

Book Review

***Suvarṇa-Raupya-Siddhi-Śāstra*, by Jinadatta Sūri; edited and translated by J.C. Sikdar, published by L.D. Institute of Indology, Ahmedabad, Gujarat 380009, 1997. Price Rs. 250/-**

The book under review (abbreviated as SRSS) is an edited translation of a Jaina text of alchemy. The author of the original work, Jinadatta Sūri, put the date of his work as VS. 1210 (i.e. 1153A.D.). He belonged to the celebrated Kharatara Gaccha school of the Śvetāmbara Jainas. The author introduced his work as a treatise of 'the process of metallurgy of gold, silver etc. written in Sanskrit, Prākṛit and Apabhraṃśā by prose and poetic order.'

The actual work however goes beyond the stated objective. In the fourteen chapters we find discussions on various minerals and purification of metals - such as mercury, gold, silver, iron, copper, lead, zinc etc. - and their incineration products in conjunction with vegetable ingredients. Construction of apparatus and crucibles and some measurement techniques have been discussed.

The book was written with the purpose of 'removing poverty, disease and old age from the society' by making gold, silver etc. from the base metals, and preparing medicines with minerals, metals and herbs through the alchemical processes of con-

verting base metals into superior metals, virtues of mercury and elixir vitae, medical recipes and occultism.

We may cite some specific examples of the occultist approach in the book: secret meanings of the alchemical thoughts (chapter II), occultism to see hidden treasure and to become invisible (VI), attempted conversion of base metals to gold (VII), enchanting the opposite sex by occultism (XI), medicine for producing male child (XII) etc. We cannot overlook the basic fact that there was the benevolent idea of the author to help common people in overcoming their problems related to poverty, old age, disease, sexual life etc. Actually, the book deals with many medical recipes and the topic of metallurgy is only incidental. This book may be specially consulted and reviewed by medical men (this reviewer being not one amongst them), since many recipes have been suggested for 64 kinds of diseases such as paralytic rheumatism, venereal diseases, bloody bileousness, dysponoea, epilepsy, eye diseases, cures for sexual problems, impotency, eczema, sceptic ulcer, elixir vitae for rejuvenation of health etc. The list is impressive if we go by Sikdar's translation.

Examining the specific topics of discussion, we reach the conclusion that much of the book was written later than twelfth century A.D. In other words, Jinadatta Sūri might have written the text in much smaller version, and further additions were made by others in subsequent centuries. To justify this view, we may specifically mention the references in the book to Sekham Ali, a Muslim alchemist, Chinese items of *chobchini*, *ciniakapur*, *phiringiroga* (gonorrhoea, syphilis), *kalahai* (tin coating), *sabu* (soap), sal-ammoniac, vitriols of copper and iron, chemical process of salt-peter (*surokhāra*), camphor etc.

Many of the references in the book on gems, minerals and metals were clearly adapted from the earlier *Ratnaśāstra* and *Rasaśāstra* texts. The rest was knowledge accumulated after the 11th-12th century AD period. There are clear references in the book to zinc as a metal-*jastā* or *jaśad*-and its purification, lixiviation and crystallisation of alum and the vitriols, and lastly the occurrence and use of hill-water (ninth chapter, items 1-8).

The Indians became conscious about the special properties of hill-water (*śailodaka*); centuries ago the Chinese had extracted copper from blue water from the hills. Of course it has been ascertained only in the modern times, that the bacteria *Thiobacillus ferroxidans* and *Thiobacillus sulfoxidans* act upon minerals in the sulphidic ores such as pyrite, chalcopyrite to produce sulphuric acid and sulphates of iron, copper etc. soluble in hill-water. The ancients did not understand the scientific principle of bacterial leaching, but never-

theless put the acidulated hill-water to various uses and recovered sulphates and nitrates, products of bacterial action.

With painstaking efforts, Dr. J.C. Sikdar has translated Jinadatta Sūri's SRSS; our remaining comments pertain specifically to the 1997 edition brought out by him and the L.D. Institute of Indology (LDII). Apart from 9 pages of preface and introduction, Sikdar has thoughtfully written 27 pages to indicate his method of editing the book. Translation of the entire text is covered in 143 pages. Unfortunately, only a thin slice of the original text has been provided in 16 pages.

The original text should have been provided in entirety. In that event, the readers could have verified for themselves whether Sikdar's translation is acceptable or amenable to some improvement. The beautiful stanza (1.30) on the omnipresence of *rasa* or elixir vitae for example, can be translated in a straightforward manner; "Some *rasa* exists in the womb of sky, and planets and some in the word of Guru". Sikdar, while translating this stanza, has stuck in the words mercury, mica, murraya exotica which we do not find in the original text! The original stanza (7.6) dealing with an invocation to Bhagavati praying for heavy rain (in the drought areas of Gujarat and Rajasthan) and suggesting malarial recipes for rain must be wonderful and of great interest, but Sikdar has not provided it to us.

The last 231 pages (more than 50 p.c.) of the book deal with 'A study' which is very useful but goes beyond SRSS and

cover many other Jaina and Hindu alchemical and iatro-chemical texts. The author as well as the LDII accept that the three Jaina SRSS manuscripts, written with black, silvery and golden inks in palm leaf, contain many non-Jaina thoughts and recipes.

We are further informed that LDII at Ahmedabad possesses in its archive several Hindu and Jaina alchemical manuscripts of 12th-18th centuries, written in Sanskrit, Prakrit, Apabhramśa, Old Gujarati, Western Rajasthani etc. We many therefore, logiclly recommend that LDII should undertake a

bigger project of publishing all the texts of this period and comprehensively survey the pre-modern knowledge in India of chemistry, metallurgy and medicine.

Such a study would clearly reveal how the knowledge systems of medieval India, the Arab, Chinese and western worlds, commingled in Western India during the said period. It is needless to add that Dr. J.C. Sikdar, who has done a commendable job on the book under review, may significantly contribute towards the LDII endeavour.

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