



# Orang Asli Knowledge – The Wisdom Inheritance of Indigenous Peoples

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## ABSTRACT

The Orang Asli, an indigenous minority in Malaysia, have a rich historical presence on this land dating back millennia. They possess a unique knowledge legacy encompassing understandings, skills, and philosophies deeply intertwined with their natural surroundings. This study aims to explore the types of Orang Asli knowledge that are deemed essential for preservation by their younger generation. Through semi-structured interviews with nine Orang Asli individuals from three different tribes, thematic analysis revealed key themes such as the significance of forest knowledge, medicinal practices, farming techniques, survival skills, taboos, and respect for elders. The findings underscore the enduring relevance of Orang Asli knowledge despite modernization pressures. This knowledge helps the younger generation understand their roots and embrace their unique identity. The study highlights that Orang Asli knowledge provides valuable insights into nature, spirituality, and social structures, which are crucial for maintaining their cultural legacy.

**Index Terms**— Orang Asli, Indigenous Knowledge, Traditional Medicine, Tribes

## I. INTRODUCTION

In Malaysia, the Orang Asli are a diverse indigenous group that constitutes a national minority and represents the earliest settlers in Peninsular Malaysia. Despite their long history, the educational attainment of the Orang Asli remains significantly below the national average. Their overall academic performance is still mediocre compared to other Malaysian ethnic groups (Mohd et al., 2020), and falls well short of satisfactory levels (Airil et al., 2021). According to Sharifah et al. (2011), the literacy rate among Orang Asli children is only 49.2%, markedly lower than the national average of 94.9%. Furthermore, the dropout rate from primary to secondary school for Orang Asli youths was 26% in 2017, considerably higher than the national average (Hema et al., 2021).

The Aboriginal population is distributed as follows: 36.9% reside in remote areas, 62.4% live in rural regions, and only 0.7% are in urban locations (Noraini et al., 2018). The Orang Asli is divided into three main groups: the Negrito, the Senoi, and the Proto-Malay, each consisting of several distinct tribes or sub-groups, with around 18 linguistic subgroups. The distribution of these groups is detailed in Table 1.

**Table 1:** Distributions of Three Main Groups of Aborigines in Peninsular Malaysia

Ethnic	Senoi	Proto- Malay	Negrito	Total
Percentage	113910	86784	6083	206777
	55.09%	41.97%	2.94%	100%

Source: Census Data of Aborigines Community updated as of 31 December 2020

Compared to other ethnic groups in Malaysia, a significant portion of the Aboriginal community continues to

lag behind in several areas. The majority reside in forested regions and rely on their surrounding environment for livelihood-related activities, adhering to traditional lifestyles deeply influenced by their natural surroundings and ancestral practices. This way of life is closely tied to natural resources. Despite comprising eighteen ethnic tribes, the Orang Asli's disadvantaged economic and social conditions, with the majority living below the poverty line, have greatly contributed to concerning statistics on the educational progress of Orang Asli children. Furthermore, their educational struggles are compounded by parental influence, as many parents are school dropouts themselves and lack awareness of the importance of education (Sawalludin et al., 2020). Consequently, it is not uncommon for some Orang Asli families in rural settlements to disregard educational issues, believing that their children can survive without formal education due to their ability to sustain themselves in the rural setting.

In this study, respondents from three main Orang Asli tribes on the East Coast of Malaysia were included. These tribes are:

### ***The Semai People***

The Semai are the largest of the nineteen Orang Asli groups in Peninsular Malaysia, categorized under the Senoi subgroup by the government. They comprise about a quarter of the entire Orang Asli population and nearly two-thirds of the Senoi subgroup. Many Semai refer to themselves as mai darat (People of the Hinterlands). Occasionally, in self-deprecation, they use the Malay word sakai (slave) to describe their status relative to other peoples of the Malayan peninsula.

The Semai have limited knowledge of their own history beyond recognizing that they were the original inhabitants of the peninsula. Their villages are predominantly located in the states of Pahang, Perak, Selangor, and Kelantan. Over time, their main means of livelihood have evolved into a mixed system of arboriculture, shifting cultivation, hunting, and trading forest products. Farming and hunting remain their primary economic activities. The more traditional Semai live in small, isolated camps on high-altitude mountain slopes, growing mountain rice, millet, and maize. They also hunt, fish, and gather. Others live at lower altitudes and cultivate mountain rice, while those more integrated into Malay society cultivate both mountain rice and wet rice. The literacy rate among the Semai is relatively higher compared to other Orang Asli tribes.

For the Semai, a meal is considered complete only when it includes a starch dish, preferably rice. When rice is scarce, they substitute roasted or boiled tapioca root. To eat meat, fowl, or fish without a starch dish is considered absurd by the Semai.

Religiously, the Semai are predominantly animists, though a significant minority profess Christianity. However, many Christian Semai continue to adhere to their traditional beliefs, including witchcraft. One notable ritual is the appeasement of land spirits for a good harvest, which involves offering sacrificial chickens, flowers, and unhusked rice to worship the rice spirit.

Economically, the Semai people could benefit from modern agricultural training to increase crop yields and improve their economic situation. Introducing more practical and productive farming techniques would enhance their traditional methods and increase the sale value of their crops. There is a need for agricultural training programs tailored to the Semai community's unique needs and circumstances, as well as for local support in addressing their spiritual and cultural requirements.

### ***The Semaq Beri People***

The Semaq Beri, meaning "people of the jungle," are one of the nineteen Orang Asli groups in Peninsular Malaysia and belong to the Senoi subgroup. They refer to themselves as Semoq ("people") and are called Semoq Beri by their neighbors. In relevant literature, they are sometimes erroneously referred to as the Jakun of Tekai River or the Semelai. The Semaq Beri reside in settlements within the jungles of the Jerantut, Kuantan, and Maran districts in Pahang, as well as the Hulu Terengganu and Kemaman districts in Terengganu.

In the Malaysian Department of Aborigines nomenclature, Semoq Beri refers to a culturally diverse group of Orang Asli living in a large area along the eastern and northern tributaries of the Tembeling and Pahang Rivers.

The Semaq Beri society operates on a mutual understanding that each group has its own territory with clearly defined boundaries maintained through mutual respect. Access to resources is available on demand, such as acquiring rights to make a garden by felling trees.

Their subsistence activities include hunting, slash-and-burn agriculture, and collecting forest produce. Those living in government settlements are semi-nomadic, relying less on forest produce but still hunting, fishing,

and trading items like rattan and aromatic woods. The traditional Semaq Beri are hunter-gatherers who depend entirely on the forest, using government village settlements only as base camps. Except during the rainy season, they move around the forest throughout the year, hunting and gathering forest produce. They set up temporary camps and move from one location to another, with each move lasting from two to thirty-six days and covering distances of up to 375 miles (600 km).

The Semaq Beri believe in a Creator God called Tohan, as well as numerous genies, spirits, ghosts, and supernatural beings. Natural phenomena such as thunder, lightning, and eclipses are still feared by some members of the community. They believe the forest is inhabited by spirits integral to the human environment, communicating with and guiding humans during dreams and trances. These non-human beings are found in plants, animals, stones, and mountains. Religious rituals are closely linked to their use of the forest, and their lives are filled with taboos and superstitions driven by a fear of spirits. A small minority of the Semaq Beri are Christian.

The Semaq Beri are a remote and highly mobile people, isolated and impoverished. Positive efforts from outside their culture are needed to improve their way of life. Support from individuals who understand and respect their traditions and beliefs can help facilitate these improvements while maintaining their cultural integrity.

### ***The Jakun People***

The Jakun are a group of native Malays who inhabit the southern section of the Malaysian peninsula, primarily residing along the upper reaches of the Pahang and Johore Rivers. The geography of this region varies from wet, swampy terrain to dense tropical jungles, characterized by high humidity and seasonal monsoons.

The Jakun have lighter skin than the Negroid tribes of the area but darker skin compared to the tribes of Asian descent. They are generally short in stature with long, sloping foreheads and small faces. Despite being described as mild and kind, they are also known to be very shy.

Although they generally dislike outsiders, the Jakun frequently interact with neighboring tribes and settlements. They engage in trade with the Negroid and Chinese people in the area and occasionally intermarry with them. Despite these interactions, the Jakun have managed to preserve a distinct and unique culture.

The Jakun are considered one of the most traditional tribes in the southern lowlands of Malaysia. They lead a primarily nomadic lifestyle as roaming farmers, hunters, gatherers, and traders. In agriculture, they practice the "slash and burn" method, which involves cutting down tropical vegetation and burning it to enrich the soil. They then plant crops, usually rice or cassava, in the resulting topsoil. After a season or two, they move to a new piece of land and repeat the process.

The Jakun hunt wild deer, pigs, snakes, monkeys, and fish using spears, traps, nets, and blow-pipes. Their blow-pipes are particularly well-crafted, featuring an inner tube precisely enclosed in a larger tube. The darts, made from the rib of a palm branch and sharpened to an exact caliber, are dipped in poison, allowing the Jakun to shoot with deadly accuracy from up to thirty yards away.

The Jakun engage in trade with surrounding communities to obtain necessary or desired items. They trade rattan, wax, wood, resin, and camphor with the Chinese for goods such as tobacco, tapioca, clothing, and other items. Sometimes, they make their own loincloths from tree bark instead of trading for clothing.

The Jakun are generally monogamous, and divorce is extremely rare. They are animists, believing that non-human objects possess spirits, and are very superstitious. Good and evil spirits dominate their worldview, often causing them to live in fear. They have been known to burn the house of someone who has died and relocate the entire village to escape evil spirits. To protect themselves, they put up bamboo "wind chimes" and wear combs and certain necklaces. Occasionally, a Minteri (minister) will cast spells to appease the spirits.

## **II. LITERATURE REVIEW**

### ***A. Aborigines and Their Knowledge***

The transmission of the Orang Asli's ancient wisdom and teachings, as studied by Nicholas (2012), is deeply rooted in their oral traditions. These teachings are passed down through generations by elders and earlier ancestors using storytelling, myth-making, rituals, and symbolic art. The elders hold esteemed positions within the community, providing advice and guidance. This oral tradition is rich, diverse, and extensive, serving not only to educate and explain but also to entertain, preserve memories, and record knowledge. The

tradition encompasses myths about the world, real and fictitious warriors, respected personalities, social behavioral codes, encyclopedic knowledge about natural resource utilization, and personal experiences of elders and past generations.

This ancient wisdom has been preserved through the years, ensuring the survival and sustainability of both the forest and the people who depend on it. Indigenous knowledge, often unwritten, is transmitted orally and preserved in this manner. The strong ties to their traditional land, a culture infused with nature and its elements, contribute to the development of oral literacy among young children in their native language during their formative years (Hema et al., 2021).

Interestingly, the advent of Christianity and Islam has not eroded the Orang Asli's belief in the spirits of the forests and their ancestors. Many still believe that their children embody the spirits of their great ancestors, necessitating deep love and care for the young.

A crucial element of Orang Asli knowledge is their approach to curing illness. According to the World Health Organization (WHO) Traditional Medicine (TM) Strategy 2014-2023, TM comprises knowledge, skills, and practices based on theories, beliefs, and experiences indigenous to various societies. This traditional medicine supports well-being and aids in the prevention, diagnosis, improvement, or treatment of physical and psychological ailments (Kang et al., 2017).

TM is a subset of traditional knowledge (Wilder, 2000) and represents an ancient medical practice that predates the application of modern science to health. Historically, traditional medicine faced dismissal, hindering the development of indigenous medical systems (Anyaku, Nwafor-Orizu & Eneh, 2015). Cotton (1996), cited by Karunamoorthi et al. (2013), defines TM as old and culturally based healthcare practices that differ from scientific medicine and are primarily transmitted orally across various societies.

A study by Ullah et al. (2013) found that in many developing countries, medicinal plants remain the preferred mode of treatment, with a majority of the population relying on traditional medicine for primary healthcare needs. Ong & Azliza (2015) emphasized that indigenous knowledge in TM is crucial for discovering novel compounds to treat various diseases.

Despite its long history of maintaining health and preventing and treating chronic diseases worldwide, the use of indigenous knowledge and medicinal plants is declining due to various factors (Ong et al., 2012). The protection and sharing of these benefits have been contentious at both international and domestic levels for decades.

An integral part of the Orang Asli's medical practices is Sewang, a traditional dance performed to appease spirits, treat the ill, or seek guidance on health and significant decisions (Nazaruddin, 2014; Chin, 2016). This dance involves community participation, with everyone gathering to dance to music made from bamboo.

The Hala, or Orang Asli medicine men, are considered the right figures for their healing knowledge and skills, protecting the people from supernatural threats. The Hala are revered leaders responsible for passing down new knowledge and skills within their community (Baer, 1999; Baharon, 1973; Bolton, 1968). With the advent of Islam and interaction with Malay neighbors, the Orang Asli incorporated Quranic verses in their healing chants (Jampi). However, some Hala continue to practice shamanistic traditions contrary to Islamic teachings.

The role of the Orang Asli in forest management in Malaysia remains largely unrecognized and under-explored (Diansyah et al., 2021; Abas et al., 2022). Their exclusion from forest management discussions suggests a lack of necessary considerations regarding the social-ecological impacts on Malaysia's forests, especially concerning indigenous communities. As societies and environments evolve, the Orang Asli must adapt to sustain their way of life. Exclusionary and rigid management approaches suppress the potential for timely and flexible adaptations, leading to a loss of resilience (Berkes et al., 2003; Folke et al., 2016).

The Orang Asli's belief in spirits plays a significant role in their daily lives. Without a formal religion, they worship spirits, particularly those connected to the jungle, farming, and hunting (Harper, 1998). For instance, they pray to river spirits for a successful fish catch and respect the environment to avoid angering land spirits. Children are cautioned against venturing into the jungle at night to avoid sickness caused by spirits. Some tribes, like the Mah Meri, sculpt spirit figures from wood and keep them in their homes.

The Orang Asli's worship includes enchanting songs and music that honor the spirits and the forest. Their music, transmitted through generations by oral tradition, accompanies daily activities, rituals, rites of passage, and celebrations. Mothers often sing traditional songs to their children as lullabies, embedding cultural values of social responsibility, gender roles, and an egalitarian lifestyle (Chan, 2012).

Myths are another critical component of Orang Asli traditional knowledge. These stories, often not captured in written form, are retold by elders to maintain cultural continuity and explain the wisdom behind ancestral tales (Lim, 1981). These myths emphasize respect for animals and harmony with the Creator God, nature, and fellow humans. Observing taboos is not just about avoiding personal bad karma but ensuring the community's well-being.

The Orang Asli's oral stories frequently involve the forest, their lifeline with profound cultural significance. They protect old trees for their ecological importance and bury family members in the forest, considering

trees as the dwellings of their ancestors. Losing the forest equates to losing family members and cherished memories, highlighting their deep-rooted connection to their environment.

The wisdom and practices of the Orang Asli underscore the importance of maintaining harmony with nature. Their cultural heritage, steeped in oral traditions, medicinal practices, and spiritual beliefs, provides valuable insights into sustainable living and resilience in the face of modernization and environmental change. Preserving and respecting their knowledge is crucial for the continuation of their cultural legacy and offers lessons that are relevant to the contemporary world. *Final Stage*

### ***B. Formal Education System for Orang Asli***

The Jabatan Kemajuan Orang Asli (JAKOA), or the Department of Orang Asli Development, was established in 1954 as a Malaysian government agency responsible for the welfare of the Aboriginal communities in Malaysia. Operating under the Malaysian Ministry of Rural Development, JAKOA initially focused on various aspects of Orang Asli life, but it wasn't until 1995 that the agency assumed responsibility for the education of Aboriginal children. Despite these efforts, JAKOA's educational programs were deemed ineffective, prompting the Ministry of Education (MOE) to take over the administration of Aboriginal schools and the mandate to elevate the educational standards among the Orang Asli.

The Malaysian government recognizes the importance of formal education for all its citizens, including the Orang Asli, as a means to improve their socio-economic standing. This commitment is enshrined in Article 12(1) of the Federal Constitution, which guarantees education for all Malaysians without discrimination based on religion, race, descent, or place of birth. Consequently, the Orang Asli are entitled to the same quality of education as other Malaysians, ensuring they receive opportunities to advance academically and socially.

Efforts to integrate Orang Asli children into the formal education system are part of a broader strategy to bridge educational disparities and promote inclusivity. The transition of educational responsibilities to the MOE signifies a targeted approach to address the unique challenges faced by the Orang Asli. By upholding their constitutional rights and providing access to quality education, the government aims to empower the Orang Asli community, fostering greater participation in the nation's socio-economic development and preserving their cultural heritage through enhanced educational opportunities.

### ***C. How the Knowledge is Passed from Generations?***

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.

The term "cultural interface" was coined by Martin Nakata (2007a), a Torres Strait Islander in Australia. He claims that education in cross-cultural contexts demands not merely the perspective and narratives of the aborigines, but that the indigenous knowledge systems should be recognized and the complexity from their perspective at the cultural interface should be understood (Nakata, 2007b). He also elaborates that the successful application of the cultural interface theory in knowledge requires the starting point to be a native, which later extends the learners' overlap with non-local realities, maintaining continuity with the past while learning skills relevant to the present and the future. Nakata explicitly says that the cultural interface approach is more than just a way for Aboriginal and Torres Strait Islander students to transition into mainstream education; it is an innovation that improves critical thinking and problem-solving skills that are applicable to learners of any culture.

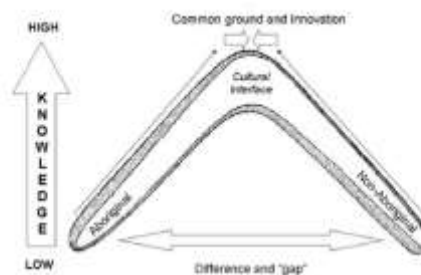
"This complexity was captured and conceptualised as a broader interface," says Nakata (2007b) (p.198). Points of intersecting trajectories represent what he refers to as the cultural interface. He explained it this way:

It is a multi-layered and multi-dimensional space of dynamic relations constituted by the intersections of time, place, distance, different systems of thought, competing and contesting discourses within and between different knowledge traditions, and different systems of social, economic and political organisation. It is a space for many shifting and complex intersections between different people with different histories, experiences, languages, agendas, aspirations and responses ... All these elements cohere together at the interface in the everyday (Nakata, 2007b, p.199).

According to Nakata (2001), the successful application of the cultural interface theory in knowledge requires starting with Aboriginal and Torres Strait Islander "lifeworlds" and then extending learners in the overlap with non-local realities while maintaining continuity with the past and learning skills relevant to the present and future. He goes on to say that the cultural interface approach is not just a way for Aboriginal and Torres

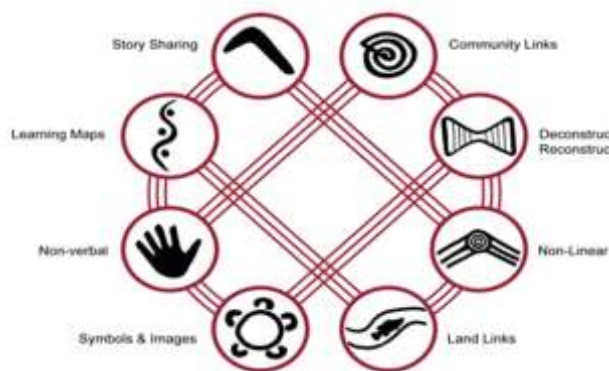
Strait Islander students to transition into mainstream education; it is also an innovation that improves critical thinking and problem-solving skills that are applicable to students of all cultures (Nakata, cited in Yunkaporta, 2009). By 2007, Nakata (2007b) had broadened his definition of the cultural interface to include a space where non-Aboriginal and Aboriginal systems interact in a dialogical exchange. Further, there is an acknowledgement that it is a "dynamic space between ancestral and western realities" for those working at the cultural interface in education (Yunkaporta & McGinty, 2009, p. 58).

Fig 2 below is Nakata’s concept as a boomerang matrix of cultural interface knowledge with the common ground between aboriginal and non-aboriginal people connected yet separated (Maakrun & Maher, 2016). The cultural interface theory of Nakata is a model that posits visual spaces (i.e., the spaces where daily life is enacted, e.g., home, school, university, shopping malls) that intersect with theoretical or conceptual spaces (e.g., mind maps, intellectual or emotional ways of understanding) to create an understanding of race struggles (McGloin, 2009, p. 39).



**Fig 2:** Boomerang matrix of cultural interface knowledge (Yunkaporta, 2009, p.4)

In extending thinking around the cultural interface, Yunkaporta (2009) argues that Aboriginal perspectives are derived from Aboriginal knowledge transmission processes rather than Indigenous content. Using an Indigenous standpoint methodology inspired by Martin Nakata's work, a common-ground pedagogical framework was developed. In the following Figure 2, the eight-way framework of aboriginal pedagogy shows aboriginal ways of being made up of eight interconnected pedagogies that see teaching and learning as fundamentally holistic and non-linear, comprising kinaesthetic, visual, and social aspects. Recognizing the depth and complexity of the interface, Yunkaporta conducted additional research and built a framework based on Nakata's work that could be used in both indigenous and non-indigenous educational contexts as shown in Fi 3 i.e. the 8 Ways Pedagogical Framework.



**Fig 3:** Eight ways framework

According to Yunkaporta (2009), it is critical to have a clear understanding of one's own conceptual model, or what one believes is real, as well as a clear articulation of one's epistemology, or how one thinks about that reality, in order to better appreciate an Aboriginal perspective. The data was analyzed in terms of the eight interconnected pedagogies in the current study, which helped to clarify these two aspects. Yunkaporta (2009) goes on to suggest that methodology, which he sees as the "tool to make your epistemology" (p. 4), be developed consciously within a framework of explicit axiology, ethics, and values. Yunkaporta's research project gave birth to the 8 Ways of Pedagogy, as previously stated. Around 50 teachers from all over New South Wales participated between 2007 and 2009. Yunaporta's research focused on two main questions: "How can teachers engage with Aboriginal knowledge?" and "How can teachers use Aboriginal knowledge authentically and productively in schools?" Yunkaporta (2009)b, p. 3.

Ultimately, ancient wisdom is a kind of life-long knowledge which passed through generation irrespective of background by integrating with the environment over time. It is also an experience based-knowledge

which usually embraced by indigenous people to sustain their ancestral culture, natural resources and livelihood in ensuring the survival of the community. Like other indigenous people, the Orang Asli community in Malaysia also do not have any formal writing system to preserve their traditional knowledge. However, it can be seen through their knowledge, skill and expertise about surrounding forest, the component of ecology, wildlife, culture, taboo and socioeconomic activity. Ironically, the value of such knowledge inherited by the older is being diminished by various factors for instance religion, urbanisation, modernisation and also the loss of natural resources due to the rapid exploitation of forest in the name of development for commercial activities especially agricultural (Campbell, Ghazali, & Suffian Sahuri, 2016)

### III. OBJECTIVE

This study aims to explore the types of Orang Asli knowledge that the Orang Asli consider desirable for retention by their younger generation.

### IV. METHODOLOGY

A qualitative approach was employed in this case study by employing a data collected through in-depth interviews and field observations. This study was carried out among the main three tribes in Orang Asli community settlement in the East Coast of Peninsular Malaysia.

The interview began with a brief introduction of the team and the purpose for the study to gain the trust of the elder, which allowed them to talk more freely and openly as outlined by Sher et al., (2015) in their settlement to document their diagnostic knowledge for curing the diseases, and the medicinal plants and other raw material used in the treatments (Samal, Dhyani& Dollo, 2010). Othman (2006) examined that the interview method is very useful for inquiring about past events that people experience difficult to replicate again. In general, the majority of the informant had no problem answering that the questions during the interview as the Malay language spoken was simple and straightforward with no medical jargon and it took only one hour to conduct since there was no language barrier (Ahmad et al., 2013).

This study was conducted in November 2022 to July 2023 after the completion of the interviews and The whole interviews and observation process were first recorded in a notebook, video and voice recording device as field note and transcribed later. Photographs of every species of plants samples were also taken from the field observation for better identification and record (Prakash et al., 2014; Jain & Mudgal, 1999; Martin, 1995; Singh et al., 1989; Singh & Singh, 1985). Documents were thematically analyzed (Boyatzis, 1998; Bryman, 2012; Löfmarck & Lidskog, 2017).

### V. RESULTS AND FINDING

The results and discussion section was arranged based on the domains used: forest, medicinal, farming, survival skills, taboos, and respect to the superior.

#### A. Informants

In the case of this study, it was impossible to involve the whole community due to limited time and resources. Apart from the fact that it was impossible to delve into all the lives of the people in the research setting even this research took three years in total involving three tribes of Orang Asli. The people's openness to the researcher's presence differed significantly. Therefore, this participant observation intensively involved the those have been welcome to the researcher's presence since the very beginning.

#### **Among the members who became the main participants of this study are as follows:**

1. Umairah 32, is from Semai tribe who got married with a Semaq Beri . She has two children aged four and seven. She is not working and used to study religious under PERKIM. She is a devoted Muslim, literate and exposed to IT.
2. Botak is in his early 40's from a Jakun tribe. He has ten children and relies on jungle for living.
3. Romi is a 47 year Jakun with three children. He works in a timber at his village which is very far and remote. The place has limited access to electric and other basic needs.
4. Jamil is in his late fifties, a head man for his Semaq Beri tribe. He is a music lover and very active documenting the language, folk tales and songs of his people. Indeed, he is the frame of reference for the Orang Asli culture. He appears a lot in electronic and printed media.
5. Sengek Piah, 65 a Semaq Beri mother of ten who is also a middle wife. She can perform sewang for the treatment
6. Amy Masture, 23, a part time religious teacher at the nursery for the Orang Asli children from the Semaq Beri Tribe .
7. Mazliza is 21, a trainee teacher from Temuan tribe. She is the only one from her community that enters college and to be a government servant.

8. Jeelin is 35, a teacher from Semai tribe who is teaching at Orang Asli school but is different from her tribe.  
 9. Ahok, 67, a Jakun man who collects jungle products for a living besides farming.

### **B. Data Collection and Analysis**

Local and indigenous knowledge is living knowledge that is rarely written and typically lives with the elders. Studying such knowledge often requires observation, imitation and practice, and even apprenticeship (Gamborg et al., 2012). Since such knowledge is often locally and culturally specific, combining facts and values, it is better suited for a case study.

Data collection in the field was mainly done by the researcher through participant observation, informal and casual interviewing that clarifies and triangulates observed and experienced phenomena. These informal and casual interviews were written in the field notes and recorded through the Voice Memos application as well as videos recorded through the Photos application on the researcher's smartphone, according to the allowing circumstances. Such recordings were in itself part of the analysis, i.e., the descriptive analysis stage whereby empirical facts were described as they were observed or encountered. At this stage, deciding what was relevant became a reflexive activity that informed the data collection process (Marvasti, 2014).

They were then transcribed later. The interaction with the Orang Asli was conducted in Malay, a language that both parties could understand well. However, certain native languages have no Malay equivalence, which required further explanation and clarification along the way with the help of the local Orang Asli who are competent in the Malay language.

Researchers mingled more with people in their daily lives and did not specifically participate in livelihood activities just yet. It was during this period that a relationship of mutual trust was established through casual interactions. Elementary-school-aged children who happened to be very close to the researcher helped the later in scoping the Kampung. They guided the way and led to various places in their village, from their family's kebun, the rivers, and to the burial site of their predecessors. During this time, these children have demonstrated exceptional knowledge of their environment, which reveals how they have learned and attuned themselves well to it from early on.

#### **(i) Jungle life**

At a very young age, the children's ability to distinguish the pucuk paku (*Diplazium esculentum*, vegetable fern as shown in Figure 3) amid the densely planted shrubs in the forest fringes was remarkable. This is perhaps the result of frequent involvement with the parents in foraging edible plants that grow around the orchards and forest fringes, which are either to be sold for the household's additional income or personal consumption.

In addition, children were also often asked by their parents to collect the fallen fruits of pinang (*Areca catechu*, palm tree nuts) and pluck daun sirih (*Piper betle*, betel leaves). By doing these things, not only do the children become familiar with certain species of plants but they also get to know the functions and significance to their culture. The physical environment, therefore, serves as a learning space for the children, where learning is carried out through hands-on experience with the land.

"My kids would follow me collecting the ferns as they are abundant here and I can save my family income. Didi, my girl can pick the right ferns since she was five.

All these groups still show their respect to the forest as something mystical and the guardian.

"There must be a mentera (prayer) chanted before we enter the jungle or open a land for plantations. We must please the spirit of the guardian. They can protect us". Romy

"The kids are always reminded to please the guardian of the jungles. There are cases the outsiders and even locals get serious illness because they do not respect the jungle," Bota

"We treat the nature respectfully. It is like going to someone's house, you must respect it. There is no making noise or litter. We believe there is a guardian of the forest and we cannot make it angry." Lily

Another source of income for the Orang Asli community is from forest products. Between forest products that are used as a source of income are rattan, bamboo, sandalwood, resin and tree roots. This item has a high value in the market. Rattan and bamboo made into a piece of furniture that has a high commercial value in the market while the roots of wood are like wood. Sandalwood is made into perfume. Other woody roots such as Kacip Fatimah and Tongkat Ali often used for traditional medicine where there is a high demand from wholesalers and traditional medicine practitioners.

"We used to go to jungle to collect herbs for medicines, but now as there is a lot of logging activities, we are



not going there anymore. Somehow, we still have some herbs to be used like coughing or maternity time. I don't really keen though and prefer hospital whenever I am sick because it is faster. On the contrary, some of the traditional medicine is through try and error. In addition, most of the experts among us are no longer around," Jeelin

"I can walk miles looking for petai, kerdas or jering to be used as a side dish and sold on the side of the road and market. Our bee honey is good too and can catch good price somehow, there are times the Forest products obtained will be sold to middlemen at a low price," Ahok

Somehow, the last few decades have seen Malaysia develop rapidly, assisted by industries including timber, rubber and palm oil. Today, the country is the second-biggest producer of palm oil, the blessing of this is a disguise for the Orang Asli.

Forests are where the Orang Asli mainly live. The Orang Asli, through their indigenous systems of land management and use, have been protecting and conserving these areas. The Orang Asli community and the land have worked in tandem for decades.

From the observation, the elderly really respect the forest and instill the values to the young one directly or indirectly. As a sign of respectful partnership with the forest, the Orang Asli community only reaps necessary from the forest and ensures the land continues to thrive in fear of being cursed.

Somehow, logging and plantation affect their settlement that the community will be forced to move. For example, entire communities of Orang Asli have been relocated for hydropower projects. And hydropower isn't the only factor contributing to the Orang Asli's loss of land.

With many Orang Asli forced to adapt to modern ways of living as they are uprooted from their natural homes, some face the permeating influence of development in their community especially indulging the knowledge to the younger generation.

### **(ii) Medicinal Purpose**

Sewang is still largely practised in all of the tribes and Pawang or middle men have a big influence in the society. Sewang, an integral part of Orang Asli culture, is a traditional dance performed to appease spirits, treat the sick or seek guidance on health and major decisions, and is now used to entertain guests. A Sewang which involves dancing to music produced from bamboo, brings everyone under one roof.

After communicating with the spirits in the forest, Tok Halak stood and started to sing and was accompanied by the 'orchestral' sound of a woman hitting two bamboo sticks on hardwood to an upbeat tribal beat in the hall.

The dancers -both men and women - repeat every line their leader sings while stomping their feet on the floor.

Based on Temiar beliefs, every line and verse in the Sewang songs were chosen as chorus for the people to communicate with their forefathers and the spirits in the forest.

Here, just as what their ancestors have done for generations, the Temiar tribe conducts a Sewang to consult 'higher powers' for guidance and help.

In the centre of the hall, a group of male dancers were immersed in the rhythm and sounds of the musical instruments called 'smer'. The bamboo floor was suddenly curved and swayed across our seats at times due to the heavy stomping of the dancers.

For Umairah, Amy Mastura and Sengek Piah, they are among the few Orang Asli in their area who still practice Sewang. Somehow it is more welcoming guests in certain function at the community.

Sengek Piah who is well respected guides the young with this tradition. She can perform Sewang cure the disease somehow, as time grows, she claims her people prefer the modern technology. The three Umairah, Amy Mastura and Senek Piah do teach the young children Sewang at schools so that the art is not dying.

In other words, Sewang is more performed as an art instead of curing illness. The same attitude is shown by most of the new Orang Asli when it comes to the treatment of the illness they face. According to Sengek Piah, she had all her ten kids delivered by the midwives when she was in her motherhood. She complied a very strict diet and confinement.

"My children prefers giving birth at hospital as it is more convenient. Somehow, I make sure they are following

our style during the confinement as I know it is good for them and the newborns,” Sengeh Piah.

“ The young mothers prefer to go to hospital for the confinement and the government also looks after them. Somehow, they are still adhered to the two months confinement at home under their mother’s care” Bota.

“ If the illness is not serious, most people prefer to use local herbs as remedy instead of the hospital treatments. Most families have stock of local medicines that they can use when ever needed,”

This is agreed by Romi who claimed they are times when they prefer the Sewang to cure diseases instead of getting to the hospital.

“ It is not easy to go to the hospital because it is far. In addition, it is very costly for us,” he added.

“ Amongst the traditional herb that I use is special herb from the jungle called “Serum leaves” which I boil and use to bath to get rid off my fever,” Jeelin

Most of the Orang Asli met consumed daily herbs like “ Tongkat Ali,” “ Kacip Fatimah “ and “ perdu Bumi “ in term of beverages to give them energy. The

### **(iii)Agriculture**

Orang Asli is known as a dependent society live for the forest and natural environment by carrying out self-sustaining economic activities, such as shifting cultivation, hunting and gathering forest products and fishing. Norasmah and Mohd. Hasri (2011), also explained that subsistence agriculture refers to small-scale agriculture that is usually cultivated around the house only.

They are also grow various types of other crops such as human rice, millet rice, cassava, tobacco, corn, sugarcane, lemongrass, including fruits such as bananas, durian, rambutan and so on. There are also some of them who still practice the barter system by exchanging results agriculture to obtain daily necessities. Hunting is a job second for the Orang Asli community. Among the game products are squirrels, hedgehogs, monkeys, lizards, moths, wild boars, wild chickens, birds and so on. From the game will be sold to the harvesters who come to serve exotic food.

Besides, they also carry out fishing activities and sell to wholesalers as resources income to support the family. The old generation like Ahok and Sengek Piah still walk to the river for the fish supply . it is very far and normally they would overnighy there for three days. The trip was full of challenges because there is no proper road. In addition, they are exposed to wild animals like tiger, elephant and boars.

When were asked about buying the fish instead they claimed it was hard because their villege is far from town and the price was high as well. The young Orang Asli like Amy Mastura, Jeelin and Mazliza have better opportunity with education, enable them to further their studies at tertiary education.

They prefer to work nine to five instead of joining agricultural activity which promise a better in come and they can use it to help their family as well.

### **(iv)Survival skill**

When it comes to survival skills, the Orang Asli are very capable as jungle is closed to them. They are capable of innovating useful, mind-blowing tools using the jungle materials such as bamboos and rattan which are the two main resources found in abundance around them. It's becoming an identity to them.

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‘ The new generation is very lacking when it comes to survival skills. Most of them here work at the quarry. They are more intereted in their gadget after reaching home. The new people are not longer gather and play games like we used to do before.’ Bota

“ Parents today are very protective, so most kids are not allowed to roam freely with the nature. They stay at home most of the time, and even rarely speak our language. They do not know even to lit fire using dried leaves,” Jamil

The forest is also home to the plant materials for Orang Asli to make their handcrafts. Common materials

such as rattan, coconut and pandanus leaves, which are found in the forest, are woven together to make baskets, accessories and rucksacks, as well as furniture such as benches and floor mats

As most of them prefer to stay in huts they even make the walls and roof from the jungle sources for their traditional houses. In the cases of this study, despite the fact that they are good craft-makers, they don't really earn a supplementary income by selling their wares to cities and towns.

### **Taboos**

Some taboos are practiced by them when they want to enter the forest and collect forest produce.

According to Tok Batin Omar, The Temiar people here still practice taboos from their ancestors. The reason is that each taboo has significance individually so as to be able to take care of the safety of children and grandchildren when in the forest to hunt or find sustenance" (Tok Batin Omar, 2020).

The above statement explains the importance of obeying the prohibitions created by their ancestors. Although they do not know about the existence of taboos said but they will still obey because they believe that every taboo is forbidden that was made or created in order to keep the peace and safety of their tribe.

Taboo prohibitions that are still practiced are seen to have been moderated by adapting them to Islamic demands and prohibitions in their lives. So according to the meaning of moderation itself i.e. not exaggerating by directly discarding this culture from the past life maintained with a more simple and harmonious pattern.

"Whenever there is a death, the close kits even the children would stay at home for few days to mourn. We also have special prayers for the dead one to respect them,."

"We adhere certain rules when we enter the jungle like we just keep quiet whenever we heard any strange sounds or smell weird smell," Amy Mastura

"I have simple Doa or prayer once I reach the foot of the jungle. There are guardians in side I need protection, "Ahok.

Orang Asli were originally animists, a belief system that some still adhere to, but some also follow Christianity or Islam. Their way of life is strongly connected to nature, which is clear from the way they hunt with blowpipes, or from their remarkable handcrafting. They still believe in the spirit of the guardians of jungles even they accept the existence of god.

### **(v) Respecting The Elderly**

The role played by Tok Batin as a ahead man is crucial in the way Orang Asli community accepted 'outsiders' over time, particularly health professionals and researchers. In the context of the public, the Tok Batin and some of the elders have a high rank as an important mechanism in helping convey certain issues or agenda.

They play a important role create involvement of villagers in the local development plan and so voiced desires, purposes, and problems that can not be resolved host itself to rank the top in order to put forward and take action (Nicholas, 1998 )

"The role of Tok batin is vital especially he is the one represents us to JHEOA. Whenever there are functions or news from government, Tok batin would inform us. People would listen to him," Romi

Tok Batin and the elderly play a very significant role in the success of knowledge transfer in Orang Asli settlements. As the outside community start to realise the importance of preserving the knowledge to the young one, the voice of these people is needed.

They are able to function and respond to the new paradigm shift in tandem with other communities. In addition, their experience has complete character to influence the Orang Asli towards achieving the aims and objectives of treasuring the knowledge .

### **(vi) Folks Songs and Tales**

Music plays an important role in the life of the Orang Asli. It could even be said that music is their soul. They are inspired to make musical instruments from the natural materials provided by the jungle, and surrounded by the forest and its sounds they play music in perfect harmony with their environment. The Orang Asli believe that music will protect them from harm and evil spirits.

Their instruments are divided into four groups, aerophones, membranophones, chordophones and idiophones. The aerophones include the 'bensol' flute, which is played by the nose. The membranophones are something like a special type of drum or tambourine, and the idiophones are small gongs.

Jeelin who is a teacher incorporates some of the Old folk songs and stories in the classroom. It is one way to preserve the culture of Orang Asli. She was lucky because during her college life, there was a big group of Orans Asli where they took the initiative to document some of the songs and dance .

“ The children that I didn’t expect to get involved when I had their old folk songs , did get right into it. It was fascinating and it was purely as an imitation based on the original activity. It extended it, getting faster at the end in a way typical of Orang Asli culture. So they brought their own ideas to it,” Jeelin

“ I had the teachers with some movements in the Orang Asli song. We also teach them some Semaq beri vocabularies like numbers and colors. I hope they can use them at home with the parents and siblings so the language is not dying, “. Amy Mastura

“ When I was a child, night was the time where all of us and other twelve siblings would listen to my grandma or Ngayak. She is very old, old indeed. Tok would tell us the story of earth and how it was created. I used to tell the same story my children when they were young , and I hope they would pass it to their children, “ Sengek Piah.

According to Umariah , Orang Asli children like others do enjoy and respond to music with great sensitivity. Somehow, due to the modernisation some of the songs have lost their significance in the course of time and have tumbled into obscurity. Some of the Semaq Beri songs have been adapted and complemented from the Malay songs which are more available on line.

Botak and Romi agreed there are still some Orang Asli’s traditional games which are still essential and being played . These games which were mostly created by children throughout ages contribute to the needs of their development and are passed from one generation to another as part of children’s folklore.

Those games which have been preserved until today are updated in different ways and they form part of the present children's set of game. Children naturally engage in games that mimic and prepare them for the experiences they will have in life, such as cooking, washing, mother and father, playing hide and seek, or cleaning the house.

Yet, as there is an advent of computer games , it affects a way of entertaining the young ones through a lot of traditional games. They admitted the the basic skills that the child needs for healthy and independent living largely also cease as most of their kids spend more time at school and only be at home during weekends. If your native language is not English, please get a native English-speaking colleague to proofread your paper.

## VI. DISCUSSION

According to Shaw and Williams (1997), an important element in the ancient wisdom or traditional knowledge of the Orang Asli among others involves physical things, namely handicrafts, traditions, history of the area/territory, architecture, local food, art and music, way of life, religion, language and traditional clothing. In general, as the time passes, the attitude of the old generation and young generation towards ancient wisdom slowly changes. For the Orang Asli, forest-based lives do not develop in a vacuum and are subject to exogenous socio-economic pressures. This is as stated by Berkes et al., 2003; Folke et al., 2016 who claimed such exclusion in forest management implies that there is a lack of necessary considerations in addressing the impacts of social–ecological changes on Malaysia’s forests, particularly concerning Orang Asli communities. Due to modernisation also, The Orang Asli continue to change and impact the environment, the environmental changes will in turn affect their societies in ways that require them to have the capacity to cope and adapt to sustain. Somehow, at certain point they still preserve their culture that can fit into the modern civilisation. Some of the culture is embedded as ancient wisdom and being passed to other generation in many ways.

### **From the study, there are few findings to be discussed:-**

(i) The way old people and young people treasure the ancient or traditional knowledge is different. The Orang Asli societies are even from different tribes have honored the aged among them. Men and women who have lived full lives have been counted among the wise and respected. Traditionally, the aged have been protected, revered, and prized as Orang Asli most cherished citizens. Therein lies wisdom from the ages and wisdom for the future and it still exists in the Orang Asli community as this bond between young and old is special (Diansyah et.al, 2021). Their ancient wisdom stresses a lot on taboo especially when it comes to Jungle, such as the taboos of not destructing the jungle and protect it due to the spirits or the guardians. Managing the forest would not be effective without taking into account what the forest means to the very people who live in and depend on it. It is believed those who harm the jungle will lead to bad omen , illness or even death. One needs to ask permission from the moyang beforehand to give them safety and protection from evil spirits, which can be done silently in their hearts (Aling, 2021; Embong, 2021c). Indeed, beliefs that inhibit certain actions deter people from acting frivolously toward their environment. The Orang Asli really respect the jungle regarding this matter, even the young generation is instilled with the value. and It can also be in line with conservation efforts and may serve as a social function in the management of natural resources (Boedihartono, 2017; DeRoy et al., 2019; Jessen et al., 2022),

(ii) The way the educated and non-educated look at the subject of ancient knowledge is different.

As Orang Asli close to nature and isolate themselves from the main modernisation, they rely a lot on herbs as remedies. A general observation about the cure of sickness in the traditional practice reveals that, the Orang Asli especially the old generation who are far from township still refer to the herbs, and associate the diseases to God, spirits, ancestors and other evil spirits. By tradition, some are not materialistic; they are ethico-religious. Nobody becomes sick without a sufficient reason. The young generation who are educated and stay close to township have a modern medical treatment in preference because for them it is more effective, faster and curable. This is in line with the study of Cheng et al. (2014) on Orang Asli Lanoh living in Lenggong, Perak showed that a majority of the Lanoh people seeks modern treatment although the use of traditional medications is part of their health seeking behavior. In some medicinal treatment purpose, a big majority of the informants to heal a disease. For this reason, the entire village comes together in all-night sessions which usually takes place on consecutive nights until the 'patient' is healed. A "halaq" (shaman) would invite spirits to help heal the 'patient', while womenfolk beat out a rhythm using bamboo stampers. Yet for some, all they see is primitive people dancing and for some of the new generation the "sewang" purely is seen as a dance for their entertainment. While some Asli dance troupes are fine with that and have modified their "sewang" to be colourful but otherwise soulless, there are rare occasions when elders and villagers who still practice ritual "sewang" grace an event with a glimpse of the "real thing" (Yahaya, 2014).

(iii) The way such knowledge is passed down inter generation from elders to children and youth is also unique.

The children's direct involvement with their parents in various activities in the Orang Asli areas also allowed them to be more familiar with their environment. With adequate skills and knowledge taught by parents to children like catching fish, collecting ferns and jungle products enable the later to survive. The knowledge in question, however, is of course neither a priori nor textbook knowledge. By doing these things, not only do the children become familiar with certain species of plants but they also get to know the functions and significance to their culture. The physical environment, therefore, serves as a learning space for the children, where learning is carried out through hands-on experience with the land (Abas, et al, 2022). As being mentioned by Nakata (2007a), the knowledge of Aborigine is in cross-cultural contexts demands not merely the perspective and narratives of the aborigines, but that the indigenous knowledge systems should be recognized and the complexity from their perspective at the cultural interface should be understood. As this knowledge is started by the native, which later extends the learners' overlap with non-local realities, maintaining continuity with the past while learning skills relevant to the present and the future. It is in line with the stud involving Orang Asli where the wisdom knowledge that they have improves critical thinking and problem-solving skills that are applicable to their young one. The Nakata's concept as a boomerang matrix of cultural interface knowledge with the common ground between aboriginal and non-aboriginal people connected also can be associated with the Orang Asli when they collect the jungle products to be exchanged or sold with the native Malays or Chinese. From the study, some of the elements of the wisdom knowledge is derived from their knowledge transmission processes rather than Indigenous content (Yunkaporta, 2009). Relating how the epistemology of knowledge works among the Orang Asli, some of eight ways framework by Yunkaporta can be applied to the later. Non-verbal, symbols and images, learning maps, story sharing and community link among the ways that the Orang Asli apply to their young generation in ensuring the ancient wisdom is delivered to their next generation.

Since the indigenous knowledge has been widely recognized by International Organizations such as United Nations Educational, Scientific and Cultural Organization (UNESCO) as one of the heritage sources of knowledge, it is important for us to document the Orang Asli indigenous knowledge practices and to safeguard them as part of the knowledge corpus. It represent a vital treasure trove of human experience and understanding.

It must be valued as their knowledge is built on centuries of living in harmony with the rainforest. It offers insights we might not have considered. The finding of the study reveals that there is sustainable Practices among the Orang Asli society. Their methods for managing resources are often environmentally friendly and potentially hold solutions for contemporary challenges. It is a cultural heritage that integral to the Orang Asli identity and worldview. Preserving them ensures cultural diversity and richness.

The preservation of such knowledge through oral traditions can fade over time. There must be a better solution to prevent its loss and allows future generations to learn from it. One of the way is by scientific Exploration where their practices might contain valuable properties or sustainable techniques waiting to be discovered. Documenting their knowledge can empower Orang Asli communities and another way to give them a voice in preserving their heritage.

Once documented, there must be ways to share this knowledge responsibly, benefiting both indigenous communities and society as a whole. By safeguarding the Orang Asli's knowledge, we gain a deeper

understanding of the world and potentially unlock solutions for a more sustainable future. It's a win-win for cultural preservation, scientific exploration, and environmental well-being.

Otherwise it will significantly lead to "knowledge extinction" which would result in the loss of pertinent knowledge from the indigenous cultures. The main findings from this study have shown that the wisdom knowledge of Orang Asli is still largely practiced especially among the old generation.

### CONCLUSION

When it comes to the ancient wisdom of the Orang Asli, the latter have a very unique cosmology. Their relationship with humans, nature and the supernatural has been forming a knowledge of culture in their society that is still practiced until now. Through this study it can also be seen that the Orang Asli community is a society that is very protective of the interests of their group or tribe. They also respect nature because they depend a lot on nature as a source of income. Through this dependence there is also a belief in the supernatural power within among their community.

Orang Asli processes of sharing and applying knowledge have always been an essential and embedded part of their civilizations. There are distinct understandings of knowledge and unique, diverse, and contextually specific knowledge sharing processes found in among them. From the study the modernisation has shown its impact to the transfer of ancient knowledge.

The young generation's acceptance slowly ceases compared to the old one. Those who are educated more open towards the modern health and art as they are more exposed to the modern gadgets and outside world. The vicinity of the Orang Asli's settlement to the development means they are either more open to accept the modern technology or prone to the ancient knowledge if they are closer to the jungle.

Yet, Orang Asli still have identified a strong preference for approaches to their ancient knowledge that draw their ways of knowing and doing. These demonstrations build on some of the elements of their life regarding the importance of knowledge, attitudes, and beliefs to health learning and behaviour change. Clearly, messages, mediums, and practices that demonstrate socio-cultural congruence (i.e., draw on local cultural knowledge, attitudes, and belief systems) will have better uptake. This is especially important for Orang Asli people and communities where a big part of colonial policy has been premised on the marginalization and devaluing of their ancient wisdom

### REFERENCES

1. Baer, A. 1999. Health, disease and survival: A biomedical and genetic analysis of the Orang Asli of Malaysia. Subang Jaya, Malaysia: Center for Orang Asli Concerns
2. Baharon, A. B. R. 1973. Parit Gong: An Orang Asli community in transition. PhD diss., Cambridge University
3. Bolton, J. M. 1968. Medical services to the aborigines in West Malaysia. *British Medical Journal* 2(5608): 818–823
4. Nazarudin Zainun (2014). *Kearifan Tempatan: Merekayasa Kearifan Tempatan Budaya, Pelancongan Arkeologi dan Sejarah*. Penerbit USM. ISBN 978-98-386-1831-1. Chester Chin (17 September 2016). "Live the life of the Orang Asli in Kelantan". *Star2*. Retrieved 2017-10-10.
5. (PDF) A Case Study of Orang Asli Indigenous Knowledge in Traditional Medicine. Available from: [https://www.researchgate.net/publication/326082597\\_A\\_Case\\_Study\\_of\\_Orang\\_Asli\\_Indigenous\\_Knowledge\\_in\\_Traditional\\_Medicine](https://www.researchgate.net/publication/326082597_A_Case_Study_of_Orang_Asli_Indigenous_Knowledge_in_Traditional_Medicine) [accessed Mar 22 2024].
6. <http://discol.umk.edu.my/id/eprint/3738/1/NUR%20SAIDATUL%20NADIA%20ABU%20HASAN.pdf>
7. <https://pulitzercenter.org/stories/malaysias-orang-asli-villagers-forest-clearing-plantations-devastating-their-way-life> (source : <https://www.frontiersin.org/articles/10.3389/ffgc.2022.1019994/full>)
8. Chan, Clare S. C. (2012). Heterogeneity in the musical acquisition of Orang Asli Children from the Mah Meri and Semai Groups. *Malaysian Music Journal*, 1(2), 7–21
9. Lim, B. L. 1981. *Orang Asli animal tales*. Singapore: Eastern University Pres
10. (PDF) Use of Indigenous and Folk-Game Songs for Teaching and Learning in Early Childhood Education Setting. Available from: [https://www.researchgate.net/publication/367052996\\_Use\\_of\\_Indigenous\\_and\\_Folk-Game\\_Songs\\_for\\_Teaching\\_and\\_Learning\\_in\\_Early\\_Childhood\\_Education\\_Setting](https://www.researchgate.net/publication/367052996_Use_of_Indigenous_and_Folk-Game_Songs_for_Teaching_and_Learning_in_Early_Childhood_Education_Setting) [accessed Apr 14 2024].
11. Nicholas, C. (2001). Compromising Indigenous Leadership: Losing Root in Tribal Communities. In R. G. Abad, (Ed.), *The Asian face of globalisation reconstructing identities, institutions and resources* (p. 152). The Asian Public Intellectual (API) Fellows
12. (PDF) Influence of Local Leadership in Poverty Eradication among the Orang Asli Communities in the State of Terengganu, Malaysia. Available from: <https://www.researchgate.net/publication/28260>

- 2974\_Influence\_of\_Local\_Leadership\_in\_Poverty\_Eradication\_among\_the\_Orang\_Asli\_Communities\_in\_the\_State\_of\_Terengganu\_Malaysia [accessed Apr 13 2024].
13. (PDF) Influence of Local Leadership in Poverty Eradication among the Orang Asli Communities in the State of Terengganu, Malaysia. Available from: [https://www.researchgate.net/publication/282602974\\_Influence\\_of\\_Local\\_Leadership\\_in\\_Poverty\\_Eradication\\_among\\_the\\_Orang\\_Asli\\_Communities\\_in\\_the\\_State\\_of\\_Terengganu\\_Malaysia](https://www.researchgate.net/publication/282602974_Influence_of_Local_Leadership_in_Poverty_Eradication_among_the_Orang_Asli_Communities_in_the_State_of_Terengganu_Malaysia) [accessed Apr 13 2024].
  14. Harper, T. N. 1998. The Orang Asli and the politics of the forest in colonial Malaya. In *Nature and the orient: The environmental history of South and Southeast Asia*, eds. R. H. Grove, V. Damodaran and S. Sangwan, 936–966. Delhi: Oxford University Press. <https://www.frontiersin.org/articles/10.3389/ffgc.2022.1019994/full>
  15. Diansyah, W., Abas, A., and Sakawi, Z. (2021). A Systematic Review on Community Forest Management in Southeast Asia: Current Practices and Impacts on Biodiversity Conservation and Livelihood Quality of Local Communities. *Hum. Ecol. Rev.* 27, 3–21. doi: 10.22459/HER.27.01.2021.01
  16. Cheng YX, Chong CP, Kiew CF, Bahari MB (2014) An assessment of health and social-economic status among Lanoh ethnic sub-group of Orang Asli (indigenous peoples) in Air Bah I village, State of Perak, Malaysia. *Journal of Applied Pharmaceutical Science* 4(10), 032-037.
  17. The Empowerment of Orang Asli Women in the Tourism Industry in Lenggong, Perak Fatan Hamamah Yahaya1, Liyana Syafiqah Yahaya2 SHS Web of Conferences 12, 010 2014)
  18. Abas, A., Aziz, A., and Awang, A. (2022). A Systematic Review on the Local Wisdom of Indigenous People in Nature Conservation. *Sustainability* 14:3415. doi: 10.3390/su14063415
  19. (PDF) Traditional Medicine: Narratives from an Indigenous Population. Available from: [https://www.researchgate.net/publication/320166742\\_Traditional\\_Medicine\\_Narratives\\_from\\_an\\_Indigenous\\_Population](https://www.researchgate.net/publication/320166742_Traditional_Medicine_Narratives_from_an_Indigenous_Population) [accessed Apr 14 2024].