

SOCIETY, CULTURE AND NATURAL SURROUNDINGS.  
INDIGENOUS KNOWLEDGE AND PRACTICES OF THE *DONGRIA*,  
*DHURUVA* AND *POROJA* TRIBES OF RAYAGADA AND KORAPUT  
DISTRICTS, ODISHA, INDIA

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**ABSTRACT**

The present article focuses on the agricultural knowledge preservation in the indigenous *Adivasi* (tribal) communities in India, and on the connection between nature, society and culture within these communities. Our research is a survey realized in four villages belonging to two districts of the Odisha State of India, Koraput and Rayagada, with an interest in understanding the indigenous agriculture practices, their connection to their local beliefs and festivals, and also the way this kind of knowledge reflects in the language and community life. In these districts, agriculture is the main source of income, as in most villages, the communities still forage, collecting plants from the nearby forests, and we were interested in how they recognize, collect and cook roots and tubers, while many *Adivasis* maintain a tradition of selling their produce (vegetables and fruit) in local markets. The methodology comprises field data collection (a field research journal, visual documentation), participative and non-participative observation, and knowledge sharing from the local people.

**Keywords:** indigenous knowledge, tribes, agriculture, visual anthropology, ecology.

**INTRODUCTION**

India is a land of varied agro-climatic conditions, offering an enormous variety of agricultural products. In the actual global context, it is important to have sustainable, autonomous and subsistence agriculture, one important measure could be helping and promoting local farmers, encouraging and supporting local and

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indigenous production. According to UNESCO's definition, "local and indigenous knowledge" refers to the "understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings. For rural and indigenous peoples, local knowledge informs decision-making about fundamental aspects of day-to-day life. This knowledge is integral to a cultural complex that also encompasses language, systems of classification, resource use practices, social interactions, ritual and spirituality. These unique ways of knowing are important facets of the world's cultural diversity, and provide a foundation for locally-appropriate sustainable development" (<https://en.unesco.org/links>). UNESCO's 2030 Agenda commitment to "Leave no one behind" brings new impetus to ensure that indigenous peoples' priorities are being heard. Following the adoption of the *UN Declaration on the Rights of Indigenous Peoples* by the UN General Assembly in September 2007 and the *UN Development Group (UNDG) Guidelines on Indigenous Peoples' Issues* issued in 2008, it is increasingly important that UN agencies, including UNESCO, consider how to provide guidance on engaging with indigenous peoples. In this light, the *UNESCO Policy on Engaging with Indigenous Peoples* seeks to outline a house-wide approach that will guide all of UNESCO's programme sectors in their interactions with indigenous peoples and their organizations (unesco.org).

The indigenous people around the world have preserved distinct knowledge, understandings, all rooted in their own cultural traditions and experiences, defined as "indigenous, tradition, aboriginal knowledge", which constitute a system of relations between humans and the environment, the specific ecosystems (Bruchac, 2014, pp. 3814–3824). An ecosystem (or ecological system) consists of all the organisms (physical environment) with which they interact (Chapin, 2011). The term "ecosystem" was first used by Tansley: "The whole system, (...) including not only the organism-complex, but also the whole complex of physical factors forming what we call the environment" (Tansley, 1935), who regarded ecosystems not simply as natural units, but as "mental isolates"; he later defined the spatial extent of ecosystems using the term "ecotope" (Tansley, 1939). Some traditional understandings are common knowledge, shared by all members of a tribal community, ethnic group, kin network, or family, many of these being learned through phenomenological experience and everyday activities (Vansina, 1985). Thus, traditional indigenous knowledge can be defined as a "network of knowledges, beliefs, and traditions intended to preserve, communicate, and contextualize indigenous relationships with culture and landscape over time" (Bruchac, 2014, pp.3 814–3 824):

"Indigenous knowledges are conveyed formally and informally among kin groups and communities through social encounters, oral traditions, ritual practices, and other activities. They include: oral narratives that recount human histories; cosmological observations and modes of reckoning time; symbolic and decorative modes of communication; techniques for planting and harvesting; hunting and

gathering skills; specialized understandings of local ecosystems; and the manufacture of specialized tools and technologies.” (id.)

Indigenous communities have developed and preserved useful data, those philosophies of thought and modes of activity that are linked to particular landscapes:

“This data includes geographical, genealogical, biological, and other evidence that maps human relations to flora and fauna, land and water, and supernatural forces. Knowledge is often passed on through regular Indigenous performances – including oral traditions, song, dance, and ceremony – that convey both literal and metaphorical truths about these relations.” (id.)

In this regard, our research is based on a field trip visit in four tribal communities (see Beteille, 1986, pp. 296–318) belonging to two districts of the Odisha State, in the eastern part of India. Starting from the hypothesis that the traditional culture, knowledge and subsistence of the *Adivasis* are closely connected with the local ecosystems (see Merlin & Narasimhan, 2009, pp. 645–648), we investigated the relation between the social and cultural life of these communities and the surrounding natural environment. It is considered that traditional ecological knowledge, as a system, encompasses sophisticated philosophies and practical measures that are intended to preserve cultural heritage and protect ancestral landscapes and ways of life often considered superior to modern-days conservation methods (Apffel-Marglin, 2011; Nicholas & Andrews, 1997; Sillar and Fforde, 2005). Considering that traditional ecological knowledge can inform everyday as well as ritual activities, in public and private venues, and ritualized activities aim to combine the knowledge and phenomenological experiences of multiple individuals for maximum effect, our hypothesis is that the local *Adivasi* (tribal) communities we visited during the field research trip still preserve an invaluable heritage of local knowledge on how to collect and cultivate local plants, which connects the life of people to their ecosystem. This reflects in the cultural practices of the communities, as well as in the language (the attention given to the denominations of the plants used in the foodways of the communities, their importance in everyday life, as well as during community festivals).

#### **KORAPUT AND RAYAGADA DISTRICTS: GEOGRAPHY, HISTORY, POPULATION, AND SOCIO-CULTURAL LIFE**

Both Koraput and Rayagada districts are located in the Southern part of the Odisha State of India. The Koraput District has an area of 8 807 km, making it the third largest district of Odisha, sharing its borders with the Rayagada district, Nabarangpur district, Bastar district of Chhattisgarh, Malkangiri district and Vizianagaram and Visakhapatnam districts of Andhra Pradesh ([ordistricts.nic.in](http://ordistricts.nic.in)). The Rayagada district covers an area of 7 584.7 square kilometres, and is divided



and *Suryavans* kings. Vishwanath Dev Gajapati (1527–1571 CE), the Suryavanshi King of Nandapur (later Jeypore) established the capital of Rayagada on the bank of Nagavali and named it Rayagada or Rai-gadh. Koraput came under the French possession in 1753 A.D. In 1758 A.D., with the French defeated, the Raja of Jeypore, Ramachandra Deo (1781–1825 A.D.) was granted a permanent *sanad*, document of possession, by the British; in time, Jeypore Estate came to be administered directly by the British, under the Act XXVI of 1839, as a part of the Madras Presidency and the British Empire, being seen as a profitable trade route to connect Jagdalpur with Visakhapatnam through Salur. Koraput became a district of Odisha state on 1st of April, 1936. Rayagada remained under the Kingdom of Jeypore until the dissolution act of 1947 (Singh, 1939, Schnepel, 1995, in Mohanty, 2013) and part of the Koraput district, until 1992, when the Koraput district was divided, resulting in the creation of Malkangiri, Rayagada and Nabarangpur districts, along with the present-day Koraput district (*Gazetteers*, <https://gopabandhuacademy.gov.in>).

The Koraput district has one of the highest tribal populations in Odisha and is a Scheduled District under the Constitution of India, which means that the sale and purchase of tribal land by non-tribals is prohibited (Press Information Bureau, Government of India, Ministry of Tribal Affairs, 2019, Land Rights of Scheduled Tribes, <https://pib.gov.in/Pressreleaseshare.aspx?PRID=1579747>). According to the 2011 census, the Koraput district had a population of 1 379 647 (census2011.co.in), Scheduled Castes make up 14.21 % of the population (the Scheduled Caste population is predominantly from the Domba community); while 50.6 % of the population belongs to Scheduled Tribes (the largest tribal population is represented by the Poroja, followed by the Khond, who mainly live in the northeast near Rayagada; other major communities include the Bhottada, Gadaba and Bhumia). Rayagada district counted a population of 967 911 in the 2011 Census of India (census2011.co.in); the district's tribal population is 57.52 % of the total. Rayagada's topography helps the tribal communities maintain their cultural identity, as 4 785.36 square kilometres are forested, 777.27 square kilometres of which being reserved forest. The predominant tribal populations are the *Khonds* and the *Soras* (Mohanty, 2013).

The region is known for its rich tribal life, culture and traditions, as many as 51 different tribes have been noted in the undivided Koraput district, each with its own language and culture (Ambagudia, 2010, Ota *et al.* 2010, Mohapatra, 2011, see also *Koraput Gazetteers*, <http://gopabandhuacademy.gov.in>).

While the social organization of tribals have undergone some changes and disturbances under the new developments and administrative changes, “the features of their way of life still comprise staying in hills and forests, migrating at times leading to redefining of their identities” (Gupta, 2019). Nowadays the tribal communities continue to live in rather simple, socio-culturally homogeneous societies, having their own language, dialects and oral traditions; thus “they

possess their own socio-cultural history, which may be un-written, and they have their rich cultural tradition and heritage” (id.), though they have low access to education and healthcare services. Among other features of tribal socio-cultural life are the fact that a particular tribal community is endogamous and is divided into a number of exogamous divisions; and that the life of tribal communities is still regulated by village councils, from tribal ceremonies, worships, festivities, to education and occupation (id.).

According to the 2011 Census, 93.8 % of the population declares themselves as Hindu – a part of the population that had been converted to a local form of Christianity, during the 19th century (see Kulke, 2005) now returned to Hinduism (Kanungo, 2012, pp. 215–239). Christianity is practised by less than 5 % of the population, both Koraput and Jeypore have large churches, while smaller ones can be found throughout the district; there is a percentage of Muslim population, also Sikhs, Buddhists and Jains (2001 Census). Almost all tribes make a distinction between a Hindu-ised segment, and another one that still worships the indigenous deities, such as for example *Jakari* and *Thakurani*, as most villages will have a stone or a tree where the deity of the village is believed to reside (*Gazetteer*, gopabandhuacademy.gov.in). The animist tribes worship the soil as Mother Earth, sun as god and water as the life giver, remembering from their forefathers how to protect the environment. The religious practices are connected to the tribal socio-economic life, from construction of homes, shifting cultivation, sowing of seeds, setting of wooden poles in the ground, hunting and worshipping (Patra, 2011, pp. 46–49). The way different festivals observe the religious culture varies from one community to another, though some similarities are noticeable (see Mahapatra, 1993). The *Adivasi* communities Koraput district are also known for the festivals they organise, among which the “Parab” or “Dongar” festival, an annual tribal festival organized by the District Council of Culture, Koraput in the month of November every year, all over the district (koraput.nic.in), showcasing the way of in the Koraput district life of Adivasis. In Rayagada, the three-day Chaiti Festival, held from 27<sup>th</sup> to 29<sup>th</sup> of December, also celebrates tribal art and culture.

#### **POROJA, DONGRIA AND DHURUWA TRIBES**

Poroja / Paroja / Parja / Paraja is one of the major Scheduled Tribes (ST) of Odisha. While they are also found in Andhra Pradesh, Madhya Pradesh and Maharashtra, West Bengal and Assam, the tribe has the largest concentration of population in Odisha, which they regard as their homeland, and where they count 317 301 persons (at the 2001 census) accounting for 3.89 % of the total Scheduled Tribes population. They inhabit the southern part Odisha, Koraput, Nabrangpur, Malkangiri, Kalahandi, Ganjam and Rayagada districts. “Paroja” is a local Odia

term, sometimes pronounced as Paraja, Parja or Poroja, probably derived from the Sanskrit “Prajā”, meaning “common people”, subjects or citizens. Their mother tongue, “Parji”, is a form of *Gondi* language, belonging to Dravidian family of languages, which varies according to locality, influenced by the local tongues like Odia or Telugu; quite distinct dialects are spoken by the following tribes to whom the title “Poroja” is usually given: *Bondo Poroja*, *Jhodia Poroja*, *Dhruva Poroja*, *Konda Poroja* (also known as *Konda Dora*), *Parenga Poroja*, *Pengo Poroja* and *Didayi Poroja*. Of these, the languages of Bondo, Parenga and Didayi Porojas belong to Munda branch, while the others are Dravidian; nowadays, most of the tribals speak (also) the Odia regional language called “Desia” (Grierson, 1973, Ota, Mohanti *et al.*, 2010).

The Poroja have many socio-cultural features in common with the neighbouring major tribes—namely the *Gond*, the *Kondh* and the *Gadaba*. In Koraput, the *Paroja* live with other communities like the *Rana*, the *Paika*, the *Mali*, the *Gadaba* and the *Kondh*. They keep their distinct culture regarding their settlement pattern, dress and ornaments, economic life, beliefs, worship, manners, customs and folk traditions. Women love the adornments, they wear *kanjika*, *sikidiguba* and *suju* on their head, *phasi* and *jilligut* and rings on their earlobes, *dandi* on the helix of their nose and *mundra* on their nasal septum; and are fond of tattooing their body by skilled women belonging to different communities (for example the Kela community) with beautiful designs such as *kumbana*, *sikidibana*, *udulibana*, *hulbana*, *danbana* and *topa* (SCSTRTI, 2013, Ghosh, 2020, pp. 295–304).

Poroja settlements are exclusively homogenous and uniclan in structure and are usually located near foothills, where perennial streams are flowing down the hills to provide them with drinking water throughout the year. In multi-ethnic villages, they live in separate hamlets, keeping social distance from other ethnic groups and maintaining their own cultural identity. In typical Paroja habitations, the settlement pattern does not follow any typical or regular model. In some villages houses are scattered here and there, while in others, individual houses run in two parallel rows facing each other, along a common street. In the village there are two important places, called *Berna Munda* and *Nissan Munda*. *Berna Munda* is a centrally located place inside the village, comprising a constellation of circular stone slabs where the village headman, leaders and elders sit down to discuss and decide upon their village affairs; sometimes, this place is in front of the headman’s house and otherwise called *Munda Dand* (SCSTRTI, 2013).

The Poroja are primarily hill cultivators, settled cultivation as well as shifting cultivation being the mainstay of their subsistence economy. They live near perennial streams amidst hills, valleys and use the spring water to irrigate their terraced agricultural fields on hill slopes and valleys. For cultivation, the Paroja use very simple agricultural implements, namely the plough, spade, hoe, axe etc. In all phases of agricultural operations, mutual co-operation and coordination between people are common. Besides cultivation, they supplement their livelihood with

allied activities such as seasonal foraging, hunting, fishing and livestock rearing. They rear domestic animals like cows, buffaloes, goats, sheep, pigs and fowls. They are skilled in carpentry, mat making, and in making country-made tiles (*khapar*) and bricks. The *Dangaria Kandha* people are members of the Kondhs, mainly located in the Niyamgiri hills, a hill range that spreads over 250 km, which falls under the Rayagada and Kalahandi District in south-west Odisha (Tatpathi, Kothari, Mishra, 2016). They sustain themselves from the resources of the Niyamgiri forests, practising horticulture and shifting cultivation. The Dongria Kondh community numbers approximately 8 000 people, inhabiting about 100 villages (Dasgupta, 2013). The social structure of the community is adapted to the surroundings of Niyamgiri forested hill country, where they have lived for many generations. The socio-political governing and decision-making body of the Dongria Kondh community is also known as the *Kutumba*. The Dongria Kondh have adopted a system of imparting cultural and traditional values to the adolescents and youths in their villages through exclusive youth dormitories (Tatpathi, Kothari, Mishra, 2016). The Dongria Kondh people have more than three hundred settlements within their clan territory, they can change their habitat for agricultural reasons (*podu*, the slash-and-burn agriculture); they have deep reverence for their tribal gods, among which Niyam Raja, the god of the Niyamgiri jungle (id.).

The Duruwa, Dhurwa or Dharua is a tribal group found in the Indian states of Chhattisgarh and Odisha. Parji, a Dravidian language is used by these people ([scstrti.in/index.php/communities/tribes/dharua](http://scstrti.in/index.php/communities/tribes/dharua)). Dharua is an endogamous subdivision of the Gond tribe – in Chhattisgarh, Dharua people are classified under the Gond tribe, but in Odisha they are listed as a separate tribe ([censusindia.gov.in](http://censusindia.gov.in)). Although Parji is their native language, they are well versed with the local *lingua franca*, Odia, Chhattisgarhi, but also speak Hindi, Telugu, Kurmali and use Odia, Hindi or Telugu scripts for intergroup communication (Ota, Patel, 2015).

## FIELD SURVEY AND RESULTS

The methodology comprises field data collection (field research journal, visual documentation), participant and non-participant observation, and knowledge sharing from the local people. The trip was organized by the Odisha State Tribal Museum and Scheduled Castes and Scheduled Tribes Research and Training Institute, Bhubaneswar, in order to realize a series of visual materials for the Odisha State Tribal Museum on the subject of *Indigenous Knowledge System of Roots and Tuber Collection by Tribal Community of Odisha*, between 29<sup>th</sup> of December 2020 and 3<sup>rd</sup> of January 2021. As the access to the tribal zone is strictly regulated by the Government of Odisha, the field trip duration was restricted to five days ([dot.odishatourism.gov.in/sites/default/files/Guidelines20forregulationofthevisitofforeign tourists in Tribal areas.pdf](http://dot.odishatourism.gov.in/sites/default/files/Guidelines20forregulationofthevisitofforeign tourists in Tribal areas.pdf)). Together with a videography team (two video



reporters assigned by the museum, which gathered their own material), we visited four villages: Sikaguda and Baipariguda of Pottangi block Koraput District, and Potolomba and Niyamgiri villages of Bissamcuttack block of Rayagada District, where the Dongria, Poroja and Dhuruva tribal communities all live.

### OBSERVATION ON THE AGRICULTURAL PRACTICES

The livelihood of the tribes we observed is dependent upon horticulture and shifting cultivation on the slope of the hills, practicing subsistence farming. They cultivate rice, pulses, minor millets, vegetables and collect forest products like seeds, herbs, leafs, roots, tubers, insects and honey, mainly for their homely consumption. The tuber, called *kunna* in the local *Kui* language, is abundantly available in winter season; about seven kinds of tubers are collected from the forest, *jada kunna*, *rani kunna*, *karadu kunna*, *happa kunna*, *leuta kunna*, *uha kunna* and *roed kunna* etc.

Table 1

Days, time, places, respondents (codified), and the information provided

Day	Date, time interval	Places visited	Tribe	Respondents (codified)	Information about
1	30.12.2020 13.30 to 17.00	Sikaguda, Pottangi, Koraput	Poroja	R1	<i>Shirshi tree</i>
2	31.12.2020 10.35 to 18.15	Sikaguda, Pottangi, Koraput	Poroja	R2	<i>Pit kanda</i> <i>Sirendi kanda</i> <i>Sindi kanda</i>
3	01.01.2021 00.30 to 18.30	Baipariguda, Koraput	Dhuruva	R3, R4, R5	<i>Shitong tuber</i> <i>Dada kumbu/ Saranda</i> <i>Kanda tuber</i> <i>Bamboo types</i>
4	02.01.2021 00.15 to 18.15	Patolommba, Rayagada	Dongria Kondh	R6	<i>jada kunna</i>
5	03.01.2021 06.30 to 18.00	Niyamgiri, BisamCuttack, Rayagada	Dongria Kondh	R7, R8, R9, R10, R 11	<i>Jada kunna</i>

### FIELD NOTES

During the first day, the 30<sup>th</sup> of December 2020, we visited the village Sikaguda Pottangi, in the Koraput district, and we spoke to a member of the Poroja tribal community (R1), who is a farmer; as we entered to the village, he was the first person we met. At that time, he was making a plough from a piece of wood,

for his own use. We asked him a few questions about the timber. He informed that they collect the wood from *daman* / *shirsi* tree: they cut only those woods which are strong; three or four people from the village go to the forest, which is nearby the village, cut the wood from the *daman* / *shirsi* tree, and they bring the timber to their place of living; from the wood, they make plough and other makeable tools. It takes 4 to 5 days to complete the entire process.

On the 31<sup>st</sup> December 2020, starting with 10h35 till 18h15, at Sikaguda, Pottangi, Koraput, we collected data within the same Poroja tribal community. We spoke to R2, who helped us identify the *pit kanda*, a tuber. The tuber is called *kanda* in the Poroja indigenous language. There are five different kinds of tubers found in this place: *sirendi kanda*, *pita kanda*, *torga kanda*, *pit kanda*, *sindi kanda*. We wanted to know how they identify the tubers, and he and other members of the community described the identification process: they have to go to the mountains in search of the *kanda* (tuber), they recognize the plant by seeing the leaf of the tuber plant, which basically is a creeper that always grows wrapped in twigs of other trees. They follow the thread of the creeper to the ground and then they dig in that place up to three or four feet to find the *pit kanda*. After collecting the tuber, they bring it home, wash it off to remove the mud, and then they boil it with or without rice, according to the availability of rice; from the tuber they make a smoothie-like food, which they consume. If they manage to get more than their need, they sell it to the market nearby at the rate of ₹30 per kg.

The second respondent, R2, helped identify the *sirendi kanda* and *sindi kanda*. The process of identification of *sirendi kanda* and *sindi kanda* (tubers) is the same as for the *pit kanda*. But one extra information about the *sindi kanda* we received, that there is a bug they found inside the *sindi kanda*, that is called *sindi kida*, they also eat the bug after boiling it. Some people make curry out of it. They also gave information about a broad beans kind of fruit called *siali* that they use to burn on fire and eat the seeds found inside the broad beans. They cannot eat it before *Pusa Parba*, which takes place on the month of December every year.

On the 1<sup>st</sup> of January 2021, at Baipariguda, Koraput, we visited a Dhuruva tribal community, starting with 00.30 until 18.30. We discussed with another respondent, R3, about the *Shitong* Tuber. The tuber is called *Kurda* among the members of the Dhuruva Tribe. The process of identification of the tuber: when they go to the forest in search of tubers, they look for the leaf of the tuber, and wherever they will find the leaf, they follow it to the root and then they first beat the ground with the help of rakes and hoes, to get a sound like “*Gudum Gudum*”; where they get this sort of sound, they dig in that place for about two or three feet, to extract the tuber. After getting the tuber, they wash it with water; later, in the house, the tuber is boiled and consumed. The extra quantity of tubers collected can be sold at the near market. The informant also gave us a translation of the types of tuber known in the community, in *Durua Paata* language of the tribe.







Figure 2. Visual documentation of the collection and cooking of *pit kanda* and *sirendi kanda* at Sikaguda, Pottangi, Koraput, Odisha.

Table 2

Translation of the names of different types of tubers, from Odia language to the local language.

Odia language	Duruva Paata language
<i>Pit kanda</i>	<i>Shitong kurda</i>
<i>Pita kanda</i>	<i>Sheundi kurda</i>
<i>Saranda kanda</i>	<i>Dada bembu kurda</i>
<i>Dori kanda</i>	<i>Toddu kurda</i>
<i>Torgia kanda</i>	<i>Kinniye kurda</i>

The second respondent from this community gave us some information on the *dada bembu* / *Saranda kanda* tuber. These kinds of tubers are also identified by their leaves, but they are to be found very near to the surface. The process of gathering the tubers is similar to that we had witnessed in the first village. The third respondent, a farmer of that village community, explained to us that, apart from farming, they also collect bamboo wood from the forest to make handmade bamboo products like baskets, *kula*, containers etc. The bamboo is called *bedari* in Duruva language. He could identify seven types of bamboo available here: *dohgor*, *sher*, *pani*, *jadi*, *kata*, *tupi*, and *chita*.

On the 2<sup>nd</sup> of January, at Patolommba, Rayagada, we spoke to a member of the Dongria Kondh tribal community. That day, we collected data in the time interval 00.15 to 18.15. The tuber this respondent talked to us about is called *kuna* in the language of the Dongriya Kondh tribe. The types of tuber found here are: *jada kuna*, *kardu kunna* / *mati alu*, *happa kunna* / *saru*, *leuka kunna* / *simili kanda*, *rani kunna* / *kanda mula*, *uha kunna*, *roed kunna*. The respondent, a woman, helped us identify the *jada kunna*; this respondent is also a farmer, she cultivates products like turmeric, vegetables, pineapple, ground nut and tubers. She goes to the mountain in search of tubers, they search for the leaf of the tuber plant, and dig

the nearby ground, but most of the times, as they have sowed it in a place and go and dig it out after one year, they don't have to search for them, as they already know the place where they have sowed it.

On the 3<sup>rd</sup> January 2021, we visited the Dongriya Kondh tribes of Niyamgiri village Bisam Cuttack, Rayagada, again, at 18 h 45, with the help of Surjya Narayan Padhi, who works for the office of Dongriya Kandha Development Agency, Chatikana, Rayagada. He arranged that five women of the community will accompany us to the Donger (Hill) to search for tubers and dig them out for us and show us the process of cooking them. The respondents (three respondents from the local community) helped us identify the *jada kunna*. The process of identification follows the next phases: they go to the hill in search of the tubers, sometimes they find them in the jungle, but most of the time they have sown them in the field one year before, so they go to that place directly and start digging for the roots. They have to dig about three or four feet for the tubers. According to them, tubers cannot be found in the months of *Asadha* and *Bhadra* of the Odiya Calendar, but for the rest of the year the tubers are available.





*Figure 3.* The process of collecting and cooking the tubers, in the Baipariguda, Koraput, a Dhuruva tribal community, Odisha, India.





Figure 4. Visual documentation at Patolommba, Rayagada, the Dongria Kondh tribal community. Collecting data on *jada kuna*, respondent: Mala Kadraka.









*Figure 5.* Visual documentation of Dogriya Kondh tribes of Niyangiri village, BisamCuttack, Rayagada with the help of Surjya Narayan Padhi, office of Dongriya Kandha Development Agency, Chatikana, Rayagada. The respondents, Dabe Wadaka, Tela Wadaka, Singar Wadaka helped us identify the *jada kunna*.

We collected some extra information from Surjya Narayan Padhi, as he is working for the Dongriya tribes for more than 30 years, he has a good knowledge on their life and agricultural practice, hence he elaborately explained and translated what the respondents have said about the tubers in their language, *Kubi Kaata*. He translated the above mentioned information to us in Odia language. The evening was spent together with the local community, cooking the tubers.

## CONCLUSIONS

The Adivasi communities which we have surveyed during our field trip preserve their indigenous knowledge regarding the collection of tubers and roots. Good knowledge of the surrounding environment, respect for the nature, transmission of information from generation to generation are still present. The preservation of traditional knowledge, a form of survival tactics preserved by the community memory (Augustine, 1997), rather translates as “survivance”, meaning an active continuation of traditions and connection with the ancestors (Vizenor, 2008). It would be of interest to be able to research the oral traditions of these groups, in order to deeper understand the meaning associated with these practices (see also Vansina, 1985). Indigenous communities’ practices all over the world have been described and recorded, and came to be known through the work of researchers. The knowledge of these communities, though rooted in their surroundings and ecosystems, can be portable, as is all the ecological knowledge. This kind of “native science” is “the collective heritage of human experience with the natural world; in its most essential form, it is a map of natural reality drawn from the experience of thousands of human generations” (Cajete, 2000, p. 3). It might be useful to any community in this world, as they establish connections between local resources and human communities.

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