



# EVIDENCE OF DOCTRINE OF SIGNATURES IN THE TRADITIONAL KNOWLEDGE SYSTEM OF THE PARAJA AND GADABA COMMUNITIES OF KORAPUT, INDIA

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## Abstract

The ancient pharmacological concept, “The Doctrine of Signatures”, is still evident among the tribal communities of Koraput district. This study explores the use of the doctrine of signatures prevalent among the Paraja and the Gadaba communities’ ethnic healers in the district. Various plant and animal features are conceived as indicative of medicinal properties owing to their resemblance with morphological features of biological organisms and parts affected by diseases. The research reports the traditional medicine use of a total of 29 numbers doctrine of signatures, out which twenty-four are plants and four are animal species and one is a natural substance, all total covering remedies for 20 different human sufferings.

**Key words :** Doctrine of Signatures, Traditional Knowledge, Ethnic Healers, Paraja, Gadaba.

## Introduction

Plants, animal products, and minerals have been in use since long past for the cure of various human sufferings. Plants were given priority in treating the patients. It is very difficult to trace out the first person on the earth who discovered the first medicine. The origin of medicines and early history of its progress are lost in the mythical stories. The selection of a plant or its part for therapeutic use for a particular ailment might not be an easy task for the initial healers (Evans, 1984). How the first/original researcher or observer conceived them as of medicinal significance remains in obscurity. The medicinal virtues of plants could have been identified through keen observation from animals and birds and by instinct/ intuition or trial and errors. ‘Doctrine of Signatures’ is also one such way of thinking that helped human beings to realise curable properties of plants (Arber, 1999; Patil, 2004, 2005, 2007).

This doctrine reveals the existence of a phenotypic resemblance between the parts of the human body affected by a disease and the parts of a plant or animal or any substances, believed to have been sustaining

medicinal values (Day, 1976). It asserts that the way plants (and presumably animals and minerals) look, feel, taste or react suggests their medicinal application. These special characteristics or ‘signatures’ serve as God-given indicators or guides to the symptoms and maladies each substance is allegedly capable of curing (Dyer, 1889).

Though the practices associated with the principle of the doctrine of signatures existed in many societies since ancient times, the concept of this doctrine is said to be germinated in Europe in the 16<sup>th</sup> and 17<sup>th</sup> century. Some modern academics view that the concept was first used by the early Egyptians (Focard, 1982). Others insist that the Doctrine originated in China and spread throughout Europe during the middle ages (Lews and Elevelin, 1977). William Balee suggested that the Doctrine of Signatures is “universal, since similar patterns of ‘resemblance’ have been observed in ancient Asia, Classical Greece, medieval Europe, and pre-Columbian America” (Bailee, 1994). Many scholars, philosophers, and physicians began to collect, consolidate, and write down the body of material that comprised the Doctrine.

## Materials and Methods

Anthropological research methods followed for the

**Table 1:** Doctrine of signatures with medicinal substances of plant origin.

S.N.	Scientific names of plants	Local name	The rapeutic use	Doctrine of signature
1.	<i>Abutilon indicum (L.) Sweet</i>	Pedipedica	Jaundice	The plant is selected on the basis of the yellow coloured flower it bears.
2.	<i>Achyranthes aspera L.</i>	Kukurdatki	Blind piles.	The plant contains piles like spikes on its inflorescence.
3.	<i>Aloe barbadensis Mill-</i>	Ghikuanri	Mucous dysentery	The leaves of the plant exudates mucous like substances.
4.	<i>Alstonia Scholaris L.</i>	Rukni	Galactogogue	The tree secretes milky latex.
5.	<i>Arisaema tortuosum (wall.) Sch.</i>	Ban Som, Krushnapani,	Snake-byte	The resemblance of the spadix and the flower of the plant with that of a snake's hood with its protruding tongue is the medical virtue.
6.	<i>Carica papaya L.</i>	Amrut	Galactogogue	The plant discharges a milky fluid.
7.	<i>Cassia fistula L.</i>	Sunari	Jaundice	The plant bears yellow flower.
8.	<i>Coleus aromaticus Benth.</i>	Rangnibasam	bone fracture as well as for swollen joints	The stems of the plant grow rapidly & the stem nodes are prominently jointed as the bone joint. The nodes, internodes & the stem together give a 'bone & joint' appearance of the human limb. Excessive swollen nodes are the medicinal virtue for its use in swollen joints.
9.	<i>Cryptolepis buchanani</i>	Doodhmal	Galacogogue	The plant exudes milky latex.
10.	<i>Curcuma longa L.</i>	Haldi	Jaundice	The rhizomes of the plants are yellowish in colour & the plant possess yellow flower.
11.	<i>Cynodon dactilon</i>	Dub	Leucorrhoea, Abscess discharging pus.	White colour of the plant.
12.	<i>Euphorbia hirta L.</i>	Dadipalsi	Galacogogue	The plant secretes milky latex.
13.	<i>Ficus benghalensis L.</i>	Bara gachha	Piles	The tender roots arising from the tip of the prop roots resemble growing piles, hence are used for the treatment of Piles.
14.	<i>Gloriosa superb L</i>	Baghnakhi		The plant bears reddish colour petals in its flower.
15.	<i>Hydrocotyle rotundifolia Roxb.</i>	Kadpi	Sore throat caused by drenching in the rain.	The plant grows in watery habitat.
16.	<i>Lawsonia inermis L.</i>	Manjuati	Jaundice	On cutting the plant shows yellowish discoloration and the juice of the plant is reddish-yellow in colour.
17.	<i>Litsea glutinosa (Lour)</i>	Tangiasina Robins-	Cutting wounds	Because of the strong adhesive nature of the gum oozing out of the cutting bark of the plant, its gum extract is applied on cutting wounds, so that the wound margins can be brought in to close opposition to facilitate quick healing.
18.	<i>Orchid</i>	Madanga	Fertility	A <i>Madang</i> is easy to grow on another plant it might be having fertility power.
19.	<i>Pergularia extensa</i>	Uturli	Galactogogue	The plant secretes milky juice.
20.	<i>Psidium guajava L.</i>	Pijuli	Dysentery & diarrhea	The astringent taste of the tender fruit of the plant is the medicinal virtue.
21.	<i>Punica granatum L.</i>	Dalim	Haemorrhage & Anaemia	The colour of the fruit juice is pink (Reddish).

Table1 contd....

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S.N.	Scientific names of plants	Local name	The rapeutic use	Doctrine of signature
22.	<i>Rauwolfia serpentina L.</i>	Patalgarud	Snake byte	The snakes never visit the place where these plants grow.
23.	<i>Rhaphidophora pertusa (Roxb.) Schott</i>	Adsangad	Fracture & dislocation of bones.	The stems of the plant grow rapidly & the stem nodes are prominently jointed as the bone joint. Thus its nodes are used for joint pain and dislocation of joints, and its stems are used for fracture of bones.
24.	<i>Sansevieria trifasciata</i>	Sapua	Snake-byte	The resemblance of the shape of its leaves with snake is the medicinal virtue.

Table 2: Doctrine of signatures with medicinal substances of animal origin.

S.N.	Scientific names of plants	Local name	The rapeutic use	Doctrine of signature
1	<i>Achatina fulica</i>	Tetbudi	Rectal prolapse	As the habit of the animal is always to protrude the head out of its shell.
2	<i>Dineutus sp.(indicus)</i>	Gadpahanra pok	Head-reeling	The insect's nature of moving in circles on the surface of the water is the medical virtue. NARAHARI
3	<i>Panthera tigris</i>	Bagha	To get rid of pain	The animal is known for its fast running habit; hence its fat oil is used as medicine and massaged on the limbs to get rid of pain.
4	<i>Psittaciformes (Parrot)</i>	Sua	Late learning to talk in children.	The bird's ability to imitate human voice and talk like a human being is the medicinal virtue. The left out eaten food of a talkative parrot is served to that child. GANGADHAR

Table 3: Doctrine of signatures with medicinal substances of natural substance.

Names of Substances	Local name	The rapeutic use	Doctrine of signature
Drained out water from a ringing brass bell of a temple	Ghanta pani	Late learning to talk in children.	A bell rings (produce sound) on hitting. Water is poured on a ringing temple A bell rings (produce sound) on hitting. Water is poured on a ringing temple bell and the drained out water is collected and served to a child of late-learning to talk. The brass bell's ability to produce sound is the medicinal virtue.

collection of data on doctrine of signatures. Field work carried out in Koraput district among the Paraja and Gadaba communities. Participation observation and interview technique followed to get information from ethnic healers and patients.

### Results and Discussion

The research reports the traditional medicine use of a total of 29 numbers doctrine of signatures, out which twenty-four are plants table 1 and four are animal species table 2 and one is a natural substance table 3, all total covering remedies for 20 different human sufferings. The photo graphs of plant species taken from field work is sr. No. wise presented below.

The plants with swollen nodes in their stems are useful

for swollen joints, with prominent jointed stems for dislocation of joints and with rapid growing stems are used for rapid union of fractured bones as well as the growth of bones in general. Soft & tender roots arising from the prop roots of Banyan tree resemble engorged capillaries, hence are used for the treatment of piles. Colour morphs play an important role in selection of remedies. Parts of red colour flowering plants are used for checking haemorrhages, yellow/red colour plants for jaundice. Plants oozing white latex are used as galactogogue & white colour plants are used for leucoderma. Plants detesting sweet are used for the treatment of diabetes & plants with bitter taste are unanimously used by all the healers for the treatment of diabetes as well as for purification of the blood. Plants



1. *Abutilon indicum* (L.) Sweet 2. *Achyranthes aspera* L. 3. *Aloe barbadensis* Mill 4. *Istonia Scholaris* L.



5. *Arisaema tortuosum* (wall.) Sch. 6. *Carica papaya* L. 7. *Cassia fistula* L 8. *Coleus aromaticus* Benth.



9. *Cryptolepis buchanani* 10. *Curcuma longa* L. 11. *Cynodon dactylon* 12. *Euphorbia hirta* L.



13. *Ficus benghalensis* L. 14. *Gloriosa superba* L 15. *Hydrocotyle rotundifolia* Roxb. 16. *Lawsonia inermis* L.



17. *Litsea glutinosa* (Lour) Robins 18. *Orchid* 19. *Pergularia extensa* 20. *Psidium guajava* L.



21. *Punica granatum* L. 22. *Rauwolfia serpentina* L. 23. *Rhaphidophora pertusa* (Roxb.) 24. *Sansevieria trifasciata*

### Photographs of Plant sepsis

grow in water or water-logged areas are useful for the treatment of common cold, coryza with sore throat & are important ingredients for the remedies for chilly patients those catch cold easily. These plants are also used for soothing effect of brain and hence are used as brain tonic. Plants like *Bryophyllum exudates* mucous secretion are meant for the treatment of mucous dysentery. The fast propagative properties of epiphytic orchids are used for the treatment of infertility of both male and female. Resemblance of the shape of the leaves (*Sansevieria trifasciata*) with that of snakes, and the spadix and the flower of the another plant (*Arisaema tortuosum*) with that of a snake's hood with its protruding tongue is the medicinal virtue for its selection for snake bite. The astringent taste of the plant extracts are used for the treatment of diarrhoea. The animals and their parts are also chosen on the basis of doctrine of signature. Animal with habit of protruding the head out of its shell (*Achatina fulica*) are given for the treatment of rectal prolapsed. The fast running habit of the animal (*Panthera tigris*) without being exhausted is the medicinal virtue; hence its fat oil is used as massage oil to get rid of pain. The insect [*Dineutus sp.*(indicus)] constantly moves in circles on the surface of the water hence used for the

treatment of reeling of head. Parrot's ability to imitate human voice and talk like a human being is the signature for its selection for the treatment of late learning to talk in children and the left out eaten food of a talkative parrot is served to that child.

### Conclusion

Doctrines of Signatures are value system of a community to remember the medical importance of plant and animal species. This traditional knowledge system is day by day vanishing due to modernisation and due to lack up proper documentation and dissemination. It is high time for documentation, digitalisation, and dissemination of traditional knowledge system and this report tries to make an initiative in this regard. In future more and more multidisciplinary research in this regard is essential, especially the phytochemical analysis of such species is essential for patenting the medicinal value of these species, so that communities who are using these can get direct benefit.

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