred, two thousand ... two parārdha.

Further, describing the fractions, Someśvara tells about - (1) Rūpa (Integers or whole numbers);
 (2) Aṁśa (Numerator) and
 (3) Chheda (Denominator)

Rūpa means a whole thing. Aṁśa means the part taken after dividing the thing. And Chheda means the total number of divisions made in the thing.⁴¹ Further, the multiplication of fractions is dealt with in Mānasollāśā. According to this, "Aṁśa of the fraction is to be multiplied by the Aṁśa of the other. And Chheda of the one fraction is to be multiplied by the Chheda of the other. The product of Aṁśa is to be divided by the product of the Chheda."⁴² This concept is made clear in the following example.

41. संपूर्णं कथ्यते रूपमंश उद्धरितो भवेत् ।
 तस्यांशस्य विभागो यः स छेदः परिकीर्तितः ॥ 2.2.119.

42. गुण्येदंशमंशेन छेदं छेदेन बुद्धिमान् ।
 फलांशं विभजेत् तज्ज्ञः फलेन छेदजन्मना ॥ 2.2.120.

$$\begin{array}{l}
 3/4 \times 1/5 \quad \left\{ \begin{array}{l} \text{The product of } \underline{\text{Amśa}} = 3 \times 1 = 3 \\ \text{The product of Chedas} = 4 \times 5 = 20 \end{array} \right. \\
 = \frac{3 \times 1}{4 \times 5} \\
 = 3/20 \quad \left\{ \begin{array}{l} \underline{\text{The product of Amśa}} \\ \underline{\text{The product of Cheda}} \end{array} \right.
 \end{array}$$

Proceeding further, we find in Mānasollāsa, the description of (1) The conversion of mixed fraction into improper fraction and (2) the Division of fractions.

1. Conversion of mixed fraction into improper fraction

According to Manasollasa, the Cheda is to be multiplied with the Rūpa of the mixed fraction. The product thus obtained is to be added to the Amśa of the mixed fraction. The sum thus obtained becomes the Amśa of the improper fraction. The denominator (Cheda) of the mixed fraction becomes the denominator of the improper fraction also.

This concept is made clear in the following example.

$$\begin{array}{l}
 3\frac{5}{6} \text{ is mixed fraction. The product of } \underline{\text{Rūpa}} \text{ and } \underline{\text{Cheda}} \\
 = 3 \times 6 = 18.
 \end{array}$$

$$\text{Product of } \underline{\text{Rūpa}} \text{ and } \underline{\text{Cheda}} + \underline{\text{Amśa}} = 18 + 5 = 23.$$

$$\underline{\text{Cheda}} \text{ in both the fractions} = 6.$$

The result is 23/6.

2. Division of Fractions⁴³

To divide a fraction by the other, Mānasollāsa says, "The dividend is to be multiplied with the divisor as same in Śloka 120, after writing the Amśa and Cheda of the divisor as the Cheda and Amśa.

$$\begin{aligned} \text{Example: } & 3/4 \div 1/5 \\ & = 3/4 \times 5/1 \\ & = 15/4. \end{aligned}$$

Thus we find that Someśvara has referred to important fundamental operations in Mathematics.

Ayurveda Śāstra

It is definitely known that sciences in India had developed and achieved a great eminence at a time when Europe was passing through the dark period of the early middle ages. It is through the medium of the Arabian sciences that some of those Indian scientific concepts and inventions joined the main-stream of the Renaissance

43. भाजकश्च तथा चान्यो राशिर्लेख्यो विपश्चिता ।
 छेदेन गुणयेद् रूपं लब्धमंशेन मेलयेत् ॥
 छेदेनांशं विपर्ययात् गुणयेद् राशियुग्मके ।
 भाजकेन भजेद् भाज्यं भिन्नभागोऽयमीदृशः ॥ 2.2.122-123.

in Europe. A few notable names associated with different sciences in India during different periods are given below.⁴⁴

<u>S.No.</u>	<u>Subject</u>	<u>Scientist</u>	<u>Period and Profession</u>
1	Medicine	Bharadvāja	Around 800 B.C. Earliest Teacher of Āyurvedic Medicine
2	"	Ātreya	8th Century B.C. Renowned teacher of Ayurvedic Medicine
3	"	Jīvika	6th Century B.C. The Physician to lord Buddha
4	"	Patañjali	2nd Century B.C. Expounder of the Yoga doctrine.
5	"	Caraka	2nd Century B.C. Physician who compiled a treatise on Āyurvedic Medicine
6	"	Suśruta	1st Century B.C. Surgeon
7	"	Vāgbhata	6th Century A.D. A great Physician and Author of 'Aṣṭāṅga Hṛdaya' a classic of Ayurvedic Medicine.

44. T.K.Ramachandra Iyer. 'A Short History of Sanskrit Literature' (R.S.Vadhyar and Sons, Book-seller and Publishers, Kalpathi 1977), pp-55-100.

Cf. also Dr.W.K.Lele. 'The Doctrine of the Tantrayuktis' (Chaukhamba Surabharati Prakashan, Varanasi 1981).

Ed. Dr.P.Sri Ramachandradu, and V.Sundara Sarma. 'Sanskrita Kavi Jivitam' by Pandita M.S.Sastry. (Sanskrit Academy, Osmania University, Hyderabad, 1982).

<u>S.No.</u>	<u>Subject</u>	<u>Scientist</u>	<u>Period and Profession</u>
8	Medicine	Mādhavaka	9th Century A.D. Clinical diagnostician
9	"	Vrnda	10th Century A.D. Āyurvedic Medicine
10	"	Śālihotra	8th Century B.C. Father of Ancient Indian Veterinary Sciences
11	"	Gadāvara Mīśra	12th Century A.D. Veterinary Scientist
12	Astronomy	Lagadha	9th Century B.C. The first known Astronomer
13	Mathematics and Astronomy	Baudhāyana	5th Century B.C. The Geometer of the Vedic Atlas
14	"	Garga	3rd Century B.C. The enumerator of the constellations
15	"	Āryabhaṭṭa	476 A.D. The Great Mathematician
16	"	Varāhamitra	499 A.D. Versatile Scientist
17	"	Brahmagupta	598 A.D. A great Mathematician
18	"	Bhāskara	1114 A.D. Algebraist
19	Alchemy	Nāgārjuna	8th Century A.D. Great Indian Alchemist
20	Philosopher Scientist	Kāṇāda	6th Century B.C. Ancient Atomist Philosopher/Scientist
21	"	Kapila	7th Century B.C. Propounder of the theory of the Creation of the universe
22	"	Gotama	6th century B.C. Originator of Ancient Indian Scientific Methodology
23	Agriculture	Khana	6th Century B.C. Agriculturist.

On the basis of the above information, it may be surmised that science was divided into many parts and studied intensively.

The word Śāstra was originally applied to the various subjects of study connected with the Vedic religion and Hindu Philosophy, namely the traditionally recognised branches of learning.⁴⁵ Gāndharva-veda, Dhanur-veda, Artha-śāstra and Āyurveda were recognised as Śāstras, i.e. the means for acquiring correct knowledge. Later on the term Śāstra was used to denote any branch of study that was treated on a scientific basis. Āyurveda Śāstra is very vast, but the following study is only a brief survey of Āyurveda Śāstra, as detailed in Someśvara's Mānasollāsa.

Āyurveda or Indian Medicine

The Indian system of medicine called Āyurveda had its origin in the Vedic period. Rudra is spoken of as a Physician or Bhiṣak of Gods. The Aśvins also are spoken of as possessing many remedies. The Atharvaveda

45. अङ्गानि (षट्) वेदाश्चत्वारो मीमांसान्यायविस्तरः ।
पुराणं धर्मशास्त्रं च विद्याह्येताश्चतुर्दश ॥

has hymns dealing with the cure of diseases, and the Purāṇas and Smṛtis contain accounts of medicine. Ayurveda developed in close association with the Dharma Śāstra and the systems of philosophy like Sāṃkhya and Yoga. The three qualities of Prakṛti, Sattva, Rajas and Tamas are closely related to the three humours of of the human body viz. Vāta, Pitta and Kapha.

Almost all the text books on Āyurveda speak of Puṅarvasu as the formulator of the system. The Buddhist records show that the Physician Ātreya lived in Takṣaśilā before the birth of Goutama Buddha.⁴⁶ Caraka put what he was taught in a book called Caraka-Saṃhitā and that is the earliest treatise on Āyurveda now preserved. It consists of eight parts and has thirty chapters in the form of prose and verse. It was translated into Persian and Arabic in the early period of the Christian era.⁴⁷ Now-a-days almost all the languages have this Caraka Saṃhitā.

46. T.K.Ramachandra Iyer. 'A Short History of Sanskrit Literature (R.S.Vadhyar and Sons Book-sellers and Publisher, Kalpatha 1977) p.170.

47. Ibid.

Suśruta is the author of Suśruta-Saṁhitā, which stresses the importance of surgery. He speaks of surgical instruments and surgical operations. He must have lived around the beginning of the Christian era. Vāgbhata of the 6th Century A.D. is the author of the most popular and authoritative treatise on Āyurveda known as Aṣṭāṅga hṛdaya. He is also the author of Aṣṭāṅga-Saṁgraha. Nāgārjuna is the author of a treatise on Āyurveda called Yogasāra. The Chinese pilgrim Hieun Thsang refers to one Nāgārjuna who was an authority on medicine and chemistry.⁴⁸

Indian medicine is not confined to the treatment of human beings alone. There are treatise on the treatment of animals, birds, and trees. Surapāla's Vṛkṣāyurveda, dealing with horticulture, Nārāyaṇa's Mātāṅgalīla dealing with the diseases of elephants, the Aśvāyurveda of Gana and Aśvacikitsā of Jayadatta and Nakula, are some such works. The Rājanighaṇṭu of Narahari and Dhanvantari Nighaṇṭu of an unknown author are some of the Nighaṇṭus on the subject of Indian medicine. Someśvara mentions in Mānasollāsa the Physicians who treat elephants, horses, cows, deer and birds also.⁴⁹ It can be seen that during

48. Op.Cit. p.171.

49. नराणां च गजानां च वाजिनां च गवामपि ।

मुगाणां च खगानां च ये जानन्ति चिकित्सितम् ॥ 2.2.138.

Someśvara's period the physicians were well-versed in all types of Medicines.

Definition of Āyurveda

Āyurveda consists of two words, namely, 'Āyus' and 'Veda'- meaning 'the science of life'. It is traditionally considered as a supplement to the Vedas. Caraka⁵⁰ and Suśruta consider this as an upaveda of the Atharvaveda.

Someśvara's Mānasollāsa refers to almost all the works on Indian medicine. He uses the word 'Aṣṭāṅga'⁵¹. It is the title of Vāgbhāṣa's work 'Aṣṭāṅgahrdaya'.

50. चरकसंहिता - 30.20-21.

तत्र चेत् पृष्ठारः स्युः चतुर्णामृक्तामयजुरथर्व-वेदानां कं वेदमुपदिशन्त्या-
युर्वेदविदः १, किमायुः १ कस्मादायुर्वेदः १ किमर्थमायुर्वेदः १ शाश्वतोऽ
शाश्वतो वा १ कति कानि चास्याङ्गानि १ कैश्चायमध्येतव्यः १ किमर्थं
च इति ।

तत्र भिषजा पृष्ठेनैवं चतुर्णामृक्तामयजुरथर्व वेदानामात्मतोऽथर्वविदो वितरादेश्य,
वेदो ह्यथर्वणो दानस्वस्त्ययनबलिमङ्गलहोमनियमप्रायश्चित्तोपवासमन्त्रादि-
परिग्रहाद्यचिकित्सां प्राह, चिकित्सा चायुशो हितायोपदिश्यते ॥

51. परं पारङ्गताः सम्यगष्टाङ्गे तु चिकित्मते ।

शस्त्रकर्मकलादक्षा मन्त्रे तन्त्रे च कोविदाः ॥ 2.2.139.

This work is included in the 'Great-Trio' or 'Br̥hatrayī'. The remaining two are Caraka Saṁhitā by Agniveśa and the Suśruta Saṁhitā by Suśruta. Of these three, Caraka is considered to be the most authoritative in as much as it represents an authentic thesaurus of the various aspects of this science, with special reference to the fundamental principles of medicine. The following śloka⁵² furnished towards the end of this work aptly describes the significance of this work. 'The methods of treatment prescribed by Agniveśa are meant both for the healthy persons (for the maintenance of their positive health and prevention of diseases) and the patients (for the cure of their ailments). Whatever is mentioned in this work is available elsewhere and things not mentioned here are not to be found anywhere else'. This shows the importance and value of the book. In the same way Mānasollāsa also is very important in the field of medicine. This work is useful to the physicians, teachers, research workers, and students of Āyurveda.

52. चरक-संहिता. सिद्धिस्थान. 12. 53-54.

चिकित्सा षड्विंशस्य सुस्थातुरहितं प्रति ।
यदिहास्ति तदन्यत्र यन्नेहास्ति न तत्क्वचित् ॥

Āyurveda has eight specialised branches. They are
 (1) Kāyacikitsā - internal medicine, (2) Śālākya - treatment of diseases of the organs in the head and neck,
 (3) Śalyāpaharṭṛka - extraction of foreign bodies through surgery, (4) Viṣagara-vairodhika-prasāmana - management of conditions caused by natural and artificial poisons,
 (5) Bhūta-vidyā - the treatment of psychic diseases,
 (6) Kumāra - bhṛtya - the treatment of children,
 (7) Rasāyana - the administration of elixirs for the maintenance of youth and prevention of old age, and
 lastly (8) Vājīkaraṇa - the administration of aphrodisiacs.⁵³

Mānasollāsa also mentions eight names: Deha, Śiras, Vāla, Viṣa, Śalya, Graha, Vṛṣya, and Rasāyana.⁵⁴ These names are different in the other Āyurvedic books. Vaidya Bhagawan Dash states that the names of these are (1) Pulse, (2) Urine, (3) Stool, (4) Tongue, (5) Voice, (6) Touch (skin),

53. तदेव. 30.28.

तस्यायुर्वेदस्याङ्गान्यष्टौ, तद्यथा- कायचिकित्सा,
 शालाक्यं, शल्यापहर्तृकं, विषगरवैरोधिकप्रशमनं, भूतविधा, कौमारभृत्यकं,
 रसायनं, वाजिकरणमिति ॥

54. देहे शिरसि बाले तु विषे शल्ये ग्रहेऽपि च ।

वृष्ये रसायने चैव कुशला भिषजोऽष्टसु ॥ 2.20.340.

(7) Eyes and (8) General Physical features (Ākṛti).⁵⁵

All these eight branches deal with the prevention and cure of diseases and morbid conditions in their respective specialised fields.

In Someśvara's Mānasollāsa the nineteenth chapter of the first prakaraṇa deals with medical science or Vaidyakiya-Śāstra (1.19.135-291). He says that for proper treatment of a disease it is essential to determine the exact nature of the disease with special reference to the doṣas involved. A physician must know the kind of diseases, its nature, characters, and so on. Further Someśvara mention the qualities required in Physicians.

Physicians who are born in noble families, who are well-read, who have practical experience; who are skilful and pure; whose medicinal prescriptions and surgical operations are infallible; who are self-controlled; who have all equipments and are endowed with healthy sense-organs; who are acquainted with the natural symptoms;

55. Vaidya Bhagawan Dash. 'Fundamentals of Ayurvedic Medicine' (Bansal and Co., New Delhi, IIIrd Vol. 1982) p.93.

and those who have presence of mind are the saviours of life and destroyers of diseases. They are free from doubts regarding the tetiology, premonitory signs and symptoms. Further he states the qualities necessary in Physicians.⁵⁶ The Caraka-saṁhitā says that 'Excellence in medical knowledge, an extensive practical experience, dexterity and purity are the four qualities of a Physician.'⁵⁷

A person of normal mental faculty, intelligence, strength and energy, desirous of his well-being pertaining to this world and the world beyond has to satisfy three basic desires, viz. the desire to live, the desire to earn and the desire to perform virtuous acts. These three main desires belong only to such persons as are after enjoyment of happiness in this world and the world beyond. The three-fold classification of desires, therefore, does not apply to such persons to whom salvation

56. शास्त्र-शास्त्रविदो वैद्यानभ्यासनिपुणानपि ।
उहापुत्रोहविवेकज्ञानं सुधाहस्तान् प्रियंवदान् ॥ 1.19.139.

57. चरकसंहिता - सूत्रस्थान 9.6.
श्रुते पर्यवदातत्त्वं बहुशो दृष्टकर्मता ।
दाक्ष्यं शौचमिति ज्ञेयं वैद्ये गुणवत्तुष्टयम् ॥

alone is the summum bonum of life; nor even to such persons as have not gone above the animal instincts and so are incapable of having the three basic human desires. The desire to satisfy passions is also there, but it is in fact included under the desire to live and the desire to earn because satisfaction of passion cannot be achieved without health and wealth. For this, in fact, it is the duty of the physician to maintain the health or equilibrium of Dhātus. By taking recourse to concordant factors, the physician well-versed in treatment brings about equilibrium of Dhātus and so he is the bestower of physical happiness and longevity. Therefore Caraka says, 'By virtue of his ability to bestow physical happiness and longevity, a physician is verily regarded as a donor of virtue, wealth and desired objects pertaining to this world and the world beyond'.⁵⁸ The states of doṣas in different combinations, have been explained as diseases. Hence Someśvara gives much importance to doṣas. He says "Prakṛti or doṣas like Pitta, Kapha and Vāta are very important to determine

58. Ibid. सूत्रस्थान - 38.

धर्मस्यार्थस्य कामस्य नृलोकस्योभयस्य च ।
दाता संपद्यते वैद्यो दानाद् देहसुखायुषाम् ॥

diseases. Hence a physician must take into consideration these doṣas or prakṛtis before he begins the treatment."

Someśvara has described Prakṛti.⁵⁹ It is a state of life. All the Hindu systems consider vegetable bodies as endowed with life. Man is the Chief among all creatures and in proportion to his complicated structure in his liability to diseases. The disorders of the human frame are of four kinds: (1) Accidental, (2) Organic, (3) Mental and (4) Natural. The injuries arising from external causes form the first class. The second comprehends the effects of the vitiated humours or derangements of the blood, bile, wind and phlegm. The third one is occasioned by the operation of passions, or the effects on the constitution of rage, fear, sorrow, joy etc. and the last is referable to the necessary and innate condition of our being such as thirst, hunger, sleep, old age, and decay.

Mānasollāsa mentions some diseases like fever or Jvara, Raktapitta, Kāsa, Śvāsa, Kṣaya, Yakṣman, Chardi,

59. ज्ञात्वा निदानं व्याधीनां स्वरूपं लक्षणैः स्फुटम् ।
देशकालानुसारेण सात्त्विकप्रकृतितत्त्वतः ॥ 1.19.144.

Madātyaya, Arśas, Mūtrakṛchra, Prameha, Vidradhi, Śapha, Visarpa, Vātarakta, and so on.⁶⁰ In fact diseases are of innumerable varieties depending upon their distinctive features like pain, colour (signs) etiology, site of origin and manifestation, symptoms (like gulma) and nomenclature (rājayakṣma) and so on. There are diseases of serious type which even though curable with difficulty can cause death, if not treated or treated wrongly. There are other diseases of mild nature which are definitely cured by treatment. There is another category of palliable diseases which are not curable, but even the most effective treatment will only enable the patient to stand the disease. There are other diseases where no treatment can succeed. Diseases are thus of two types (1) curable and (2) incurable. Each of them is again of two types viz. mild and serious. Someśvara says, 'Sannipāta is serious but curable, if the physician takes care for this treatment.'⁶¹ Further he says that

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60. ज्वरे च रक्तपित्ते च काशेश्वासे च यक्ष्मणि ।
 छदौ मदात्ययेऽर्शःसु सारण ग्रहणीषु च ॥
 मूत्रकृच्छ्रे प्रमेहे च विद्रधौ गुल्म-कोष्ठयोः ।
 पाण्डौ शोके विसर्पे च कृष्णे शिवत्रे बलासुरे ॥
 वातशोणितरोगे च तथा रोगान्तरेऽपि ।
 वैद्यशास्त्रानुसारेण कारयेत् तत्प्रतिक्रियाम् ॥ 1.19.141-143.
61. दोषत्रय-प्रकुपिते सन्नपितो भवेत् समे ।
 दुश्चिकित्सो भवेद् रोगी यत्नादेनमुपाचरेत् ॥ 1.19.159.

Śopha is incurable and serious. So hardly can any one be saved from this disease.⁶²

Someśvara generally classifies diseases as follows. He divides them mainly into three types, namely, Vāta, Pitta and Kapha.⁶³ Further Someśvara gives the characteristics of Vāta, Pitta and Kapha.

Vāta gets aggravated by the suppression of manifested natural urges, taking food before the previous meal is digested, remaining awake for long at night, speaking with a loud voice, physical exercise in excess of one's capacity, exposure to jerks because of travelling on a vehicle for a long time, intake of ingredients having pungent, bitter and astringent tastes; intake of dry fruits, excessive worry, sexual indulgence, fear, fasting, cold, and grief. It also gets normally aggravated during the onset of rainy season.

62. सन्निपातज्वरान्मुक्ते शोफो भवति दास्यः ।
कर्णमूले यदा तेन कश्चिदेव विमुच्यते ॥ 19.198.

63. वातपित्त-बलासानां ज्ञात्वा लक्षणमुत्कटम् ।
तस्योपशमनैर्द्रथैः कृत्वा पेयां प्रदापयेत् ॥ 1.19.157.

Kapha become aggravated by sleeping during the day time, by the excessive intake of sweet things, cold things, fish, meat, heavysour and slimy things, sugar-cane and milk, intake of food even after satisfaction, and intake of diet and drinks containing salt and water in excess. Kapha gets normally aggravated during the spring season.

Next he tells, how to recognise Vāta, Pitta and Kapha. He says 'If pain is more it is called the effect of Vāta; if fever is more, it is called the effect of Pitta. If sloth or indolence is more it is called the effect of Kapha'.⁶⁴

Reason of Diseases

Man does not live in an absolutely germ-free atmosphere. The only thing that can be done safely is to keep the tissues of the body unreceptive towards these germs. Once the human body is affected, the tissues should be so conditioned by drugs and diet and other regimens that these germs or bacteria, by whatsoever names they may be called, will find the atmosphere hostile towards their survival, multiplication and growth.

64. वातः शूलेऽधिके द्वेयस्तापे पित्तं च लक्षयेत् ।
जाक्षये कफं विजानीयान्मिश्रे मिश्रं तु लक्षयेत् ॥ 1.19.158.

In the Mānasollāsa Someśvara tells that the change of normal condition is due to food and the bad works of a man.⁶⁵ He explains how doṣas affect the human body. 'Sāma (undigested food) is the creator of the doṣas, and then it disturbs the Jatharāgni. This Jatharāgni spreads in the human body. This is called fever or Jvara. This Jvara is the king of all the diseases'.⁶⁶ Further

65. वेगानां धारणादोजःस्नेहशुक्रक्षयादपि ।
अतिव्यायामतो हीनयोगादशनपानयोः ॥ 1.19.211.
क्षाराम्ललवणैर्द्रव्यैरवियुक्तैः श्रमादपि ।
आतपाच्च भृशं पित्तं कुपितं दूषयेदसृक् ॥ 1.19.254.
विस्त्रेनान्नपानेन साधूनां निन्दया वधात् ।
प्राक्तनैः कर्मभिः क्रूरैः कुष्टं शिवत्रं च जायते ॥ 2.19.272.
- Cf. चरकसंहिता. सूत्रस्थान, 7.3-5.
न वेगान् धारयेद्दीमाञ्जातान् मूत्रपुरीषयोः ।
न रेतसो न वातस्य न छर्द्याः क्षयथोर्न च ॥
नोद्धारस्य न जुम्भाया न वेगान् क्षुत्पिपासयोः ।
न बाष्पस्य न निद्राया निःश्वासस्य श्रमेण च ॥
स्तान् धारयतो जातान् वेगान् रोगा भवन्ति ये ।
पृथक्पृथक्चिकित्सार्थं तान्मे निगदतः शृणु ॥
66. सामो दोषश्चिराद् हत्वा पावकं जठरस्थितम् ।
निश्चयं च सप्तऋतुमदराग्निं बहिः क्षिपेत् ॥
एवं विनिर्गतो वह्निः कायमाश्रित्य तापयन् ।
ज्वर इत्युच्यते तज्ज्ञैः सर्वव्याधिपतिश्च सः ॥ 1.19.155-156.

it results into many varieties of diseases. In respect of each disease, whether named or unnamed, Someśvara says that the following points need careful attention.

Nidāna or causative factors

These causative factors are further divided into the following four categories: Sannikṛṣṭa or those which produce disease quite early, Viprakṛṣṭa or those having delayed effects in producing a disease, Vyabhicārī or those that are not strong enough to cause a disease and Prādhānika or those having instantaneous effects in producing the disease, viz. strong poisons. The causative factors can further be divided into two groups namely exogenous and endogenous. Various types of diet, regimens and the effects of seasons are the exogenous factors. Vitiating of Doṣas (Vāta, Pitta and Kapha) or Prakṛtis and Dhātus are the endogenous factors to cause a disease.

Pūrvarūpa or Premonitory symptoms

These premonitory symptoms are of two types, viz. General and Specific. Some of the premonitory symptoms only indicate the nature of the disease going to be manifested in general.

Rūpa or manifested signs and symptoms

When the disease is fully manifested, certain signs and symptoms appear. In the Āyurvedic texts signs and symptoms of each of these diseases are described in detail. These are indicative of the stage of the disease and of the Dosas, Dhātus, Agnis, as well as Srotas involved in the manifestation of the disease. They also indicate the prognosis of the disease. On the basis of these signs and symptoms therapies, diet and regimens are prescribed for the patient.

Upaśaya or exploratory therapy

Some times, the causative factor, premonitory symptoms and actual symptoms of the disease do not well indicate the nature of the disease. A physician in such conditions, resorts to some exploratory therapy to correctly ascertain the nature of the disease. These are the common characteristics of all the Āyurvedic works. But Mānasollāsa gives some more information for a careful examination of the disease. Someśvara gives importance to the time and place, and also Sātmya Prakṛti. It means the strength of the patient. Further it tells that a physician should know the Svarūpa or features of a disease, and Lakṣaṇa i.e. symptoms or distinctive characteristics of the disease and so on.

The work Mānasollāsa has paid great attention to regimen and diet. Someśvara opines that medicine is not digested by a patient suffering from fever. So for him the Physician must start treatment with diet.⁶⁷ He gives number of rules relating to food and describes the general treatment, suited to the complaint or favourable to the operation of the medicine administered. This branch the Mānasollāsa entitled 'Abhaksavarjana'. Some other books call it Pathyāpathya. To these subjects are to be added the Cikitsā, or medical treatment of diseases, on which subject there are a variety of compositions, which contain much that is of value.

Someśvara tells what is meant by Laṅghana or diet control. He says, 'Do not take the food of these five types, namely Bhaksya, (to eat by the Dental), Bhojya (to eat without Dental), Coṣya (to suck), Lehya (to lick) and Peya (to drink). It is called Laṅghana. This is the first preparation for the medical treatment.⁶⁸ Further

67. अजीर्यत्यौषधं यस्माज्ज्वरार्तस्य विनाऽग्निना ।
तद्मान्नात् दधाद् भैषज्यं लङ्घनं तु प्रयोजयेत् ॥ 1.19.148.

68. भक्ष्यभोज्यस्य चोण्यस्य लेह्य-पेयस्य वारणम् ।
लङ्घनं प्रोच्यते सद्भिः कायलाघवकारणम् ॥ 1.19.149.

he tells 'A Physician must know the age of the patient, and Vāta, Pitta and Kapha's strength and strength of the patient, time, prakṛti, and Nidāna before the starting of Lañghana. This Lañghana is continued till the body is purified'.⁶⁹ Someśvara says that this Lañghana is of many varieties, according to the Doṣas.⁷⁰ It has been already mentioned that the food is most important in medical treatment. Modern physicians also give much importance to food. In modern science food articles are primarily classified depending upon their chemical composition namely carbohydrate, protein, fat, vitamins, minerals, etc. In the Mānasollāsa, such classification is based on the biological action of the food articles and their Rasa (taste). Someśvara mentions many varieties of food, its preparation, and so on. All varieties of rice may be treated as of one group on the basis of their carbohydrate content. But Āyurveda considers that freshly harvested rice is heavy for digestion. It aggravates Kapha. If used continuously, it is supposed to produce many complications. Old rice stored for over

69. वयोदोषं बलं कालं प्रकृतिं कारणं तथा ।

विचार्य लङ्घनं कार्यं यावच्छुद्धं भवेद् वपुः ॥ 1.19.150.

70. दोषकोपानुसारेण लङ्घनं विविधं स्मृतम् ॥ 1.19.153.

six months is considered to be light and more useful for an average person. The freshly harvested rice produces more fat in the body, than the old rice. Thus, for an emaciated individual having good digestive power, freshly harvested rice is nutritious, whereas for a fat person, even without good digestive power, old rice is nutritious. Pulses contain mostly protein. But according to Āyurveda, some of them like Māṣa (black gram) are heavy for digestion and they produce more fat in the body; whereas Mudga (green gram) is considered to be light for digestion and it reduces fat in the body. Kulattha on the other hand is exceedingly nutritious for fat persons, mild fire is useful for cooking the pulses. Someśvara says that horse-gram and green gram should be cooked on mild fire.⁷¹

In the Āyurveda Śāstra mental power is also very important. Mental activities are more powerful than the physical activities. Manas is the controller of the body. Āyurveda in general, and Mānasollāsa in particular attach considerable importance to the intimate

71. प्रक्षालितान् चणान् मुद्गान् समे तोये विनिक्षिपेत् ।
स्थाल्यां मृद्धाग्निना पाकः कर्तव्यः सूपकारकः ॥ 3.13.1548.

relationship between the mind (mental activities) and the body (physical functions). Any disturbance in the one affects the other and causes diseases. Therefore, both for the maintenance of positive health as well as for cure of diseases, both the mind and the body are required to be kept in proper condition. Utsāha is important in all types of functions.⁷² Utsāha means enthusiasm. Someśvara himself tells "The person, who has no mental worries is the only healthy person. His works always give fruits. He is fit for the gītagoṣṭhi and other entertainments."⁷³

According to Vaidya Bhagawan Dash, "The concept of mind is very important and significant to both Āyurveda and Yoga. In Āyurveda, diseases are classified into two

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72. प्रारब्धं यत् स्वयं कार्यं दैवाद् यदि न सिध्यति ।
 न सीदति च तत् कर्तुमुत्साही च पुनः पुनः ॥
 यस्य स्यादुध्मे नित्यं चित्तमुत्साह-संयुतम् ।
 उत्साहशक्तिः सा ज्ञेया नृपाणां भूतिमिच्छताम् ॥ 2.2.723-724.
73. भूलोकमल्लदेवेन कथ्यते गीतसंश्रयः ।
 नीस्रजः स्वस्थचित्तश्च कृतकार्यो महाधनः ॥
 तृप्तो हृष्टमना गीते विनोदं कर्तुमर्हति ।
 शृङ्गारी दानभूरश्च सर्वशास्त्रार्थित्त्ववित् ॥ 4.16.1-2.

categories viz. Physical and Mental. In the former, the body is considered to be the seat of the disease and in the latter, the mind. In both categories, the mind plays an important role in causing diseases. Psychic factors exercise control over the physiological functions of the body and vice versa. Therefore, even for the treatment of some physical diseases certain psychic measures are prescribed in Āyurveda.⁷⁴ Caraka says that Physical exercises are helpful for health.⁷⁵ Further Caraka tells: 'The virtuous one, who is free from all vices relating to mind, speech and physical actions, is indeed happy and he alone enjoys the fruits of virtue (Dharma), wealth (Artha) and desire (Kāma).⁷⁶ Mental conditions like worry, grief, fear and anger are described as

74. Vaidya Bhagwan Dash. Fundamentals of Ayurvedic Medicine. (Bansal and Co., Delhi, IIIrd ed., 1982) p.49.

75. चरकसंहिता सूत्रस्थान 7.31.

शरीरचेष्टा या चेष्टा स्थैर्यार्थबलवर्धिनी ।
देहव्यायामसंख्याता मात्रया तां समाचरेत् ॥

76. तदेव. 30.

पुण्यशब्दो विपापत्वान्मनोवाक्कायकर्मणाम् ।
धर्मार्थकामान् पुस्त्रः सुखी भुक्ते चिनोति च ॥

causative factors for indigestion even if wholesome food is taken in proper quantity. Someśvara has in the Mānasollāsa a separate Prakaraṇa relating to seasonal entertainments and games, for the maintenance of health. There is an idiom that "Health is Wealth". Kālidāsa says in his Kumārasaṃbhava that 'body is the best means for practising Dharma'.⁷⁷

The Mānasollāsa mentions the names of a few diseases. It tells how to control diseases as per the rules and regulations of the Vaidya-śāstra. Someśvara suggests that a disease should be counteracted according to Vaidya-śāstra.⁷⁸ For the proper treatment of a disease it is essential to determine the exact nature of the disease with special reference to the Doṣas, Dhātus, Malas, Srotas, and Agnis involved in its manifestation. Āyurvedic classics impress upon the physician not to be very particular about the name of the disease. According to these classics, names are attributed to some of these diseases only by way of example to facilitate the physician

77. कालिदास. कुमारसंभव. सर्ग 5, श्लोक- 33.

शरीरमाद्यं ऽखलं धर्म-साधनम् ।

78. वैद्यशास्त्रानुसारेण कारयेत् तत्प्रतिक्रियाम् । 1.19.143.

to ascertain and understand the gamut of the remaining diseases. In respect of each disease whether named or unnamed, the physician's careful examination is needed.

The basic elements of the body are known as Dhātus in all the texts of the Āyurveda-śāstra. "The Dhātu etymologically means, one which assists the body or which enters into the formation of the basic structure of the body as a whole.⁷⁹ These Dhātus are seven in number and they are (1) Rasa, (2) Rakta, (3) Māṃsa, (4) Medas, (5) Asthī, (6) Majja and (7) Śukra. According to Vaidya Bhagwan Dash, 'These seven Dhātus are composed of the five Mahābhūtas. Pr̥thvi-Mahābhūta predominates the muscle and fat tissues. Jala-Mahābhūta predominates the lymph and chyle. The hemoglobin fraction of the blood is primarily constituted of Tejas-Mahābhūta. The bone is composed of Vāyu-Mahābhūta and the pores inside the bones are dominated by Ākāśa-Mahābhūta. It should be made clear again that all the seven Dhātus are composed of all the five Mahābhūtas and only the dominating Mahābhūtas are described above. These Dhātus remain inside the

79. चरक संहिता. सूत्रस्थान 9.4.

विकारो धातुवैषम्यं, साम्यं प्रकृतिरुच्यते ।
सुखसंज्ञकमारोग्यं, विकारो दुःखमेव च ॥

human body of the individual in a particular proportion, and any change in their equilibrium leads to disease and decay'.⁸⁰ The Doṣas in the body are composed of five Mahābhūtas. i.e.,

- (1) Kapha is dominated by Pr̥thvī and Jala;
- (2) Pitta is dominated by Agni;
- (3) Vāyu is dominated by Vāyu and Ākāśa.

Hence, a drug is composed of five Mahābhūtas, namely, Ākāśa, Vāyu, Tejas, Jala and Pr̥thvī.⁸¹ Someśvara has stated that a Physician must treat after knowing all the factors, namely, strong, middle, and low diseases, place, time, age and the condition of the patient.⁸² Someśvara further tells about a good Physician. 'He who clearly knows the causes and the names of the diseases, and the names and characteristics of medicines is the best physician.'⁸³

80. Vaidya Bhagwan Dash, Op.cit. p.28.

81. Ibid., p.59.

82. कृच्छ्रसाध्यमसाध्यं वा साध्यं जानन्ति तत्त्वतः ।
देशं कालं वयोऽवस्थां प्रकृतिसात्स्वमेव च ॥ 2.3.144.

83. रोगनामनिदानं तु रूपं जानन्ति तत्त्वतः ।
औषधं रूप-नामभ्यां जानन्तो भिषजो वराः ॥ 2.2.141.

Sometimes, king Someśvara uses the words śitaiḥ śastraiḥ,⁸⁴ which refer to sharp instruments. In the time of Someśvara the Physicians knew the surgical science also. Further the Mānasollāsa discusses various aspects of medical treatment such as Yantras i.e. implements, Śastras i.e. instruments, Agni i.e. fire, Śalākā i.e. pins or tents, Śrṅga i.e. the horns of animals and so on (1.19.285-288). The subsidiary means are Nīrajā i.e. leeches.⁸⁵

Other supplementary articles of Hindu Surgery are Kṣāra i.e. alkaline or alkalescent salts. Someśvara's Mānasollāsa tells us the preparation of various types of Kṣāra. Someśvara directs, the physician to know the characteristics of Vāta, Pitta and Kapha and then to give Kaṣāya. Kaṣāya is obtained by burning different vegetable substances, i.e. Vanaspatis, and Dravyas and boiling the ashes with five or six times measure of water. These Kaṣāyas cure the particular diseases. In some cases the concentrated solution is used after straining, and is administered internally, as well as applied externally.⁸⁶

84. मेदोग्न्थीन् शितैः शस्त्रैः पाटायित्वा समुद्धरेत् ॥ 1.19.288.

85. रक्तावशोधनं कार्यं नीरजाभिर्मुहुर्मुहुः ॥ 1.19.198.

86. एरण्डश्च विदारी च वृश्चिकश्च पुनर्नवा ।
स्नेहत्रयं पचेदेतैस्तल्लेपाद् विद्वर्धीं जयेत् ॥ 1.19.251.

For the latter purpose, however, Śārṅgadhara directs the solution, after straining, to be boiled to dryness by which, of course, a carbonate of potash will be obtained, more or less caustic according to its purity. It is not unlikely that some of the vegetable substances employed will yield a tolerably pure alkali, and in that case will afford an active caustic. Care is enjoined in their use. At the same time these and the other substitutes for instrumental agents are only to be had recourse to where it is necessary to humour the weakness of the patient. Hence Someśvara says, "Good medicines, Kaṣāyas, or drugs are similar to Nectar."⁸⁷ Drugs and diet having six tastes are wholesome to the body and as such they add to the growth of blood, muscle, fat, bone, marrow, semen and longevity.

The Vedas and Dharmaśāstra prescribe various remedies for the people who are suffering from multifarious diseases caused by their sins committed knowingly or unknowingly in the same birth or in the previous births. Someśvara states that Krūra Karma is a cause for disease. Ancient Indian works specifically recommend Dāna, Japa, Homa, Vrata

87. एकमेवैषधं हन्ति दोषं कोष्ठ-समाश्रितम् ।

अपक्वं न गुणं किञ्चित् कुस्ते तत् सुधासमम् ॥ 1.19.147.

etc. are better remedies than medicines, since Dāna, Japa etc. are not only capable of curing the diseases but also powerful in destroying the root cause viz. sins."⁸⁸

Someśvara clearly says "If a person follows the rules of Brahmacharya and practices Tapa, Indriyanigraha, Japa, Dhyāna, Prāṇāyāma, Samādhi and Niyamas, he gets even the difficult desires fulfilled."⁸⁹

Chemistry was known to the people in ancient India. Chemicals and medicines were hand-made. Chemists apparently devoted most of their attention to making medicines and drugs to promote health and longevity. According to D.D.Mehta 'Chemistry is a branch of Medicine,'⁹⁰ Beginning from the references to medicine in the Rgveda⁹¹ and Atharvaveda⁹² we can trace an unbroken continuity of

88. M.Kripacharyulu, Guntur. Sayana and Mādhava vidyāraṇya. (Thesis, presented to the Karnatak University, Dharwad, 1977), p.140.

89. ब्रह्मचर्येण तपसा निग्रहेणैन्द्रियस्य च ।
जपेन ध्यान-मौनाभ्यां प्राणायामैः समाधिना ॥
एतैः तपोभिः क्लृप्ते नियतः कायशोषणम् ।
स सर्वं लभते कामं दुष्प्रापं नात्र संशयः ॥ 1.17.123-124.

90. D.D.Mehta. Op.cit. p.86.

91. ऋग्वेद - 1.29.9.

शतं ते राजन् भिषजः सहस्रमुर्वी गभीरा सुमतिष्टेऽस्तु ।

92. अथर्ववेद- 2.9.3.

अधीतोरध्यगादयमधि जीवपुरा अगन् ।
शतं ह्यस्य भिषजः सहस्रमुत वीस्यः ॥

medical tradition. From them we come to know that there were hundreds of medical practitioners and thousands of medicines, i.e. herbs and plants. The R̥gveda⁹³ has defined the functions of a physician. 'The medicinal plants have assembled as do the kings in an assembly; that Brāhmaṇa is called a physician who kills demons and diseases'. From these references we can infer that in the Vedic period medical tradition consisted of a large number of physicians and medicines.

In the R̥gveda the Aśvins are the heavenly physicians. Their medical and surgical achievements are many and varied (1.158.6) and to them prayers for giving medicine are offered (1.89.9). They possess great knowledge of plants and herbs; they by their power, give strength to limbs, remove old age and grant long life (1.116.25). Rudra is the first heavenly physician⁹⁴ and the best among physicians.⁹⁵ In the R̥gveda Rudra's

93. ऋग्वेद. 10.97.6.

यत्रोषधीः समग्मत राजानः समिताविव ।

विप्रः स उच्यते भिषक् रक्षोहामीवचातनः ॥

94. ऋग्वेद - (P.S.XVII.5)

प्रथमो दैव्यो भिषक् ।

95. ऋग्वेद. 2.33.4.

भिषक्तमं त्वा भिषजां शृणोमि ।

medicines are mentioned many times.

Someśvara has included all types of knowledge in the Mānasollāsa. First of all he shows that he was a follower of the ancestors in the field of Rasāyana or Chemistry. He divides Rasayana into two types namely Kuṭipraveśana and second Vātātapasaha.⁹⁶ Preparation of all types of medicines in the house is called Kuṭipraveśana Rasāyana. And the preparation of all types of medicines in the open ground is called the Vātātapasaha. A king has to do many works such as executive work, administrative work, and judicial work. So for the king Vātātapasaha Rasāyana is preferred. Someśvara knew the art of preparation of medicines from herbs,⁹⁷ fruits,⁹⁸ food-grains⁹⁹ and so on.

96. रसायनक्रिया द्वेषा कथिता पूर्वसूरिभिः ।
कुटीप्रवेशनादेका वातातपःसहा परा ॥ 2.1.14.

97. गोधरं बृहती द्वन्दा गुहा चातिगुहापि च ।
एतैः प्रक्वथिता पेया श्वास-कास ज्वरार्तिनुत् ॥ 1.19.162.

98. उर्ध्वं प्रवृत्ते रुधिरे पेया नैव प्रशस्यते ।
ज्वरधनैर्वा फलरसैः कृमिनाशं च वास्यम् ॥ 1.19.168.

99. भृष्टतण्डुलसिद्धापि पिप्पल्यामलकैर्युता ।
यवागूः सघृता पेया विष्टब्धमलरेचनी ॥ 1.19.164.

In ancient India Gold, Silver, Copper and Iron were frequently used in medicines. Iron was called Kṛṣṇāyasa or the black metal; copper was called Lohitāyasa or the red-metal. Harita (Yellow) was the name given to gold and Rajata (white) was the name by which silver was known. Yājurveda makes references to these metals as they were used for the fulfilment of sacrifices.¹⁰⁰ According to D.D.Mehta, "A regular science of mercury was developed as a branch of chemistry in ancient India. Iron and mercury are mentioned as aphoridisiacs and tonics by Varāhamihira (587 A.D.). There were several preparations of iron, copper, mercury, and other metals which were utilized in medicine.¹⁰¹ Rasa meant mercury in the oldest Āyurvedic literature. Vātsyāyana's Kāmasūtra refers to sixtyfour Kalās, or arts.¹⁰² that were practised by Indians of his time. Among them are mentioned the testing of gold and gems, the differentiating of gems according to their weight, hardness, lustre, transparency

100. यजुर्वेद 14.13.

हिरण्यं च मे इयश्च मे श्यामं च मे लोहं च मे ।
सीसं च मे त्रपुश्च मे ... ॥

101. D.D.Mehta, Op.cit. p.47.

102. वात्स्यायन कामसूत्र 1.3.16.

गीतम् वा धम् नृत्यम् आलोख्यम् विशेषकच्छेधम् ...
... रूप्यरत्नपरीक्षा धातुवादः ... ॥

and colour, fusibility, especially when heated in combination with the alkalis etc.

In the Mānasollāsa, the author states Ratnaparīkṣā (2.4.530-536). Gems were considered helpful for medicine. Someśvara tells about the origin of gems, or Maṇis. 'The place of origin of Padmarāgamāṇi is Siṃhala. Similarly Kuruvindamaṇi is found in Kālapura, and Saugadhamāṇi is obtained in Andhra.¹⁰³ Further Someśvara tells that Padmarāgamāṇi is the best in all the maṇis or gems. The place of origin of the Indranīlamāṇi is Siṃhaladveepa. It has four varieties, namely, White, Red, Yellow, and Black (2.4.492-493). Next the author tells about its characteristics, merits, demerits and so on (2.4.494-506). The place of origin of Marakatamaṇi is Turkasthāna. It has seven demerits, five merits and eight shades (2.4.507-508). The origin of Sphaṭikamaṇi is the Himalaya, Siṃhala, Vindhya, and the bank of Tāpi river. Herein the main divisions are two, namely, Sūryakānta and Candra-kānta (2.4.520). Further Someśvara says, "Candrakāntamaṇi

103. सिंहेले तु भवेद् रक्तं पद्मरागमनुत्तमम् ।
पीतं कालपुरोद्भूतं कुरुविन्दमिति स्मृतम् ॥
अशोकपल्लवच्छायमान्ध्रे सौगन्धिकं विदुः । 2.4.475-476.

is not available in this Kaliyuga." Then he describes Puṣparāga, Vaidūrya, Gomedha, and Vidruma. Further Someśvara gives the characteristics of the maṇis or gems. A good gem should be put into milk. If the milk changes its colour and becomes blue, the gem is called Indranīla. It is loved by God Śanaīścara'.¹⁰⁴ The gems have their own characters, first of all heaviness, second spotlessness, third lustre or radiance and fourth inflexibility or hardness. These are the common characters.¹⁰⁵ The uses of gems are - Indranīlamāṇi gives wealth, life, strength, and fame.¹⁰⁶ The Marakatamāṇi is used to counteract poison.¹⁰⁷

Jvara or Fever

Jvara or fever occupies the first place among physical ailments. So Someśvara's Mānasollāsa describes it first and tells that Jvara or fever is the king of all diseases.

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104. क्षीरमध्ये क्षिपेन्नीलं दुग्धं चेन्नीलतां व्रजेत् ।
इन्द्रनीलः स विज्ञेयो रविनन्दनवल्लभः ॥ 2.4.505.
105. गौरवं स्वच्छता कान्तिः काठिन्धं रत्नजा गुणाः ॥ 2.4.531.
106. दोषैस्त्यक्तो गुणैर्युक्त इन्द्रनीलो महामणिः ।
यस्य हस्ते भवेत् तस्य वित्तमायुर्बलं प्रियशः ॥ 2.4.504.
107. सेवालवल्लरीच्छायं सुरङ्गं त्रासवर्जितम् ।
अनर्घ्यं तं मरकतं प्राहुः सर्वविषापहरम् ॥ 2.4.518.

Caraka-Saṁhitā says¹⁰⁸ that there are eight types of Jvara. In Mānasollāsa it has no definite number. Someśvara divides on the basis of dosas, viz. Vātapitta Jvara,¹⁰⁹ Vāta-jvara,¹¹⁰ and so on (1.19.160-196). Caraka-Saṁhitā further tells the causative factors of the fever.¹¹¹ The factors responsible for the causation of fever in human beings are Vāta, Pitta, Kapha, Vātapitta, Vātakapha, Pittakapha, Vātapittakapha. There is other extrinsic factor also. Only the immediate causes of fever are mentioned here. These causes are concerned with the fever of human beings only. Those of the other animals like horses, elephants, cows, and birds may be different.

108. चरकसंहिता- निदानस्थान 102.

संख्याऽतावद्ध्या अष्टौ ज्वराः, पञ्चगुल्माः, सप्त कुष्ठान्येवमादिः ।

109. खिल्वं बला पृथक्पर्णी नागरं धान्यकोत्पलम् ।

एतैः पेया कृता देया वातपित्तज्वरापहा ॥ 1.19.160.

110. मूर्वा-निम्ब-पटोलातिविष-धन्वयवासकैः ।

शुण्ठी-मुस्तामृतायासैः क्वाथो वातज्वरापहः ॥ 1.19.185.

111. चरकसंहिता-निदान स्थान 1.17.

अथ खल्वष्टाभ्यः कारणेभ्यो ज्वरः संजायते मनुष्याणां,
तद्ध्या-वातात्, पित्तात्, कफात्, वातपित्ताभ्यां, वातकफाभ्यां, पित्त-
कफाभ्यां, वातपित्तकफेभ्यः, आगन्तोरष्टमात् कारणात् ॥

Someśvara's Mānasollāsa gives the names of animals' fever, birds' fever, the fever of plants and so on.¹¹² Fever caused by all these categories has one thing in common, that is, pain precedes the occurrence of fever in all such causes, hence they are treated as of one type in the eight-fold classification of Jvara. Hence, Someśvara says "there is only one type of Jvara, but it has many names."

Treatment of fever

During the stage of Pūrvārūpa (premonitory symptoms) or in the primary stage of Jvara, intake of light food or fasting is useful, because āmāśaya (stomach including small intestine) is the site of origin of this disease. There is no contradiction in these statements because the intake of light diet is only a form of Lañghana and

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112. ज्वरो नरेषु विख्यातः पाकजस्यामजन्मसु ।
 अभितापस्तुरङ्गेषु रेवाको रासभेष्वसौ ॥
 उष्ट्रेण्वलसकः प्रोक्तो गोषु प्रोक्तस्तथेश्वरः ।
 अग्निको दन्दशूकेषु हारिद्रो महिषेष्वपि ॥
 अजाविको प्रलेपस्त्यान्मृगरोगो मृगीष्वपि ।
 अवपातः शकुन्तेषु मत्स्येष्विन्द्रमदाभिधः ॥
 गुल्मेषु ग्रन्थिको ज्योतिर्वनस्पत्यौषधीष्वपि ।
 पुष्पेषु पर्वतः प्रोक्तो रूपको नलिनीष्वपि ॥
 धान्येषु चूर्णकः ख्यातः कोद्रवेषु ललः स्मृतः ।
 शाकेषु मधुको भूम्यामूषरोऽप्यु च नीलिका ॥ 2.6.639-643.

produces lightness in the body.¹¹³ Further in Vātika type of Jvara complete fasting is prohibited as it aggravates Vāta taking part in the pathogenesis of the disease. In such a condition, intake of light diet is prescribed. Normally, even light diet should aggravate Vāta, but it does not do so in a patient suffering from Jvara because the site of origin of disease is āmāśaya and all aggravated doṣas residing here including Vāta are corrected by the intake of light diet.

Mānasollāsa discusses the preparation of medicines or Kaṣāyas and its utility for fever and other diseases. In all the types of chronic fever, and other diseases intake of ghee is beneficial,¹¹⁴ because it acts both against the diseases as well as the doṣas involved. "As people spray water over a house set on fire, so also ghee should be used with a view to alleviate chronic

113. एकभक्तं तथा पेया मण्डो वा कोष्णवारिणा ।
दोषकोपानुसारेण लब्धनं विविधं स्मृतम् ॥ 1.19.53.

114. सक्तुपिष्टकमश्नीयात् पिबेन्न्य स्वाटु पानकम् ।
घृतं वा केवलं पीतं मदात्ययहरं परम् ॥ 1.19.225.

Cf. महाभारत शान्तिपर्व 309.18.

विरक्तस्य यथा सम्यग् घृतं भवति भेषजम् ।
तथा निर्हृतदोषस्य प्रेत्य धर्मः सुखावहः ॥

fever and other diseases.¹¹⁵ Vāta is alleviated due to latter's unctuousness, Pitta due to coldness and even Kapha due to suitable method of preparation.

In the Mānasollāsa, Someśvara further discusses all types of Jvara, and many varieties of medicines. Rakta-pitta¹¹⁶ (a disease characterised by bleeding from various parts of the body) is caused by the heat of Jvara. This Raktapitta is not the combination of rakta (blood) and pitta. It is only a pathological state of pitta. This disease manifests itself in two ways either through upper tracks or through the lower tracks. In a patient having the dominance of Kapha in his body, the disease manifests itself in blood coming out through the upper tracks, viz. ear, nose, eyes, and mouth. In a patient whose body is dominated by Vāta, the disease manifests itself in blood coming out through the lower tracks, viz. the urethra

115. चरकसंहिता निदानस्थान 1.38.

यथा प्रज्वलितं वेश्म पारिषिञ्चन्ति वारिणा ।
नराः शान्तिमभिप्रेत्य तथा जीर्णज्वरो घृतम् ॥

116. ततो घ्राणस्य कर्णैः पायु-मेहनमार्गतः ।

प्रवर्ततो ततः ख्यातं रक्तपित्तं भिष्वरैः ॥

एकदोषं नवं चोर्ध्वं वलिनश्चानुपद्रवम् ।

रक्तपित्तं सुखात् स्रग्ध्यमधश्चेद् याण्यमुच्यते ॥

अधश्चोर्ध्वं च चलितं त्रिदोषं भूर्युपद्रवम् ।

असाध्यं रक्तपित्तं तत् त्यजनीयं भिष्वरैः ॥ 1.19.201-203.

and anus. In a patient whose body, is dominated by both Kapha and Vāta, the disease manifests itself through both the tracks enumerated above. The first type of the Rakta-pitta, where the upper tracks are afflicted, is curable because of its amenability to purgation therapy and also because varieties of drugs are available for the treatment of this condition. The second type of Raktapitta is called by Someśvara as Yāpya. Yāpya type of Rakta-pitta, where the lower tracks are afflicted, is palliable because of its amenability to emetic therapy and also because of the limited varieties of drugs available for its treatment. The third type where both the upper and lower tracks are afflicted is incurable because it is neither amenable to purgation nor to emetic therapy and no medicine is suitable for the treatment of this condition. Hence Someśvara's advice is "the enlightened Physician should not take incurable patient in hand. The palliable patient should be maintained with appropriate therapy. The curable one should be treated carefully with proper medicine leading to cure."¹¹⁷ Someśvara

117. चरकसंहिता निदानस्थान 2.27.

त्रासाध्यं परित्यज्यं याप्यं यात्नेन यापयेत् ।
साध्यं चावहितः सिद्धैर्मेषैः साध्योद्भिष्णु ॥

describes the Kaṣāya which is meant to control the Rakta-pitta.¹¹⁸

After dealing with fever, its characteristic features, and remedies, Someśvara continues to explain on similar lines many other diseases. The details of them are given below.

(1) Kṣaya: Someśvara says that highly polluted air enters the body and increases Pitta and Kapha. Then it enters the joints of the body. Thus Kṣaya is caused. According to him, the patient of this disease should swallow the Cūrṇa of Rāsnā, Tila and Balā mixed with ghee, Yastikī (Jeṣṭhamadhū) and Utpala to get cured from this disease.¹¹⁹

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118. श्यामा त्रिवृत्कषायेण तत्कल्लेन शितान्वितम् ।
 लोहं विपाणितं दधात् कर्षमात्रमसृग्हरम् ॥
 पिप्पली त्रिफला श्यामा शर्करा त्रिवृता मधु ।
 सैः कृतो मोदकोऽयं सन्निपातोत्थरक्तजित् ॥ 1.19.204-205.
119. भृशं प्रकुपितो वातः कफपित्तमुदीरयेत् ।
 देहसन्धीन् समाविश्य क्षयरोगं समावहेत् ॥
 रास्ना-तिल-बलाचूर्णं ससर्पिर्यष्टिकोत्पलम् ।
 अवलीढं हरेच्छेषमग्निमान्धं च नाशयेत् ॥ 1.19.213-214.

(2) Chardi-roga (Vomitting): Someśvara has mentioned that this disease is caused by taking into the stomach the food which is not at all suited for health.¹²⁰ According to him this disease can be remedied by making the patient drink the mixture of honey, Kaṣāya made from the budding leaves of Jamboo, Cūta, Balā, Uśīra, Vaṭa and Śuṅga.¹²¹

(3) Madātyaya, Moha, Bhrama, Tandrā, and Pralāpa.¹²² Someśvara says that these are caused by excessive and faulty drinking of wine. Madātyaya lasts for about five to seven days. If it lasts for more days than this, it is to be understood that it is some other disease.¹²³

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120. अनिष्टान्नोपयोगेन मस्तः कुपितो भ्राम् ।
उदानः कुस्ते छिर्दिनाभिपृष्ठस्त्रान्विताम् ॥ 1.19.215.
121. जम्बू-चूत-बलोशीर-वटशुङ्गावरोहजः ।
क्षौद्रेण सहितः कुचायः पीतश्छिर्दिविनाशनः ॥
122. हीनमिध्यातिपानेन भ्रमत्याषु मदात्ययः ।
छिर्दिर्मोहो भ्रमस्तन्द्रा प्रलापो जायते ततः ॥ 1.19.218.
123. पञ्चाहं सप्तरात्रं वा जायतेऽसौ मदात्ययः ।
अत ऊर्ध्वं प्रसक्तश्चेद् रोगोऽन्यः परिकीर्त्यते ॥ 1.19.219.

Someśvara has said that this disease can be remedied by eating 'Saktupiṣṭa' with the mutton extract of goat, deer, rabbit, Tittira and Lāva birds or by drinking sweet Pānaka or ghee.¹²⁴ Someśvara says that these are the best remedies to cure such diseases.

(4) Arśas: He says that this is a disease caused by the protrusions (Aṅkura) appearing in the region of Gudadvāra (Anus) and intestine (Āntrāvali) as a result of prolonged maladhāraṇa (constipation).¹²⁵ Someśvara has suggested that this disease be remedied by applying the paste formed by the mixture of Śṛṅgī, Haritakī, Kuṣṭha, Bhallātaka fruits, and Tuthya (Blue-vitriol) at the region of Gudadvāra.¹²⁶ Further he has suggested that applying

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124. स्वापः प्रलापबहुले योजनीयो मदात्यये ।
 छाग-तित्तिर-लावैण-शशमांसरसैर्युतम् ॥
 सक्तुपिष्टः कम्पनीयात् पिबेच्च स्वादु पानकम् ।
 घृतं वा केवलं पीतं मदात्ययहरं परम् ॥ 1.19.224-225.
125. गुदान्त्रवलिसम्भूता विष्टाधारणहेतुकाः ।
 अङ्कुराः कथिताः प्राञ्जैरर्शसित्यभिधानतः ॥ 1.19.226.
126. शृङ्गी हरीतकी-कुष्ट-भल्लातकफलैः कृतैः ।
 लेपस्तुत्यसमोपेतो गुदकीलविनाशनः ॥ 1.19.227.

the paste formed by Mūla, (Amarphophallus), Śighrubīja (Drumstick seed), Nimba (Neem) and Aśvatha leaves, Bilva-fruits, akroda root (or Pīlumūla) and Rāmaṭha at the Gudadvāra eradicates the Aṅkuras (Protrusions).¹²⁷

(5) Atisāra: Someśvara says that this is due to over-drinking of water. He has hinted at the remedies for the three types of this disease.

<u>Disease</u>	<u>Remedy</u>
1. <u>Āmātisāra</u>	.. Kaṣāya of the cūrṇas of Rāmaṭha, or Nāgara, Mustā, Ghurṇavallabha, should be taken along with food into the stomach to promote digestion of food. ¹²⁸

127. मूलैः शिगुभवैर्बीजैर्निम्बाश्वत्थदलैरपि ।
बिल्वेन पीलुमूलेन रामठेनापि लेपतम् ॥ 1.19.228.

128. अत्यम्बुपानाज्जायेत सुतरामतिसारस्क ।
आमः पक्वः सरकाश्च त्रिधाऽसौ व्याधिरीरितः ॥
तत्रामे नागरं मुस्ता तथा व घुणवल्लभा ।
तच्चूर्णं वटकः क्वाथः पाचनाय प्रयुज्यते ॥ 1.19.230-231.

2. Pakvātisāra .. The mixture of honey, with boiled Jambūpallava, Dhātakī, Jīraka, Cūtabīja, Mahāvṛkṣatvaca, Bilva, Aranāla, Gokaṅṭa, Pancāṅgula and Yava is the medicine for this disease.¹²⁹
3. Raktātisāra The Kaṣāya of the mixture of Viṣā, Kuṭajabīja, Mustā, Vālaka and Bilva is a medicine for this disease.¹³⁰

Further Someśvara has stated that a person who does not take hygienic food while suffering from Atisāraroga, suffers from a disease called Grahanīroga. He has said that Grahanīroga can be remedied by taking the Kaṣāya of Śunṭhi, Ativiṣā Mustā and also Guḍūci.

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129. पक्वातिसारे दातव्यं जम्बूपल्लव-धातकी ।
जीरकं चूतबीजं च महावृक्षत्वचस्तथा ॥
बिल्वारनाल-गोकण्ट-पञ्चाङ्गुलयवैः शृता ।
स्विन्ना क्षौद्रयुता पथ्या पक्वतीसारभेषजम् ॥ 1.19.232-233.
130. विषा कुटजबीजं च मुस्ता वालक-बिल्वकम् ।
तत्क्वाथो विनिहन्त्याशु रक्तातीसारमुल्बणम् ॥ 1.19.234.

Regarding Mūtrakṛchra, Someśvara says that it starts pain in the joints of the body especially in Mehana (Urine track). He has mentioned the remedies for the Mūtrakṛchra disease. According to him this disease can be remedied by making the patient drink Kaṣāya made from Urabūka, Balā, Bilva, two pancamūla (Laghu Pancamūla and Brhat Pancamūla), Yavā, Punarnavā, Bhīrumūla, Kulattha, Badara, Matsyākṣa, Matsyabheda and mixed with ghee as well as oil. The fat of a hog and bear mixed with fine lavaṇas (Samudra, Saindhava, Bīdala, Pāde and Kācala lavaṇa)¹³¹ should be added to the Kaṣāya. Someśvara says that these are the best remedies to cure such diseases.

Thus we find that Someśvara has shown keen interest in the eradication of various diseases. This also exhibits his deep knowledge regarding the use of various medicinal plants and herbs, though he was a king.

131. उरुबुको बला बिल्वं पञ्चमूलद्वयं यवा ।
 पुनर्नवा भीसूलं कुलत्थं बदरं तथा ॥
 मत्स्याक्षं-मत्स्यभेदं च तत् सर्वं च समं कृतम् ।
 तत्क्वाथेन सकल्केन सर्पिस्तैलयुतेन च ॥
 सूकरस्याच्छमल्लस्य वसया मिश्रितेन च ।
 पञ्चाभिर्लवणैः सार्द्धं शूलं पीतेन हन्यते ॥ 1.19.240-242.

Cookery

In the Mānasollāsa king Someśvara says that health is more important than kingdom. Only a healthy person can be a good administrator.¹³² Hence a king should have skilled cooks or Sudās appointed in their kitchens.¹³³ This same idea is found in Avantisundarī Kathā also.¹³⁴ Further Someśvara tells that good food is necessary for health.¹³⁵ According to Adelle Davis - "Good food is a symbol of love, having psychological value which may even exceed its sensory and physiological contributions."¹³⁶

132. व्याधिभिर्वर्जितो राजा राजकार्यक्षमो भवेत् ॥ 2.1.10.

133. अन्नपानविशेषज्ञाः मांसपाकविशारदाः ।
शाकपाककलादक्षाः पक्वान्नकरणे बुधाः ॥
पानव्यञ्जनतत्त्वज्ञाः खण्डपाकस्यैविनः ।
क्षीरप्रकारबोद्धारः सूदाः कार्या महीभुजा ॥ १.१.137-138.

134. K.S.Madhavaśāstri. 'Avantisundarī Kathā'.
(Trivendrum, 1954) pp.28-29.

135. इति पचविधं हृद्यं पथ्यं भुञ्जीत भूपतिः । 3.13.1526.
भाव्यं पथ्याशिना नित्यं नीरुजो जायते ततः । 2.1.10.

136. Adelle Davis. 'Let's cook it Right'. (George Allen and Unwin Ltd., London 1971), p.13.

The food habits of the people under the Cālukyas might not have been much different from the general pattern prevailing in Karnataka today. The cultivation of rice, wheat and vegetables was common and they formed the staple food of the people. Pulses were used both as food and as feed for the cattle. The upper classes were purely vegetarian, particularly the Brāhmanas. But the bulk of the population supplemented its diet by the use of meat. Use of intoxicating drinks and other juices was quite common. 'An inscription of Durvinita mentions that 48 learned Brāhmanas of Kolintur were incessantly taking Soma juice.¹³⁷

Someśvara gives full information about the training of vegetarian as well as non-vegetarian cooks. He tells how to cook rice. "Before the cooking of rice, clean the rice, and use a copper pot or earthen pot. One unit of rice for three units of water is the rule of the preparation."¹³⁸ Modern scientists also have accepted this rule. Osee Hughes and Marion Bennion

137. B. Sheik Ali. 'History of Western Gangas' (University of Mysore, Mysore 1976) p.267.

138. स्थाल्यां तामूकृतायां वा मृज्जातायामथापि वा ।
तण्डुलत्रिगुणं तोयं निक्षिप्य च विधाय च ॥ 3.13.1532.

say that 'Pre-cooked rice' requires a minimum of preparation time. One cup of pre-cooked rice will yield two to three cups of cooked rice."¹³⁹

Someśvara gives instruction regarding the preparation of many articles of food:-

Pāyasa: Pāyasa is prepared^{by} using good rice and the milk of a buffalo which has delivered many days back.¹⁴⁰ In addition, Nāgaracūrṇa, Sugar and Sugandha dravyas are also used in preparing a delicious pāyasa.

Mandaka: Regarding the preparation of Mandaka, Someśvara has suggested that wheat should be washed with water and dried.¹⁴¹ Such wheat should be powdered. The pure wheat powder of such wheat should be mixed with ghee, salt, milk and water. Bound balls of such a mixture

139. Osee Hughes and Marion Bennion. Op.cit.p.311.

140. सरवेष्टितसेवाकैर्दिवसैर्लघुविस्तृतैः ।
चिरप्रसूतमहिषीषयसा पायसं पचेत् ॥ 3.13.1555.

141. गोधूमाः क्षालिताश्शुभाः शोषिता रविरशिसभिः ।
घरद्वेषचूर्णिताश्श्लक्षणाः चालिन्या वितुषीकृताः ॥ 3.13.1556.

should be prepared processing it in a wooden utensil.¹⁴²
 Pure oil should be applied to such balls of rice powder.
 After doing so they should be stretched by hand action
 gradually and should be baked on a metallic pan placed
 over mild fire, and should be taken out before they are
 burnt to black colour. He further says that the four-
 fold Mandaka is the best one.¹⁴³

Polikā: Someśvara says that wheat flour balls
 should be prepared as already described in the prepara-
 tion of Mandaka. The desired sweet things to be used
 in the Polikā in a suitable form should be placed in the
 centre of the stretched surface of the ball. After
 enclosing the sweet thing in the ball, it should be
 stretched neatly by using the Pesini¹⁴⁴ (meaning Lattanige
 in Kannada and Lāṭana in Marathi). After they are

142. लवणेन च सस्मिन्नं क्षीरनीरेण पिण्डितम् ।
 सुमहत्यां काष्ठपात्र्यां करस्फलेर्विमदयेत् ॥ 3.13.1558.

143. पक्वांश्चोपनयेच्छीघ्रं यावत्काण्ण्यं न जायते ।
 चतस्तश्च चतस्तश्च घटिता मण्डका वराः ॥ 3.15.1562.

144. गोलकान् पिण्डकालिप्तान् पेषिण्या तान् प्रसारयेत् ॥
 3.13.1563.

properly stretched, they should be spread carefully on a hot plate. Care should be taken to see that both the surfaces of these are properly baked.¹⁴⁵ Someśvara says that the slightly blackish-red Polikā is the best.

Pūrikā: Regarding the preparation of Pūrikā, Someśvara has said that pure wheat flour ball should be prepared as already described and stretched suitably by the use of Peṣini and fried properly in oil.¹⁴⁶

Dosaka: Regarding the preparation of Dosaka Someśvara says that there are two types, namely by the mixture of rice with Bengal gram (Canaka) and second by the mixture of the black gram (Māsa). A paste of the mixture of Bengal gram, powdered Hingu (asafoetida), Jīrākā, and common salt should be prepared. A small quantity of oil is to be smeared on the hot metallic pan. Then the paste already prepared as described above, is to be poured on such a pan, and to be spread uniformly. Care should be taken to cook properly both the surfaces of the Dosaka.

145. सुतप्ततापनिक्षिप्तानीषत्पक्वान्विवर्तयेत् ।
खरिऽपि पचेदेवं पोलिकानामयं कृपः ॥ 3.13.1564.

146. किञ्चित्प्रसारितास्तैले पूरिका विपचेच्छुभाः ।
एवं ताप्यां पचेदन्थाः पूरिकाश्च विचक्षणः ॥ 3.13.1571.

Instead of Bengal gram, if Black gram is used, that is the second type of Dosaka.¹⁴⁷

Iḍḍarikā: Regarding preparation of Iḍḍarikā, Someśvara says that the paste of rice, māṣa, Hiṅgu and Jīrakā should be kept for a day or two so that it would be sour to taste. Such a paste should be placed in small quantities in the Pitikā,¹⁴⁸ and cooked by steam properly.

Ghārikā: Regarding the preparation of Ghārikā, Someśvara has said that a thick paste of the mixture of Bengal gram powder or the Black gram powder, hiṅgu (asafoetida), Jīrakā and common salt should be prepared. It should be rounded suitably, five to seven holes should be made in it and it should be fried properly in oil.¹⁴⁹

147. विदलं चणकस्यैवं पूर्वसम्भारसंस्कृतम् ।
द्रोण्यां तैलविलिप्तायां दोसकान् विपचेद्बुधः ॥
माषस्य राजमाषस्य वोहणस्य च दोसकान् ।
अनेनैव प्रकारेण विपचेत्पाकतत्त्ववित् ॥ 3.13.1573-1574.
148. स्थाल्यां विमर्धं बहुशः स्थापयेत्तदहस्ततः ।
आम्लीभूतं माषपिष्टं पिटिकासु पिनिक्षिपेत् ॥ 3.13.1579.
149. तप्ततैले पचेद्घावल्लौहित्यं तेषु जायते ।
घारिकासंज्ञया ख्याता भक्ष्येषु सुमनोहराः ॥ 3.13.1584.

Vatikā: Someśvara says that a paste of the mixture of Bengal gram powder or the Black gram powder, sugar, cardamom, and pepper should be prepared. It should be rounded suitably, and it should be fried properly in oil. Further Someśvara tells that the Vatikā put into the Kāñjikā (the thin gruel of rice) is called Kāñjikā. If it is put into the mixture of curds, common salt, Ārdraka, Dhānyaka, Jīrakā, Marīca and hiṅgu it is called Temana.¹⁵⁰

These names of food articles are current in many languages in India. The method of using Hiṅgu (asfoetida) as given in the Mānasollāsa is not to use it in small quantities as is now being done usually, but by using Hiṅgu water. Water can give the smell of Hiṅgu if the

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150. निशिच्छद्रा घारिकाः पक्वा मथिते शर्करायुते ।
 एलामरिचसंयुक्ते निक्षिप्त्वा वटिकाभिधा ॥
 त एव वटकाः क्षिप्त्वा काञ्जिके काञ्जिकाभिधाः ।
 युत्र यत्र द्रव्यद्रव्यास्तन्नाम्ना वटकास्तु ते ॥
 आरनाळेन सान्द्रेण दग्धा कुमथितेन च ।
 सैन्धवार्द्रकधान्याकान् जीरकं च विमिश्रयेत् ॥
 मरिचानि द्विधा कृत्वा निक्षिपेत्तत्र पाकावित् ।
 द्रव्या विघटयन् सर्वं पचेधावहनीभवेत् ॥
 उत्तार्य वटकान् क्षिप्त्वा विकिरेन्मारिचं रजः ।
 हिङ्गुना धूपयेत्सम्यक् वटकास्तोमिधाः ॥ 3.13.1585-1589.

powder of Hiṅgu is mixed with water and kept standing for some time. According to G.K.Shrigondekar 'This use of Hiṅgu is not known in Northern India.'¹⁵¹ "In Karnataka there were some special sweets. According to Kavicarite the popular sweets were Holige, Lādu, and Śrīkarṇe".¹⁵²

There is reference to a variety of delicious eatables in Vaḍḍārādhane¹⁵³ written by Śivakotyācārya which is one of the ancient works in Kannada literature. This work belongs to the 9th century A.D. Hence, it can be surmised that those eatables were common among the people in those times. The names of eatables mentioned in the work is as follows:

Beṇṇegāsīdāmoda sugandha parīmaḷaṃ nārpa tuppamuṃ
palavuṃ tereda bāḍugaḷuṃ tuyyaluṃ pūriḡeyiddalige
sodige lāvaṇige ghr̥tapūraṃ laḍḍuge maṇḍage modalā-
goḍeya padineṇṭuṃ tereda bhakṣarūpaṅgaḷumaṃ
nānāprakāraḍa pānaṅgaḷumaṃ...

151. G.K.Shrigondekar. Mānasollāsa of King Someśvara
Vol.II (Baroda Oriental Institute 1939), Intro. p.21.

152. B.Sheik Ali. Op.cit. p.268.

153. Ed. D.L.Narasimhachar (Mysore 1959), p.78.

This list mentions eatables like fresh clarified butter, Pūri, Iḍḍali, Laḍḍu, Maṇḍage etc.

Further Someśvara, while describing non-vegetarian preparations mentions the method for removing the hair of boar. The animal should first be covered with a white piece of cloth. Boiling water should then be poured on the body of the boar with the help of a Goduka (a vessel used for taking water from a big earthen pot) with a handle slowly till the hair are so shaken from the roots that they can be easily removed by hands.¹⁵⁴ The remainder may then be removed with the help of a pair of scissors. Another method of removing the hair from the body is to besmear it with mud and burn the skin with fire made of grass. Someśvara suggests that mild fire is very good for the preparation of meat-food'.¹⁵⁵ Modern works tell its importance that "Meats should be cooked at low temperature... There are many advantages in cooking meats at low temperature... At low temperature

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154. एतेषु मांसवर्गेषु केषांचित्किञ्चिदुत्तमम् ।
 वराहं सितवस्त्रेण प्रक्षाल्यात्युष्णवारिणा ॥
 गोधुकेन सदण्डेन तावत्सिञ्चेन्मुहुर्मुहुः ।
 यावत्तद्वतरोमणि प्रोन्मूलयन्ते सुखं करैः ॥ 3.13.1608-1609.
155. मृदः स्थाल्यां विनिक्षिप्य दर्वीधट्टनपूर्वकम् ।
 प्रालेहकं मृदावग्नौ पचेत्पाकविशारदः ॥ 3.13.1627.

meats shrink little and are more attractive, they are juicier and more delicious."¹⁵⁶

Someśvara says "The king should take his food along with his sons, grandsons, relatives, his special private servants etc."¹⁵⁷. Then, Someśvara refers to the manner in which the district officers are to be treated while at dinner. The king himself should be supplied with a golden dish having a bunch of golden vessels for curries. The king with his face turned towards the east should sit on a cushion with a white napkin spread from the naval to the knee.¹⁵⁸ Thus the use of napkins at the time of dinner appears to be an old custom of rich men or princes and nobles in India. Someśvara suggest-
"In the beginning the king should take rice and ghee, and in the middle sweetmeats should be eaten. Then he should take fruits, sweet as well as sour drinks,

156. Adelle Davis. Op.cit. p.15.

157. आश्रितान् सुहृदो मृत्यान् गीतवाधविशारदान् ।
आहूय स्वोचिते स्थाने निवेशयाग्रे तु भोजयेत् ॥
पुत्रैः पौत्रैः प्रपौत्रैश्च सह भुञ्जीत पार्थिवः ।
भोज्यं भक्ष्यं तथा पेयं लेह्यं चोष्यं तथैव च ॥ 3.13.1524-1525.

158. वधित्पूर्वकथितमन्नपक्वान्नपानकम् ।
ऊरुनाभिप्रदेशान्तं सञ्छाद्य सितवाससा ॥ 3.13.1588.

Śikharipi and thick curds.¹⁵⁹ Lastly the king should take buttermilk and salt with rice, which may be followed by milk or gruel.¹⁶⁰

The Mānasollāsa further says that the king is recommended to change foods and drinks in accordance with the needs of different seasons. He is asked to eat, for instance, pungent things in spring, sweet and cold things in summer, salted things in rainy season, sweet things in autumn, greasy and hot things in Hemanta and hot and sour things in winter.¹⁶¹ It is probable that this routine is fixed in accordance with medical rules in order to counteract the Dosa which becomes predominant in a particular season.

159. ततः फलानि भुञ्जीत मधुराम्लरसानि च ।
पिबेच्च पानकं हृद्यं लिह्येच्छरिणीमपि ॥ 3.13.1596.
160. ततस्तक्रान्नभक्षनीयात् सैन्धवेन च संयुतम् ।
क्षीरं वाऽपि पिबेत्पश्चात् पिबेद्वा कान्धिकं वरम् ॥ 3.13.1597.
161. वसन्ते कटु चाक्षनीयात् ग्रीष्मे मधुरशीतलम् ।
वर्षासु च तथा क्षारं मधुरं शरदि स्मृतम् ॥
हेमन्ते स्निग्धमुष्णं च शिशिरे प्युष्णमम्लकम् ।
एवं भुञ्जीत यद्भूपो भोज्यभोगः स कथ्यते ॥ 3.12.1780-1781.

Someśvara discusses in the Mānasollāsa (5.10.426-514) different types of wine in the section called 'Madirā-pānakriḍā'. Here Someśvara tells about many varieties of wine, its production, merits and demerits and so on. The manufacture of wine is not new in Indian civilization.

The Mānasollāsa tells about Āstārā wine, which is prepared from Gold, Good-grains and so on.¹⁶² In the same way it describes wine, called Pāṇḍura,¹⁶³ Panasa¹⁶⁴ etc. Someśvara says that the drinking of good wine increases pleasure, and removes sorrow. And it is also a friend.¹⁶⁵ He tells also the bad effects of drinking

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162. काञ्चनाञ्जननिक्षिप्तां माधवीमास्तार-संज्ञिताम् ।
प्रियङ्गुनिम्बुनिक्षिप्तां शोषयित्वा विचूर्णयन्तु ॥
यावनालयवागुश्च तच्चूर्णेन विमिश्रयेत् ।
अन्यत्तथाविधं पिष्टं पृथुस्थं स्थापयेद् दधे ॥ 5.10.431-432.
163. किंवा वस्त्रेण सवेष्ट्य गलयेन्निर्मलं रसम् ।
एवं च शालिगोधूमयवाश्यामाककोद्रवैः ॥
कृतां पैष्टीं सुरां मृष्टां हृद्यां पाण्डुरसंज्ञिताम् । 5.10.436-437.
164. विकृतं धातकीमिश्रं नसासवमुत्तमम् । 5.10.446.
165. अहो विचित्रं कस्याश्चिद्धर्षितो रागसागरः ।
तदाभून्मदिरापानं बन्धुवच्छोकनाशनम् ॥
वित्तायं लाभवत्तासां मित्रवत् प्रेमवर्धनम् । 5.10.497-498.

wine - "It removes modesty or humility and destroys memory. It creates diseases, intoxication, delusion and sloth."¹⁶⁶

Then Someśvara discusses Pānīyopabhoga or the enjoyment of drinking water. The king is asked to drink water often during meals. This, Someśvara says, imparts taste to the food and helps digestion.¹⁶⁷ He recommends that whenever the king is thirsty he should drink water and should never think of time and circumstances, that is to say, whether it is morning or mid-night or whether he is with a full or an empty stomach.¹⁶⁸ According to Someśvara water should be stored in earthen pots or leather pots purified with Triphalā i.e. Harītakī, Bibhītaka, and Āmalaki and should be drunk in golden vessels.¹⁶⁹ Further Someśvara states that 'The king

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166. हीनमिथ्यातिपानेन भवत्याशु मदात्ययः ।
छर्दिर्मौहो भ्रमस्तन्द्राप्रलापो जायते ततः ॥ 1.19.298.
167. मध्ये मध्ये पिबेद्धारि स्तोकं स्तोकं सुशीतलम् ।
भोजनस्य च सूच्यर्थं पाकार्थमशनस्य च ॥ 3.14.1602.
168. नियमो नात्र कालस्य तृषावेगा न धार्यते । 3.14.1603.
169. करकैर्मृण्मयैः श्लक्ष्णैः प्रवालास्मकान्तिभिः ।
चर्मपात्रैः सुरम्यैर्वा त्रिफला परिशोधितै ॥ 3.14.1624.

should drink Divya (rain) water in the Śārada season, flowing water from rivers in Hemanta, from tanks in Śiśira, from lakes in spring, from springs in the hot season and from wells etc. in rainy season.¹⁷⁰ Further Someśvara tells about Pādābhyāṅga. A king should use butter, gruel or Kolaphenaka as an unguent for applying to the soles in summer. He should use milk or butter-milk in the rainy season. Ghee washed in water a hundred times or sandal-wood water should be used in the autumn. He should use pure oil in the Hemanta and Śiśira seasons.¹⁷¹ When the shampooing is over, the feet should be washed with water, by first applying the powder of Masūra pulse or barley mixed with turmeric to remove the grease and then they should again be washed and dried. In this way Someśvara points out for mankind, the way of healthy life.

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170. दिव्यं शरदि पानीयं हेमन्ते सरिदुद्भवम् ।
 शिशिरे वारि ताडागं वसन्ते सारसं पयः ॥
 निदाघे नैर्द्धारं तोयं भौमं प्रावृषि पीयते । 3.14.1627-1628.
171. निदाघे नवनीतेन काञ्जिकैः कोलफेनकैः ।
 वर्षासु पयसाऽभ्यञ्जेत्पादौ तक्त्रेण वा पुनः ॥
 शतधौतेन शरदि सर्पिषा चन्दनोदकैः ।
 हेमन्ते शिशिरे चैव तैलेनाभ्यञ्जयेत्पदे ॥ 3.15.1815-1816.