

Indigenous Knowledge in Pre-Colonial and Colonial Epochs: Realities and People's Nostalgic Reflections Among the Tonga People of Chikankata, Chirundu and Siavonga in Southern Zambia

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Abstract: This inquiry explored the researched people's lived experiences, through their perceptions and nostalgic reflections of indigenous knowledge (IK) with respect to pre-colonial and colonial periods. The study presents qualitative findings from personal experiences and information passed on by word of mouth from primary sources of participants from Chikankata, Chirundu and Siavonga districts in southern Zambia. The aim of the study was to explore the meaning that participants derive from their own experiences with IK while tapping into the hitherto silent voices to uncover confidence indigenous people have had in their own knowledge before and after the impact of colonialism.

The Afrocentric worldview was used with qualitative data collected from elderly men and women and the middle age men and women in rural communities of the three districts. Sampling was by purposive and snowball techniques on the IK experts or local sages referred to by local people in each site. A combined total of 18 respondents were interviewed. Data presented here heavily relied on descriptions of respondents' experiences and views and reflections. Therefore, voices of respondents were prominent.

Thematic analysis was used to analyse the qualitative data. Data suggests all three categories of participants (elderly men and elderly women, middle aged youth and sages value IK, it processes and benefits but more value was from the elders and sages than it was among the middle aged youth. The same pattern was identified in terms of confidence in IK and nostalgic experiences. Findings strongly indicated that the arrival of Whites, introduction of their education, Christianity and modernity were the dismantling effects of value of IK. This was coupled with parents' loosened ways of teaching IK to children. Interestingly, all three categories of participants view a blended approach of using IK side-by-side modern knowledge in Zambia's search for safeguarding IK, socio-economic empowerment, poverty reduction and sustainable development in rural communities.

Keywords: *Afrocentric Worldview, Colonial, Colonialism, Indigenous Knowledge and Pre-Colonial.*

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I. INTRODUCTION

➤ Background

In Zambia, there are estimated 72 slightly more tribes sometimes referred to as languages and their dialects. These are the Bantu speaking people whose origins are traced to West Africa and the Luba and Lunda empires that were located in today's DR Congo. It is evidenced by historians and archeologist that the Bantu speaking people arrived in present day Zambia between 1500 and 1800 years. Simpson (1985: 5) reveals that:

The pre-colonial period, which spanned several thousand years before about 1890, can be divided into the Stone Age and subsequent Iron Age when Zambia then was occupied by inhabitants that were hunters and gatherers ... to the arrival and settling of the Bantu-speaking, iron-using people who laid the material and cultural and biological landscape of the country's present-day population.

This indicates that the pre-colonial period ended in the 1890 which ushered in the colonial era. Thus, the colonial period of Northern Rhodesia (now Zambia) is a period that started with the occupancy and control of the territory of the B.S.A Company using its mining treaties, the protectorate treaty and conquests of other tribes that resisted its intrusion from the 1890s to 1923. What needs to be noted is that at their different times of arrival, the country as we know it today had no known name and nor clearly marked boundaries the two hallmarks of the pre-colonial epoch of Zambia as we know it today. Among the first people to arrive in Zambia were the Batonga/Tonga of Southern Zambia.

This paper is a scholarly researched document which attempted to show that there are outstanding characteristics of indigenous knowledge (IK) of the Tonga people that bear the marks of pre-colonial and colonial periods and the people's experiences, realities and their nostalgic reflections guided by the impact of colonialism. This study was focused only on three cases of Chikankata, Chirundu and Siavonga districts among other districts of Southern Zambia.

➤ Colonialism Conceptualised

There various definitions of the term colonialism. In this paper, the definition adopted was the by Ocheni and Nwankwo (2012) who see it as a system that was designed to directly establish foreign powers to occupy and dominate other states i.e. those of Asia, African and others for their selfish advantage for the exploitation of the colonies to develop their own industries and use the colonies and markets for such industries' outputs at exorbitant cost to the death of such colonies' industries and technologies. This why the two researchers identify colonialism as imperialism; occupying and dominating but at the same time exploit local people and their resources to the disadvantage of indigenous people socially and economically. This definition fittingly explains what happened in Zambia (through Missionaries, BSA Co. and British Colonial Administration and the Federation of Nyasaland, Southern and Northern Rhodesia).

Despite numerous studies among the Ila, Plateau and Valley Tonga people documenting these people's origins, languages, customs and traditions, religion, economy and social organisation among other topical areas, little or no specific study has been dedicated to interrogate these people's state of IK, no study has ever interrogated the Plateau Tonga and Valley Tonga people's perceived realities and reflections of their IK in Pre-colonial and in colonial Zambia. This gap begs answers now more than ever when Zambians need to decolonise their mindsets, means and ways of doing things to attain the Zambia wanted in the 21st Century and beyond while taking giant steps "Towards a Comprehensive history: [and] Documenting Zambian history of Heritage for the Present and the Future." This is relevant especially that in the past decade or two, the world is awash with rising interest in utilising and benefiting from IK in mankind's search for solutions to climate change, reducing poverty, increasing community empowerment and search for sustainable development.

The research objective of this study was to explore the lived experiences, perceptions and reflections of the Tonga people of their indigenous knowledge in pre-colonial and colonial eras. The focus was on how this affected live lives affected by pre-colonial and colonial eras in contemporary generations in the three districts of Chikankata, Chirundu and Siavonga in Southern Zambia; the lived experiences and perceptions of the Tonga people on their IK in the pre-colonial and in the colonial Zambia in the three selected districts and the historical reflections the Tonga people have on their IK in the three selected districts in Southern Zambia.

➤ Conceptualisation of Indigenous Knowledge

Any group of people has its own local or traditional knowledge handed down from one generation to another. It may be called by different terms but central to this is that it is localised knowledge. Tanyanyiwa (2019: 2-3) indicates that "Local knowledge is viewed and conceptualised differently by people and therefore, it is known with names such as Traditional Ecological Knowledge (TEK), Indigenous People's Knowledge (IPK), and even 'folk knowledge'" In this paper, I identify with Tanyanyiwa (2019) and Mawere (2010) who see this as local knowledge that is unique to a particular group of people of a specific geographical space. In this case, local knowledge of the Tonga people of Chikankata, Chirundu and Siavonga.

There are three key concepts of IK that need a brief reflection; the aspects that 1) indigenous knowledge (IK) is different from Western Knowledge (WK); 2) the knowledge from one community is not easily generalised to other communities and 3) that similarities may cut-across some communities and cultures but with some forms of uniqueness (Mawere, 2010). Mawere reveals that IK is different from WK as it is knowledge generated by people through lived experiences and as the people interact with one another and their own environment as opposed to WK which generated by scientific research of generating and testing theories and hypotheses in laboratories and in field research by institutions of higher learning. One gains IK

through observing experts/sages, imitating such ones, being informal instruction and by traditional experiments or through apprenticeship while WK in gain through reading, formal instruction and western scientific research. Despite the difference between indigenous knowledge and western knowledge, the two can be used together in solving mankind's challenges so as to make life better and effectively harness resources. Tanyanyiwa (2019: 4) established that "Although local knowledge differs from Western science, it is quite pertinent to noted that the two could be used together to compliment the weaknesses of another." The two types of knowledge should therefore not be seen as competing sides but two sides that can be collaborated for sustainable development in education, innovations, environment and natural resource management and in addressing climate change locally, regionally and on the world stage.

➤ *Theoretical Framework*

This was a qualitative study whose basis was on the social constructivism worldview on knowledge generation (Creswell, 1999 and Chilisa and Preece, 2005). This is one philosophical lens that places emphasis on the role of the researcher and his/her participants as core-creators of knowledge. Tanyanyiwa (2019: 2), says "Social constructivism lays emphasis on the interaction between people and how their language and activities help construct their own reality." This is closely linked to the epistemology of this philosophy whose stance is that knowledge construction is based on people's lived experiences and the background know-how. According to Lincoln and Guba (1994) epistemology provides answers to questions about the rules of knowledge or how the application of rules and methods produce valid knowledge. Here, the valid knowledge is the relevant and local knowledge which is known and used in a specific people's world (the 'world' of the researched). Afrocentrism lays emphasis on the interaction between people and how their language and activities help construct their own reality based on indigenous knowledge and the relevance of local knowledge which is known and used.

II. REVIEW OF RELATED LITERATURE

➤ *Indigenous Knowledge in Pre-Colonial Zambia*

Scholars indicate that this indigenous knowledge has been and continues to unique to some people and localities but similar to that other geographic space that share cultural histories and mingling; it is knowledge that is passed on from one generation to the other by means of oral traditions and that education has been by means of the word of mouth (oral traditions), observations and imitations and training through apprenticeships in various trades and skills (Mwanakatwe, 1968, Colson, 1971, Snelson, 1990, Mazrui and Wondi, 1993, Chilisa and Preece, 2005 and Mawere, 2014).

Among the Tonga people of Southern Province, oral traditions have been playing and continue to play a pivotal role in this narrative. In fact, scholars such as Smith and Dale (1920), Brelsford (1965), Colson (1971) and Siamwiza

(2009) all confirm that the Ila-speaking people, the Plateau Tongas and the Gwembe Tonga have and continue to rely on indigenous knowledge (IK) for their hunting, rearing of cattle, religion, crop production, indigenous architecture, local medicines and surviving harsh climatic changes way before and after the arrival of Europeans.

The Tonga people of Chikankata, Chirundu and Siavonga districts of Southern Zambia have lived and thrived for centuries in their environment on the basis of their cultural heritage composed of both tangible and intangible forms collectively called indigenous knowledge (IK). This is the unique local and adaptive knowledge that continues to be passed from one generation to the other by word of mouth and through practical participation. Both historical and anthropological evidence indicate that the Valley Tonga and the Plateau Tonga, to which the three research sites belong, have had IK of various forms (Colson, 1971 and Siamwiza, 2009). Colson (1971) and (2011) argues that both before and after the Kariba Dam resettlement, the Valley Tonga demonstrated reliance on their indigenous knowledge to adapt and surviving in their original land and environment and their alien one they were forced to adopt with quick learning and resilience. The resilience was through finding new foods, water sources and suitable lands for cultivating crops which they did so with experiments and risks to which food poisoning would lead some to death, the heat and drought with thin plateau soils all contributed to hunger, diseases and loss of lives (Colson, 1971, 2011). This resilience by means of local strategies of applying local knowledge and taking advantage of the environment and climatic areas the people came to understand. Siamwiza (2009: 1) supports Colson's argument and established that "the Valley Tonga have been and will continue to make the Gwembe Valley their home because they have built resilience against the valley's ecological threat." Siamwiza indicates that this threat is made up the semi-arid environment, frequent droughts, and occasional floods resulting to hunger and famine over the years. At the core survival and hope here, is these people's "ability to apply indigenous knowledge to their survival in the unfriendly milieu ... Because of this age-old knowledge to understand and interpret nature's early warning system of impending drought and food scarcity" (Siamwiza, 2009: 3)

What Siamwiza calls 'age-old knowledge', is the Tonga people's IK which thrived in this part of Zambia since the arrival and settling down of this group of Bantu-speaking people from West Africa and Luba-Lunda (Kola region) in now Democratic Republic of Congo. This is the time that marks the pre-colonial Zambia. Here care is taken to the use of the term Zambia in the Pre-colonial epoch to contextualize the area or country as we know it today, because during the time in question the country called Zambia was non-existent until 1964.

Siwila (2015) explains that the pre-colonial period of Zambia is a period estimated by historians to be the era of Bantu migrations and settling this part of Africa from about 500 B.C to the 1880s. This assertion is supported by Simpson (1985: 5) who says "Zambia's pre-colonial period

spanned several thousand years before 1890 beginning with the Stone Age era to the Iron Age yielding in the first millennium A.D when the Bantu-speaking people arrived.” This period was characterised by movement on different groups of people who arrived at different times searching for where to settle; inter-tribal wars and invasions until they all settled in their present settings. The boundaries were marked and known by elders and taught by word of mouth or by walking excursions with the youth and using mind maps and key geographical landmarks. Colson (1971) indicates that before colonisation, the Zambia we currently know was not state with boundaries clearly marked as such was the hallmark of the ‘European Scramble for Africa.’ She observes that this nation, like others on the continent, was inhabited and controlled by both centralized and decentralized tribes and under different vibrant leaders.

Using mind maps and indigenous typography, all these numerous groups knew their territories before European intruders demarcated and violently shared the land to the detriment of local people’s cohesion, family and clan unity. Elsewhere in Southern Africa, then, the same happened and western new comers were initially surprised to find a people to organised, self-sustained in stable and healthy ecosystems teeming with biodiversity and the care of African without western education and western technologies (Odora Hoppers, 2013, Mawere, 2014, Mapara, 2014, Tanyanyiwa, 2019). Livelihood in all its forms in pre-colonial Zambia was intertwined with IK be it traditional health care, traditional birth control, monitoring of pregnancies, child delivering and postnatal care; in Traditional African Religion, traditional architecture and construction; in basic trade, warfare, observation or weather and climatic changes, including both food production and food processing/preservation (Colson, 1971, Siamwiza, 2009, and Siwila, 2015).

During this period, Simpson (1985) documents that, in Zambia, the Bantu people found the Stone Age inhabitants who were primarily hunters and food gatherers and displaced them. With their Iron Age knowledge and technologies, the Bantu, among them the Tonga people, established themselves in their current landscape taming the environment and harnessing resources for their social and economic capital. Simpson says through this, these people, “made the most significant contributions to the language, culture, and biology of the country’s present-day population. In addition, the Bantu Botatwe also introduced new metallurgical techniques, pottery styles, agriculture, stock-raising including the more complex community organizational forms and institutions” (Simpson, 1985: 5). This was all possible through indigenous knowledge rich cultures of the Tonga on the plateau and those in the Gwembe Valley. Colson (1971) shows how the people in the Valley, grew crops on fertile alluvial soils along the rivers, at the river deltas; how they sustainably fished from the Kafue and Zambezi rivers, how they effectively hunted game year in and year out, collected vegetables, fruits and edible roots and tubers from the bush, how they forged equipment and weapons from iron, made pottery and other handcraft using local knowledge. Colson found that “despite

the heat, diseases and common droughts that caused famine in the valley, the local people preferred it (valley) as desirable home, ... relied on greens for relish, varieties of wild fruit and used other plants for soil indicators and medicine” (Colson, 1971: 16, 51). This know how was relied on in normal years and especially so in years of droughts, food shortages and famine. Through experiences, experimenting and teaching young people, the elders in the community transferred local knowledge to the generations taking over theirs. In line with the scenario depicted above, the Gwembe and Plateau Tonga people were a people literary self-contained before whites intruded. Colson says these people occupied the soils they knew well, the environment they had tamed, the rivers they were accustomed to and had adapted to all year round despite seasonal changes. This process ensured understanding their rivers, the lands and environments for sustenance and security even in the harsher years. Siamwiza (2009) terms this people’s ability to live and survive in harsh environment as resilience. He says the Valley Tonga have relied on their indigenous knowledge to plant and store crops; to read the wind, weather and climatic factors, watching and interpreting the behaviour of trees and their flowering and fruiting, the behaviour of birds and insects to know what seasons would be.

Prior to the coming of Europeans, the Tonga speaking people practiced fishing without political restrictions for hundreds of years yet the stocks of fish were never depleted because they only caught enough for family needs not for commercial purpose; their young men and women were a rich resource for energy and labour intensive activities before industrialisation and commercialization of farming. This ensured that young people grew up in local areas each day, month and year learning relearning and gradually becoming experts in their own right in specific skills or knowledge areas such as fishing, canoe making, net-making, metal smithing, crop and animal farming, herbs and medicine (Colson, 1971, Siamwiza, 2009, Siwila, 2015). This was to change in the 19th and 20 centuries during the colonial period.

On the social and cultural fronts, literature shows how the Tonga worship their god (Leza) and offered offerings to their ancestral spirits (mizimu) through specially selected and ordained mediums at different shrines from time immemorial (Brelford, 1965, Colson 1971, 2006 and Siwila, 2015). In the culture of the ‘We’ people (the Gwembe Valley Tonga), and other Tonga people, as is the case in other Zambia cultural settings, indigenous knowledge (IK) has been part of a person from conception to beyond one’s life on earth. One was conceived based medicine and ritual, pregnancy was ritually celebrated, birth was overseen by IK sages and growth and life, religious life and then death and burial conducted by means of IK and observing IK practices (Mbiti, 1968, Carmody, 2001 and Colson, 1971, Colson, 2006). To this effect, Mwanakatwe (1968) and Snelson (1974) say this is what characterised the social and cultural Tongas in pre-colonial Zambia. Colson (2006) found that religion among is a practical activity not just dogmatic system; it involves tribal traditions and

religious ideas related to life-events such as births, deaths and marriages. The knowledge of Leza, mizimu and basangu supernatural beings was critical in effective practicing in such an African Traditional Religious system. This was prominent together with the worship of ancestors and use of various shrines (malende) which were sacred and transgressing such places had dire consequences to an individual family and the community if intercession was not done well and if not accepted by the gods (Siwila, 2015). This religious knowledge is what Mawere (2010) calls ‘the moral compass’ of traditional communities. He says it includes, among others, Respect to shrines, totems, and hills, forests and water-bodies were effectively used in worship and conservation and management of natural resources.

Despite the value of all this knowledge, IK, like other forms of knowledge, has its inherent weaknesses. It is these weaknesses that were explored by missionaries – the agents of colonisation – to the marginalisation of indigenous knowledge not only in Africa but in all colonised world though Christianity, the western education system and its culture as wings of imperialism. This is the development which was responsible for drastically change ending the first epoch (pre-colonial era) end of 19th Century) to usher in the colonial period from 1890s to 1963 in the 20th Century. Colson says the turn of event completely off the balance in Zambia in terms of economy, religion, culture and indigenous knowledge and practices (Colson, 1971, Simpson, 1985 and Siwila, 2015).

➤ *IK and its Marginalisation in Colonial Zambia*

The coming of missionaries in pre-colonial period was the hearth of the colonial era which brought Western education, Western religion, the cash economics and foreign ways of life, giving birth to ideas toward alienation of local people in their localities from their ways of knowing and their ways of life (Colson, 1971). Literature shows that the colonial period began with the John Cecil Rhodes’ expansion of the British South African Company (B.S.A. Co.) from South Africa, through now Zimbabwe (Southern Rhodesia) into now Zambia through treaties with Barotseland king for mineral rights and the creation of a protectorate in the 1890s. This saw the bringing together of North Western Rhodesia and Eastern Rhodesia under the B.S.A in 1911 on behalf of the British Government. This was later followed by 1924 when the company handed over its power of government to the British colonial administration. This was full colonial period under Britain, a period that was transformed in 1953 when the two Rhodesia states were put in a federation the included Nyasaland (Malawi) – the Federation of Rhodesia and Nyasaland which collapsed in 1964 to usher political independence to Zambia and Malawi leaving Southern Rhodesia alone under colonial rule until 1980 (Simpson, 1985)

Despite introducing missionaries and colonial authorities introducing modern education, the fight to end slave trade, the introduction of modernity and its improved means of transport, mining, health and trade and industry to the betterment of people’s lives in now Zambia, the fruits of colonialism and imperialism became so harmful to people’s

culture, religion, traditional governance, ownership of land and decision making at all levels. This is why Ochen and Nwankwo (2012: 46) argue that “colonialism was the direct and overall domination of a country by another on a political front and on the resource exploitation front of the colonised country.” Through domination, Zambian people, lost decisions over their values, rights and freedom; they lost decision-making and control over their land and resources. All this changed their social and economic heritages one of such heritages being indigenous knowledge. Colson (1971) and Carmody (2001) show how missionaries and the British colonial power imposed Christianity as the religion of Zambia; how economic and farming policies dictated tax regimes on the people and forced labour migration; how political policies dominated the creation of mines, labour pools and electricity power generation; how new roads, new schools and western values or western civilisation negatively affected people’s values, beliefs, knowledge systems and practices. These aspects become the hallmark of Zambia’s colonial period among the Tonga people studied in this research.

During the colonial period, local people were gradually civilized to western life; the domestic workers, farm labourers and those in the mines and government offices began to like, imitate and adopt western life styles, dressing, mannerisms, etiquettes (western culture). The people were made to see and believe that everything western was superior. It was the beginning of brain-washing and local peoples abandoning their culture. Colson (1971) shows how the introduction of towns, shops, cash economy and churches changed the dressing, grooming and behaviour of Valley Tongas. She adds that Christianity and western education revolutionised the people’s attitudes towards their traditional religions, traditional rituals and customs. As if this was not worse enough, colonial policies such as the tax regimes forced young people to migrate to urban areas and later outside their own country to offer cheap labour in mines, farms and other industries to have enough money to support their parents’ ability to pay the colonial tax. In effect, the impact of the labour migration was heavily pronounced on loss of language, loss of religion and loss of culture evidenced in the labourers when they returned home (Chondoka, 1988). Chondoka adds that in admiration of the socio-economic status the labourers had attained, parents of local boys and other young men envied this and the orientation was skewed to marrying off the daughters to such ones and not to local ones for money and western wealth and gifts away from their traditional systems. No doubt, this was the beginning of the destruction of indigenous ways of life – cultural dilution. Colson (1971) established that these ‘new ways of life’ brought forms of rebellion from what people knew, what people did and what people valued and lived with and for. This argument is supported by other scholars among them Mawere (2014) and Mapara (2014) who call this the ‘onslaught of whites on the local people’s very thread that held their communities together – their culture.’

The unilateral decision and the construction of the Kariba Dam in the 1950s destroyed the people’s cultural

heritage such shrines and graves of chiefs and other ancestors; it also destroyed the people's economy thus creating the poverty seen among the people years after being resettled in 'foreign land' they knew nothing about; arid and infertile soils that could not support farming among other evils the forced resettlement induced (Colson, 1971 and Siwila, 2015). According to Hanyona (2009) and Colson (1971) the resettlement of the Gwembe Tonga from their valley to higher and unfamiliar land, environment and weather was one of the most devastating of the many blows that were Western-driven on the cultural heritage of these people; the negative impact they may never fully recover from. Colson (1971) found that the people lost property (cultural and material wealth), cultural sages (experts who were elderly and failed or refused to relocate), and religious and cultural shrines. All this intricately meant loss of valued knowledge and knowledge systems that had been pivotal to their lives and cultural heritage from time immemorial. Some of the other blows were taxation, cheap labour with poor payments which forced able bodied men to migrate to towns, mines, white people's farms to earn money to help parents meet the tax obligations forced on them by the colonial system. Such migrants and their urbanized families slowly but gradually slid into alienation and cultural illiteracy over the years. With new acquired status in towns and new Christianity religion and western education, the impact of colonialism on local religion and indigenous people's ways of living and values was devastating. The cash economy and its effects on fishing, timber, agriculture and people's new values (money and shopping) was prominent; the rebellion on belief and customs and ritual participation in families and communities became the order of the day (Colson, 1971). All this brings to speed the fact that colonialism altered the balance of the Tonga speaking people in the areas in question thus affecting the social life and securities. In Chinua Achebe's words, 'Things began to fall apart.' Colson and Hanyona both vividly document the social and economic impact of the Kariba dam construction and resettlement of people. They offer us valid consequence how the colonial policies and activities dislocated and alienated the Valley Tonga people.

The two epochs that the Gwembe and Plateau people underwent have been documented by different historians and anthropologists from a scholarly worldview mostly Eurocentric. This is a point of departure of this study which applies the Afrocentric worldview to narratively give a cultural and adulterated account of people's lived experiences, perceptions and reflections regarding their IK before the colonial era and during the colonial period. The Eurocentric perception marginalised the existence of valid indigenous knowledge systems, indigenous education and indigenous science worth writing home about hence the intruders' assumptions that the Africans they found had no education at all and were backward and illiterate (Brelsford, 1965, Colson, 1971, Tiberondwa, 1978).

The dismissing of oral traditions as vital sources of African knowledge led to Amadou-Mahtah M'bow Director-General of UNESCO (1974-87) to indicate that "African societies were looked upon as societies that could

have no history because of lack of written sources when Europeans arrived yet the Europeans glorified the Iliad and the Odyssey as essential sources for the history of ancient Greece" (Mazrui and Wondi, 1993: xix). As a result, this paper takes an Afrocentric worldview and places oral traditions at the centre of the search and understanding the Tonga people's indigenous knowledge and its value systems with a bias to the two epochs of Pre-colonial and colonial Zambia.

On the language front, there is no doubt that indigenous knowledge is based on a people's indigenous language. This is because the acquisition, expression and teaching this knowledge can only be best done in a given local language. Colson (1971) in her research work among the Valley Tonga on the social consequences of resettlement due to the construction of the Kariba Dam, established that when the people were moved to various upper lands for safety, the adults had to summon their experience and language to learn how to survive and they had the responsibility of teaching the young then what to eat, where to find such and how to prepare such. It is evident that doing this needed a language understood by both the teacher and the taught. Siwila (2015: 143) supports this stressing that during ceremonies such as the "celebrations of harvest, the *Sikatongo* – the male earth priest using local language blesses the crops and presents them to the ancestors and the Supreme Being; at the *malende* – rain shrines, supplications are offered to the *baleza* or *mizimo* (the rain ancestors)." Siwila's argument is that for one to understand and master this indigenous knowledge in the religion of the Tonga, one must understand and master the language through which expressions are made and the concepts of through which rituals and beliefs are explained. She amplifies this by arguing that the loss of some elders during the flooding of the valley was a loss of some linguist experts as whites conducted "Operation Noah" for wild animals more efficiently saving animals better than they rescued the Tonga. This is supported by Colson, (1971) who also found that the relocation of people was met with resistance and the colonial administration though its governor, district official and security wings forced people onto trucks others were left to die as the operations were hurriedly done while the animal rescue was a well coordinated activity. Prominent as these studies enlighten us about the key role of language in teaching and acquiring IK among indigenous people, none of them narrowed down to the indigenous knowledge that existed in pre-colonial period and the perception of knowledge by people before colonialism and during the colonial eras. The studies by Colson and Siwila respectively focused on the social consequences of the construction dam and the flooding as encroachment on religious sacred places of the valley Tonga. This is one gap this study seeks to close by demonstrating local people's perceptions on IK in the two periods of time in terms what existed and how people benefited and continue to do so from this knowledge and their nostalgic reflections of this.

During the colonial era, language wise, colonial authorities organised Zambia by markedly partitioning the country in seven broad linguistic regions by means of seven

official local languages they sponsored in literature and translation (Kashoki, 1978 and Posner, 2003). These are Chitonga (for Southern Province and parts of Central Province), Silozi (for Western and parts of Southern province), Cinyanja (for Lusaka and Eastern Province), Icibemba (for Northern, Muchinga, Luapula, Copperbelt and parts of Central provinces), Lunda and Luvale (for North-Western and parts of Central provinces). This organisation based on language chosen by White imperialists has had far-reaching consequences at the time and in the 21st Century among Zambians not to the exclusion of The Tonga people. Kashoki (1978) in 'Languages of Zambia' and more recently Posner (2003) in 'The colonial Origins of Ethnic Cleavages and Linguistic divisions in Zambia' and earlier on Mazrui (1986) in 'The Africans: A Triple Heritage' separately but agreeably found and argue that colonialism divided people of the same race and tribes to their disadvantage but to the advantage of European intruders and their governance of threats and racial impunity.

Kashoki, Posner and Mazrui all argue that a seed of dismembering local languages was planted among Africans to the death and disappearing of some languages under colonial organised structure. They also observe that languages promoted by colonial authorities were sometimes irrelevant to the people and remain so today in the real sense of life. Despite the significant light shade by Kashoki's study languages of Zambia and those of the Tonga people in their various dialects, the study was generally biased to language and nothing more in other cultural heritages generally. It lacked direct and cutting edge dissection on the issue of indigenous knowledge in pre-colonial and colonial eras in valley communities of the Tonga. This is the nexus of this study.

III. METHODOLOGY

This study was qualitative and naturalistic in nature and thus used the qualitative approach in research design, sampling, data collection, presentation and discussion of the findings under the guidance of the Afrocentric worldview. The Afrocentric philosophy is a worldview that was born out of African in Africa and in the Diaspora dissatisfaction with Eurocentric biased way of classifying what knowledge is valid and which research methods are scientifically grounded under the microscope and criteria biased to western knowledge and its values systems to the marginalisation of African ones (Chilisa and Preece, 2005). The central theme in this worldview is that African problems and African knowledge and its knowledge systems can be best addressed using African ways of knowing even when hybrids with relevant western ones is permissible (Mawere, 2014 and Tanyanyiwa, 2019). The case study design was used where three cases of Chikakanta, Chirundu and Siavonga districts were purposively chosen as research sites. Sampling was purposely done and the snowball technique was equally used to identify and target sages in various IK among the researched. Data was collected using in-depth unstructured interviews of the sages and middle-aged men and women for their experiences, perceptions and the nostalgic reflections of their IK. The thematic and some

narrative approaches were employed in the presentation and the thematic analysis was used in the discussion of the research findings.

IV. RESULTS AND DISCUSSION

➤ *Indigenous Knowledge in the Handcraft of Basketry and Reed Products*

This is a common craftwork among the Tonga people. This knowledge and practice was largely women's domain among the Tonga people but recently done by men and women for economic gain or income generation a concept that came with colonial impact and economic hardships and raising tax for the government. One village headman said:

Okuno mbanji bamakaintu bankutwe mumulimo wakuluka minseme, zinzuma azimwi zibikilo zyamunzi. Kaindi eezi tiizyakali kusambalwa amali pe. Bantu bakali kucinchaana azintunzyobakali kuyanda kulibambi. Sunu akaambo ka bukuwa bwaka boola, oonse muntu uyanda mali. Aboobo, bansankwa abaalumi balajanika mumilimo eeyi yakali ya bamakaintu nsini. This means:

In this part of the country, there are still a good number of women who are skilled and producing rid mats, reed baskets and other products that are used for storing different materials or products. In the past, these products were meant for family and communal use and not for sale. Today, due to modernity, everyone wants money. As a result, the activity which was a preserve of women is now done by boys and men.

This perception was also expressed by the people in Chirundu and Chikankata although those in Chikankata said the practice was only done in small and isolated pockets in the area since there were no major rivers in most of the district but seasonal stream. The singled major area was the one along the Kafue River. In Chirundu the activity was commonly practiced along the Zambezi and Kafue rivers. One woman in Chiyawa area indicated that:

Kuluka ooku twalikwiya ku kazyali abamwi bapati. Kuzwa kubwana muntu wakali kwebelezya akusola zimwi ziindi mane kusikila wachiziba kabotu kabotu. When translated, this means:

The expertise of making of reed products began in childhood when we would observe and then imitate our parents and other elders. With time, one would master the skill. These two views were consistent with the findings of Colson (1971) in Zambia and Mawere (2014) in Zimbabwe that culturally, people use apprenticeship to transfer knowledge, skills and technologies from one generation to another besides observations and imitations.

Asked how common the basket and mat making practice was, most respondents indicated that the levels of practice had reduced in villages over the years due to some areas falling under wildlife protection, replacement on rid items by metallic and plastic products for carrying and storage. The respondents indicated that the few isolated

practices were making such products for the urban market or for local and international tourists but extremely few for their own domestic and indigenous communities.

➤ *Indigenous Knowledge in Farming in the Valley, Hilly and Drought Prone Environment*

The study found that few farmers completely grow indigenous crops and indigenous variety. Most respondents indicated that they grew both traditional ones and hybrid crops for a variety of reasons. Key among such reasons were that commercial market where they sell the produce reject some varieties i.e. Food Reserve Agency (FRA) which has specific standard for Maize it was buying. Most of the spotted and colour grains were rejected. As a result, to qualify for such a market most maize farmers only grew white and yellow maize from a variety of seed supplying companies. However, it was established that for food security purposes, farmer grew a number of traditional maize varieties that were tolerant to heat, drought and pests as a safeguard measure in case of crop failure in the hybrid sections.

Some informants also cited the high cost of fertilisers as one prominent reason why most farmers grew indigenous varieties. However, they largely stated that most local varieties had either disappeared or were diluted by modern ones ever since commercialisation of farming was introduced. Being hilly and drought prone regions, Chirundu and Siavonga indigenous farmers said they grew more millet and sorghum than maize but still indicated the colonial policies and actions of displacements through the building of the Kariba Dam, the commercialising of fishing and establishment of the national park areas negatively affected farming as farmers were restricted to hilly lands and their exposure to human and animal conflict where animals encroach and destroy crops and farmers can only watch and report to authorities since killing such animals exposed people to crimes. The experiences and reflections were in agreement with (Colson, 1971), Colson (2011) and Simpson (1855) who established that before colonialism, the Gwembe Valley was a productive area in agriculture where a variety of crops were successfully grown and harvested due to the fertile alluvial soils along the Zambezi plains. Colson and Simpson found that in the valley then, food security from crop production was supplemented by sustainable fishing and hunting of game all controlled and environmentally managed using traditional laws, norms and values.

➤ *Indigenous Knowledge in Animal Husbandry in the Valley and Forced Resettlement*

The study found that the people of the three research sites were pastoralist with a bias no cattle, goats and to a lesser extent sheep and donkeys. Cattle rearing was commonly in Chikankata and parts of Lusitu area of Chirundu due relatively flat land and good pasture, whereas goats were dominantly in Chirundu and Siavonga, the hot and relatively areas of poor pastures and little water especially in the long dry season. Some elders indicated that before the Kariba dam was built, a lot of cattle rearing used to take place in the valley which was fertile and provided plenty of

pasture throughout the year. They recounted how the people were brutally removed, their property destroyed and some of their livestock killed for meat by law enforcers then and others left behind only to be drowned by the dam waters. In line with these findings, Ochen and Nwankwo (2012) and Colson (1971), show how colonial imperialism used by the foreign state dominated indigenous people to the extent of forcibly removing them from their land and their cultural heritage and resettling them in barren lands where farming was impossible. The new environments meant new learning and new practices to survive; the past knowledge and practices were lost as they became irrelevant.

➤ *Indigenous Knowledge in Food and Drink Processing*

Asked on the people's skills in food processing and preservation before encountering Europeans, some respondents explained how they used local knowledge to process traditional and nutritious drinks from maize, millet and sorghum (both sweet beer called chibwantu or bbwantu and the alcoholic ones); how they processed drinks from mabuyu (baobab fruit) and busiika (tamarine); how they processed goat and cow milk processing and used tat extraction for lotion, extracted sour milk – babisi - for cikandi or cheele (nshima smashed and mixed with milk) or porridge mixed with sour milk and porridge cooked by using boiled fresh milk and not water to produce kachese. All these, they argued, were nutritious foods that had no ingredients of the Whiteman's knowledge and technologies only indigenous ones. One man from Lusitu lamented that:

Ikufwa kwabulimi akaambo ka bukuwa; kuunka anzuwo kaambo ka ma town alwiiyo lwa chikuwa, bukale bubotu bwansiku buyabuloba. Zyakulya eezi sunu zilangwa anyo yalinso pele buyou zya chikuwa nzenzinyo zyatola mpuwo. This means:

The decline of farming due the impact of colonialism; the drifting of people away from their culture due to the influence of western influence have contributed to the loss of such health relevant foods and drinks in the region; only the western-oriented farming is promoted and everything traditional is marginalised to the fringes of concern. This is in agreement with Mazrui and Wondi (1993) who explain that the marginalisation of indigenous knowledge was done starting from the rejection of IK as valid knowledge and history; dismissing oral traditions of Africans while accepting Greek mythology as the basis of the Greek cultural history and the development of the governance systems.

➤ *Indigenous Knowledge in Cultural Music and Dance*

The Valley Tonga people's skills and expertise in their music instruments and traditional music genres is amazing to listen to and experience in happy and somber times. Among the many aspects of local music in Chirundu and Siavonga, respondents stressed the role of *Budima* (dance) and *Nyeele* (musical instrument) as some of the intangible cultural heritage. One elderly woman explained:

Budima chizyano chamushobo wesu kuno, tulachizyana mumipailo yeso kumizimu yesu, adilwe muntu

mupati afwa, naa kwachitika ntenda mpati. Chizyano chilemekwa kapati. Chila chitwa abwiinga, ciindi mwami mupya nananikwa bwami, amweesyoy, ankolola. Meaning:

Budima is our cultural dance in this region; a dance performed at shrines in our traditional religion, at funerals of prominent people and elders and when unexpected disasters strike. It is a very important dance even in time of marriage and initiation ceremonies and at the coronation of new chiefs.

The study established that this intangible cultural heritage was a warrior dance though performed by other people in significant commemorations and celebrations. It was said to be key in the people's religion and rituals that refused to be annihilated by western marginalisation as it has continued to be handed down from one generation to another through theory and practice (observation, imitation and active participation). The dance performance involves wielding spears, shields, axes, knobkerries (inkoli), bells (milangu) trumpets (mweembo) made of animal horn and traditional whistles (mpemba) among other artefacts. In an interview to triangulate this an official from the Ministry of Tourism confirmed this and indicated that some documentations and audits were conducted recently and later recognised by UNESCO as one of the ICH of Zambia. Colson (1971, 2006) and Siwila (2015) also documented the central role of cultural music and dances in rituals, prayers and performances in traditional religion, funeral rites, celebrations and parties. In addition, Mazrui and Wondi (1993) confirmed the key role of UNESCO in safeguarding the cultural heritage and in Africa and other parts of the world.

- *Another Elderly Man Added that:*

Nyeele nchisibyo chesu chibambwa kuzwa kulwija lwamunyama naa kuzwa kumatete. Ikabunga kabasankwa naa balumi balalizya nyeele zyabo mukweendelana kabotu munyimbo yabo mubudima. Zilijisi mazina mbuli mpinakati, mukwele, siamupa, katiku, saina azimwi. Alimwi mubwiimbi bwesu, tulalizya tunkobela/Kankobela (thumbu piano(s) ngoma (dums)). This was translated to mean:

We have instruments for traditional music such as *nyeele*, a whistle forged out of animal horns or from reeds. This is blown during dances such as *Budima* by groups of men as the chant in mourning, celebrating or expressing their intense feelings. The whistles are systematically blown in tunes and each type has its own sound and name such as *mpinakati*, *mukwele*, *siamupa*, *katiku*, *saina* among others. We also have other traditional music instruments that include *tunkobela/Kankobela* (thumbu piano(s)) and *ingoma* (dum(s)).

- *Indigenous Knowledge in Totems and Their Cultural Value*

The study established that most men and women know their clans (mikowa) and their clan names and taboos and totems. Each person belongs to two clans; the father's and mother's clans. This category of respondents explained that the mother's clan was more prominent to a Tonga since

Tongas are matrilineal; children of one's sisters and uncles and aunts from one's mother's side are more important in lineage and cultural inheritance. It was observed that each mukowa/clan has its totem – mainly in form of animals and birds. For example:

- Bantanga - monkey clan; Badenda/Bazyamba - elephant clan; Bankombwe - bee clan
- Bansanje - rabbit clan; Beetwa - crocodile clan; Bansaka - dog clan and Bachindu - lion clan

The adult category of respondents thoroughly explained that people of each clan treated their totem with respect and that it was taboo for such members of a clan to mistreat, trap, kill and eat their totem (Kanene, 2018). This was supported by Mapira and Mazambara's study conducted in Zimbabwe in 2013. Mapira and Mazambara further established that there was a close relationship between people and their totems; a vital concept in the management and conservation of forests, woodland, wetlands and wildlife. Although this indigenous knowledge was well articulated by most adults, it was sparingly known by the younger people who the elders said that they pay a lot of attention to western lifestyles and seemed to have little value of their culture; another negative impact of people's own attitudes, western civilisation and loss of cultural heritage.

Another historical and indigenous knowledge finding was that the Valley Tongas have for a long time applied their Indigenous knowledge and technology to their social life through their ingenuity developing smoking pipes *nchete* (smoking pipe for men) and *ndombondo* (calabash gourd – *nchelwa* - smoking device for women) decorated with beads and bright colours, the *ndombondo* technology has been remarkable, displaying a people's understanding of the science of conduction where smoke passed through water forming bubbles and the emerging smoke is then inhaled as a moment of pleasure, relaxation or getting rid of exhaustion. Women (older ones) only smoked local tobacco (*tombwe*) but men would smoke both *tombwe* and *lubanje* (*marinuana*) euphemistically called *tulya bayuni* (food eaten by birds). Respondents indicated that though some elders still possess and use these smoking pipes, their numbers had declined very much to a scanty few across the valley. Simpson (1985) established that the Tonga had their appropriate technologies from the iron age period that facilitated forging different tools, instruments and other artefacts.

Siamwiza (2009) and Colson (1971) also established that the Gwembe Tonga had relevant know-how to deal with floods, droughts, hunger, famine and shortage of food through experiments and experiences in the land and environment which they had known for centuries before and after colonisation. Whatever reason, there was no doubt that the surviving cultural heritage continued to make the Valley Tongas a vibrant people as they continued to showcase their expertise and cultural heritage through their lives, practices, ceremonies, religion and rituals.

V. CONCLUSIONS

The study attempted to show that the Tonga people of the valley and those on the plateau have their history that outlived colonial period and the impact of colonial intrusion on people's tangible and intangible cultural heritage. Firstly, although very few aspects of the researched people's cultural heritage were interrogated in this study, it was evident that colonial policies and practices (tax, labour movement and construction of the Kariba Dam and the establishment of the cash economy e.t.c) contributed greatly in the encroachment on a people's sacred places, disinheriting people from their cultural soils, distorting the cultural history and documentation of the local people's cultural heritage. Secondly the study also established that missionaries and their religions and western education planted a seed of rebellion of people i.e. against their traditional religions, shrines and totems and cultural practices and rituals. This has, for a long time created a false-security among local people that one can only be effectively successful in life by gaining western education, western job, applying western knowledge and western technology. It was also concluded that indigenous knowledge and the cultural of the Valley Tonga was still alive to techniques, skills, knowledge and practices that failed to be uprooted from the people by colonial onslaught and marginalisation and continue to be passed on from one generation to another by word of mouth, observation, imitation and practical participation. The study concluded that there were a good number of young and old people who were still interested in practicing cultural activities and in safeguarding their cultural heritage. However, the gap in indigenous knowledge between the older and the younger generations was worrying as it was endangering the continuity of some cultural heritage in the present and in future.

Arising from the results of the study, we recommend that: local people need to decolonise their minds by applying a paradigm shift in their perception of the IK through valuing it and promoting its aspects the relevantly sustain their lives. We also recommend that the people to utilise cultural structures that have been abandoned or almost abandoned such as story-telling, *gobelo*, *mantombwa* and *malende*, culturance dances and music if their tangible and intangible cultural heritage is to be safeguarded successfully. The local leadership and other traditional leaders must vigorously search for and adopted best practices to foster IK in younger people for posterity. Lastly, the government must support cultural literacy in schools and cultural research to inform policy on IK and facilitate sustainable development.

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