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# Cultural and Historical Sites and its Significance for Tourism Product: The Need for Geospatial Analysis

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**Abstract:** *Cultural and historical tourism sites are fast losing their relevance with most of them being moribund and less attractive due to lack of identification and their spatial domain not properly mapped. Tourism remains one of the foreign exchange earners in any economy. This work seeks to showcase the need for geospatial analysis for effective development of cultural and historical sites as a tourism product. This work will be approached from an interdisciplinary perspective adopting principles of remote sensing and geospatial information system in conjunction with phenomenological view. The work discovered that proper mapping of cultural sites will bring to the fore easy location, maintenance and attraction to cultural tourism sites as it will help government agencies to know the state of every cultural cum historical sites within their domain.*

**Key words:** *Cultural sites, remote sensing, mapping, tourism, geospatial information*

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## 1.0 Introduction

Tourism in recent time is the world's largest and most divers industry for revenue generation. It is a global phenomenon which creates employment, bring about development and constitute the growth of other ancillary agencies such as the hospitality industry, transport and other ad hoc businesses. Cultural tourism is so essential to any society because it promotes the ethical value of a people and project them to the outside world as tourist are given special orientation to tolerate and respect people's culture and religious believe. It is imperative to note that cultural heritages make up one of the major tourism product that promotes development. Hence, it is important to harness and preserve them for tourism purposes.

UNESCO encourages every society to promote cultural tourism as it facilitates the preservation of fragile cultural and natural resources which in turn reduce the poverty level of the people. Thus, tangible and intangible heritages resources are harnessed to facilitate intercultural dialogue and exchange to create feelings of belonging to humanity. This in turn creates an avenue for the preservation of forgotten or threatened heritage resources which can boost the economy of the people. UNESCO 1999 convention declared that tourism is the preferred form of economic development both local and national level. For this reason, it is important for the government to integrate tourism into its development strategies due to its potential in economic generation as tourism is able to increase both income and employment with relative cheap cost using the natural resources and culture.

Nigeria as a nation is littered with numerous cultural tourism attractions but these cultural

heritages are abandoned due to ignorance on the enormity of the gains of tourism, some of these tourist sites are now moribund as a result of neglect and abandonment. Therefore, it is important to apply the use of remote sensing technique in monitoring the state and status of the various tourist sites. If we must enjoy the gains of tourism; this can be done by harnessing, preserving and closely monitoring the sites with the application of remote sensing and geospatial techniques to ensure the development of up to date static and visual maps showcasing these important economic locations and ventures in line with modern-day tourism facilities.

### **1.1 The Concept of Tourism**

*The American Heritage Dictionary* (1982) succinctly defines tourism as ‘the practice of travelling for pleasure’. It further states that it is the business of providing tours and services for tourists. A tourist is here referred to as a person who is travelling for pleasure. In *Encyclopaedia Britannica* (1981 cf. Graburn 1980), tourism is defined as travelling for recreation or the industry involved in guiding and accommodating tourists. The *Chambers Encyclopaedia* (1969) views tourism as a term used widely to describe a kind of travel which has two main characteristics: that the travellers concerned mean to return home after a comparatively short time and that the money they spent is money derived from home not earned in the place visited. For Olokesusi (1987) tourism is the movement of people within or outside a state or nation for leisure, cultural exhibition, sports, education, conference or health reasons.

From all the definitions the common attribute is that tourism involves the temporary movement of persons from one destination to another. Such movement must be aimed at achieving some desired objectives. In addition, the movement may be within or outside a given geographical boundary.

Chucky Gee (1997) in describing tourism stated that tourism deals with travels and thus defined it “as the act of moving outside one’s community for business or pleasure but not for commuting or travelling to or from work or school”, this is because the travel industry must generate economic value. It is very important to have a standard definition in talking about tourism which involves travel in order to avoid variation by tourism developers all over the world. Still on defining tourism we shall look at the types of tourism as distinction is often done based on the extent of the movement involved which is a fundamental necessity for both policy makers and all the stake holders in the tourism industry. It is said that the form of tourism have more implication in terms of the traffic influx involved in each form and their contribution to the economy and the national development (Alagoa,1988).

Domestic tourism has been defined as the movement of people within a given country boundary (intra-travel) for business, leisure, cultural commitment, sport, health purposes. This type of tourism is concerned with all tourism activities within the territorial boundaries of a country e.g. the Nigerian festival of Arts and the National sport festival that takes place annually. This movement could involve residents within a country of or foreign national, residing in their host society. This kind of tourism has great potentials in terms of numbers and economic benefits to the country, since there is not travel documents required to travel from one end of the country to the other.

### **1.2 Cultural cum Historical sites in Nigeria**

Nigeria is a land blessed with numerous sites which depicts the culture and traditions of the

people, some of these sites show-case the historical experience of the people thereby constituting a source of data for future generation. Below are some these sites:

### **1.2.1 Oloibiri Oil Museum**

The Oloibiri oil well is a historic site in Bayelsa State, it is the first location where oil was discovered by Shell Petroleum Oil Company in 1956. Consequent upon this, it is expected that Oloibiri should wear a monumental and attractive look to show its significance in oil discovery which has been the source of the nation's wealth. But till date Oloibiri oil site is still abandoned and dilapidated despite the proposal by President Shehu Shagari for the building of a national museum at the site. It is disheartening to know that debate is still ongoing in respect to releasing money for the erection of an oil and gas museum in Oloibiri (<https://vanguardngr.com.60yrs-after-first-crudeoil-dries> Accessed 7-6-2017).

### **1.2.2 THE GURARA FALLS**

The Gurara waterfall is a beautiful and natural water fall from the rocks which constitute a river that flows into the River Niger. The site is very attractive and cool for swimming especially during dry season. The Gurara falls is an outstanding site of natural beauty and place for bird viewing. The Fall is a place for tourist attraction and recreational area. However at the eve of modernity the Gurara falls was worshipped by the Gwani people of Niger state. It was named after two deities; Gura and Ara. People took their problems to the deities and made sacrifices and prayers to help solve their problems. The river is therapeutic in that it has a lot of trees and shrubbery which provides fresh oxygen which is rejuvenating to human health. The river has great potentials for sports, fishing and wildlife viewing. More so, crocodiles can be viewed in their natural habitat. The Gurara falls is indeed a tourist heaven ([www.socialprefect.net/gurara-gurara-falls-tour-review](http://www.socialprefect.net/gurara-gurara-falls-tour-review) Accessed 7-6-2017).

### **ERIN IJESHA**

Erin Ijesha is a beautiful place for nature lovers, the environment is serene and cool, located in Osun state, Nigeria. The natural air is therapeutic as the water falls exudes cold and refreshing air that rejuvenates the body. It has fantastic views as several waterfalls cascade on each other with an awe experience with nature. Each step of the waterfall has a flowing fountain that marks the mystical nature of the place. The Ijesha water fall is an attractive place for tourist as the water has a stunning assemblage of seven unique levels, with each levels providing a new outlook when compared to the previous level (<https://www.vanguardngr.com>. Accessed 7-6-2017).

### **1.2.3 AROCHUKWU LONG JUJU**

The Arochukwu long juju is a sacred shrine of the Ibiri Ukpabi in Abia State of Nigeria. It is a cave with different segments such as the Apex court, the throne of judgment, the dark presence or Holy of Holies, the hill of rags, the tunnel of disappearance and the red water.

The Arochukwu cave is a six foot gully naturally structured and covered to protect the ancient temple. It is the highest court of appeal to the people. It served as a place where final judgment were passed; those found guilty were asked to walk into the dark presence regarded as the holy of holies from where they enter the tunnel of disappearance from which the guilty disappears, the victim is blindfolded and taken through an outlet where the victim sees himself at the beach waiting to be sold as a slave. Meanwhile at the rag hills the river turns red indicating to

the relatives that the gods have killed the victims.

The Arochukwu long juju was used as a sacred shrine from which slave trade deals were made using naturally designed cave. The shrine of Ibiri Ukpabi pronounces judgments in disputes among the Igbo people. The guilty ones were believed to be the gods properties and were sold as slaves or serve the god while the innocent were sent back home to their relatives (The Nations Nigeria Dec.2014).

#### **1.2.4 AZUMINI BLUE RIVER**

Azumini River is a tourist delight because of its unique crystal clear blue color. It is exceptional as no other river in Nigeria is as clean as that; the clarity is such that the content of the river, that is, the fishes, grasses and the vegetation inside the river is very visible to its admirers. The beauty of the river is most glaring when the day is very bright and when there is moonlight. Its beauty is like a cloud on earth due to its color. Viewing from afar is like a merging of the cloud above and the cloud beneath. The river flows from the southern part of Abia state to the fringes of Akwa-Ibom state.

The beauty of the Azumini River does not get distorted despite the canoe rides and the very white sandy beaches where tourists can sit out to enjoy themselves. There is provision for relaxation and barbecue grill ready for preparation of tasty fish meals.

Another feature to the beauty of the river is the Azumini hills which provide a wow effect while viewing from the top as it is the only hill around the location. There are other wildlife's which are fascinating and entertaining however the river turns green after rain falls on it (<https://www.nigeriagallery.com/Nig/stateazumini>. Accessed 15-9-2016).

#### **1.2.5 Okomu National Park**

Okomu National Park (formerly known as Okomu Wildlife Sanctuary) is a forest reserve area in Edo State that holds a rich forest and is the habitat for many endangered species. However, the forest continues to shrink due to encroachment by the villagers and is now less than one-third of its original size. The basic forms of deforestation by villagers are timber exploitation, farming, bush burning and fuel wood collections. This is quit disheartening as a forest such as this needs a strong supervision by the government in order to preserve it from encroachment (<https://www.nigeriagalleria.com/okomu-National-Part.html>. Accessed 15-10-2017).

#### **1.3 Importance of Cultural Tourism**

Cultural tourism is an important tool for celebrating, preserving and promoting a people's unique heritage. It is also an effective way to stimulate state economy, as it increases opportunities for artists, encourages public participation in the arts and facilitates cultural commerce. Cultural tourism provides essential values of historical identity of a people, it creates a platform for people who share the same background and traditions to preserve their culture for future generations and also ensure that it is protected and developed. The cultural heritage which is a historical and social possession of a society bequeaths as legacy to future generations has its place in its cultural being and attains greater importance with its historical identity. So it also plays important role in preserving the cultural heritage for young generations. Those cultural activities generate cultural communication among the region of destination. People from that region show their own unique culture to the travelers, and the travelers give it back to the other regions. They create a recycle link for cultural heritage conservation. At the same time, they are

also contributed to the promotion of integration and growth of the economy.

According to the Weiler and Hall (1992) culture, heritage and the arts have long contributed in attracting tourist destination. However, in recent years 'culture' has been rediscovered as an important marketing tool to attract those travelers with special interests in heritage and arts. According to Hollinshead (1999), cultural heritage tourism is the fastest growing segment of the tourism industry because there is a trend toward an increased specialization among tourists. This trend is evident in the rise in the volume of tourists who seek adventure, culture, history, archeology and interaction with local people.

Cultural heritage tourism is therefore very important for various reasons; it has a positive social impact, it establishes and reinforces identity, it helps preserve the cultural heritage, with culture as an instrument it facilitates harmony and understanding among people, it supports culture and helps renew tourism (Richards, 1996).

Cultural tourism is also very important because it entails visiting of historical sites and sightseeing, providing the opportunity for enjoyment of past human achievements. As part of domestic tourism, visiting such places is an object of admiration, national pride and rediscovering the achievements of our ancestors. Cultural tourism has a positive economic impact because it is an instrument for economic development that achieves economic growth by attracting visitors outside the community-host who are motivated generally or partially by an interest in the historical, artistic, scientific or related to lifestyle and traditions reality and facts of a community, region, group or institution. Such a travel is always focused on the feeling of the cultural environment, including landscapes, visual and performing arts, lifestyles, values, traditions and events. Cultural tourism is looking for ways to create "marketable tourism products" as well as environment for work and life.

Nevertheless, development and supply of cultural-historical heritage "dressed" in an attractive package for tourist consumption must be balanced with responsibility and necessary seriousness against history and national values. The global nature of tourism creates a series of challenges for many communities. With the increasing unification of the hotel architecture, chain restaurants, street furniture and others, communities need to preserve local identity and at the same time meet the expectations of tourists in terms of quality and standards. It is important not to make compromise with the preservation of cultural values and to balance the socio- cultural needs and economic benefits.

For instance, festival hosting generates economic gain to the host community in that people bring their wares or goods for visitors to buy. At this period people also buy new clothes for themselves and their children, food for entertainment, etc. hence, it becomes a beneficial factor to the people. Benefits of festivals is abundant among them, there is a considerable focus on developmental benefits of festivals for the destination. It should be noted that for some festivals in rural communities, this impact might be limited and relatively small. However, the magnitude of the economic impact of festivals in rural communities depends on the characteristics of the festival such as the length of the festival as well as factors in the local economy such as other visitor attraction in the community. Folklore festivals, for example, are commonly seen in rural communities as they help to conserve cultures and revitalize traditions (Crompton & McKay, 1994).

Examples abound of festivals that have brought about tourism and development, using Nigeria as a case study, the *Osun Osogbo* cultural festival is a unique annual celebration in honor of the River goddess called Osun in Osun State. The festival has brought about development and

economic generation for the people of Osun, since it is an annual celebration with a high rate of tourist attraction; the roads leading to River Osun is well developed and lightened. Tourists patronize the hotels around the vicinity during the celebration. (NTDC, 2000). It has helped in preserving the cultural value attached to the River. An official report from NTDC Headquarter in Abuja confirms that historically, the festival started around 1670-1700 when *Oba* Laraoye a.k.a Ghadawolu and his subjects migrated for *Ipole Omu* due to drought and settled at Osun groove (NTDC 2004).

The *Arungu* Fishing Festival is another festival that has gained prominence in recent times; this can be attested to by the turnout of participants both from within and outside Nigeria. Historically, the festival started as an irregular get-together of the local fishermen residing within the immediate vicinity of the fishing site of *Argungu* settlement in the present Kebbi State of Nigeria. However, today the festival has brought about cultural tourism due to the high rate of tourists that visit during the period of celebration. The festival started in 1943 when Sultan Hassan Danmu'azu made his famous first friendly visit to *Argungu* and as a sign of respect to mark this historic visit, the Sarkin Kebbi, Mohammed Sama organised the fishing festival embracing fishermen from all nooks and crannies of *Argungu* Emirate (NDTC, 2004).

According to City Tourism and Culture, 2005 Cultural events and festivals play an important role in the formation and strengthening of cultural tourism in today's tourism industry. Reason being that it

*“offer the tourist additional reasons visit A place over and above the regular cultural product offered. Often because events are one-off and take place in a limited time frame and because festivals offer a concentrated and often unique offering in a limited time period, they form an additional reason for cultural tourists to visit a place. They can cause a place to rise on the shortlist of places the tourist has in his or her mindset of attractive destinations. Festivals and events are both effective instruments in attracting first time visitors as well as repeat visitors due to the differential advantage they can offer.”*

According to city tourism surveys stated above, it can be said that the majority of cultural tourists are motivated to take part in event and festival tourism as well.

In terms of cultural tourism, festivals cultural values are specific prerequisite for the development of cultural tourism. In their essence they are a set of objects and phenomena whose cognitive and emotional effects are intended to satisfy the tourist cultural needs. Cultural-cognitive tourism is an interaction between cultural, ethnic and historical components of the society or of the place to be used as resources to attract tourists and tourism development. Cultural values can be grouped under three headings: (i) Cultural and historical monuments and sites-archaeological sites, monuments and architectural complexes, monasteries and churches, ethnographic monuments and museums and others, (ii) Works of art - movable tangible cultural values: a collection of art objects, works of painting, sculpture, folk crafts, embroidery, costumes, cult objects, masterpieces of cinema and literature, etc., (iii ) periodic and episodic events - festivals, shows, congresses, fairs, celebrations and more.

Influence on the long-term viability of the cultural values exerts their size, uniqueness, management, ability to retain the interest of tourists, competition and others. The presence of cultural values, however, does not constitute a travel. They need to be engaged in the economic turnover - the market supply of cultural tourism as part of the tourism product.

Furthermore, cultural tourism is also traditional religious travelling and in particular pilgrimage. For instance, Christians travel to Jerusalem each year for a visit to the place where Jesus was born, Catholics travel to visit the Vatican and other holy places, travelling of the Jews to Israel, Muslims all over the world travel to Mecca as part of their religious ritual.

#### **1.4 Concept of Remote Sensing**

Remote sensing is the technology of measuring the characteristics of an object or surface without contact with the object. In the case of earth resource monitoring, the object or surface is on the land mass of the earth or the sea, and the observing sensor is in the air or space. In order for an observing sensor to acquire knowledge about remote object, there must be a flow of information between the object and the observer. There has to be a carrier of that information. The main elements in the process of measurement with remote sensing are the object to be studied, the observer or sensor, the Electromagnetic Radiation that passes between these two, and the source of the Electromagnetic Radiation.

Remote Sensing is that branch of applied geomodelling science (also known as mapping) that deals with the measurement representation and analysis of environmental objects, areas and phenomena using signal sensors that are not in physical contact with, but record and analyze signals from target objects (Olaleye, 2017).

For remote sensing, a sensor collects electromagnetic energy that has interacted with environmental objects in the proportions of their reflective, absorptive and transmissive properties, and since these properties vary from object to object and also from wavelength to wavelength of electromagnetic energy spectrum, no two objects have the same spectral signatures unless they are one and the same type. When the intensities and directions of approach of each ray of incoming *electromagnetic energy* are measured by a suitable sensing device and recorded, the patterns and distribution of such recorded radiation can be examined to infer the characteristics of terrain objects and phenomena both in terms of physical and geometric dimensions and natural attributes.

Remote sensing data can be used to provide information for the management of natural disasters such as flood, drought and desertification (Okeke, F.I. 2005). Also, Remote sensing can be used to map land resources, provide data for land use planning, provide detailed land capability inventories as well as comprehensive land classification, and most importantly remote sensing technology is routinely used for all sorts of environmental impact assessment (Melesse *et al.*, 2007). Remote sensing assisted mapping would help to delineate the natural features that require protection, as well as permitting monitoring of the area to make sure it is safeguarded. This is applicable to tourist sites and their associated locations.

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In line with the World Heritage Convention, whose goals include the establishment of an effective system of collective identification, protection, and preservation of cultural and natural heritage around the world considered to be of outstanding universal value. This includes providing both emergency and long-term protection for monuments, groups of buildings, and sites with historical, aesthetic, archaeological, scientific, ethnological, or anthropological value, as well as outstanding physical, biological, and geological formations, habitats of threatened species of animals and plants, and areas with scientific, conservation, or aesthetic value. Nigeria became a party to this convention by ratification on the 23<sup>rd</sup> of October 1974 (WHC, 1974). This goal underscores the need for the deployment of remote sensing and geospatial techniques for its actualization in both short and long term basis.

The techniques of remote sensing is predicated on the use of satellite imageries that are scientifically processed through geo-referencing, image composite and classification; The outcome can be in the form of point, line or vector representation of the phenomena in an appropriate scale.

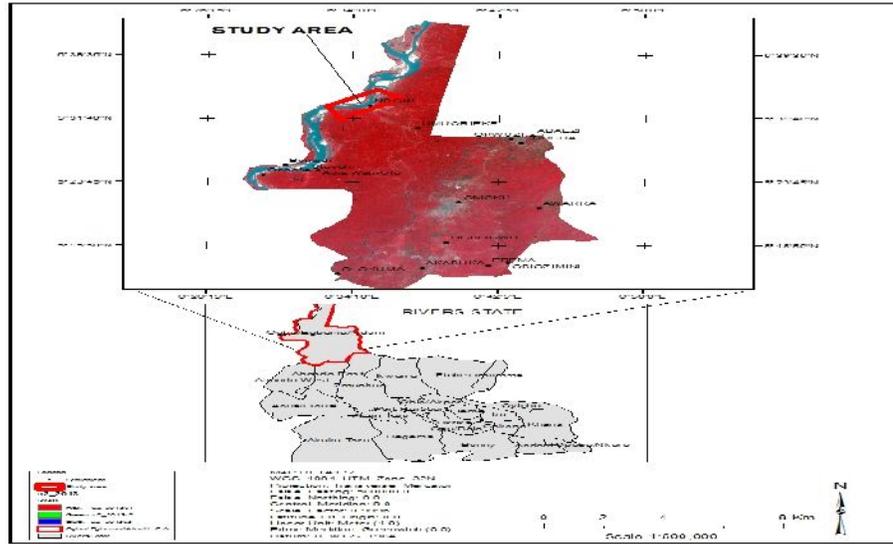
### **1.5 Maps**

The best-known conventional model of the real world used for many years to represent information about the real world is the map. Maps are product of analogue cartography (Ayeni, 2003). For ages maps have been used to portray the surface of the earth on to a paper. They are restricted to two-dimensional graphic representation and are static, e.g. topographic and thematic maps (environment and resource maps). Maps are always displayed in a given scale, which determines the spatial resolution of the geographic features. A map is a graphic depiction of all or a part of a geographic realm in which the real world features have been replaced by symbols in their correct spatial location at a reduced scale. This therefore serves as a method of visual interpreting the data representing the real world features (Ayeni, 2003). Although, the spatial information provided by the maps is on paper, they form an important source of data for geographic database. Maps within the GIS environments can be temporary designed merely for a quick informative glances, or permanent, for presentation of ideas as a substitute for a picture or reports, (Hart, 2009).

### **1.6 Types of Maps**

Maps can be static or visual; in any case it can be both thematic and/or general purpose. The following types of maps are identified:

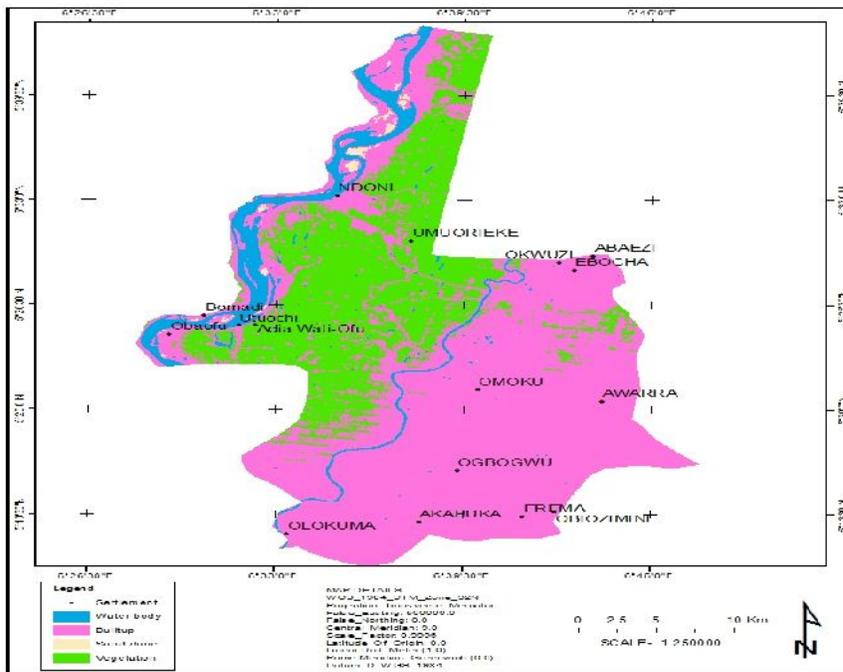
- i. Topographic Maps, these are maps that depict the relative position of both natural and cultural features of a given location. Today, topographic maps are prepared using remote sensing techniques on imageries and photogrammetric methods on aerial photography.
- ii. Cadastral Maps, these are maps that depicts boundaries for delineation and ownership of property.
- iii. Thematic maps, these are maps of special themes for specific studies, such as tourist and historical site map, pipeline maps, geological maps, telecommunication mast map, etc.
- iv. Geographic maps, these depict geographic features and reliefs, flood plains, rivers, etc.
- v. Tour Guide Maps, these are simple directional maps that guides tourist and/or first timers in any given location. (Hart, 2009)



**Figure 1. Map of the Study Area**

The map of the study area is shown in figure 1.0. It highlights the graphical representation of the boundary limit of the entity known as Rivers State. The figure further shows the inset of the particular Local Government Area where the tourist location of interest is located. In this case, the River Niger in its meandering geometry along the Ndoni-Oguta axis in

Ogba/Egbema/ Ndoni Local Government Area.



**Figure 2. Classification map of Landsat ETM+ 2015 for Locations**

In another vein, figure 1.1 is a representation of the location through satellite imageries. The Landsat ETM+ imagery was used for the classification of both natural and cultural features of the location. The colour classification depicts the type of feature. In figure 1.1, blue colour shows water bodies, the green shows vegetation, pink depicts built-up areas (i.e. residential and commercial buildings).

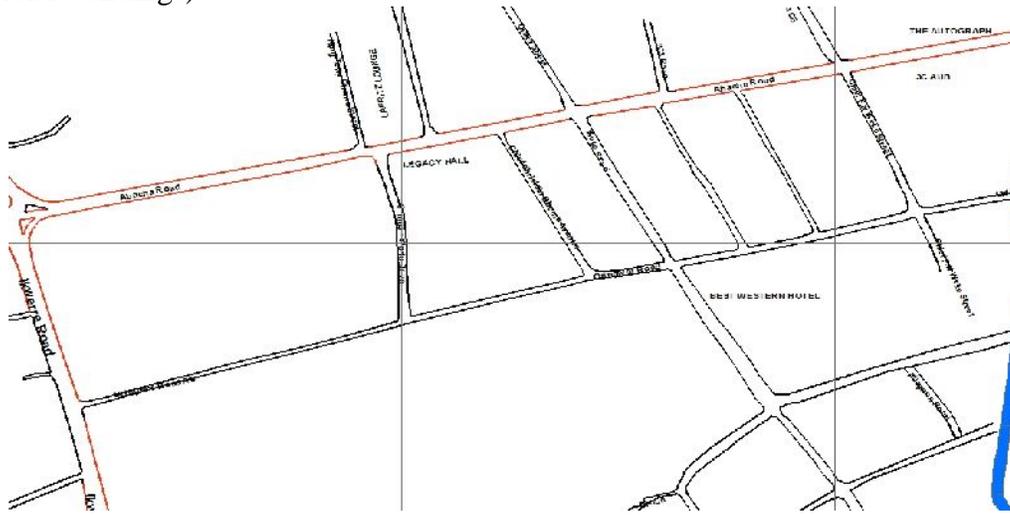


Figure 3. Specimen of Street Guide Map of a Location



Figure 4. Specimen of Hotel Locations Guide for Tourist

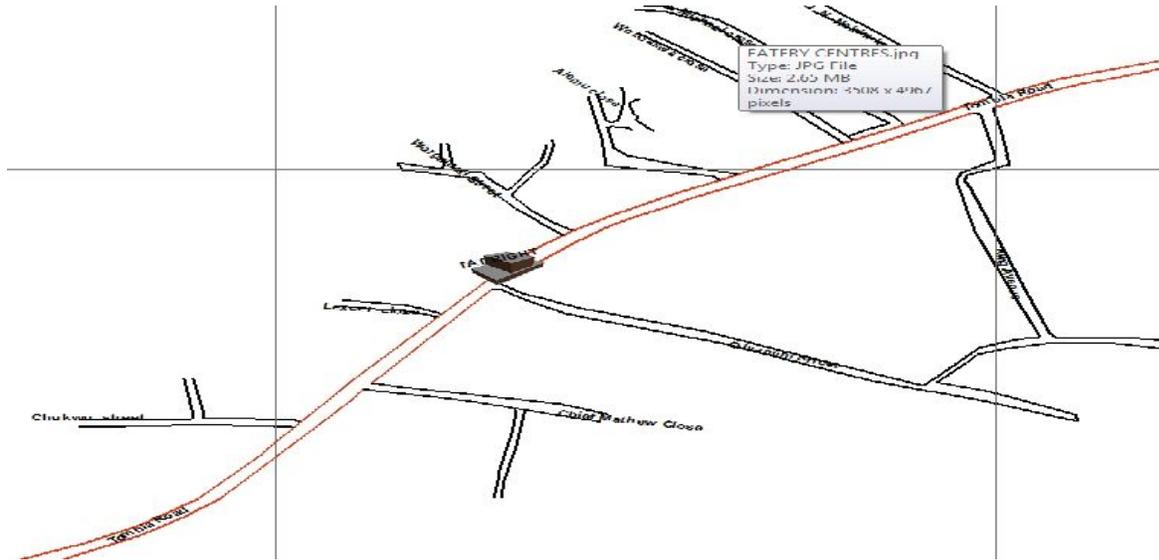


Figure 5. Specimen of Eatery Centers Guide for Tourist

Figures 3, 4, and 5 shows specimen map guide for streets, hotels and eatery which are critical information for meaningful tourism adventure. These map products become veritable tool to enhance cultural tourism management.

From the above, the remote sensing and geospatial techniques have not only provided a 3-dimensional view of the tourist location, it has in addition, give a vivid geographic description of the associated and immediate environment for which the tourist will find very instructive.

### 1.7 Geospatial Information

For an effective mapping of historic and tourist sites, there will be the need to provide geospatial information database for easy reference and retrieval. The geospatial information describes the spatial domain of the phenomena, its attribute characteristics, terrain analysis and relational data. A specimen of geospatial information is represented as follows:

- i. The coordinates, this is a numerical value that is assigned to the location they can be in the form of latitude and longitudes ( , ), or Eastings and Northings (E, N), etc. This is the spatial domain.
- ii. The attribute characteristics, this is the description of prominent features within and around the location for easy identification.
- iii. The terrain information, this demonstrates the terrain attributes, such as light vegetation, hilly and undulating, marshy and low land, swampy and mangrove, etc.
- iv. The relational data, this showcases, the graphical relationship with major features, such as distances, bearing and/or direction from prominent structures.

Table 1.0. Specimen of Tourist Location Geospatial Information

S/N	Name of Location	Coordinates	Attribute Characteristics	Terrain Information	Relational Data
1					

### 1.8 Conclusion

The phenomenological description of the selected tourist and historical locations may not truly create the attraction to a prospective local or international tourist except he can have a preview of the location in either 2 or 3 dimensional view. This addition is what the remote sensing and geospatial technology can provide as a boost to this unharnessed area of the economy of Nigeria. The tourist can be fully informed of the location of interest and other associated characteristics prior to his visit. This will create the necessary curiosity and enthusiasm associated with tourist before embarking on the journey.

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