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Silencing the Nigerian Masses through Occult Practices: A Leeway in Entrenching Corruption by the New Elites in Nigerian Democracy

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SILENCINGTHENIGERIANMASSESTHROUGHOCCULTPRACTICESALEEWAYINENTRENCHINGCORRUPTIONBYTHENEWELITESINNIGERIANDEMOCRACY

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Nina Perpetua Waapela

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I. Introduction

Nigerians, ye are bewitched! If not, what shall you then say to this? How did you plunge into this state of dyconsciousness? Catastrophes that would have shaken normal societies to their very foundations hit and leave you unfazed. Tyrants in military uniform whipped you with scorpions; only a few of you protested. Now their civilian inheritors are scourging you with serpents, and many of you respond with *rankadede*! Politicians and other public functionaries empty your public treasury and squander your patrimony/common wealth right before your very eyes; you pray to God to aid their effort. Time, there was, when public office holders embezzled your money in millions of naira; now they do so in billions and trillions and many of you urge them on and envy their luck. In other lands, public figures go to jail for pinching your equivalent of 50,000 naira. In your country, Nigeria, the huger the amount one carts away, the more prestigious the national order of merit, the closer one gets to victory in the next elections.

History has not shown that western civilisation remove occult practices or eliminates superstition or tensions from the society. In the West at present, despite the high level of education and technological advancement, there is a sharp rise and a growing faith in astrology, witchcraft, spiritism, divination and fortune telling.[1] In Africa, numerous practices relating to occult forces abound in pre-literate, literate or modern societies. The Bible in the New Testament,[2] points out a number of important verses that speak of the "powers and principalities" which oppose God's rule (Ephesians 1:21, 3:10, 6:12; Colossians 1:16, 20:10; 1 Peter 3:22; Romans 8: 38). There is no gainsaying that, though westerners and/or scientists dismiss occult practices as primitive, native and superstitious, the belief in traditional medicine and occult attacks are so strong among many races of the world that only those who have not fallen victim of such deny their existence.[3] Indeed, majority of Africans harness these occult powers with the reason that there is no harm in making use of several methods to provide solutions to problems[4] be it social, political, economic or therapeutic. In Nigeria, it can hardly be denied that occult practice and its usage constitute a common place not just among traditional Nigerians but also by some Nigerian Christians, Muslims and/or the educated.

The intractable corruption in Nigeria and the docility of the Nigerian masses to rise up and challenge the political elites' exploitation of their natural resources is strongly believed to have a spiritual dimension, aside the many other physical and social factors that may be advanced. This is backed up by the African sacred belief that natural occurrences or events that take place in the society have supernatural inclinations which though true cannot be subjected to scientific proof. Questions that suggest this line of thought in the present Nigerian democratic era are: Why is Nigeria so endowed with many natural resources, producing up to 2.6 million

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barrels of crude oil per day, and having about 82 million hectares of arable land still ranks amongst the poorest nations of the world? Why are meritocracy, accountability, transparency, competence and integrity jettisoned in Nigeria especially from 1999-date? Why is Nigeria among the few nations parading the highest number of church and mosque goers in the world, still ranks as one of the most corrupt countries? Why have Nigerians become so docile despite the country being termed the giant of Africa with a population put between 160-167 million? Why can't Nigerians rise and say no to their oppressors? Why is it that even when they do, the political elite are so sure that their opposition to wrong government decisions will not be sustained, unlike in other smaller African countries where opposition often has relatively longer lasting impacts? How are political elites able to 'read' the masses of Nigerians "We know Nigerians, they will quickly adjust"? Why do Nigerian politicians say that even if you don't vote for them, they will win? Why has the Nigerian Government been unable to learn from other countries where corruption and internal insurrection have been tamed?

a) Clarification of Key Concepts

To enable one get a clearer picture and understanding of this paper, there is need to clarify certain concepts. These concepts include occult practices, corruption and democracy.

i. *Occult practices*

An occult practice simply means a supernatural practice. Occult practices range from acts of divination, magic, prophecy and witchcraft. Specialists such as diviners, herbalists, magicians, priests/priestesses, prophets, and witch-doctors possess the knowledge and understanding of these practices and also help people to benefit from them for bad or good. A diviner, also called a soothsayer is one who learns the cause of a disease and provides the remedy. He or she also has power to divine either through communication with the ancestral spirits or handling of various objects and performing various rites. An herbalist in the traditional culture has knowledge of the various herbs. Herbalists also combine medicine with divination and mystical powers of the spirit- world. A magician is one who endeavours not only to govern certain natural or supernatural forces, but produces effects by saying words and doing certain acts via the use of charms, spells and rituals. Dopamu thus affirms magic as, the act of the influencing course of events by means of supernatural communication and manifestation of power by means of occult control of nature and invocation of particular spirit-aid.[5] One recalls that in the Old Testament of the Bible, Egyptian magicians were able to perform miracles similar to those performed by God through Moses. A priest, especially in West Africa, serves at the shrines of the various divinities. He or she offers sacrifices as well as serves as a medium of spiritual communication. A prophet traditionally is an oracle-giver. He or she famous for their knowledge of the future and according to Gehman,[6] providing an important service to a community and advising people on when and how to battle issues of life is also part of their duties. A witch is one who is involved in practices of spiritism. He or she is a medium of communication with spirits. All these African religious specialists play important roles even in election activities as politicians and aspiring candidates consult them from time to time.

ii. *Corruption*

Corruption is a faceless and multifaceted monster; it is not easy to define. However, the most popular and simple definition of corruption is that, "it is the abuse of public power for private benefit.[7]

iii. *Democracy*

Democracy has been ascribed different meanings and interpretations depending on its application. Etymologically, the word democracy is a derivative of two Greek words, *demos* (people) and *krates* (rule). Universally, democracy's most accepted definition is Abraham Lincoln's postulation that it is the government of the people by the people and for the people.' With a democratic system of government, it is believed that the voice of the people will be heard and their latent wisdom will prevail.[8] Hence, the people, through elections, freely choose those who will represent and govern them well. Athens was indeed, the first city state to practice democracy where ordinary citizens were allowed access to offices and courts. Democracy is however critiqued as cumbersome, slow and inefficient, due to time; democratic nations have become the standard of human society.

II. African and Nigerian Democracy

Democracy has metamorphosed through various phases and models in countries where it is being practiced. Many African States have tried to justify the ineffectiveness of their democratic leadership by using a qualifying adjective as "emerging democracy" which implies, evolving or developing. These 'so called' emerging democracies are countries where democracy is yet to be fully entrenched. Hence, it is still undulating, fluctuating and/or punctuated by colonialism and (de) colonialism, civil wars, military coups, rise and fall of tyrants, thuggery, militancy, election violence, and flawed electronic elections among many. However, the United Nations Democracy Fund (UNDEF) (11) sees, emerging democracies as countries with a history of autocratic rule or civil unrest which have a purposeful process of democratization albeit with weak and inexperienced institutions.[9] There are seven African countries at the moment with emerging democracies. These include Burkina Faso, Burundi, Central Africa Republic, Guinea, Kenya, Mozambique and Nigeria as well as the self-declared breakaway Republic of

Somalia. To backing up this claim, the 2010 index records of a survey of 11.3 percent of the population of the 167 countries with democracies reveals that: "37.1 percent fall within flawed democracies, 14.0 percent fall within hybrid regimes, while 37.6 percent fall within the category of authoritarian regimes. Sub-Saharan Africa and the Middle East and North Africa regions rank the bottom of the list on the index."[10] While it can be argued that the benefits of democracy outweigh its pitfalls, the foregoing evidences reveal the slow rate of growth and development of democracy on the African continent and Nigeria epitomises the chart. In its fifty-five years of flag independence, Nigeria has made several experiments with political systems of governance including the British parliamentary model and the presidential system of the United State of America. There was also a spate of continuous military dictatorship in the country's rulership.

At present, Nigeria is experiencing 17 years of uninterrupted democracy from 1999 to date, with a far less competence in governing. While it can be argued that through these stages, from 1960 to date, the country has experienced several economic booms via petroleum (no doubt assisted by high oil prices), has won external debt relief and consolidated its banking system, has pepertuated growth in her foreign reserves giving rise to the Excess Crude Account (ECA), and has had a more reinforced notion of her citizenship rights, there is a near lack of meaningful development. From these and other factors, a report on the state of health of Nigeria's democracy, captured by Fund for Peace (FFP) in 2012, declared that Nigeria ranks among the top ten failed states in Africa and 14th in the World. Nigeria trails behind Pakistan, Guinea, and Côte d'Ivoire, Central Africa Republic, Iraq, Yemen and Haiti.[11]

a) *The Emergence of the New Elites in Nigerian Democracy from 1999 till Date*

The genesis of undemocratic governance in Nigeria is rooted in the colonial governance era. The colonial rulers dove-tailed Nigerian political leadership in an authoritarian system by monopolising economic and political leadership. The new and indigenous leaders who took charge of the affairs of governance in 1960 became democrats in due course but manifested blatant prejudice and corruption against the expectations that after independence, the country would eradicate the prejudices and corruption of the colonialists. In Nigeria, hard core empirical evidences perhaps, is no longer necessary to prove that corruption has turned full vicious cycle in the Fourth Republic. It has permeated the Federal and State Ministries, Local Government Councils, Social and traditional institutions among others. The result is that Nigeria has been in an unfortunate situation in which the "state … finds it difficult to mediate in the conflict in the society between classes and within classes … High premiums [have] become placed on power and…in a leader or groups…in Nigeria, any government in power finds it difficult to claim legitimacy, only power."[12]

Hence to many Nigerians, the end justifies the means. This is evident in the disposition of the Nigerian political leaders who at present, only concern themselves with how they can fraudulently milk the country dry. They are selfish, corrupt, inconsiderate and greedy. The new elites have systematically saturated the society with the Nigerian factor characteristic of an overdose of corruption, bribery, nepotism, tribalism, chaos and anarchy, religious bigotry and political intolerance which undermine any water-tight internal control in the public system. Commenting on the nature of these Nigerian elites, Joseph and Otite in Asamu said:

> They represent essentially the capitalists who depend on the state machinery for survival. They are also a major player in the ethno-religious game for the exploitation and manipulation of non-elites, usually directed towards personal elites, group interest, which mostly promotes division and hatred among people in pluralistic societies.[13]

Concurring, a political scientist, Ekeh, has captured the present democratic era, drawing a sharp distinction from what Nigerian leaders were before 1999 and what is obtained now:

> The primordial/ethical/pre-colonial and the modern/-national/post-colonial, the former exacting near sacred loyalty, the later begrudged with faint political observance. The curious situation has led to the relativisation of morality in Nigeria, as what is wrong and condemnable in one republic is but right and commendable in the other.[14]

Indeed, the modern/national/post-colonial Nigeria is an era where a 'cabal' has become a buzzword for describing a rapacious clique of bandits holding the nation by the economic jugular. It is an era where politicians become billionaires overnight not for industry, hard work or any creative ingenuity that adds value to the society. They own private jets, exotic cars, expensive yachts, choice houses in exotic locations like Dubai, Monaco, London, Germany, Barbados, America, Switzerland and others,[15] while the masses of Nigerian only look with mouth agape at the dizzying speed of their rise, wondering how their political leaders flaunt such wealth in the midst of grinding poverty. Indeed, politics in Nigeria today has produced a crop of political leaders who are indescribable. Supporting this view, Clark, according to Sanusi, said:

> Under democracy, the arena of public discourse is routinely flouted by appalling deportment of men who in the past have not acquitted themselves as prosper and in persons to be designated as statesmen. These leaders claim statesmanship

status but in the true sense of the word, one doubts whether it will be right to confer them with such appellation. If all the nation can boast of is these men with shady/cloudy and condemnable careers in and out of public life, then the country still has a long way to go in its redemptive journey of salvaging the nation in all spheres begging for attention.[16]

b) Silencing the Nigerian Masses via Occult Practices

In spite of the changes brought almost a century ago by Christianity, Islam and education in Nigeria, occult practices are still being harnessed by Nigerian politicians and others today not only because of their availability and inexpensiveness but also because of their efficacy. Nigerian politicians employ these powers to ensure their victory at the polls and insulate themselves from any harm or opposition. The various occult means by which some Nigerian political elite manipulate the electoral processes and come into power are analysed here-under.

i. *Magic*

The belief in magic is still pervasive not only because magic exists, also because it has an objective reality. According to Babalola, the people still believe that they could get whatever they want through magic.[17] Basically, there are two types of magic; good and bad. Bad magic is feared by people and society opposes it whereas, 'good magic' is primarily used for protection against evil forces that are found everywhere. Both bad and good magical powers are harnessed for private and public benefits. Both magical powers are also enshrined in amulets, body marks, charms, feathers, teeth of lions, crocodiles and snakes, powder and seeds and are wrapped in leather and worn on the neck, waist or upper arm or as rings. These days, however, such magical items are concealed under clothes to avert suspicion of their owners' indulgence in such widely unacceptable acts. Sometimes, such mystical powers are embodied in incantations filled in little horns of small antelopes or sewn in lion or leopard skins, making the horns and skins as powerful as the animals were when they were alive. Indeed, many political elites have no doubt that when the charms are prepared according to regulations; they potently serve for the various purposes they are prepared for. Similarly, there are taboos that accompany each magical acts/materials so that they do not lose their potency.

There are many ways by which Nigeria political elites are known to use magical powers to gain entry into public offices and to emerge victorious at elections. One of such ways is by casting magical spells on political opponents by calling out such opponents' names and the electorates of the various Local Government Areas and Constituencies of interest at certain shrines. This is similar to what was practiced in the Jewish society by the appropriation of certain peculiar symbolic actions. Citing an instance Ndiokwere described the use of symbolic magic as nothing but the last echoes of magic practices … Symbolic action is described in 2Kings 13:15ff, [where] Elisha told the King of Israel to shoot with the bow and the arrows in the direction of Syria in order to secure victory over Israel.[18] Another kind is productive magic which is harnessed to gain favour in politics. This kind of magic enables the user to getparty nominations and hold government offices, irrespective of any credible character or abilities for delivery, and to occupy such public offices for as long as possible. Supporting the claim, Babalola stated that a political leader can come into political office by the use of magic and if such a leader is to be retained, magic could be used. Also, if a leader is no more needed, magic could be used in ejecting him [or her] from the office.[19]A clue is given by Gehman on how magical incantations are appropriated by these political elites:

> Early in the morning, the person rubs the magic on his [or her] hands and swallows some medicines while saying these words: 'I take this medicine to help me find favour with the electorate, when I meet them today'. When he [or she] approaches the work place of INEC (Independent National Electoral Commission) concerned, he [or she] rubs the medicine on his or her face, on the head and on his or her toes and heels, saying these words: "if the back of the head ever became the face, let it be so today. If the sun ever rose from the West, let it be so today. I make all political enemies and opponents the heels, the back of the head, while I myself will be the face and the toe; I now open my eyes to see my request and need met by the INEC officials in charge. He or she then rubs the magical power medicine on the hands saying, 'I mix my word with the words of the resident INEC Commissioner like this powder in my hands'.[20]

With these words, the officer(s) in charge will listen to him or her and many times, their requests and desires are granted speedily. Magical powers are also used by the Nigerian political elites to make a court judge decide in their favour in an election dispute. To achieve this, magical powers may be placed in the palm of the hand and blown into the air, while stating their desire. They powder may also be poured at the place where the court case will be discussed.[21] It is believed that the magical powder "blinds" the eyes of the judge to dispense judgment in the politicians' favour. It has been discovered that the use of magic was and is still very important in Yoruba politics and has far reaching effects on the people in one way or the other. For instance, the role of magic in OPC, which members of the society enabled to arrest the *toombolo* because a menace to the Ogbomoso community cannot be forgotten in a hurry amongst the people.[22]

Similarly, Nigerian political elites harness magical powers to protect themselves from enemies, robbery attacks, party thieves and thugs of their opponents. They do this by wearing charms and amulets. Among the Tiv of Central Nigeria, such magical protection is conceived in the *dufu* (invisibility charm). The *dufu* is a body protector charm which makes its holder invisible to his or her enemies. With the *dufu*, one can transform into a lower creature like a spider or wasp and escape capture when trapped. Affirming the claim, Shishima says, "when one *nyordufu* (becomes invisible), he [or she] maintains his [or her] position till anger is averted …".[23] Among the Esan of Edo State of Nigeria, there is a similar practice of traditional bullet-proofing like other types of bullet proofing in Africa. Among these people, bullet-proofing practices and incantations are used to activate and stimulate the occult power (e.g. the Agbara in Yoruba). These magical powers are designed for performing feats like vanishing at critical times; warding-off thieves from places of residence, and concealing ill-acquired property while getting juicy political jobs and promotions. There are those obtained for detecting poison in drink and food since the politicians themselves do not trust their companions or friends. Attesting to the efficacy of magical powers, Awolalu argued that, although these mystical, preternatural and esoteric powers are virtually inexplicable, they cannot escape notice when they are manipulated by those who have access to them.[24]

ii. *Witchcraft*

Witchcraft is practised by Africans. Practice as used here is engaging to the power of a supernatural agency. Throughout the African continent, discourses on witchcraft or sorcery are intertwined with and shrouded in mysticism or spiritism. In the contemporary Nigerian society too, witchcraft is employed in modern politics.

Gescheire affirms this view:

> There [is a] close conceptual link for these people between witchcraft and power … Most importantly ... not only to local politics within the village but also to modern relations to the state and national politics… Though, witchcraft is a 'traditional' obstacle to development and the emergence of the new inequalities … I stumbled upon all sorts of interventions of occult forces in modern politics. I also noticed that such incursions could have highly different implications for the course of political processes.[25]

In local politics among the Tiv of central Nigeria for example, a person comes to authority not just because he is strong in personality, but also because he is rich in*tsav* (witchcraft) and has mastery of many*akombo* (ritual) which by nature inspires and attracts respect for him.

Further, a political god-father could purchase the powers of witchcraft for his son(s) or member(s) of his political party. To buy witchcraft powers to win elections, they may obtain toe and/or finger nails, hair, bones and teeth of human beings and some animals like crocodiles, hyena either whole or parts. They also harness claws, fur, horns and skulls of certain animals as directed by the traditional priest/priestess or prophet/prophetess and diviner(s). Also, the penis and clitoris of a youth, depending on the political request, are said to be used particularly because these human parts are highly potent in witchcraft for the killing of party opponents or enemies. Such body parts are sometimes materials for sacrifice. The essence of the sacrifice is that if the prediction is good and favourable, it would help the client to enjoy the fortunes. However, if the prediction is bad, the essence is to ward-off evil. A widely reported proof of these acts of witchcraft by politicians is an event that occurred in 2004. Acting on the petition of a complainant received on July 26, 2004, the police raided two shrines belonging to two deities namely *Ogwugwuisiala* and *Ogwugwuakpu*. Consequently, Inspector General of Police, Mr.Tafa Balogun, received a presidential directive to personally take charge of the on-going investigation into the Okija shrine where the police recovered 20 human skulls and a fresh corpse.

> It was also reported that the corpses had some missing parts- hands, genitals or heads. Some of the corpses had decomposed while others were still fresh. The police arrested 30 *Juju* priests, who were said to be ministering to the deities. The police also discovered about 10 registers said to be containing relevant information about the corpses and other activities of the adherents of the deities. It was also reported that the registers … contained names of the people, including prominent personalities who visit the shrines.[26]

A team of police officers led by the then Anambra State Commissioner of Police, Felix Ogbaudu, visited the Okija shrine where they made some gruesome discoveries. Notable amongst the clients of this shrine were the late Chief Victor Okafora.k.aEzego who reportedly had a dispute with one Nzeribe, a member of the House of Representatives. Not long afterwards, Ezego died in a ghastly motor accident believed to have been caused by the gods. The insinuation was that Governor Ngige and other government functionaries that patronised the shrine are cult members.[27] Also in the heart of Yoruba land, there are shrines where human beings are found with all their private parts removed. Some of such shrines are located inIjaiye area of Abeokuta Nigeria, Ile-Ife and some shrines in Benin City. Kunle maintained that, "The so called pressure groups all connected to what looks like Okija in all parts of Nigeria." [28]

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Some witchcraft practitioners revealed another way of acquiring or transferring occult power from a political god father to this godson or vice versa. Most commonly, a godfather may sometimes take the god-son or a to-be godson for initiation into the secret cult for such a son to acquire witchcraft powers or be fortified and to find favour with the electorates' and INEC officers during campaigns and elections. This is usually done in stages. First, the political godson is indoctrinated concerning the benefits of the actual initiation, and then comes the initiation rite. In the initiation room, the godfathers and their initiated and to-be initiated son(s) would wear a prescribed cloth (red, black and/or white), or may sometimes be naked during the rite(s). Then the overall godfather, often referred to as "Lord Spiritual and Temporal", will show the intending initiates different sizes and shapes of power after which, comes the initiation proper. The godfather and/or godson are then taught how to use witchcraft and where to keep it. Gehman has given aa mental picture of what obtains:

> A mixture of gruel and blood, prepared at the shrine are drunk by both. They sing and dance, bumping their naked buttocks together several times. The [godfather] sits with [his] legs wide apart, facing [his godson] who does same. The [godfather] places a horn between [his] legs. After saying some words, the [godson] stretches forward to take the horn. Cuts are made on the [godson] by the [godfather] in the following places: the pubic area, tongue, fingers and buttocks. Blood is transferred to each other. Certain powders are rubbed into wounds made by the cuts. This becomes the source of power for witchcraft. [29]

To seal the powers of the transfer of power, certain acts of incest must take place. While a male must commit incest with his daughter, a female must do same with her son. Alternatively, intercourse with an animal may take place. After the initiation rite, any time the political godson scratches his cuts, applies the spoken word or points his finger towards the Nigerian electorate or the masses, a good number are bewitched into doing the bidding of such political figure(s). Commenting on the prevalence of the godfather-son syndrome in Nigerian democracy, Isiguzo noted:

> After eight years of unbroken democratic experience in 2007, the green horns that held sway gradually metamorphosed into leaders whose thoughts simply became law. They literally took over the political landscape, dictating the pace on how, when, where and why things should be done their way. Thus, a new crop of political godfathers was born. Across the country, the story was the same. The godfathers directed affairs and, in most cases, ensured that their surrogates stepped into their shoes.[30]

Sometimes, a to-be political aspirant or political elite asks secretly from friends how he or she can meet the most powerful witch doctor within an area. Arriving at the house of such a witch, the cost of the purchase is stated. Yet, some of these Nigerian political elite may purchase witchcraft powers at a coast and are given spirits which live in a gourd. These spirits become the servants of such elites. Whenever the political figure wants to bewitch someone, such as a contending political opponent within or outside his or her political party, he or she would send the given-spirits. It is believed that sacrifices are made to the spirits quarterly, twice or once a year. These sacrificed which may include animals (such as cows or goats) or humans.

iii. *Divination*

From the ancient times till the present, people have been divining (predicting) the future through various means. In the present democratic era, the Nigerian elites often employ divination methods to silence the Nigerian masses/electorate in politics. According to Gehman divination may be done as follows:

> [He] divines with arrows and the names of the different cities are written on each arrow and placed in a quiver. Those arrows are shaken and then thrown out in order to learn the will of the god. Whichever arrow comes out first reveals the city to attack. Or the arrows were thrown up into the air and the direction they faced on the ground showed the direction of attack.[31]

Nigerian political elites also hold consultations with their family or ethnic idols or ancestral images. In addition to this, they sometimes raise household gods in the privacy of their bedrooms in respect of their political career in order to render the masses of Nigerians docile, while they continue to loot the treasury without question or remain in positions of authority unchallenged. Also, through spirit possession, these political elites may right at the beginning unearth the political terrain in order to determine their political fate. In this mediumistic divination, the requests of the political clients are revealed through specialists or cult attendants who become possessed by a spirit after a worship session usually characterised by intense drumming, ritual dance and songs. Among the Tiv, many*azôv* (nature spirit) cults abound and are patronised by many politicians.

Politicians also employ live and dead animals to divine the will of the gods for their political ambitions. Some Africans, including Nigerian traditionalists such as diviners or priests, know many animals that have special meanings in life's endeavours. At the ordinary level, the specialists meet the political requests of these elites by merely observing the movements of certain animals. Sometimes, a politician, under the instruction of a traditional specialist, may to ask the animals various questions or state their political needs to them. The noises such animals make reveal the electoral fate of the inquirers. Yet, some are requested by these religious specialists to live in the anus or womb of certain animals like cows. Sometimes animal parts like liver and heart are examined by diviners to reveal someone's political fate. Further, messages may be derived when shoulder blades of sacrificed animals are placed in a fire and cracks develop. Gehman affirms that in getting messages from the sacrificed animal, these cracks are studied and used to divine.[32] At a more supernatural level, many elites such as Governors, Local Government Chairmen and Councillors are made to bury live animals such as sheep or cows in their official residences, homes; as stories of these abound. An anonymous person narrated his experience:

> I was put into a bee hive, and then thrown in a big fire which was made outside a small house. As the fire flamed, I heard someone call my name. I looked but didn't see anyone. I was given something that looked like red seeds to swallow. I was told to repeat some words after the voice. This I did. Cuts were made on my body and medicines rubbed on them. These cuts ... [are] the source of my power whenever he rubbed them. Certain instructions were given. I was then not allowed to wash or drink water for seven days after reaching home.[33]

Nigerian politicians are known to have made innumerable animal sacrifices to such specialists with the hope of knowing their electoral fate. This star divinatory practice was very common in ancient Babylon in 2000BC and/or attacking his or her star with is still practiced also along in Asia beginning with China, Japan, Central Asia, North Africa as well as parts of Arabia and some places in the West.

Star reading (astrology) as a divination type is also harnessed by the Nigerian elites in unveiling their political ambition(s). Certain Africans hold a strong belief, that the sun, moon and planets are living beings and each "houses" a god. In this divination type, the path (zodiac) of the sun, moon and planets is divided into twelve parts, each represented by an emblem such as ram, bull, twins, lion, virgin, scorpion, archers, goat, water carrier and fish. With the astrological divination, predictions of a person's/politician fortune, including his or her life, wealth, friendship and/or attacking his or her star with spells. This divination had been in practice about 3,000 years ago in Chaldea and Babylon, spreading to Greece, Rome and Europe.[34]

Other divination types which Nigerian politicians elites engage including the use of written symbols and cards with attached meanings. Others throw dice or stones to observe whether an odd or even number will appear. Some others, through the specialists, divine and examine the lines on their clients' palms, or forehead to determine their political fate and offer them solutions if the readings reveal evil.

c) *Effects of Occult Practices on the Masses in Nigerian Democracy*

The masses of Nigerian are believed to be spiritually manipulated by the political elites, such that they are unable to ask their political representatives (councillors, assembly men/women, senators, the president or governor) basic questions that border on governance such as: what they exactly earn, the difference between their stipulated salary and their actual income, how much their constituency allowances are, how much of it actually goes to their constituency and how much the nation spends on security votes. When people are disenfranchised and/or elections are massively rigged or unfairly cancelled, they hardly object but rather resign to fate. One notes that the option A4 under the Ibrahim Babangida-led administration produced an acceptable national leader in June 1993. However, Babangida cancelled the election that was largely held as fairand free by all sensible Nigerians. The masses did nothing! Furthermore, the 2007 elections were so awful that the key beneficiary felt compelled to admit as much in his inaugural speech as president. Sanusi record that, "The riggings that took place during Obasanjo's eight-year presidency took electoral injustice to another level, and ordinarily in a politically sensitive nation, a revolution, like a volcanic eruption, should have erupted, dismembering the nation in the process."[35] Yet, the 2011 election turned out to be not only flawed, but one of the most deceptive and divisive in Nigeria's electoral history.

Another perceived effect of occult practices on the Nigerian masses is that they have become inexplicably docile such that Osundare said, "when they should kick, they temporize, when they are to smite, they smile."[36] A good example is President Jonathan's il-informed action on removal of Fuel subsidy and hike in the price of Premium Motor Spirit (PMS). Mr President in a statement during the uprising said, 'No going back'. One could easily imagine the presidential advisers and cabinet members saying, we know Nigerians: They will only shout for a few hours then go back to business as usual. We know Nigerians: they will quickly adjust.[37] indeed; Nigerians have really adjusted as the presidential advisers predicted. Expressing dismay at the docility of the masses of Nigerians, Osundare wonders:

> Why is it that Nigerians no longer blush? How did [they] come to develop a skin that is so thick that any arrows of degradation, no needles of dehumanization are ever sharp and violent enough to penetrate our body and rouse our senses? How did [they] nerves slide into their present state of stupor? ... are [they] so reprobate that we become so forgiving, so oblivious of the crimes of those who rule us because [they] have lost the capacity to recognise their malefactions?[38]

Another effect of the use of occult practices by political elites on the Nigerian masses is that they do not show anger with their deplorable, pauperised state, nor do they frown at the corruption of their political elites. This complacency, more than their helplessness and hopelessness, is revealed as they now gain much joy and fulfilment listening to whispers of the deals in high places involving huge sums of money that they did not believe were obtainable in the country. The complacency of the masses of Nigerians of the public treasury by political elites is what Achebe records in his novel, *A Man of the People*:

> 'Let them eat', was the people's opinion, after all when white men used to do all the eating, did we commit suicide? Of course not. And where is the all-powerful white man today? He came, he ate and he went, but we are still around. The important thing then is to stay alive; if you do, you will outlive your present annoyance …[39]

One other noticeable effect of occult practices on the Nigerian masses is that the electorates dissociate themselves from the activities on the political scene while the political class continue to have a field day as a result of the disillusionment of the masses. This strategy they employ because they argue that the field of politics must not be left in the hands of 'charlatans'. When serious people and starving persons turn away from participating in politics, those who have nothing to offer invariably take over. As Fayemi stated, understandably, if you make political discourse more negative as some do, you deliberately turn ordinary people off politics; more people become cynical and stop paying serious attention to politics.[40]

Another effect of occult practices by politicians on the Nigerian masses in the present democratic era is that the people wallow in abject poverty in the midst of obscene affluence. As the Bible says, "I see the wickedness under the sun where slaves ride on horses and the sons walk."[41] The result of this is that the masses have developed other unholy means of survival instead of rebelling against at such oppressive structures. They become vulnerable to the scheming political elites, who expend them in gang fights over electoral wards with a few N100 notes, propelling them to destabilise the towns and cities for sectarian advantages. Christians and Muslims rather than remain steadfast in their prayers and live according to the scriptures, engage in praise singing of these corrupt elites in their various strategies of looting money from the national treasury. Further an article in *The Nation* has provided a detailed description of the scenario insight into their antics thus:

If you are poor you are told, it is because you, have strayed from the straight and narrow way… these preachers portray every crook in power as God-chosen, even when that power has come through rigged elections, occult means and murderous brigandage. They conduct thanksgiving services for the notorious political jobbers and perform home-coming ceremonies for returnees with looted fortunes. When the wealthy crook hands them the key to a luxury car or private jet), they shower the 'cheerful giver' with blessings, beseech god to prosper his ways', and extol his virtues to the heavens.[42]

Another influence of occult practices on Nigerian democracy is the lawyers, who ordinarily should be upholding the rule-of-law, cluster around to defend the fraudulent acts perpetuated by the political elites at the polls or in their offices. It is laughable that platoon of Senior Advocates of Nigeria (SAN) and other lawyers are always eager to defend these elites whose cases have no merit in employing much legal jargon. Many, like Shika noted, use all sorts of technicalities to frustrate the cases in court, … ten thousand SANS will speak and make [these] suspects less guilty.[43]One recalls the smiling faces of the subsidy scam suspects when arraigned in court as shown on the electronic media. The smiling faces of Mr. Mahmud Turkurand Mr Mamman Nasril during their arraignment at the Ikeja High Court for fraudulently benefiting from the subsidy scheme speak volumes. Shika maintained that the smiles on their faces made mockery of Nigerians, adding that "… [They were] unrepentant in their carriage and totally unlaced by the charges against them, obviously because in their estimation, the case was going nowhere."[44]

In the face of the occult practices by political elites in Nigeria, even prayer, a religious rite that is believed to cause God to interfere in the affairs on earth, can hardly have much impact. Despite thousands of churches/mosques and the millions of Christians/ Muslims, praying loudly corruption is on the increase. Thus God himself, lamenting on this unfortunate situation, says, "behold the Lord's hand is not shortened that it cannot save, neither his ear too heavy, that it cannot hear. But your iniquities have separated you and your God, and your sins have hid his face from you, that he will not hear" (Isaiah 59).[45]Many Nigerians have become adulterous, idolatrous and religious flirts; they have thus become 'powerless' because they are neither core Christians, Muslims nor traditionalists. The resultant effect is what God says: "I know thy works, that thou art neither cold nor hot: So because thou art lukewarm, and neither cold nor hot, I will spit you out of my mouth (Revelation 3: 15-16).[46]

Having established that the new elites in Nigerian democracy harness occult practices to enable them engage in corrupt practices apprehended, the next section of this paper makes recommendations to curb this trend.

III. Recommendations

To curb the trend of massive, unchecked corruption facilitated by the occult practices by the new elites in Nigeria, the following recommendations are made:

- Nigerian elites via the rule of law should change their attitude toward the people while the Nigerian masses need to change theirs or to those in position or authority. Too often, Nigerian masses encourage the criminality of their rulers by kow-towing to their disdain, denying themselves any claim of self-respect.
- Nigerian masses who largely claim to be Christians should wholeheartedly serve their God and stop being day-time Christians while at night and in secret visiting the traditional African shrines and altars. Only then can their prayers be heard by God, and their pauperised and deprived state be salvaged.
- Through dynamic public education and legislative enforcement through a sanctified and proactive judiciary, Nigerians can achieve their goals and create an environment free of corruption. Through such enlightenment programmes and seminars, bribery can be discouraged while through legislative enforcement, prosecution of bribery offences must come with stringent penalties to make people desist, from all forms of corrupt practices.
- Further, corruption, especially political corruption, can be eliminated with real electoral reform which would guarantee credible elections and further eject those who fail the electorates.
- There should be the provision of infrastructure and provision of equal access to public education, healthcare and social services that will enable the masses' attain their full potentials. Those in power who cannot ensure all of these should be honourable enough to resign from such public positions.

IV. Conclusion

This paper has brought to limelight the various mystical forces and agencies, such as supernatural agencies like divination, magic, sorcery and witchcraft, which Nigerian politicians use to silence the masses and emerge victoriously at the polls gaining entrances into public offices. The paper has also revealed the effects of such occult practices on the Nigerian masses to include low self-esteem, high rate of crime and general undevelopment. The paper this concludes that steps need to be taken urgently to curb this evil trend.

References Références Referencias

1. R. Gehman. *African Traditional Religion in the Light of the Bible*. Buruku Plateau State: African Christian Textbook, 2001. P.85.
2. U. M. Ushe. "Traditional Medicine and Witchcraft Attacks in Africa: A Case Study of Akombo Healing Rituals among the Tiv of Central Nigeria" in *African Journal of indigenous Development*. Makurdi: Aboki Publishers, 2009, 179.
3. E. O. Babalola. "The Impact of African Magic and Medicine on the Growth and Development of Modern Nigeria: The Yoruba Experience" in Raji R.A *etal*(eds). *Religion, Governance and Development in the 21st Century*. Ilorin: Decency Printers, 2006, 184.
4. *Holy Bible*.
5. P. A. Dopamu………………..
6. R. Gehman. *African Traditional Religion in the Light of the Bible* ….p.53.
7. T. S. Babawale. "Corruption and its Perennial Repercussion on Nigeria" in Raji R. A *etal* (eds). *Religion, Governance and Development in the 21st Century*. Ilorin: Decency Printers, 2006, p.184.
8. O. Owale. "Challenges of Governance in Emerging Democracies" in *The Nation.* Friday, August 19, 2012, p.34.
9. Ibid.
10. Ibid.
11. Ibid.
12. Anger, Barnes. "Leadership and Crisis of Democracy in Nigeria" in *African Journal of Indigenous Development*. Makurdi: Aboki Publishers, Volume: 3, 2007. 217.
13. F. F. Asamu. "Religious Violence and implications for Human Development in the 21st Century Nigeria." in S.O Oyewale*et'al* Science in *The Perspective of African Religion Islam, and Christianity* (Ilorin: Decency Printer and Stationeries, 2010, p. 551.
14. P. Ekeh.*The Nation*.1 August, 2012, p.51.
15. M. Shika. "Smiling faces of the subsidy suspects" in *This Day*. July 28, 2012, p56.
16. M. Sanusui. "Stateman' and Maccabre Dance by Edwin Clark" …p.22.
17. E. O. Babalola. "Corruption and its Perennial Repercussion on Nigeria" … 189.
18. N. I. Ndiokwere. *Prophecy and Revelation*. Great Britain. The Camelot Press, 1995, 174.
19. E. O. Babalola. "Corruption and its Perennial Repercussion on Nigeria" …189.
20. R. Gehman. *African Traditional Religion in the Light of the Bible* … .p.65.
21. Ibid. p64.
22. J. O. Awolalu, Africa Conception of and Occult Charm: The Yoruba as a Case-Study" in Odumuyima Ade E. *et'al God: The Contemporary*

Discussion. Ilorin: Decency Printers and Stationeries, 2005, 493.

23. Shishima, Sarwan Daniel. "The Use of Mystical Powers in the 2001 Tiv-Jukun Crisis in Taraba State" in *Taming the Tiger 1: Causes of Conflicts in the Benue Valley*. Makurdi: Centre for Peace and Development Studies, Benue State University. 2005, p. A-90.
24. E. O. Babalola. "Corruption and its Perennial Repercussion on Nigeria"….189.
25. P. Gescheire. *The Modernity of Witchcraft: Politics and the Occult in Post Colonial Africa.* London: University Press of Virginia, 2000, p. 4.
26. M. O. Maduagwu. *The Belief in Witchcraft in Contemporary Africa*: A *Philosophical Discourse*. Ibadan: Stirling-Horden Publishers, 2010. p.13.
27. U. E. Obi. "Understanding the Okija Shrine Phenomenon and The Art of Mental Poisoning: Just Before The Rush To Judgment". bizon586@yahoo.com Retrieved 25/11/12.
28. S. I Kunle. "Okija Shrine and "Pepper Soup" Story"kshoid@yahoo.com Retrieved 8/11/12.
29. R. Gehman. *African Traditional Religion in the Light of the Bible ….* p.49.
30. C. Isiguzo. "Godfathers and the Road to Extinction" in *This Day, The Sunday Newspaper*. July 22, 2012, p. 94.
31. R.Gehman. *African Traditional Religion in the Light of the Bible ….*p.49.
32. Ibid. Pg 70.
33. Anonymous Narrator.
34. R. Gehman. *African Traditional Religion in the Light of the Bible* …71.
35. M. Sanusui. "Stateman' and Maccabre Dance by Edwin Clark" in *The Nation*. p.22.
36. N. Osundare "Why we no Longer blush: Corruption as Commander of the Federal Republic of Nigeria" A Text of the lecture under the auspices of the Save Nigeria Group at Sheraton Hotel Ikeja, Lagos, July 9, 2012" in *The Nation*. July 23, 2012, p. 55.
37. N. Osundare "Why we no Longer blush: Corruption as Commander of the Federal Republic of Nigeria"….p.55.
38. Ibid.
39. C. Achebe. *A Man of the People*. London: Heinemann, 1969, pp. 161-162.
40. T. Fayemi. "Re-engaging the National Question", in *The Nation.* August 13, 2012, p. 44.
41. *Holy Bible.*
42. O. Owale. P. 34.
43. M.Shika. "Smiling Faces of the Subsidy Suspects" In *This Day….*p.56.
44. *Holy Bible.*
45. Ibid.

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Corporate Social Responsibiltiy and its Implementation in Nigeria: Problems and Prospects

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Abstract- Businesses generally are created or established to maximize profit through effective and efficient management of human and material resources in line with their predetermined vision, mission, policy and goal(s). In the course of maximizing profits companies annex natural resources-foreign and local, as a result impacting positively and negatively in the environment where it exists. In other to remedy the problems brought about by the operations of these companies to the people and environment where they operate, the management of these businesses through rendering of some social services in turn pay back to the community, hence the concept corporate social responsibility (CSR). It is in line with the above statement that this paper aims at studying the commitment of foreign as well as local businesses in achievement of corporate social responsibility in Nigeria. The research adopted the qualitative research, as it reviews the literature relating to the problems of implementing CSR in Nigeria.

Keywords: corporate social responsibility (CSR), implementation, problems, prospects.

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Ananaba, Ugouwanyi [α] & Chukwuka, Ekene [σ]

Abstract- Businesses generally are created or established to maximize profit through effective and efficient management of human and material resources in line with their predetermined vision, mission, policy and goal(s). In the course of maximising profits companies annex natural resources-foreign and local, as a result impacting positively and negatively in the environment where it exists. In other to remedy the problems brought about by the operations of these companies to the people and environment where they operate, the management of these businesses through rendering of some social services in turn pay back to the community, hence the concept corporate social responsibility (CSR). It is in line with the above statement that this paper aims at studying the commitment of foreign as well as local businesses in achievement of corporate social responsibility in Nigeria. The research adopted the qualitative research, as it reviews the literature relating to the problems of implementing CSR in Nigeria. After critical x-ray of related write-ups on the topic under study, we found out that some factors such as inability of Nigeria Government to enforce CSR into Law, corruption and selfishness, lack of interest in implementing CSR, political and social insecurity poses as a serious obstacle to companies to implement CSR effectively and efficiently in Nigeria. Finally the study recommended among other things that the Government of Nigeria should put into law, which is providing a legal framework for companies on Corporate Social Responsibility. This will make CSR to be taken seriously and seen as obligatory as against non-obligatory.

Keywords: corporate social responsibility (CSR), implementation, problems, prospects.

I. Introduction

Businesses primarily exist to make profit. The profit motive has often been perceived as representing a lack of concern for all other objectives of an organisation. But, today businesses are realizing that in order to stay profitable in a rapidly changing environment, they would have to become socially responsible. Therefore, the belief that beyond making profit for the shareholders, business enterprises should also serve the interests of all other stakeholders has culminated into the concept of Corporate Social Responsibility (CSR). Presently, businesses continually face pressures from different stakeholders, such as employee pressures to recognise certain employee rights in the workplace, consumer pressures for the business to withhold price increase and to produce safe products, community and environmental pressures that the business operation does not threaten the safety of the local community (McWilliams and Siegel, 2001). Consequently, all of these pressures have contributed to making the concept of CSR more popular in the international business community.

It is pertinent to mention that although the idea of CSR has existed for more than half a century, there is still no consensus over its definition. CSR generally refers to business practices that are based on ethical values, compliance with legal regulations, and respect for people and the environment (Dahlsrud 2006). The World Bank defined CSR as the commitment of businesses to contribute to sustainable economic development by working with employees, the local community and the society at large to improve their lives in ways that are good for business and for development (Lantos, 2001). CSR is considered as corporate citizenship, which essentially means that a company should be a good neighbour within its host community (Freeman et al 2010). Carroll (2000) proposed a popular four part definition of CSR, suggesting that corporations have four responsibilities (economic, legal, ethical and philanthropic responsibilities) to fulfil before being considered as good corporate citizens. CSR can sometimes be referred to as sustainability development and at such requires an organisation to pay attention to the economic, environmental and social impacts of it activities (Gray, Owen, and Adams, 1996). Sustainability development can be regarded as the practise of being accountable to stakeholders towards the aims of saving the planet and the people, whilst making profits from doing so (GRI, 2010). The planet (environmental), the people (social), and the profit (economic) goals of CSR (Sustainability development) is often referred to as the triple bottom line, which is a term that was coined by John Elkington of Sustainability UK (Elkington, 2010).

However, It is in line with the above exposition that this paper intends to carry out an in-depth study on Corporate Social Responsibility (CSR) to find out the rate of its implementation and actualisation by companies (both local and foreign) that tap resources of the country to achieve their set goals and objectives.

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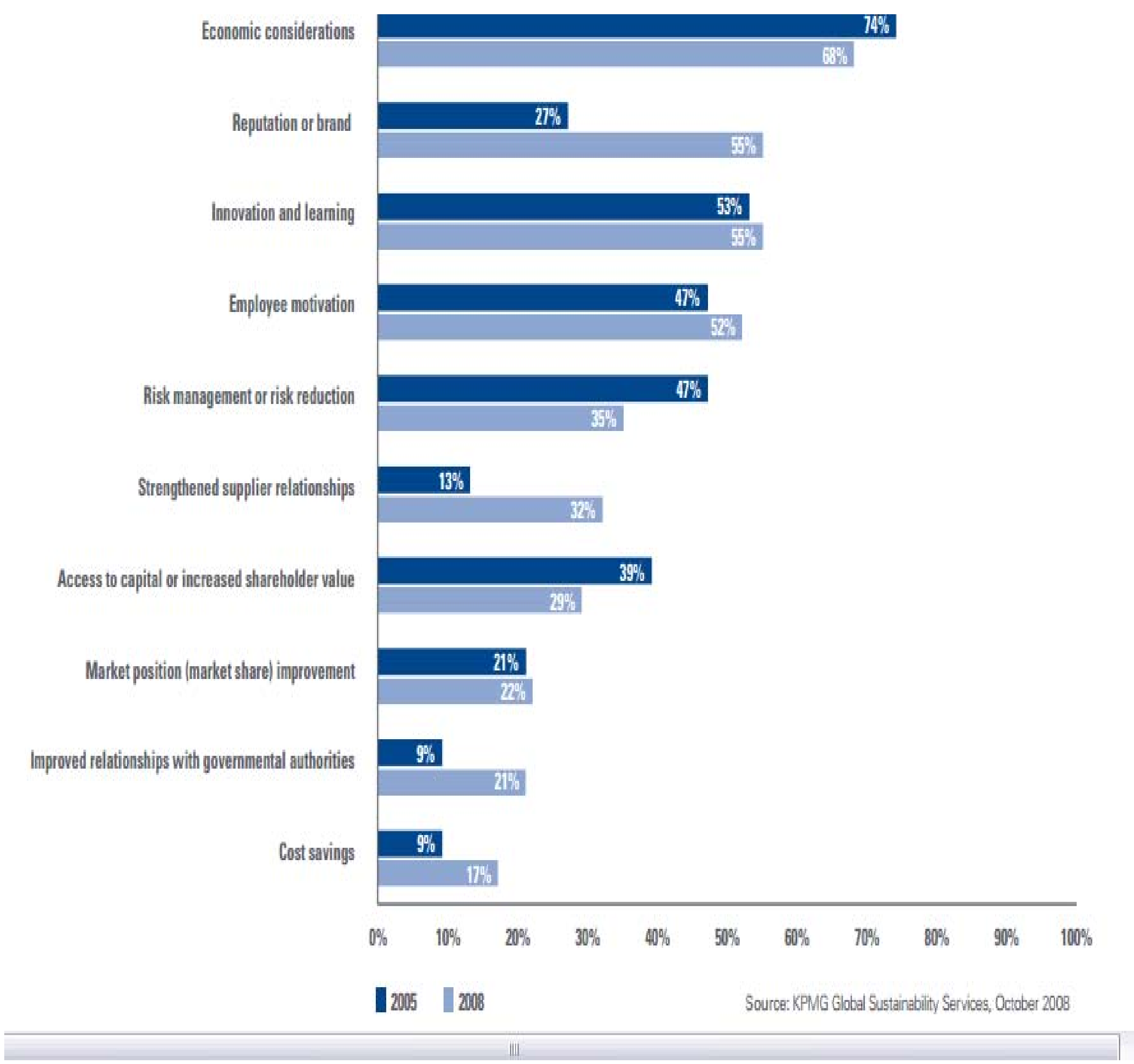
II. Theoretical Framework

Several multinational business corporations operate in countries where there are no direct responsibility imposed on organisations to enforce CSR activities, and at such some writers have argued that businesses that pursue CSR may be perceived as doing so more from fear of public backlash than because they believe that CSR is good for long-term business performance. The above contentions set the tone for evaluating the reason why businesses adopt CSR.

Researchers have used several theories to explain the reason why companies voluntarily indulge in CSR activities. Some of the theories are: the stakeholder theory, the legitimacy theory and the political economy theory (Gray, Kouhy and Lavers 1995). The stakeholder theory contends that organisations perform CSR activities because of the ethical demand on organisations to do so (Gray, Kouhy and Lavers 1995), and also because of the need to manage the perception of powerful stakeholders that could exert an adverse impact on organisation (Deegan 2002). The legitimacy theory argued that organisations voluntarily indulge in CSR to show that they are conforming to the expectations and values of the society within which they operate (Gray, Kouhy and Lavers 1995). The political economy theory says that organisations engage in CSR because they want to create a political arrangement that would in the long-run suit their private interest (Guthrie and Parker 1990). In a recent study by KPMG (2008) on the world's 250 largest organisations, it was revealed that the main reason why organisations have chosen to engage in CSR is because of the ethical consideration by organisations that it is in their best interest to contribute to healthy societies, ecosystems and economies and also because of the economic consideration that CSR will enhance the long-run financial position of the organisations (see diagram below).



Source: KPMG Global Sustainability Service, October 2008

Also in a survey of business executives by PricewaterhouseCoopers cited in Fortune (2003), 73% of respondents indicated that cost savings was one of the top three reasons why companies are becoming more socially responsible.

III. Research Methodology

This is an exploratory research based solely on insights drawn from the analysis of the existing literature of different studies, reports, periodicals and books related to the topic of study in order to investigate those factors which poses a serious challenge in implementing corporate social responsibility in Nigeria. By drawing on the existing literature, not only topic under consideration is theorize, but also formulates and discusses the proposition that will help illuminate and discuss some ways for the Nigeria government to help enforce the implementation of CSR by companies in its environment to help better and uplift the lives of its citizenry.

a) Demerits and Merits of Corporate Social Responsibility (CSR)

Having considered the reason why businesses pursue CSR activities, the next thought that is likely to prop-up in the mind of an inquisitive CSR analyst is the question of what the benefits and the disadvantages are of pursuing CSR activities. The argument against the concept of CSR typically begins with the classical economic argument championed by Milton Friedman. Friedman (Cited in Kaplan, 2012) contends that there is only one social responsibility of business, which is to use its resources for maximizing the profit of the shareholders. Friedman argued that if the free market cannot solve the social problems that exist, then it falls upon the government and not upon business to do the job. The antagonists to CSR argue that a key demerit of CSR is that it dilutes the primary objective of businesses because it requires businesses to sacrifice some profit in order to serve all stakeholders (Hayek 1969, Davis 1973, Bernstein 2000). The antagonist to CSR also argue that businesses are not equipped to handle social activities and at such salient demerit of CSR is that it steers businesses into an area in which they do not have the necessary expertise in (Davis 1973). There is a resonating argument that one of the demerits of CSR is that it can make businesses less competitive globally, where CSR is undertaken at such a significant cost disadvantage that can reduce business profits and impair business plans to expand its operations globally.

The argument in favour of the concept of CSR starts with the belief that if businesses are to have a healthy climate in which to function in the future, then it is in their long-term self-interest to be socially responsible. It is believed that the merit of CSR is that it can win new business, increase customer retention, develop relationships with suppliers, make an organisation an employer of choice, differentiate an organisation from its competitors, improve business reputation, reduce risk, and provide access to investment and funding opportunities (Kuruczet al., 2008. The proponents of CSR contend that proacting is more practical and less costly than reacting to social problems once they have surfaced (Carroll and Buchholtz 2009). Therefore, costly social problems such as employee turnover and customer boycott can be avoided by actively pursuing CSR activities. There is a belief that CSR activities can enhance long-term shareholder value by reducing employee turnover and absenteeism; and reducing the costs of complying with environmental regulations; and attracting tax benefits; and enhancing business efficiencies (Smith, 2005).

It has been argued that a salient merit of CSR is that it can attract key customers because the public strongly supports companies that are involved in CSR activities. According to UK Small Business Consortium (2006), 88% of consumers surveyed in a CSR study, mentioned they were more likely to buy from a company that supports and engages in activities to improve the society. Today, the public believes businesses should be responsible to their workers, communities and other stakeholders, even if may require companies to sacrifice some immediate profit in doing so (Bernstein 2000). Having identified that one major merit of CSR is that it can win new businesses, the next key question that should be evaluated should be that of whether there is a scientific proof that CSR has actually won new businesses to companies that had actively pursued it. This inquisition sets the tone for evaluating the validity of the CSR concept.

b) The Conflict between the CSR Objective and the Profit Maximising Objective of Businesses

The business objective of maximising profit subjects all the activities of a business to an economic rationale rather than to a moral rationale, as advocated by CSR (Dewit and Meyer, 2010). CSR requires that attention should be diverted away from the objective of shareholders wealth maximisation (which is a profit motivated calculation) into the objective of societal wealth maximisation (which is a morality based calculation). From one perspective, where a business tries to satisfy all of its stakeholders in pursuit of CSR activities, it may be forced into accepting all types of concessions which can destroy its immediate profit. There is a contention that pursuing CSR activities and conceding to the interest of all stakeholders can adversely affect the immediate profit of a business because of the cost incurred in executing CSR activities. To illustrate further, the employees need of a secured job and a higher pay; the suppliers need of a secured supply and higher purchase payments; the customers'

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needs of a low priced and high quality product, and the society's need of an on-going community infrastructural development, all represent some form of a cost to a business. From another perspective, where the interest of all stakeholders is not justly served adversaries can arise, whereby customers may decide to boycott purchasing from an organisation, employees may defect to competitors, suppliers may withhold supplies, and the communities may shut-down key aspects of a business operation, all of which can ultimately destroy the long-term profit of a business. All of the stakeholders may justly argue that they have some form of a moral claim on businesses simply because each of the stakeholders can be viewed as a supplier of an ingredient in the profit creation process of businesses.

A key question which may likely arise in current critical evaluation is that of whether businesses should primarily focus on maximising its immediate profit or mainly focus on pursuing CSR activities which may not produce any immediate gain but may result in long-term gain to the business from the continued support to the business by all of its stakeholders. It is noteworthy that businesses may not be able to equally satisfy the interest of all of its multiples stakeholders. Therefore, CSR is a balancing act, which must be achieved amongst the various stakeholders (McWilliams and Siegel, 2001).

Current literature indicates that all stakeholders do not have the same equal moral claim on the organisation and at such should not be equally treated. Therefore, having established that the different stakeholders have different kinds of interest and level of influence on an organisation, there may be a need to give utmost priority to some stakeholders over the others, in order to strike a balance between achieving both the short-term profitability and the CSR business objectives simultaneously. A practical solution to resolving the conflicting objectives of CSR with that of maximising immediate profit should be for businesses to merely discriminate amongst the different stakeholders rather than attempt to satisfy all of the stakeholders because an attempt to be everything to everyone may result in no one being satisfied at the end (WBCSD, 2002). This essay proposes that the business objective of maximising profit can be balanced with the CSR objective by first identifying the most influential stakeholders and then placing a priority to their interests over that of the other stakeholders. The extent to which the various stakeholders should be rated in an organisation should be based on factors such as their relative bargaining power, the legitimacy of their interest, the industry norm et al. For instance, Greggs plc's CSR report prioritised the company's stakeholders by presenting information on only the customers, the employees and the community. This implies that the company considers these 3 stakeholders to be the most influential of all of its stakeholders. The stakeholders choice made by Greggs plc may be justified on the ground that it may be practically impossible to completely satisfy all of the companies stakeholders and also on the grounds that the bakery industry norm focuses on these 3 key stakeholders (Greggs Plc Annual Report, 2011).

c) *Challenges in Implementing Corporate Social Responsibility (CSR) in Nigeria*

The challenges in implementing CSR in Nigeria will be discussed in details in the sub-headings below.

d) *Inability of Nigeria Government to Enforce CSR into Law*

Since the emergence of CRS in Nigeria, there is no law in place by the Nigeria Government in the area of CSR. CSR is still at the discretion of the companies. Companies alone cannot be said to be responsible for social responsibilities to the communities in the region. The government should traditional be responsible for the welfare of its citizens. These include ensuring law and order, security, provision of public infrastructure and other basic amenities. Thus while companies have a social responsibility to the communities they operate, the framework within which this is to effectively work have to be provided by the government (Ijaiya, 2014).

IV. Corruption and Selfishness

Nigeria is a country blessed with abundance of natural and human resources, as a result attracts the activities of multinational companies who explore these resources to increase the wealth of the nation as well as transform the economic and social environment for the betterment of the common. Apart from increasing the wealth of the nation, most of these companies enshrine in their policy the responsibility of providing some social services to the society they directly affect through their CSR. It is quite pathetic when the level of corruption in Nigeria poses a major challenge to these companies in implementing CSR. Without regards for morals and humanity, when the resources meant to be used for implementing CSR to improve the lives of people in the society gets to the hands of the leaders of these communities, they are siphoned and used for their selfish and personal aggrandisement. No wonder the renowned writer and Novelist Achebe(1998) stipulated that, corruption in Nigeria has passed the alarming and entered the fatal stage, and Nigeria will die if we keep pretending that she is only slightly indisposed.

a) *Lack of Interest in Implementing CSR*

Foreign and Local companies in Nigeria lack the necessary drive and impetus to effectively carryout CSR because they are not mandated by the laws of the Nigeria to do so, as a result, these companies see CSR as not a responsibilities or obligatory which they must implement, but do it out of their own volition. It is only when CSR is backed by the laws of Nigeria that companies that tap its resources will then see it as obligatory, or otherwise faces the consequences of the law.

b) Negligible or Non-Existent Benefits

Social responsibility should result in positive outcomes for both the business and the community. However, often the results falls heavily in favour of the business involved. Businesses invest a comparatively small amount into community projects and then use their effort to promote their brand and gain access to markets all around the country. The public relations and brand building they receive far outweighs their investment in socially responsible projects.

c) Political and Social Insecurity

One of the fundamental factors that motivate companies (whether a foreign or local) to do business in Nigeria is the availability of political as well as social security. Suffice to state that the rate of social and political insecurity in the country manifested in the Boko Haram insurgency has done more damage than good to the economy of the nation. In fact the insurgence has eaten so deep into the fabrics of the society to the extent that fear of bombing and kidnap has become the other of the day. Foreigners doing business in Nigeria sleep with one eyes open and do their business with fear, while does who intend coming into the country have totally jettisoned the idea into thin air. With this pathetic and horrible situation on ground, companies will find it very challenging to engage in CSR for fear of not maximising profit which is to the detriment of its stakeholders and the organisation as a whole.

V. Recommendations

With the above discussed challenges which hinder the effective implementation of Corporate Social Responsibility in Nigeria, the following recommendations stand to be made.

- The Government of Nigeria should put into law, which is providing a legal framework for companies on Corporate Social Responsibility. This will make CSR to be taken seriously and seen as obligatory as against non-obligatory.
- Federal government agencies who are charged with the responsibility of implementing and enforcing CSR should maintain a high moral and ethical standard to ensure its effectiveness.
- Federal government should provide enabling social and political environment to motivate companies in Nigeria to carry out sustainable social responsibility to improve the lives of Nigerians.
- Nigerian Government should pass into legislation that would promote the interest of the government of the region. Legislation that would make the companies to pay heavy penalties for identified damages to the eco-system.
- The Federal Ministry of Environment and other agencies saddled with the responsibilities of enforcing environmental laws in Nigeria should adequately be funded to be able to manage the activities of the government.
- The Government of Nigeria should try as much as possible to domesticate International Corporate Responsibility Instrument, which include the Organisation for Economic and Development (OECD), the 1988 ILO Declaration on Fundamental Principles and Rights at works, Guidelines for Multinational Enterprises and the United Nation (UN) Global Compact.
- Finally, Government should facilitate the process of passage of the Response, Compensation, and Liability for Environmental Damage (RECLED) Bill, the Nigerian Environmental Bill and the Petroleum Industry Bill by the legislature arms of the government, the National Assembly, into law. The bills if eventually made law would no doubt stimulate CSR in Nigeria.

VI. Conclusion

The concept of CSR has continued to be the subject of academic and business debate. CSR pertains to business actions taken for reasons beyond the direct profit interest. One of the key features addressed by CSR is its intent to cause companies to recognise responsibilities to stakeholders (customers, communities, employees and suppliers) outside of shareholders. The common reasons why businesses undertake in CSR activities include the ethical demand to be socially responsible; the economic consideration of the long-term financial benefit of CSR; employee motivation; risk reduction; market position enhancement; cost savings; and brand protection. The proponents of CSR emphasise that CSR offers a long-term financial benefit from taking care of all stakeholders; while the CSR antagonist are deterred at the idea that businesses should invest in CSR because they believe that it is a venture which does not produce immediate obvious financial gains. Noteworthy merits of pursuing CSR activities includes its potential to attract new customers, its potential to manage risks and create products and processes of better quality and its potential to recruit first choice employees. However, the empirical studies that had tried to confirm the validity of CSR by linking CSR to business financial performance indicate that there is no conclusive scientific evidence that CSR has actually won new businesses to companies that had actively pursued it. Therefore, the assertion that CSR can generate long-term financial

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profit is based on the conventional wisdom and the general belief that it can do so.

Without doubts, the profit maximising objective of businesses can conflict with the CSR objective because pursuing CSR activities may involve some profit sacrifices on the part of businesses. Therefore, CSR requires a balancing act of maximising profit whilst at the same time serving key stakeholders. The business objective of maximising profit can be balanced with the CSR objective by mainly serving the most influential stakeholders of the business. In other words, the least influential stakeholders may have to be ignored in order to equally achieve the profit maximisation objective and the CSR objective all at the same time.

References Références Referencias

1. Achebe, C. (1998). *The trouble with nigeria.* Enugu: Fourth Dimension Publishing Company.
2. Berger, I. E., Cunningham, P. and Drumwright, M. E. (2007). Mainstreaming corporate social responsibility: developing markets for virtue. *California Management Review, 49*, pp. 132–157.
3. Bernstein, A. (2000). Too much corporate power. *Business Week*, 11 September, p. 149.
4. Carroll, A. (2000). The four faces of corporate citizenship. *Academy of Management Journal*. Vol 4, pp. 97-508.
5. Carroll, A. B. And Buchholtz, A. K. (2009). *Business and society: ethics and stakeholder management*. 7th Edition, Mason: Cengage Learning.
6. Dahlsrud, A. (2006). *How corporate social responsibility is defined: an analysis of 37 definitions*. Corporate Social Responsibility and Environmental Management.
7. Available at: http://www.csr-norway.no/papers/-2007_dahlsrud_CSR.pdf. [Accessed on 1st Nov 2012].
8. Davis, K. (1973). The case for and against business assumption of social responsibilities.
9. *Academy of Management Journal*. June, pp. 312–322.
10. Deegan, C. (2002). Introduction: the legitimising effect of social and environmental disclosures -a theoretical foundation. *Accounting, Auditing and Accountability Journal* 15(3), pp. 282-311.
11. De Wit, B., and Meyer, R. (2010). Strategy: Process, Content, Context. 4th ed. Croatia: Cengage Learning.
12. Elkington, J. (2010). *Ideas: beyond the triple bottom line*. http://www.johnelkington.com/activities/ideas.-asp [Accessed 1 November 2012].
13. Fortune, F. (2003). Top 10 reasons for CSR: Price water house Coopers (2002), Sustainability Survey Report, cited in *Corporate America's Social Conscience*. May 26, pp.58.
14. Freeman, R. E., Harrison, J. S., Wicks, A. C., Parmar, B. L., and De Colle, S. (2010). *Stakeholder theory: the state of the art.* Cambridge: Cambridge University Press.
15. Gray, R., Kouhy, R. and Lavers, S. (1995). Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing and Accountability Journal,* 8(2), pp. 47-77.
16. Gray, R., Owen, D. and Adams, C. (1996). *Accounting and Accountability; changes and challenges in corporate social and environmental reporting*. Europe: Harlow Prentice Hall Greggs Plc. (2012).Annual Report and Accounts [online]. Newcastle-Tyne, GREGGS PLC. http://corporate.-greggs.co.uk/assets/Uploads/GREGGS-PLC-REPO-RT-AND-ACCOUNTS.pdf [Accessed 1 November 2012]
17. Griffen, J. J. And Mahon, J. F. (1997). The corporate social performance and corporate financial performance debate. *Business & Society*. Vol. 36, p. 5.
18. Gri Global Reporting Initiative, (2010). *Sustainability reporting guidelines* [online]. Amsterdam, GRI. Available from http://www.globalreporting.org/ReportingFramework/ReportingFrameworkDownloads/ [Accessed 1 November 2012]
19. Guthrie, J. and Parker, L. D. (1990). Corporate social disclosure practice: a comparative international analysis. *Advances in Public Interest Accounting*, 3(1) pp. 159-176.
20. Hayek, F. A. (1969). The corporation in a democratic society: in whose interest ought it and will it be run? In Ansoff, H. (ed.), *Business Strategy*. Harmondsworth: Penguin Books.
21. IPIE, OGP and UNEP (2002). *Industry as a partner for sustainable development: Oil and Gas*. [Online]. Available from http://www.unep.fr/-scp/csd/wssd/-docs/sectors/final/oil-gas.pdf [Accessed on the 2 November, 2012].
22. Ijaiya, H. (2014). Challenges of corporate social responsibility in the niger delta region of nigeria, *Journal of Sustainable Development Law and Policy (2014)3:* 1.
23. Jason, K.T. (2004). *Building reputational capital: strategies for Integrity and fair play that Improve the bottom line*. Oxford: Oxford University Press.
24. Kaplan. (2012). *ACCA-P1: professional accountant, essential text*. Berkshire: BPP Kaplan Publishing UK.
25. KPMG, (2008). *International survey of corporate responsibility reporting* [online]. Amsterdam, KPMG. Available from http://www.kpmg.com/lu/en/issues-andinsights/articlespublications/pages/kpmginternationalsurveyoncorporateresponsibilityreporting2008.aspx [Accessed 3 November 2012].

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26. Kuruczs, E., Cobert, B. And Wheeler, D. (2008). The business case for corporate social responsibility. In Crane, A., McWilliams, A., Matten, D., Moon, J. and Siegel, D. (eds), *The Oxford Handbook of Corporate Social Responsibility*. Oxford: Oxford University Press, pp. 83–112.
27. Lantos, G. P. (2001). The boundaries of strategic corporate social responsibility. *Journal of Consumer Marketing*. Vol. 18 (7), pp. 595-630.
28. Laszlo, C. (2003). *The sustainable company: how to create lasting value through social and environmental performance*. Washington: Island Press.
29. McWilliams, A., and Siegel, D. (2001). Corporate social responsibility: a theory of the firm perspective, *Academy of Management Review*. Vol. 26 (1), pp. 117-127.
30. Roman, R. M., Hayibor, S. and Agle, B.R. (1999). The relationship between social and financial performance. *Business & Society*, 38, p. 109.
31. Scott, M. and Rothman, H. (1992). *Companies with a Conscience: Intimate Portraits of Twelve Firms that Make a Difference*. New York: Citadel.
32. Silidi, B., and Kloot, L. (2007).The role of non-executive director in corporate governance: an evaluation. *Proceedings of the Accounting and Finance Association of Australia and Newzealand Conference*.1-3 July 2007. Gold Coast, Accounting and Finance Association of Australia and Newzealand.
33. Smith, T. (2005). Institutional and social investors find common ground. *Journal of Investing. Vol. 14,* pp. 57–65.
34. Stuewer, S. K. (2009). Rising to the sustainability challenge. *Proceedings of the Business and Sustainability Conference.* June 17. Washington D.C.: Exxon Mobil Corporation.
35. UK Small Business Consortium, (2006). *Better Business Journey*. [Online]. Available from www.-bitc.org.uk/document.rm?id=4134. [Accessed 3 November 2012]
36. Valor, C. (2008). Can consumers buy responsibly? Analysis and solutions for market failures. *Journal of Consumer Policy*. Vol. 31, pp. 315–326.
37. Waddock, S. (2002). *Leading corporate citizens: vision, values, value-added.* New York: McGraw-Hill.
38. WBSCD, (2002). Sustainable development reporting: striking the balance [online]. Conches-Geneva, WBSCD. Available from http://www.wbcsd.org/web/-publications/striking_the_balance.pdf [Accessed 11 November 2010]

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Origin and Meaning of Circular Stone Pagoda in Unjusa Temple

By Kim, Ki-Yong

Abstract- There are lots of and kinds of stone pagoda and stone Buddhas at Unjusa Temple in Hwasun, Jeonnam, which is thus called as Cheontap(千塔) or Cheonbul.(千佛)

Several archaeological excavations have been conducted in Unjusa though, the foundation purpose or background motivation is yet wrapped in mystery.

Circular shape is representative pagoda of Unjusa made of round frame or spherical roof but circular stone pagoda is unusual that there is no similar example found in India or China as well as in Korea.

Located in the symbolic center, Circular stone pagoda is a key to understand Unjusa.

Yundeung(輪燈) is made of stone for circular stone pagoda and there are craft lamp and large lamp.

The large lamp, for the palace courtyard on the occasion of Palgwanhoe, (八關會) consists of discs and light on each disc. Outdoor lamp of circular stone pagoda made of stone for permanent preservation purpose.

Keywords: unjusa temple, circular stone pagoda (cylindrical stone pagoda), circular lamp (yundeung輪燈), stone lamp, palgwanhoe (八關會).

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ORIGINANDMEANINGOFCIRCULARSTONEPAGODAINUNJUSATEMPLE

Strictly as per the compliance and regulations of:

Origin and Meaning of Circular Stone Pagoda in Unjusa Temple

운주사 원형석탑의 시원과의미

Kim, Ki-Yong

김기용**

Abstract- There are lots of and kinds of stone pagoda and stone Buddhas at Unjusa Temple in Hwasun, Jeonnam, which is thus called as Cheontap(**千塔**) or Cheonbul.(**千佛**)

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The large lamp, for the palace courtyard on the occasion of Palgwanhoe, (**八關會**) consists of discs and light on each disc. Outdoor lamp of circular stone pagoda made of stone for permanent preservation purpose.

Unjusa is a very special temple with stone-yundeung for circular stone pagoda.

In this study, a circular stone pagoda that is the source of yundeung said. Unjusa circular stone pagoda next to the title of 'yundeung pagoda' and proposes to call.

주제어: 운주사, 원형석탑, 윤등, 석등, 팔관회

Keywords: unjusa temple, circular stone pagoda (cylindrical stone pagoda), circular lamp (yundeung ***輪燈****), stone lamp, palgwanhoe (* ***八關會****).*

I. 운주사석탑과윤등의의미

a) 운주사원형석탑연구의의미

전남화순군도암면소재운주사는천불천탑사원으로불릴정도로각양각색의많은석탑과석불이있다. 그간운주사의건-립주체, 건립배경, 건립시기에대하여다양한해석이있어왔다. 즉왜하나의가람에다양한석탑과석불이조성되었는가하는의문에의한답이무엇인가에대한해석이다양한견해로제시된것이다 .[1]

운주사석탑은현재22기로파악되고, 이중원형석탑은-4기가알려져있으며전형적인방형탑에대하여이형적인탑으로분류되고있다.원형석탑은탑신이나옥개석이원형을이루고있으며원반형과원구형으로구분되고있다. 원형석탑은 기존석-탑과전혀다른양식으로유래를찾아볼수없는파격적인조영기법을보여주기때문에한국은물론인도, 중국등불교문화권의석탑-에서그원형(原形)을찾지못하고있다.

원반형원형석탑으로서대표적인원형다층석탑은운주사의공간적중심에위치하고있다. 운주사하면반드시언급되는-쌍배불(雙背佛)이있는석조감실앞에원형다층석탑이위치하고있다.상징적 중심인 마애여래불앞의명당자리에는명당원-형석탑이위치하고있다.운주사의중심위치의석탑은원형석탑이된다고할수있는것이다.

원형석탑은둔황석굴의약사경변(藥師經變)의벽화, 팔관회(八關會) 설행시에궁궐의구정(毬庭)에한시적으로설-치하던윤등(輪燈)을석재로번안한석조물이라고할수있다.원형석탑은바퀴모양의원반을층층이적층하여여러개의등잔을놓을수있도록시설한윤등적인성격을가진석탑으로판단되는것이다.

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[1] 성춘경,「운주사의천불천탑」, 月刊全每. 1980. 2. : 關野貞,「朝鮮의建築과藝術, 岩波書店」, 東京.1941. : 정영호,「운주사」, 전남대박물관. 1984 :박경식,「화순운주사의석탑에대한고찰」, 『박물관기요』5, 단국대박물관, 1989. : 신영훈, 불교신문, 1989년4월5일자, 1246호. : 송기숙,「운주사천불천탑관계설화」, 『운주사종합학술조사』, 전남대박물관, 1991. : 朴泰洵,『화순운주사천불천탑이야기』, 월간중앙, 1989.1. : 김동수,「운주사의역사적고찰」, 『운주사종합학술조사』, 1991. : 이태호 · 황호균,「운주사불상조각의형식적특징과편년고찰」,『운주사종합학술조사』, 전남대박물관,1991. : 김창현,「고려시대능성운주사에대한탐색」,『史叢』72, 2011.1.

운주사에는많은석불석탑이있음에도사찰중심위치에배치되는석등이존재하지않는다.[2] 이유는원형석탑이석등의역할을대행하고있기때문으로판단되고있다.원형석탑은옥외연등시설인석등의범주로서석탑의명칭을부여한다면윤등석탑으로호칭할수있을것이다.[3] 석탑과석등은그실체및상징적인위계가다르기때문에현재까지운주사의석탑에대한해석은다양할수밖에없었다.즉기본적으로불교적입장에서운주사는미륵도량으로출발하여풍수적비보와도교, 밀교와천문학적해석등이있었던것이다.

본연구는운주사의원형석탑이윤등을석제로번안한윤등적인성격을가진석탑이라는사실을밝히고자하였으며, 이는운주사의연원과성격, 정체성을파악하는데도움이될것으로기대된다고하겠다.

b) 윤등의의미와배치형식.

윤등은수레바퀴형태의등을일컫는다. 불교에서수레바퀴는법륜(法輪dharma-cakra)을뜻한다. 법륜은부처님이사르나트의녹야원에서최초의설법을통해진리를설했던것을상징한다. 또한법륜은태양의상징이며정법의상징이기도하였다. 동시에삶과죽음을반복하는윤회의상징이며왕권의상징이기도하다.[4]그러므로법륜은불교의가장중요한상징물로표현되었다. 탑의상륜부와인도아소카왕기념석주의꼭대기에법륜을장착하여불법이멀리퍼져나가기를염원하기도하였다. 다르마-차크라라는이름의살이여덟개달린바퀴는부처와불교의가장중요한상징들중하나다. 부처는처음가르침을설파할때이법륜을돌렸다고하며, 바퀴에달린여덟개의살은깨달음으로가는불교의팔정도(八正道)를상징하였던것이다.[5]

윤등은부처님과불법을상징하는법륜과등불로구성된다등식(多燈式) 연등시설이다. 불교의례및공양중에서필수적인법구가되는것은당연하다고하겠다. 한국에서윤등은고려태조원년11월조의팔관회기록에처음나타나고있다.[6]팔관회를베풀면서궁궐의구정에윤등1개소를설치하고향등(香燈)을벌여놓아밤새불을비추었다는기록이다. 고려팔관회는국가의주요의례로서서경은10월, 개경은11월, 양경에서매년설행했으며, 신라의전통을그대로이은점으로볼때윤등은신라때부터설치했을것으로추측되고있다.

민가의윤등설치는고려후기4월초파일에집집마다연등했다는사례가있다.[7] 이때설치한연등이소형윤등의형태로추정된다. 그이전에는팔관회의구경꾼이많았다는기록외에는보이지않는다. 중국은불교전래이전부터정월15일상원(上元)에연등을하는도교(道教) 풍속이있었으며, 남북조시대에불교와습합하여활성화되기시작하여불교적인연등으로변모하게되었던것이다.양나라풍속서인『형초세시기』[8] 2월세시에집에윤등을달고향화를들고행성을한다고하였다.

「2월8일은석가모니가인간세상에내려온날이다. 석가모니가도를깨달았을때에신도들의집에서는팔관재계를하고차륜과보개와칠변팔회의등을단다. 이른아침에향화를들고성을따라한바퀴도니이를행성이라한다.」[9]

윤등은석가께서7곳의장소에서8번설법했다는화엄경의칠처팔회를상징하는차륜과보개형태의모습을하고있다. 등불의차-륜과보개는부처와불법을상징하고, 불빛이사방팔방으로비춤으로서불법이널리알려져광명의세계를이룬다는의미이다. 세시기에서민가의윤등은들고다니거나매다는소형의공예적인윤등임을알수있다.

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[2] 일반적으로 한국의 전통사찰의중심영역에는석등이위치하고있다.

[3] 윤등은옥외연등시설로서석등의범주라고할수있다. 현존하는중국최고의석등인태원동자사(556년) 석등은연등석탑으로호칭되고있다.

[4] 이미림, 이주형외,『동양미술』, 미진사, 서울, 2007, 210쪽.

[5] Clare Gibson, 장아름역,『상징, 알면보인다』, 비즈앤비즈, 서울, 2010, 115쪽.

[6]『高麗史節要』권1 태조원년11월조.

[7]『高麗史』세가40 공민왕13년4월辛丑條

[8]『荊楚歲時記』는중국의양자강중류유역에있는荊楚지방의연중세시기이다. 남북조시대남조의세번째왕조인梁나라(502년~557년) 宗懍이지은『형초기』를7세기초隋나라의杜公贍이증보加注하여『荊楚歲時記』라하였다. 현존하는중국세시기중에서가장오래된것으로초나라특유의세시뿐만아니라일반적인풍습도기술되어있는책이다.

[9]『중국대세시기』,국립민속박물관, 2006, 50쪽.「二月八日釋氏下生之日迦文成道之時信捨之家建八關齋戒車輪寶蓋七變八會之燈平旦執香花遶城一匝謂之行城」

II. 원형석탑의위치의미해석

a) 운주사원형석탑의배치형식과가람배치

운주사는각양각색의많은석탑・석불, 탑상(塔像)-이산재해있어천불천탑사원으로알려져있다. 운주사는늦어도-11세기초반에창건되어, 12세기에이르러중심축선이바뀌는대-규모불사를시행하여사원으로서의모든기능을갖춘것으로조사되었다.[10]

건물지는용강리와대초리일대의2개지역에분포되었으며, 초창기건물은용강리에집중되어배치되었다. 대초리-건물지는정유재란이후폐사되었다가19세기~20세기초에건립된소규모건물지로확인되었다. 그러므로폐사전의초창기운-주사는용강리건축물지를중심으로한구역과석탑・석불이있는탑상구역2곳으로분리경영되었다고할수있는것이다.

운주사석탑은1941년에22기의석탑이있던것으로기록되었으나1981년조사에서는18기로파악되었다. 1991년의-조사에서는석탑형식을갖춘것이18기, 석주형으로1층탑신만-남은것이3기로모두21기의석탑이조사되었다. 이어1989년4-차발굴조사에서원반형폐탑재1기가추가되어모두22기로파악되었다. 또한100여개에이르는폐탑재-가운데적어도10여기-의석탑이복원가능하므로30여기이상-의석탑이존재했을것-으로확인되고있다.[11] 현재석탑형식을갖춘운주사석탑은방형석탑11기, 원형석탑4기, 모전계열석탑2기, 석주형폐-탑4기-가있는것이다.

운주사석탑은진입로를따라남에서북으로산곡의평지에13기, 와불이있는서쪽산등성이4기, 동쪽산등성이4기, 도합21기가배치되어있다. 동서좌우산등성이각1열과중심-평지1열로전체3열의축선을이루고있다. 이러한배치는삼국시-대이래금당과1~2기의탑이남북자오선축선을따라주불전을구성하는전통사원배치와는다른구성이된다. 이때문에운주사-배치는미륵도량, 도교사원, 밀교사원등바라보는관점에따라-다양하게해석되고있다.

기존사원의정형적인석탑배치를기준으로운주사석탑배치를분석한2가지연구사례가있다. 하나는Fig.1의운주사안-내도에서'나'와'마' 석불군을제외한다른석불군은뒤쪽에석탑-을배치하여불상과탑이하나의소가람을이루고조성했다는배치이다. [12] 운주사는소-규모가람이여럿있는데각기탑과불상이-소가람을이룬다는것이다.이는1탑1금당이나쌍탑1금당처럼불-상의전후에탑-을배-치하는방식을따른것으로보고있다.그리-고전체사역의정-중앙-공간적중심은석조불감구역이며, 맨뒤-에위치한마애여래불은-조망적중심위치로해석할수있다.

또하나의배치관점으로서박경식은석조불감의남쪽에있는석조불감앞7층석탑과서쪽산등성이에있는거북바위교차문7층석탑을잇는동서축선이운주사남북끝에위치한석탑과의거리를2등분하는중앙축선이된다고하였다. 석탑간의거리나-방위는규칙적이지못하나각각의석탑은계획된조영에의하여7개의축선및4개의군으로분포되었다고하였다. 석탑이현재의-위치에건립되어위치변동이없다고전제하였고, 중앙축선의석-탑이우선적으로건립되었으며, 이를중심으로각축선의중심탑-

[10] 운주사에대한연구는1984년부터1991년까지전남대박물관에서4차에걸친발굴조사와2회의학술조사를실시했다. 또한2013년과2014년에는세계유산으로등재하기위한학술연구가수행되었다.

[11] 천득염,「운주사석탑의양식적특성과세계유산으로서의미」,『호남문화연구』제54집, 호남학연구원, 2013, 264쪽. 황호균,『운주사자료집성』, 전남대박물관・화순군청, 2009, 123쪽.

[12] 황호균,앞의책, 2009, 52쪽, 58-59쪽.

을건립한후나머지석탑을사이사이에세운것으로건탑순위를추정하였다.[13]

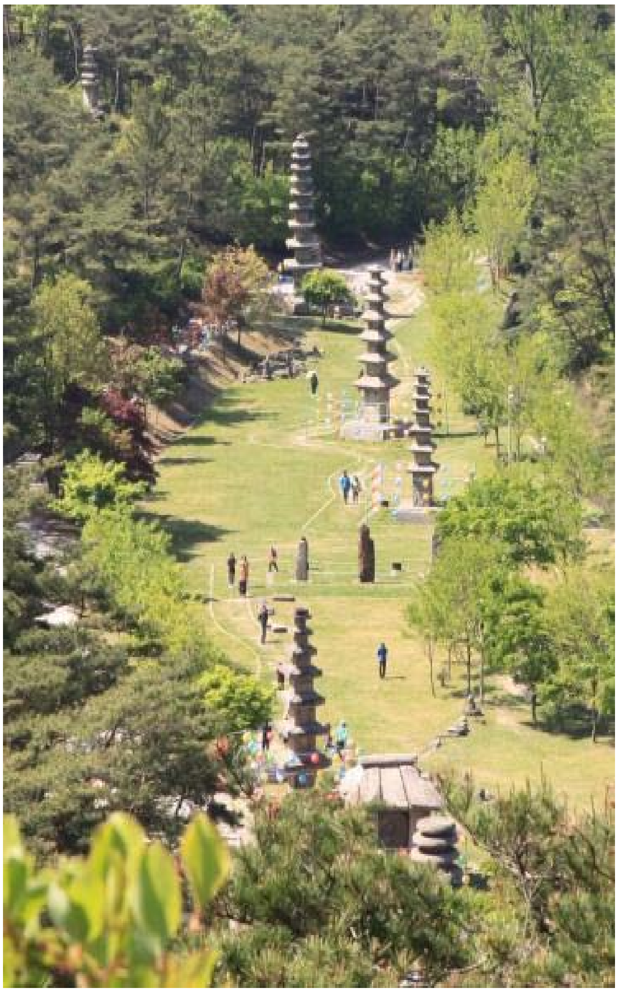

Figure 2 : Unjusa view

두사례가배치의관점에서차이는있지만석탑・석불이 각각구역을이루고분할된다는점과석조불감주위의구역을사역(寺域) 중심으로보고있다. 운주사에대한가장오래된기록인-『신증동국여지승람』에서수많은불상, 불탑가운데쌍배불이-있는석조불감을강조한점역시이와같은중심적위치에기인한다고할수있는것이다.[14]

일반적으로사찰을건립할때에는중심영역의금당과탑을우선적으로조영한다고한다. 운주사는비정형적인배치와주-불전이존재하지않기때문에사원의성격을추정하기어렵다. 하지만축조물이집합된곳은중심이있으며,중심은크게공간적중심과-상징적중심으로나눌수있다. 앞에서언급한바와같이-석조불-감구역은사역의중앙에자리하여운주사의공간적중심-이된다고할수있다. 상징적중심은풍수지리적인비보성격에부-합되는중-심적위치가된다. 상징적위치는마애여래불이위치-한조망적중-심위치로서소위명당지역으로불리는풍수지리적-인구역이된다고할수있다.

이와같이운주사중심위치를공간과상징적인2구역으로설정하면각구역의중심시설은결국원형석탑이된다. 즉석조-불감구역은원형다층석탑이, 마애여래불의명당구역에-는일-명명당탑으로불리고있는원형석탑[15] 이배치된것이다. 그리고-두중심구역이운주사의주불전과같은역할을하게되므로이구역에있는원형석탑은운주사전체의성격과정체성을함유하고있다고할수있을것이다.

i. 운주사원형석탑의의미와형식

원형석탑은전형적인방형석탑에대하여이형적인탑으로탑신이나옥개석이원형을이룬탑을말한다. 원형석탑은원반-형과원구형으로구분할수있다.

운주사원형석탑은4기가있으며원반형은원형다층석탑, 명당원형석탑, 실패형원형석탑, 원구형은발형다-층석탑이있다.

운주사평지구역에는원형석탑과방형석탑이함께배치되어있다. 이중에운주사의성격과부합되는중심적인석탑은운-주사만의독창적인석탑인원형석탑이라고추정된다. 원형석탑-으로분류되지는않았지만석주형폐탑4기역시원형석탑의범주가될가능성이있다. 찻집이있는지혜당건물뒤편산비탈의석-주형폐탑이『조선고적도보』6권(1917년)의사진에원반형석탑으로촬영되었기때문이다.[16]

이외에원형석탑부재가운주사경내에많이산재되어있어원형석탑은더있었을것으로추측되고있다. 현재사역에산재-되어확인이가능한원형석탑의부재는원형탑신석7개, 원구형-옥개석1개, 원반형옥개석20개, 탑신석1개, 탑신면석2개, 상륜부재6개등이있다.[17] 이외에결실로추정되는원형석탑부재를모두합한다면최소한5기이상의원형석탑을조립할수있을것으로보인다.

[13] 박경식,「화순운주사의석탑에대한고찰」,『박물관기요』5, 단국대박물관,1989. 12-14쪽.

[14]『東國輿地勝覽』권40,「綾城縣佛宇條雲住寺在千佛山寺之左右山背石佛石塔一千又有石室二石佛相背而坐」

[15] 이후명당구역에있는원형석탑, 일명명당탑은이후로명당원형석탑으로호칭하고자한다.

[16] 황호균, 앞의책, 2009, 144쪽.

[17] 황호균, 위의책, 2009, 495쪽.

ii. 원형석탑의배치

원형석탑4기는석조불감과마주보고있는원형다층석탑, 대웅전서쪽계단앞쪽의원형석탑(일명실패탑),[18] 대웅전동편에있는미륵전앞의발형다층석탑, 대웅전뒤쪽의명당-원형석탑이있다. 원형석탑4기모두부분적으로결실된상태이-지만원형다층탑과발형다층석탑은층수를제외하고는원형에가깝게유지되고있다. 실패형원형석탑과명당원형석탑은원래의-구조형식추정이어렵게보이거나결실이된실정이다. 원형석-탑중에원형다층석탑과명당원형석탑은각각석조불감, 방형석-탑과짝을이루고있는것으로보인다. 원형다층석탑은남쪽5m지점에위치한팔작지붕형태의석조불감과짝을이루어배치된것이다. 석조불감안에는석불좌상2구가벽을사이에두고서로등-을마주대고있으며북쪽을바라보고있는불상이원형다층석탑을바라보고있는형태를취하고있다.[19]

명당원형석탑은북쪽방향으로마애여래불이있으며바로앞에는방형석탑이위치하고있다. 이두석탑은서로짝을이루-는것으로보이며또한19세기초설담자우스님의수리한석탑으로지목되고있다.[20] 이구역이마애여래불의조망적중심에있는운주사의명당지역으로서두석탑을수리한것으로추정하고있는것이다.

원형다층석탑과석조불감의중심선을잇는남북축선은약간어긋나있으며, 명당원형석탑과짝을이루는방형석탑도동-일하게남북축선이약간어긋나있다. 축선이어긋난이유를정확-하게알수는없지만지형적으로배치가어긋날정도의문제점은없기때문에자연암반의기반위치등어떤이유가있었을것으로추정된다고하겠다. 발형다층석탑과실패형원형석탑은현재의배-치상태로는짝여부파악이확인하기어렵다고할수있다.

b) 원형석탑의형태및구성.[21]

석탑을이루는구성요소는기단부, 탑신부, 상륜부등-으로크게나누어진다. 원형석탑은그예를찾을수없는파격적인-이형석탑이기때문에전형적인석탑의구성명칭을사용하면표현이어색하게보인다고할수있다. 유사석조물인석등의구성명-칭과비교하면이해에도움이될것으로사료되어이를참조하고자하였다.[22] 석탑이다층이고석등은단층이라는차이만감안하면그이외의구성은동일하다고할수있기때문이다. 석탑의명칭을석-등의명칭으로대입하면지대석, 기단부, 옥개석, 상륜부는석탑-과명칭이동일하고기단중석=간주석, 기단갑석=연화상대석, 탑신부=화사부가된다고하겠다.

[18] 이후본원형석탑은실패형원형석탑으로호칭하고자한다.

[19] 이태호・황호균,「운주사불상조각의형식적특징과편년고찰」,『운주사종합학술조사』,전남대박물관,1991, 67~68쪽.

[20] 雪潭自優,「雲住洞佛塔修理後重建藥師殿勸善文」,『雪潭集』卷下,『韓國佛敎全書』9, 동국대출판부, 1988, 740~741쪽.

[21] 천득염, 앞의논문, 1991. : 천득염,「운주사의석탑」,『운주사석탑・석불정밀실측조사보고서』, 운주사・화순군, 2007. : 황호균, 앞의책, 2009. 를참고작성하였다.

[22] 석등의구성요소명칭은박경식,『한국의석등』, 학연문화사, 서울,2013, 557쪽을참조했다.

i. 원형다층석탑.

Figure 3 : Circular stone pagodas and Seokjobulgam

원형다층석탑은지대석, 간주석, 연화상대석, 탑신부의탑신, 원반형옥개석으로구성된다. 현재6층까지남아있지만최근공개된『조선고적도보』사진에서7층탑신석이발견되어최소7층으로밝혀진것이다.[23] 석탑은간주석을제외한구성부재가원형을이루고있다.

간주석은10각이지만이10각도원에가까우므로전체석탑이원형부재로구성되었다고볼수있다. 구성석재는원형지대석이1석, 간주석이5매석으로이루어졌으며연화상대석, 탑신및원반형옥개석은모두1석으로조성되었다. 연화상대석은하면과측면에앙련의연꽃문양이얇게조각되어있으며. 이는석등의상대석과유사한양식및구조형태라고할수있다. 원반형옥개석은원반이평평하여탑재형조형물임을암시하고있다고볼수있다.

또한흥미로운것은이탑의지대석하부를이룬커다란부재의형상이마치거북이모습을하고있어주목되고있다.[24] 운주사의일주문편액은영구산(靈龜山) 운주사라고되어있다. 운주사대웅전에서우측산등성이와불쪽으로오르는중턱의넓-은암반에세워진2탑의이름이각각거북바위교차문7층석탑, 거북바위5-층석탑이라고불린다. 이암반의이름이거북바위이-기때문에그렇게호칭되는것으로보인다.[25] 이는풍수적으로거-북의자리를운주사의주혈(穴)자리로보고그자리에석탑을세웠을것으로추정할수있을것이다. 원형다층석탑의지대석하부부재에거북형태의부조가있는것은원형다층석탑역시풍수적으로영구혈에설치한비보성격의탑이된다고할수있을것이다.

ii. 실패형원형석탑

실패형원형석탑은대웅전옆의서쪽계단쪽에위치한다. 탑의형태가실을감는실패와닮아서실패형원형석탑으로호칭하고있다. 간주석, 상대석, 탑신부, 원반형옥개석으로구성되었으며, 간주석은방형이나상대석은장식이없는원형의형태이다. 간주석은크고작은장대석판석2매를합쳐세워서석주와같은모습이라고하였다. 상대석은원형판석1매로서장식이없는원반형이다. 탑신부는작은규모의원형탑신석과원반형옥개석이1석으로구성되었다.

옥개석은원반형으로탑재기능의형태를취하고있지만장식이없고, 두터워정확히어떠한탑인지판단하기어렵다고할수없다. 이석탑은석탑관점으로보면완성된형태가아니라고할수있지만석등의범주인정료대(庭燎臺)와비교하면완성된탑으로볼수있을것이다.[26]

[23] 황호균, 앞의책, 2009, 511쪽.

[24] 천득염, 앞의논문, 1991, 182쪽.

[25] 운주사는거북바위가많다. 공사암역시거북이가죽어서된거북바위라고-한다. 운주사북쪽, 거북바위가있는산을靈龜山이라한다. 李敦柱,「화순군도암면지역의지명조사」,『운주사종합학술조사』, 전남대박물관, 1991, 395~396쪽.

[26] 庭燎臺는야간에관솔불등을태워사찰경내를밝히던석조시설이다. 석등이의례적인성격이라면정료대는조명용성격의시설이라고할수있다. 현재통일신라시대로추정되는해인사정료대가가장오래된정료대로알려져있다.

Figure 4 : Circular stone padoda (Silpae pagoda)

Figure 5 : Balhyeongmultistoy stone pagoda

iii. 발형다층석탑

발형다층석탑은대웅전동편에있는미륵전의단아래마당에위치하고있다. 발형다층석탑은탑모양에대한일반적상식-을깨뜨리는파격적인모습이다. 지대석, 간주석, 상대석, 원구형탑신겸옥개석으로구성되어있는것이다. 방형의지대석-상면에3단의각형괴임이있으며그위에4면의우주가뚜렷하고 높직한4개의판석으로짜인간주석을놓아져있다. 상대석은낙-수면이완만하게기울어졌으며, 장식이없는원형의1매판석으-로이루어졌다. 탑신부는상대석위에탑신겸옥개석형태인원구형석괴4석을올려놓았다. 1층과3층의부재는물동이같고2층-과4층은중심부에1면을만든주판알과같은모습으로보인다.

일제강점기에발간한『조선고적도보』사진에옥개석이7개로나와있어7층석탑임이확인되었다. 발형다층석탑은-어떠한-대상물을석재조각으로표현한현대조각미술작품과같-은조형물형태를취하고있다고할수있다.

iv. 명당원형석탑

명당원형석탑은대웅전뒤쪽암벽에새겨진마애여래불아래의완만한경사지에위치하고있다. 구성은방형기단, 사각-갑석위에1층에서3층까지각각원형탑신과원반형옥개석으로이루어졌다. 탑신과옥개석은층이오를수록점차체감되고있-으나체감율은일정치않다. 석조불감앞의원형다층석탑과달리-원형의기단부대신방형기단부형식을취하고있다. 원형다층석-탑의기단은원형이기때문에방형탑신은어울리지않는구성이라고한것이다. 다른석탑의부재를혼합하여조립한것으로추정-되고있다. 원반형옥개석은1~3층이같은형식으로모서리를-다듬은원반형이며단엽의연화문16판을돌려장식하였다고한다. 1991년조사당시에는앞쪽의방형석탑지대석위에본원형-석탑의부재로추정되는연화문양의원반형석재가놓여있었다고한다. 1993년대대적인보수를시행하면서앞쪽방형석탑의연화-문양원반형석재를본탑의3층옥개석으로되돌려2층석탑을3층석탑으로조립하였다고한다.[27] 원형다층석탑에비해탑신이짧-고원반형옥개석이얇고넓은것으로조사되었다. 이석탑은각층-의원반형옥개석의체감비율상5층이상의층으로추정되고있다.

마애여래불아래의명당원형석탑주위는명당혈로알려져있어명당원형석탑으로불린다. 19세기초설담자우스님이수-리한석탑으로명당탑과앞쪽에짝을이루고있는방형석탑이지목되고있으며,원래형태와원래위치여부는불확실한탑이라고할수있다.

III. 운주사의원형석탑과불교등화시설

a) 불교의등화

불교에서는등을등명이라하며'불·보살의앞에받드는등불', '불·보살의지혜가밝은것을표시함'이라고하였다.[28] 처-님의진리, 설법을법등이라하고스승이제자에게대를이어-전하는것을전등이라하였다. 등불은부처님, 불법의증표로서-불교-의례의필수적인법구가되었으며, 많은경전이등화의중-요성과연등공양을최고의공덕으로설하였다.[29] 이러한등불의-중요성과상징성으로인해향불, 꽃과함께불전삼족구가되었-

[27] 황호균, 앞의책, 2009, 137쪽.

[28] 동국역경원. 불교사전http://www.tripitaka.or.kr/

[29] 『燈指因緣經』 "불타의진리인광명은암흑과같은사바세계에서헤매고있는중생들을佛身의광명이비치는燈明으로촌각도지체없이善한지경으로인도하는선봉이된다."

『佛說施燈功德經』 "탑이나廟의시설물앞에연등공양을하거나임종시등불을밝히면福田과三種明을얻을것이며, 망자를위하여탑묘와부처님앞-에등화를밝히면33천에다시태어나며다섯가지清淨을얻는다." 燈을보시-하는공덕에대하여설한경전이다.

『華嚴經』 권40 '보현행원품'에서는"등화가수미산과같으며, 한종지-의기름은큰바닷물과같아서모든공양중가장으뜸이되는공양"이라고하였다.

다고할-수있다. 또한사원의중심지인중정에금당, 탑과함께주-요시설-로서배치되었을것이다.

불교의례용연등기구는소형의공예적인연등구와대형의축조또는가구적인연등시설로분류할수있다. 공예적인연등-구는불전의등잔, 등촉구가있으며, 연등회에들고다니거나매-다는윤등이있다. 연등회의소형윤등은원통형, 구형, 다각형-의형태로서현대의연등회에서그맥을잇고있다고할수있는것이다. 대형연등시설로는석등과정료대가있으며, 석등은한국에-서는백제미륵사지에서처음조영된이후로사원의중심에필수적으로배치하는주요시설이되었다[30] 정료대는지대석, 기단, 중대석, 상대석으로구성된옥외연등시설로서석등에서화사석-이후를제거한형태와같다.

석등과정료대가처음부터석조물로조영되지는않았-을것이다. 등불에대한신앙심은옥외에설치하는연등시설을전-천후에구애받지않고영구보전하도록석재로건조하였으며, 이에따라석등이출현했을것으로추정되고있는것이다.[31] 석등-과정료대는부처님과불법을상징하는연등시설로서대부분상・하대석에연화문양이장식되어있다. 비록공양성격이있는의례-시-설이지만불상이연화좌대에존상된것처럼화사석을연화-문양으로장식된대좌위에존치된것이다.

b) 둔황석굴벽화의윤등.

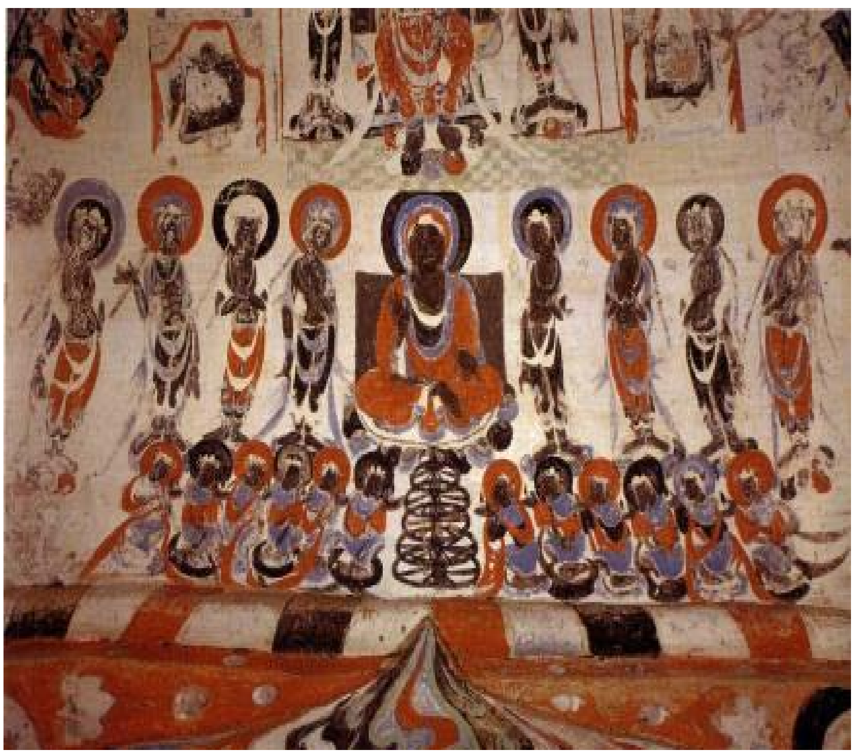

Figure 7 : Back top of Cave 417

둔황석굴은천불동또는막고굴로불리며많은불교관련벽화가있다. 수・당대의둔황석굴벽화중에윤등을묘사한불화-가몇편있다.[32] 이들벽화에서불상전면이나주위에윤등이배치-되어있음을확인할수있다.

둔황417굴의후벽상부벽화는수대(隋581-617)의작-품으로추정되고있다.[33] 중앙불상정면에7층으로보이는윤등이-배치되어있다. 윤등좌우로6인씩12인의보살또는공양인이경-건하게우슬착지의자세로불켜진등잔을들고윤등을향하거나, 윤등위에등잔을올리는모습을하는것으로보인다.

둔황433굴의천정동쪽의약사경변은수대(581-617)의작품으로추정하고있다. 찰주가길게솟아10자를만든윤등형-태의9층연등시설이불상좌우양쪽에쌍탑처럼배치되어있다.

[30] 석등은탑, 불상, 승탑앞에배치되며, 가장오래된석등유구는백제무왕대(600~641)에건립된익산미륵사지에서발견되었다.

[31] 정명호, 『한국석등양식』,민족문화사, 서울, 1994, 31쪽.

[32] 둔황석굴의윤등을묘사한벽화는「약사경변도」이다.「약사경변-도」는『약사경』의내용을압축하여그림으로표현한경전이다.『약사경』은'약사여래불7분을봉안하고각상앞에7개의윤등을배치하며, 등의크기는커다란수레바퀴만하다'고표현하고있다.

[33] 돈황벽화는敦煌文物研究所,『中國石窟敦煌莫高窟』, 文物出版社, 中國北京, 1984, 참조인용하였다.

윤등옆으로는공손한자세로2열을지은보살또는공양인이등잔을들거나올리는모습을보이고있다.

특이하게약사여래정면에는불을피워화염이솟아오르고있으며옆에는비천인(飛天人)들이불속에공물을넣거나용기를들고불을향해날아오고있다. 433굴의윤등은정면에배치되지않고2기가측면에배치되어있다. 정면에는정료시설로보이는시설이배치되어있다. 다른벽화와달리2기의윤등과정료시설1기의특별한배치라고할수있는것이다.

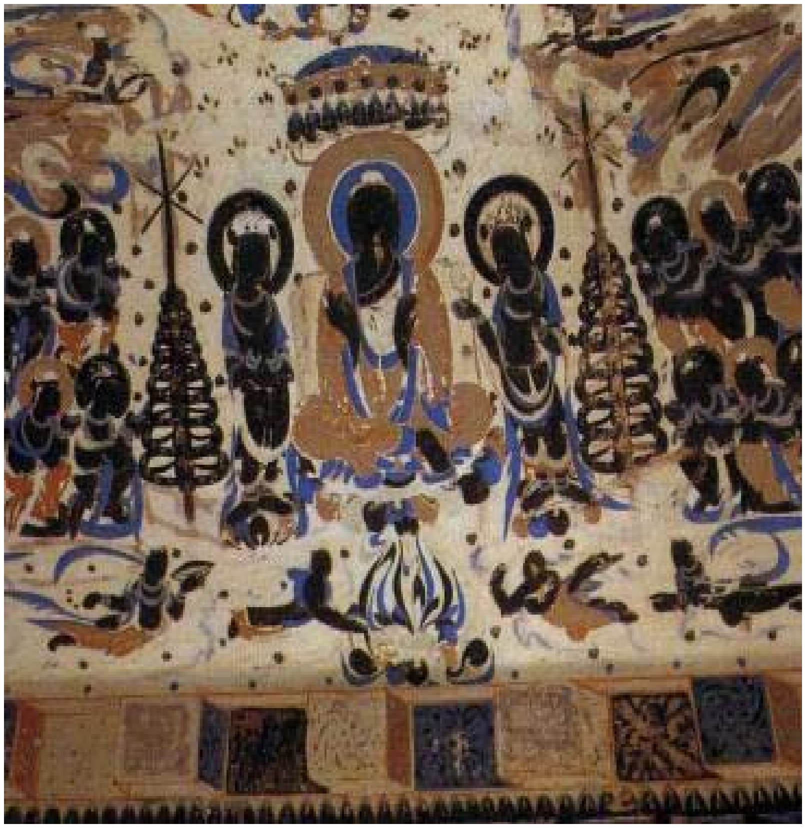

Figure 8 : East ceiling of Cave 433

둔황220호굴은당정관16년(642)으로조성연대가확실하게밝혀진석굴로알려져있다. 이석굴의북벽에는중심축을기준으로단아래좌우양쪽에1기씩2기의윤등이배치되어있는「약사경변도」가있다. 〈Fig.9〉는전체약사경변도중에윤등이나오는우측의일부분을발췌한것이다. 명확하게판단하기쉽지않지만가설된윤등이3개층으로나뉘어한층에2겹또는3겹으로된원반이놓아져총7층으로보이고있다. 원반위에는많은등잔이놓여있다. 공양인이연등공양을하고있고, 다른공양인은무릎꿇어경배하고있는모습이보인다. 윤등의형태는나무를형상한가구형태로서받침대가나무뿌리처럼여러살로뻗어있으며끝모양은귀꽃처럼말아져있다. 이벽화는노래와가무를표현하고있기때문에악무도(樂舞圖)라고호칭하기도한다.

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Figure 9 : North wall of Cave 220

둔황159호굴서쪽후벽의그림은중당(781-818)시기-로추정되는벽화이다. 불상을모신금당의앞마당가운데에5-층윤등1기가배치되어있으며, 이웃당간지주에는번이휘날리-고있다. 십자형받침대를가진심주에바퀴모양의윤등이5층을-이루고있다. 윤등앞에는가사입은승려가점등을하려고서있-으며, 높이는2미터가넘게보인다.

둔황석굴벽화에나오는윤등은여러개의바퀴형태의-원반을다층으로쌓고, 각층에등잔을-올려놓는다등식연등시-설로표현되어있다. 윤등의층수는5층, 7층, 9층으로다양하며-불상정면또는측면에1기또는2기가배-치되고있다.

윤등이표현된둔황벽화는『약사경』의내용을그림으로표현한「약사경변도」이다. 이벽화를통하여윤등배치의근-거경전은『약사경』임을보여주고있는것이다. 둔황벽화에묘-사된윤등의형태및배치는문헌자료의한계를보완하는좋은참고자료가된다고할수있을것이다.

IV. 윤등과운주사의원형석탑.

운주사에는전통적인사원이라면주불전의중정에배치되어야할석등이존재하지않는다. 파격적인운주사의성격에-비교될수있지만불교에서연등에대한중요성을감안하면석등이없다는것은주목되는현상이된다고하겠다.

운주사는석등의범주인윤등을원형석탑의성격으로건조하여배치함으로서석등을가름했던것으로보인다. 윤등은부-처님과불법을상징하는법륜과등불로구성된등화로서불교의례및공양시설중에서최고의상징성을갖추고있기때문에연등시설에대하여운주사는최상의선택을했다고할수있는것이다.

『약사경』에는팔계재를행하고7기의윤등과번(幡)을설치하여의례를행하면소재초복(消災招福) 한다고하였다. 『약사경』의내용은둔황벽화의「약사경변도」에표현되었으며, 내용과같이윤등이설치되었던것이다. 둔황벽화에보이는-가설윤등을석재로번안한다면운주사의원형석탑과유사한형태가될수있다.

원형석탑은둔황벽화및팔관회설행시에한시적으로설치하던윤등을영구적인석재로만든의례용연등시설이라고할수있다. 전천후에구애받지않고영구적으로보전하려는의도로-윤등을석재로건조하게된것이라고볼수있는것이다. 원형석-탑의원반형옥개석은원반이평평하여그위에도구나공양물을놓는탑재기능의구조로보는것이타당하다고할수있다. 원반형옥-개석은탑으로보면지붕이지만석등으로보면등잔을탑재한화사석이되는것이다. 등잔을탑재하는위치가내부또는외부의정-도에차이가있을뿐이며, 원형석탑의구조및형태는석등과가-깝다고할수있다. 그러므로원형석탑은원반형화사석을여러개-의층으로건조한석탑이라고할수있을것이다.

대웅전서쪽계단앞쪽에위치한실패형원형석탑은정료대에서한층을더올린형태와비슷한모습을보이고있다. 구조적-으로원형다층석탑과기단이방형인점과두터운원반이외에는유

사한양상을보이고있다. 하지만실패형원형석탑을연등시설로-보기에는한계가있는것같다. 연등시설은부처님을상징하기-때문에원형다층석탑이나명당원형석탑과같이상대석이나원반형옥개석에는연화문양이있다. 실패형원형석탑의원반에는-연화문양이나다른장식이보이지않고있다. 그러므로실패형원-형석탑은석등의범주는아니라고판단된다.

발형다층석탑은원형석탑이지만본연구에서중점적으로다루는원반형원형석탑과다른원구형이기때문에본장에서는생략하고자한다.

윤등은부처와불법을상징하는법륜과등불이조합된-불교최고의상징적인의례시설이라고할수있다. 한시적이고가-설적인윤등을영구적인의례시설로만들고자하였으며, 그장소-로서운주사를선택하여석재로번안하여윤등석탑을건립하게된것이라고할수있다.

V. 결론

원형석탑은운주사의공간적, 상징적중심에배치되어-있으며, 그중심성은운주사의성격과정체성을파악하는상징적-인존재가되고있다. 원형다층석탑은운주사의공간적중심의비-보석탑이며, 명당원형석탑은마애여래불앞명당자리의상징적-중심의비보석탑배치로추정된다.

석주형폐탑4기는원형석탑이결실된잔재로보이며, 사역에산재한원형석탑부재수로볼때원반형원형석탑은현재보다그수효가증가될것으로판단된다.

실패형원형석탑은석등에서화사석이후의부재를생략한정료대에원반한층을더올려만든형태와유사하다고할수있다. 거의완-성된형태의탑으로볼수있지만다른원형석탑과같이연등시설은아닌것으로보인다.

윤등은둔황석굴의약사경변도, 팔관회장소에배치되-었던연등시설로서, 바퀴모양의원반여러개를적층하고그위-에향등을올려놓고불을밝히는한시적(限時的)인가설(假設)시설이다. 부처와불법을상징하는불교최고의상징물인법륜과-등불로구성된윤등을영구보전하기위하여석재로만든다면, 운주사의원형석탑과동일한형태가된다고하겠다. 운주사원형-석탑은윤등적인성격을가진석탑으로판단되는것이다.

본논문에서는운주사원형석탑이연등시설인윤등적성격을가졌다고판단하였다. 이후로운주사원형석탑의호칭을'-윤등석탑'으로부를수도있을것이다.

References Références Referencias

『History of Goryeo』(高麗史)
『Goryeo Chronicles』(高麗史節要)
『Samguksagi』(三國史記)
『Samgukyusa』(三國遺事)

1. Clare Gibson, translated by Arum Jang, 『How to read symbols: a crash course in the meaning of symbols in art』, Biznbiz, Seoul, 2010.
2. The nationnal folk museum of Korea, 『China's Big sesigi』, 2006.
3. 敦煌文物研究所, 『中國石窟敦煌莫高窟』, 文物出版社, 中國北京, 1984.
4. http://buddha.dongguk.edu/bs_list.aspx
5. http://www.tripitaka.or.kr/
6. Gyeongsik Park, 『Stone Lanterns in Korea』, Hakyeon Munhwasa, Seoul, 2013. 「Consideration of Stone Pagoda in HwasunUnjusa Temple」, 『Museum Bulletin』5, Dankook Univ. Museum, 1989.
7. Jiwon An, 『Buddhist Ritual and Culture of Goryeo』, SNU, Seoul, 2006.
8. Mirim Lee, Juhyeong Lee and Others, 『Oriental Art History』, Mijinsa, Seoul, 2007.
9. Taeho Lee · Hogyun Hwang, 「Annals and Features of Buddhas in Unjusa」, 『Comprehensive Scientific Research of Unjusa Temple』, Chonnam Univ. Museum, 1991.
10. Myeongho Jeong, 『Korea stone lanterns form』,Minjokmunhwasa, Seoul, 1994.
11. Jee,Seong-nam, 『The Bhaisajyaguru-Sutra』Kwang-rok-sa, Seoul, 2013.
12. Deukyeom Cheon, 「A Study on the Design Charateristics of the Stone Pagodas in Unjusa Temple」, 『Comprehensive Scientific Research of Unjusa Temple』,Chonnam Univ. Museum, 1991. 「Stone Pagoda of Unjusa」, 『Precision Survey of Stone Pagodas and Buddhas in Unjusa』, Unjusa · Hwasun-gun, 2007. 「Construction Features of Stone Pagodas in Unjusa as World Heritage」, 『Research of Honam Culture』Vol. 54, Institute of Honam Studies, 2013.
13. http://abc.dongguk.edu/ebti/index.jsp
14. Hogyun Hwang, 『Compilation Data of Unjusa』, Chonnam Univ. Museum · Hwasun-gun Office, 2009.
15. Restoration-based research Hwangyong temple』, National Research Institute of Cultural Heritage, Gyeongju-si, 2010.
16. http://www.unjusa.org/.

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The Digital Museum: A Case Study of Digital Applications in the National Palace Museum

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THEDIGITALMUSEUMACASESTUDYOFDIGITALAPPLICATIONSINTHENATIONALPALACEMUSEUM

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I. Introduction

There is no stasis in nature, and institutions such as the museum is in constant flux, always bending to the times. Although the traditional function of the museum has revolved around collecting, preserving, researching, and displaying objects, in the last decades, museums have undergone transformation from an object-oriented repository to an increasingly open, public, and participatory social space. Its most recent transformation, brought about by the adoption of digital technology into its institutional infrastructure, public service framework, and ideological self concept, has opened a whole new dimension of museum experience. In the digital dimension, technologies such as mobile applications, interactive table tops, virtual reality, and smart glasses have the power to enliven a static exhibition with an array of stimulating sounds, images, and videos. Aided by digital media, exhibitions can now present source materials from a variety of viewpoints and create multi-layered activities to engage visitors. Such a degree of depth and involvement creates for more enjoyable and more memorable exhibition experiences. Application of creative technology, therefore, has becomes one of the museum's core tasks in the digital age.

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The National Palace Museum (NPM) in Taipei, Taiwan, began to systematically digitize its collection under the pressure of the government's National Digital Archives Project, which ran from 2002-2012. Now, with over ten years of experience incorporating technology into its infrastructure, the NPM operates with the core principle of using technology as a platform for marketing its world-class collection to the world. This paper examines NPM's digitization progress since the end of the National Digital Archives Project in 2012 together with that of major national museums as the background for a case study evaluating its most recent new media art exhibition, the Giuseppe Castiglione: Lang Shining New Media Art Exhibition.

II. Historical Background

a) The Birth of "New" Media

While the presence of digital media did not assume a significant presence in art museums until the 1980s, contemplation of their use appeared much earlier. As early as 1900, Felix-Louis Regnault, a French physician, anthropologist, and physician, proposed the idea that all museums should collect "moving artifacts" for study and exhibition (1). Regnault imagined the museum as not just an artifact repository but a center of teaching in which researchers or members of the general public can retrieve historical documents, sound recordings, still and moving images "at the flick of a switch"(2). Only a year after, in 1901, the Metropolitan Museum of Art in New York City produced a forerunner to our contemporary interactive exhibit when curators installed a display case that allowed visitors to turn the pages of an art book by inserting their hands into its sides (3).

Because of the interdisciplinary nature of digital technology, it quickly became a topic of active discussion when technology entered art and art institutions. The digital revolution in the 1960s marked a period of intense reflection regarding the growing closeness between technology and art. The advent and popularization of photography and film broadened the expressive potential of technology and changed people's habits of seeing. Technologies from the harder sciences, such as computer-assisted design, which was implemented in building engineering, and computer imaging, used in military research, gradually became the tools of artistic expression (4). Since 1969, the

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Association for Computer Machinery Special Interest Group in Computer Graphics and Interactive Technology (ACM-SIGGRAPH) held annual conferences focused on combining the research and development of both artists and scientists (5).

b) The Place of Digital Media in Museums

The adoption of digital media as supporting material for traditional art coincided with a shift in the role of museums. Traditionally, museums were the physical manifestations of a nation's cultural heritage. They were vested with the responsibility of forming the identity of a nation and acted as the ritual display of a nation's power and wealth. In the 18th to 19th centuries, large scale national museums arose out of a need to redefine national identity with the fall of monarchies and the redivision of power among newly formed nation states. Private collections of the immensely wealthy or royal families were converted into national museums to showcase a country's cultural prestige. The British Museum was established by an act of Parliament in 1753 converting much of the 80,000 objects in the private collection of Sir Hans Sloane to the public treasury (6). The Louvre, which served as royal residence for over four centuries, was decreed by the National Constituent Assembly to be made into a public museum after the fall of the monarchy in 1792. The collection at the Hermitage, once the private collection of Catherine the Great herself, became available to the public in 1852. The Palace Museum in Beijing was also established in 1925 after the expulsion of Puyi, the last emperor of China. The ensuing Chinese Civil War culminating in the creation of two Chinas, a split remaining to this day, is reflected in the establishment of the National Palace Museum in Taipei in 1965.

While fundamentally, a museum's ability to define a culture has not much changed, in recent decades, a shift has occurred from its being inwardly focused on upholding and preserving the institution itself as a cultural symbol to being outwardly focused on public service. This shift is evidenced across the museum spectrum, be it large scale national museums with an encyclopedia collection and worldview or smaller specialist museums focusing on obscurer subjects. At the 1974 International Council of Museums (ICOM) conference in Copenhagen, a shift in the focus of museums from "self-contained professional units" to "cultural centers for the communities within which they operate" was universally established (7). How museums can better benefit audiences and how museums should take up the burden of educating communities came to the forefront of museum concerns and helped shape their new social function. Hence, when this change in museum need occurred, most museum directors and curators embraced new digital technologies for their ability to contextualize exhibitions, disseminate knowledge, and increase museum attendance.

c) The Digital Museum

As seen in how much of the technology of the past half-century have already been replaced by digital communication, the result of growing technological advances and the museum's shift in emphasis to its audience members have made applications of technology integral to museum development. In the mid-nineties, the concept of the "information society" arose; government attention and public awareness of this idea led to expectations of information access to become the new norm. The top museums of the world were the first to answer this demand. One of the earliest, the Metropolitan Museum of Art on October 13th 1995, two years before Google was registered as a domain, managed to officially inaugurate its website so that users throughout the world can retrieve immediate and up-to-date information (8). In the years after the millenium, the sweeping development of museums across the world was to begin to gradually and systematically digitize its collection to make itself part of the information pool. In 1999, British Museum started to use software developed by System Simulation Ltd. Though technically its different departments did begin to digitize their disparate collections by piecemeal as early as the 1970s, it was after the millennium when the museum as a whole considered an integrated digital collection a core museum responsibility. Starting in 2004, the British Museum began to add digital image files to the collection database, and in 2007 it made the decision to place its database on the museum website (9). Elsewhere, the European Union started in 2008 to create an online portal, Europeana, which made all public domain masterpieces accessible (10). As of 2016, there are currently almost 50 million items on the portal. Similarly, Google, in 2011, launched the Google Art Project, which cooperated with 17 international museums to combine museum virtual tours with Google's Street View technology. Following the success of the Art Project, the Google Cultural Institute was established in the same year and has since collaborated with its partner museums to create digital exhibitions online every year. The proliferation of these digital platforms for art is, however, not without its critics.

In 2014, Mike Pepi, in a review of the Google Art Project titled, "Is a Museum a Database," seems to lament that the capabilities of multimedia has begun to slowly erode museum institutions and the transformation of its physical assets into its digital assets will somehow destabilize the institution. In his idea of the current state of museums, he perceives that digitization is not just a matter of organization, but it allows the encroachment of Silicon Valley tech logic and entrepreneurial paradigms, which have the potential to further divorce museums from their objects (11). However, it is too soon to clamor when a museum plans its exhibitions to accommodate instruments such as the Google Glass or virtual reality equipment, because these emerging technologies are still in the developmental phases and experimentation is necessary to refine its application before it can work seamlessly in the service of art objects. Meanwhile, digital resources have become an asset in itself, and the digital dimensions have irreversibly entered into the museum proper.

III. Digital Curation in National Museums

In recent years, museums of any renown have not just enriched their services and experimented with videos, sound effects, lighting, and other forms of media, but have been expanding and experimenting with its digital dimension.

a) The Louvre

The Louvre's website currently features a searchable collection database, a section on thematic selections, virtual gallery tours, and other multimedia features. The "Focus" module allows users to zoom in and out of 15 selected masterpieces. A series of instructional videos, titled "the Elements of Art" teaches art concepts with video demonstrations.

Starting from 2006 to the present, the Louvre collaborated with Dai Nippon Printing (DNP) to establish Louvre-DNP Museum Lab, which is responsible for creating most of the Louvre's multimedia services. Now, the collaboration is in the tenth year of its operation. In recent years, the Museum Lab has organized many new media art exhibitions in Paris and Tokyo. Aside from experimenting with new media display methods, Museum Lab has the two core principles of "changing our view" to "changing our viewpoint," which it tries to achieve with its website, workshops, and other programs.

For example, in 2012, the Museum Lab presented The Boy in Blue, Goya and Spanish Painting in the Louvre. This exhibition uses multimedia materials to allow visitors to approach the art work from the various perspectives of the collector, researcher, curator, artist, and public. Visitors also have the opportunity to create their own art in the exhibition space. A multimedia tour guide in the life sized form of the curator is available at the exhibition entrance to greet visitors and provide explanations in different language settings. Tangible user interface take it a step further by connection visitor behavior to relevant information; visitors can experience hand operated projection mapping, a technology combining 2D videos and 3D technology. At the same time, the lab space in Tokyo exhibited many of the Louvre's collection in multimedia forms. From 2011 onward, Museum Lab continued to use digital media to showcase its art and artifacts, alternately presenting new media installations and similar multimedia resources based on its different collection departments (12).

b) The British Museum

The British Museum began in 1979 to digitize its records in the Department of Ethnography. The first interactive databases were installed in 1988 and, since then, all new object have been added in the same way. As of the March update, there are currently 2,254,259 records in the database and new ones are being added every day. Information on the website published under the Creative Commons license is free for public use. An interactive feature on the website is the Portable Antiquities Scheme, which is a portal for members of the public to upload images of archaeological objects found in England and Wales.

The British Museum's main technological partner is Samsung. From 2009 to the present, they established the Samsung Digital Discovery Centre (SDDC) as part of the government effort to improve national digital illiteracy. SDDC proactively infuses digital applications into the museum's education and exhibition services. Not loath to devote high costs to purchase the most up to date digital learning resources, the centre boasts 30 of Samsungs newest tablet computers and 24 digital cameras. The children through using equipment provided by Samsung can learn about world cultures, from Buddhist statues to Egyptian hieroglyphics, from antique clocks to clothing. The collaboration with Samsung also allows the British Museum to become the leading museum in the UK in developing projects such as augmented reality mobile apps and dynamic workshops for children from ages three to eighteen. In addition to these services, the British museum plans to extend its digital resources to university staff training programs and introduce them to 3D printing, 3D animations, and augmented reality (13).

c) The Metropolitan Museum of Art

The Metropolitan Museum's digital department established an independent Media Lab with the purpose to create new museum experiences using emerging technologies. Invigorated by the creative tech communities in New York, the Media Lab shares the fruits of its labor with different curatorial departments in order to enhance museum services. The Media Lab's mission is to examine the relationship between technology and the humanities, covering topics such as: how does the technological applications in exhibition rooms impact visitor experience? how will creative technology affect artistic applications? how can digital tools assist cooperative learning? how to establish creative interactive communities for digital archives? how to transform existing resources into new media art? and how to promote progress in digital tools research? The digital department has a blog called the Digital Underground, which regularly shares insights on the museum's digital activities. The online collection database, as of March 2016, has 424,726 records.

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Based on its digital collection, the Heilbrunn Timeline of Art History is a wonderful example of curating data in the digital dimension. The timeline places essays and items from the collection on a chronological timeline to tell the story of art and global culture. Over 900,000 volumes in the Thomas J. Watson Library collection has also been digitized and placed on the website (14).

IV. Digital Applications in the National Palace Museum

The National Palace Museum houses over seventy thousand items of accumulated treasures from different royal dynastic collections in Chinese history, with historical documents, maps, and artifacts from the Qing dynasty making up the majority. Over the years, the NPM has held true to its responsibility of ensuring the collection's safety, undergoing research, planning exhibitions, promoting education outreach and academic exchange, and servicing visitors. Since the establishment of the National Palace Museum in 1965, the museum has used traditional methods of preservation, exhibition curation, and museum merchandising. Its catalogues and publications were entirely in paper form. Starting in 1996, the National Palace Museum began to change under the pressures of a society slowly transformed by digital technology. In that year, following the Department of Rare Books and Historical Document's publication of the Grand Council Archives, a monumental project which took 20 years to complete, the NPM decided to incorporate digital photography and computer technology into its archival methods. To save the original paper documents from further deterioration, the NPM began to digitize the nineteen hundred thousand documents in the Military Affairs Department: Monthly Memoranda collection. This digitization project plan, named "Historical Document CD Production Project Plan," began officially in 1997 to transfer all the images in the Military Affair Department Document card catalogue collection into a digital archive. This endeavor was the start of the NPM's digital collection.

In 2002, the National Palace Museum proactively took part in the National Digital Archives Project organized by the Executive Yuan. The Department of Rare Books and Historical Documents, the Department of Antiquities, the Department of Painting and Calligraphy, the Department of Registration and Conservation, and the Department of Education, Exhibition, and Information Services all joined the effort, split up into seven subordinate projects to establish twenty one different databases. Allowing the NPM to maximize the use and potential of its collection, digitization across departments immensely improved the quality of the museum's collection management, artifact preservation, exhibition curation, education promotion, research publication, digital application, merchandising, and public services. Because the National Digital Archives Project was almost exactly synchronous with the technological trends that arose at the turn of the millennium in Europe and America, the National Palace Museum has managed to remain up to date in the digital age. Since the implementation of the National Digital Archives Project, the NPM's videos, interactive installations, and metadata technological standards have all been developed in accordance with international museum data industry standards.

To this day, the National Palace Museum has been continuously updating its technology and digital resources and has accumulated over 10 years of experience using digital technology. In these ten years, the NPM's digitization efforts were sponsored by three government funds: Digital Museum Project, National Digital Archives Project, and National Digital Archives and Digital Learning Project. The National Digital Archives Project reached official completion in 2012, by which time, technology had already firmly taken root in the museum's infrastructure, making the NPM capable and ready to adapt in the fast-paced digital age. In the years since 2012, the National Palace Museum has been working on the NPM Initiative to Promote Digitization Services Project and the NPM 4G Mobile Museum Project.

a) *NPM Initiative to Promote Digitization Services*

In 2014, products of this initiative include Diplomatic Credentials Failed to Deliver mobile applications, Diplomatic Credentials Failed to Deliver Documentary, iPalace Channel test run, Rural Education Development Project, etc. "The National Palace Museum iPalace Channel" is the National Palace Museum's cloud multimedia platform. It is the biggest and most influential project under the initiative. Having both English and Chinese versions, it contains a collection of 31 multimedia works and a wide range of digital learning resources carefully produced by the National Palace Museum. From the iPalace Channel's induction in early 2014 to the present time, the NPM has organized many educational outreach activities and continuing education programs based on the resources in this channel. Starting in 2014, the NPM began a trial operation by teaching its lesson plans based on the iPalace Channel to 10 primary and secondary schools in educational priority areas.

A total of 613 students participated, aboriginal students accounting for 15.4 %, new immigrant children 14.7 % , Taiwanese students 66.3%, Hakka students 3.6 % of the total. In 2015, the NPM extended its educational outreach operations to 21 schools (19 rural, 2 educational priority). A total of 537 students participated, aboriginal students accounting for 41% of the total, marking a significant improvement. Due to the positive reception of the trial and the first phase, the NPM continued to the second phase, this time covering

23 schools. The second phase combines the resources of the iPalace Channel, the NPM Permanent Exhibitions APP, iPads, 3D printing, virtual reality, and other new technology into a "Digital Learning Experience Program."

b) NPM 4G Mobile Museum

Answering the government's push for developing open content as a way to enrich community resources, the NPM 4G Mobile Museum project is the crucial next step for the National Digital Archives Project. The NPM 4G Mobile Museum Project works to accelerate the incorporation of mobile broadband services and mobile industry standards, by producing digital content and creative applications from the museum collection, maximizing the museum's value, and increasing the museum's 4G services. In 2015, the core principle for digital development is "to make the NPM a portable, zero-distance learning resource to the world with cloud platform technology." Under the NPM 4G Mobile Museum Project were four subordinate project plans:

i. *Developing Innovative 4G Applications*

The NPM experimented with 4G mobile technology, wearable smart-technology accessories, iBeacon, and augmented reality to create mobile tour guide service applications. A Creative Mobile Applications Competition, in which industry, public, academic, and technological institutions were invited to develop applications from the museum collection, was also held to encourage involvement of creative talent in the local communities (15).

ii. *Creating Innovative 4G Content*

The NPM produced two films in 4K resolution: Documenting Victory in Etching, a film about the history of Victory in the Pacification of the Dzungars and Muslims, a series of copperplate prints drafted by Giuseppe Castiglione (1688-1766); and Adventures of the Mythical Creatures at the National Palace Museum, a 3D animation film based on animals in Castiglione's paintings. In addition to these newly produced 4K films, the NPM also uploaded 39 4G compatible videos, added 180 4G compatible entries to the NPM Selections Website, and created 27 exhibition theme sites (16).

iii. *Establishing an Open Data Platform*

In mid-October 2015, the NPM Open Data Platform officially launched online. The old interface had been completely redesigned. For the first time, artifact images and information are available for download for free. Exhibition packages, containing information on individual exhibitions, were also available for download. The platform uses user-friendly functions such as search queries organized by period, artifact type, or keywords (17).

Table 1 : Digital Applications in 2015.Source：National Palace Museum 2015 Internal Annual Report

Digital Application	No.
4G Creative Mobile Applications Development	1
4G Creative Mobile Applications Competition	1
4G Film in 4K Resolution	2
4G Compatible NPM Selections entries	180
4GCompatible Exhibition Theme Sites	197
4GCompatible Videos	39
4G Innovative Applications Lab	1
4GNew Media Art Exhibitions	2

iv. *Developing New Media Art Exhibitions*

In 2015, the NPM collaborated with Tainan Ten Drum Cultural Creative Group in the "Qianlong C.H.A.O. New Media Art Exhibition." In the main branch in Taipei, the NPM produced "Giuseppe Castiglione: Lang Shining New Media Art Exhibition," which, due to its success, later opened and exhibited at the Basilica of Santa Croce in Milan, Italy. Finally, in collaboration of Taiwan Power Company, the NPM opened "National Treasures for FUN New Media Art Exhibition" at Pingtung county in Southern Taiwan (18).

V. Giuseppe Castiglione: Lang Shining New Media Art Exhibition

a) Art and Cultural Exchange

This exhibition centers on the court painter, Giuseppe Castiglione (1688-1766), a painter-missionary whose intercultural exchanges at the Qing court in the seventeenth century evoke the spirit of our current age.

Between the sixteenth and seventeenth centuries, Jesuit missionaries committed themselves to visual art and architecture as ways to spread the Catholic faith. Born in Milan, Italy, Giuseppe Castiglione studied oil painting at the professional workshop of Filippo Abiati and joined the Society of Jesus in Genoa at the age of 19. In 1715, Castiglione traveled to Beijing, China, and, under the recommendation of Matteo Ripa, a fellow painter-missionary, established himself as a professional painter at the Qing court. There, by the name Lang Shi-ning, he served for fifty one years under the consecutive reigns of emperors Kangxi (1661-1722), Yongzheng (1722-1735), and Qianlong (1735-1796). His stay allowed for significant cultural exchange between East and West. While he toned down his painting tendency towards high drama and stark contrast between light and dark inherited from his professional training during the Baroque period to suit the tastes of Chinese emperors, his works inaugurated a new age in the history of Chinese court painting.

In 2015, “The Giuseppe Castiglione—Lang Shining New Media Art Exhibition,” opened in two locations: National Palace Museum in Taipei, Taiwan, from October 18th 2015 and the Basilica of Santa Croce, Florence, Italy, from October 31, 2015. A third location at the City University of Hong Kong is currently in the planning stages and the exhibition there is scheduled to begin around mid April of 2016.

The National Palace Museum in order to keep cultural art and artifacts apace the digital age has brought his works to the digital world in a way that mingles the real with the virtual. The "Giuseppe Castiglione--Lang Shining New Media Art Exhibition" is in tune with the current state of art museums as that which extends beyond the physical exhibition space. Originally, this new media art exhibition was designed as a multimedia companion to “Portrayals of a Brush Divine,” an exhibition of Castiglione’s paintings housed at the NPM in Taipei. However, this new media art exhibition has since evolved into the role of cultural ambassador. Three hundred years after Castiglione’s coming to China, using digital media, the NPM is finally able to bring his work back to his homeland and to other countries, which otherwise would not have had the chance to enjoy his art.

b) New Media Art Technology

The design of this exhibition takes into account the changes of people’s perception habits brought about by the digital age, in which people increasingly rely on hand held devices to navigate the world. It assumes audiences are moderately familiar with technology but accommodates those less technologically savvy with traditional supplementary exhibition materials. The main body of exhibited materials were a combination of digital replicas of Castiglione’s paintings and a total of ten new media art installations, plus one 4K resolution animation produced for this exhibition.

Virtual Guides and Mobile Application are accessible from 3D animations of Emperor Qianlong and a seventeenth century nun displayed on either side of the exhibition entrance. The two figures direct visitors to scan the QR codes for the Chinese and English versions of the exhibition mobile application. The mobile application combines QR code, 4G LTE, iBeacon, and augmented reality technology to add interactive features to the physical tour.

Castiglione’s Road to China contains a timeline of Castiglione’s life. Controlled using a touch screen, the installation contains video clips introducing Castiglione’s birthplace, his time at Genoa and Coimbra, his journey from Lisbon to China, and finally his time in Beijing.

A Peacock Made of Light is based on the painting Peacock Spreading its Tail Feathers (1758). The concept behind its creation is transparenspective, which is a synesthetic play on the traditional notion of combining the play of light and shadow to work with perspective. The centerpiece is the peacock model, which is a light sculpture made of multiple optoelectronic materials used to modulate light transmission and imaging. Audio surround sound plays traditional Chinese music, baroque music, and soft ambient music. The lighting and projected scenery in the background simulates the alternation between night and day.

Explore the Flora and Fauna of Castiglione is a linear wall navigator in which viewers can explore a virtual landscape populated with plants and animals from Castiglione’s many paintings. Visitors can explore the landscape by rolling a display screen along rails mounted on the wall. To find out the source of a particular landscape feature, visitors only need to pause and the original painting will pop up.

Let’s Paint One Hundred Horses is geared towards younger audiences who may not be able to grasp or be engaged by facts and dates. Let’s Paint One Hundred Horses allows visitors to color the horses from Castiglione’s painting on tablet computers and upload the finished image on to the complete painting projected in the exhibition room.

Castiglione’s Virtual Flowers are two augmented reality installations that bring to life Castiglione’s still-life masterpieces Gathering of Auspicious Signs (1723) and Vase of Flowers(1723). Viewers look through a digital tablet and Castiglione’s flowers will appear as 3D holograms on the pedestal.

A Tour of the Imperial Garden installation is based on Immortal Blossoms of the Everlasting Spring (1723-25). It is composed of four interspersed light columns made out of LED light boxes. The lighting and sound effects also simulates the alternation between night and day. The screens on the columns display flowers from Immortal Blossoms and are able to zoom in and out to create the illusion of walking into the picture plane.

The Chime Clock is modeled on “Clock in the form of a Birdcage.” The work is inspired by the concept of the passage of time and employs the technology of projection mapping, power generating machine, and adjustable electric window tint film to create succession of seasons and years.

Creating Golden Pheasant in Springs is one of many of Castiglione’s paintings painted in collaboration with other painters. To make good use of this concept, this installation allows users to take pictures with the installed iPad and upload their photos to the system, which will then use each photo as a color block and organize it into Castiglione’s painting.

Smart Glasses Guides were used for the first time in “Giuseppe Castiglione: Lang Shining New Media Art Exhibition.” The Smart Glasses Guide is composed of a display glass and a headphone set. Users, when looking at the exhibited items, will see the related supplementary information appear automatically on the display glass while the companion auditory information will play simultaneously on the headphones.

Adventures of the Mythical Creatures in the National Palace Museum is National Palace Museum's first 4K resolution animation. This animation film creates a fantasy story around Castiglione's painting Ten Fine Hounds. These ten hounds, once prized tributes to the emperor, along with other creatures featured in Castiglione's paintings must gather to save a friend, the roe deer.

c) *Exhibition Evaluation*

The evaluation for this exhibition was conducted through the exhibition mobile application. The period in which the data was gathered for this study was from 10/08/2015 to 01/04/2016 at the Taipei location. A total of 189 people partook in the APP questionnaire in this time frame. Normally, visitors who are willing to fill out surveys without the lure of giveaways and presents already prove their level of loyalty. The collection method for this questionnaire was also completely passive as there was no marketing and solicitation for participation, therefore the study is completely neutral and reliable.

Table 2 : Visitor Demographics

By Sex		
Sex	No.	Percentage
Male	70	39.11%
Female	109	60.89%
Total	179	

By Age		
Age Range	No.	Percentage
Under 20	22	12.29%
20-30	33	18.44%
31-50	80	44.69%
51-70	42	23.46%
Over 70	2	1.12%
Total	179	

In this exhibition, there were more female than male visitors. Female visitors occupied 60.89%, male visitors 39.11%. The highest visiting age group was from 31-50 years old, making up 44.69% of the total.

Table 3 : Visitor Frequency

Frequency	No.	Percentage
Not often	48	26.82
Occasionally	43	24.02
First time	32	17.88
Frequently （more than twice a year）	56	31.28
Total	179	

Table 4 : Visitor Feedback

Total	179	
Overall Satisfaction		
Rating	No.	Percentage
Very unsatisfactory	2	1.12
Unsatisfactory	21	11.73
Satisfactory	112	62.57
Very satisfactory	44	24.58
Total	179	

Out of the questionnaire results, 55.31% of the visitors visit the National Palace Museum more than twice a year, falling under the general high frequency visiting group. Out of all the women between the ages 31-50, 65.31% visit often, which is approximately 10% more than the general high frequency visiting group. From an analysis of visitors' feedback regarding exhibition content, collection content, display methods, exhibition layout and flow, the satisfaction rating was 80.45%. When asked how satisfied they were of the exhibition's overall design, 24.58% were highly satisfied, 62.57% were satisfied; together the total is 87.15%.These results show the exhibition's popularity with the public.

VI. Conclusion

This evaluation of the National Palace Museum's most recent new media art exhibition, Giuseppe Castiglione: Lang Shining New Media Art Exhibition, shows that the museum digital applications successfully serves its community. High satisfaction ratings show that the public is receptive and making use of the NPM's different attempts to incorporate other forms of media displays alongside its art and artifacts. Seen in context with a summary of digital applications in other world museums, this paper means to show the NPM's digital progress and achievements in recent years have remained apace with world-wide technological trends.

References Références Referencias

1. Ruby, J. (1996). Visual Anthropology. In D. Levinson (Ed.), Encyclopedia of cultural anthropology (Vol. 4, pp. 1345-51). New York: Henry Holt and Company, p. 1347.
2. Griffiths, A. (2002). Wondrous difference: Cinema, anthropology, and turn-of-the-century visual culture. New York: Columbia University Press, p.329.
3. Griffiths, A. (2008). Shivers down your spine cinema, museums, and the immersive view. New York: Columbia University Press, p. 235.
4. Mayo, S. (2008). The Prelude to the Millennium: The Backstory Of Digital Aesthetics. The Journal Of Aesthetic Education, 42(1), 101.

5. Mayo, S. (2008). The Prelude to the Millennium: The Backstory Of Digital Aesthetics. The Journal Of Aesthetic Education, 42(1), p. 101.
6. Stow, A. (2011) Digitisation of Museum Collections. A Worthwhile Effort? Retrieved From: https://gupea.-ub.gu.se/bitstream/2077/26817/1/gupea_2077_26817_1.pdf
7. Smithsonian Institution. (2002, October). 21st century roles of national museums: A conversation in progress. Washington, DC: Smithsonian Institution. Retrieved from http://www.si.edu/-Content/opanda/-docs/Rpts2002/02.10.21stCenturyRole.Final.pdf
8. The Metropolitan Museum of Art. (1995) Metropolitan museum to inaugurate internet homepage on world wide web[Press release]. Retrieved From: http://libmma.contentdm.oclc.org/-cdm/ref/collection/p16028coll12/id/11107
9. The British Museum Official Website. (n.d.). Retrieved from: http://www.britishmuseum.org/-research/search_the_collection_database/about_the_database/history_of_the_project.aspx
10. Stow, A. (2011) Digitisation of Museum Collections. A Worthwhile Effort? Retrieved From: https://gupea.-ub.gu.se/bitstream/2077/26817/1/gupea_2077_26817_1.pdf
11. Pepi, M. (2014, December). Is a museum a database?: Institutional conditions in net utopia. E-flux Journal. Retrieved from http://www.e-flux.-com/journal/is-a-museum-a-database-institutional-conditions-in-net-utopia/
12. Louvre Museum Official Website. (n.d.). Retrieved from http://www.louvre.fr/en
13. The British Museum Official Website. (n.d.). Retrieved from http://www.britishmuseum.org/
14. The Metropolitan Museum of Art Official Website. (n.d.) Retrieved from http://www.metmuseum.org/
15. The National Palace Museum. (2015) The National Palace Museum 2015 Annual Report (Unpublished).
16. The National Palace Museum. (2015) The National Palace Museum 2015 Annual Report (Unpublished).
17. The National Palace Museum. (2015) The National Palace Museum 2015 Annual Report (Unpublished).
18. The National Palace Museum. (2015) The National Palace Museum 2015 Annual Report (Unpublished).

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Hierarchical and Non-Hierarchical Linear and Non-Linear Clustering Methods to "Shakespeare-De Vere Authorship Question"

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Abstract- In my previous article entitled, "Hierarchical and Non-Hierarchical Linear and Non-Linear Clustering Methods to "Shakespeare Authorship Question" I used Mean Proximity, as a linear hierarchical clustering method and Principal Components Analysis, as a non-hierarchical linear clustering method, Self-Organizing Map U-matrix and Voronoi Map, as non-linear clustering methods to examine various works and plays assumed to have been written by Shakespeare and Sir Francis Bacon, Christopher Marlowe, John Fletcher, and Thomas Kyd to determine which of them wrote some of Shakespeare's disputed plays based on similarities in the use of function words, word-bi grams, and character-tri grams. The article showed that Shakespeare is not the author of all the disputed plays traditionally attributed to him according to the validated cluster analytic results and the stylistic criteria used.

Keywords: stylometry, authorship, term frequency. inverse document frequency, kernel k-means, voronoi, mds, visual clustering assessment tendency.

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HIERARCHICALANDNONHIERARCHICALLINEARANDNONLINEARCLUSTERINGMETHODSTOSHAKESPEAREDEVEREAUTHORSHIPQUESTION

Strictly as per the compliance and regulations of:

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Refat Aljumily

Abstract- In my previous article entitled, "Hierarchical and Non-Hierarchical Linear and Non-Linear Clustering Methods to "Shakespeare Authorship Question" I used Mean Proximity, as a linear hierarchical clustering method and Principal Components Analysis, as a non-hierarchical linear clustering method, Self-Organizing Map U-matrix and Voronoi Map, as non-linear clustering methods to examine various works and plays assumed to have been written by Shakespeare and Sir Francis Bacon, Christopher Marlowe, John Fletcher, and Thomas Kyd to determine which of them wrote some of Shakespeare's disputed plays based on similarities in the use of function words, word-bi grams, and character-tri grams. The article showed that Shakespeare is not the author of all the disputed plays traditionally attributed to him according to the validated cluster analytic results and the stylistic criteria used. The article also indicated that the author did not consider it fair to include Edward de Vere(the strongest candidate in the Shakespeare authorship debate) and compare his poemsto Shakespeare's disputed plays because poetry tends to have a particular style and a different structure than plays, and additional test was promised. The present article provides that test.

In this article, I examined the 154 sonnets traditionally attributed to Shakespeare and 38 surviving poems attributed to Edward de Vere. The purpose is to give a hypothesis whether de Vere has an identifiable self-similarity and a measure of how far from/similar to Shakespeare based on the use of function words, word bi-grams, character bi-grams, and character tri-grams applying four different clustering methods: four hierarchical linear methods using Euclidean distance (Single, Average, Complete, and Ward), non-hierarchical linear multidimensional Scaling (MDS), and Kernel K-means clustering and Voronoi mapas non-linear methods. The cophenetic correlation coefficient is used to select the best result obtained from a set of hierarchical analyses applied on the data matrices. The best hierarchical result is then compared to the other three clustering methods applied on the same data matrices. The aim of which is to further validate the results and to draw firm conclusions from the data about the Shakespeare and Edward de Vere authorship debate. Term Frequency. Inverse Document Frequency (TF.IDF)is used to select the most important variables responsible for the clustering results. Oxfordians, supporters of De Vere's case, believe that Edward de Vere, Seventeenth Earl of Oxford, wrote the plays and poems traditionally attributed to Shakespeare. This, however, is not the case. The study results show that Shakespeare and De Vere are not similar in using function words, word bi-grams, character bi-grams, and character tri-grams, that is, Shakespeare is with entirely different stylistic idiosyncrasies from de Vere. The Oxfordian theory of Shakespeare authorship is incorrect and de Vere candidacy is therefore rejected.

Keywords: stylometry, authorship, term frequency. inverse document frequency, kernel k-means, voronoi, mds, visual clustering assessment tendency.

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I. Introduction

The Oxfordian theory of Shakespeare authorship holds that Edward De Vere, the 17th Earl of Oxford, wrote the plays and verses *claimed to have been authored by Shakespeare.* Many Oxfordians believe that de Vere wrote Shakespeare's plays and sonnets under the pseudonym of Shakespeare. Edward de Vere was born in 1550 to the Earl of Oxford. John de Vere. Edward de Vere was learned at Queen's College and Saint John's College Cambridge and also studied law at Gray's Inn. At a young age, de Vere travelled around Europe, visiting France, Germany, and Italy. Oxfordians take these travels as evidence of de Vere's possibility for writing Shakespeare's plays and poems since the works traditionally attributed to Shakespeare contain a knowledge of geography, foreign language, politics, and immense vocabulary that many find inconsistent with what is known about Shakespeare's education. The Oxfordian theory is based on two types of argument: (i) circumstantial historical evidence and (ii) qualitative stylistic criteria. The circumstantial historical evidence for de Vere's authorship of the Shakespeare works rests largely on biographical information and correspondences between incidents and circumstances in Oxford's life and events in Shakespeare's plays, sonnets, and verses, and these are based on at least four major reasons. One is essentially that de Vere was highly educated to write plays and poems, was trained as a lawyer, was known to have traveled to many of the exact places featured in Shakespeare's plays, was known to have a similar life to many of the major events and to the actions of the characters in Shakespeare's plays, and was given a great amount of literary praise, though only a few number of his poems survive. This makes him a strong candidate for authorship of the Shakespeare works, but logically does no more than that. As for the qualitative stylistic criteria, most Oxfordians believe that Edward De Vere's poetry has

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many stylistic similarities to the plays and poems traditionally attributed to Shakespeare. These stylistic criteria include verbal parallels, phrases, images, associations and similarities of word and phrase expressing similar thoughts, which are not repeated by other poets of Shakespeare's time. But there is some evidence against the Oxfordian authorship theory. For one thing, some of Shakespeare major works were written after de Vere died in 1604. For another, Tudor Aristocrats had no need to write under nom de plumes. A standard line for why de Vere used the nom de plume of Shakespeare was to avoid breaking an aristocratic convention not to write. Unfortunately we now know that aristocrats such as de Vere did publish and without fear of breaking convention. It appears that this convention was weakly enforced and that aristocratic publishing was frowned upon rather than punished, this convention weakening entirely in Elizabethan times to which Edward De Vere belonged. However, recent studies, advanced by The Shakespeare Clinic-Claremont-McKenna College), found little match between Edward De Vere's poetry and William Shakespeare's. There are many detailed and brief overviews of the Oxfordian case and these are available in, e.g., Anderson (2005) and Farina (2006).

a) Authorship attribution and Stylometry

Stylometry—measurement of aspects of style--is a small but a growing field of research that integrates literary stylistics, linguistic stylistics, statistics and computer science in the study of writing styles. The purpose of such a field is genre classification, historical study of language change, literary analysis, forensic linguistics, and authorship attribution. The fast growing areas of stylometry assist in processing the amount of data in various forms, where traditional methods fail due to sparse and noisy data. The focus here is on authorship attribution, authorship attribution is the problem of identifying the authorship of given texts (anonymous, disputed, written under a pseudonym) based on authorial characteristics that are not known to the authors themselves. The style of a text is typically based on a lot of features from different areas: content or theme, genre, structure, authors, to name a few. In the context of authorship attribution, stylometry assumes that the essence of an author style can be identified based on a number of quantitative stylistic criteria, called style discriminators. Obviously, one part of an author's writing style is conscious, deliberate, and open to imitation or borrowing by others. These features are unable to distinguish authors writing in the same genre, similar topics and periods.The other is sub-conscious, that is, independent of an author's direct control, and far less open to imitation or borrowing. Stylometry focuses on the unconscious part of an author's writing style and assumes that these are able to distinguish authors writing in the same genre, similar topics and periods so that the quantitative analytical methods are not influenced by differences in genre or style which changes with time (Holmes, 1998).

b) Stylometric features

Generally, there are three types of linguistic features that can be used for attributional stylometry: syntactical, lexical, and structural features. Syntactical features, for example, include frequency of re-write rules, parts of speech, distribution of phrase structures, frequency of syntactic parallelism, etc. Lexical features, for example, include word or sentence length, frequencies of letter pairs, distribution of words of a given length in letters or syllables, frequency of words (function and content words), vocabulary richness (type-token ratio, Simpson's index, Yule's K, etc. Structural features, for example, include, number of words, sentences, or paragraph per text. Since lexical features are easy to compute, extract, and interpret, they play the most important role in attributional stylometry. Many different types of lexical features have been considered as possible style markers for different authorship problems. However, based on the evaluation studies that experimentally examined the usefulness of different stylometric features for attributing authorship, e.g. (Eder, 2011; Grieve, 2007 and Argamon & Levitan, 2005), the preponderance of evidence suggests that the most consistently effective features over a wide variety of authorship attribution problems are function words, word-n grams, and character n-grams, and for this reason, these are used here.

i. *Function words*

Ideally, any stylometric analysis would include varieties of syntactic usage as criteria. Where parsed corpora are unavailable, however, function words often mark syntactic usage indirectly. There are distinct categories of function words for grammatical use and their presence indicates particular constructions. Examples, i.e. use of relativizers as indicator of dependent clauses and thus of degree of syntactic complexity, prepositional phrases as opposed to possessives ('the road's end' / 'the end of the road') etc. Function words (prepositions, pronouns, conjunctions, particles, etc) appear in most if not all texts written by a given author, regardless of topic. Since usage is independent of topic, function words are likely to indicate authorship as opposed to other characteristics.

ii. *Word n-grams*

A word n-gram is defined as a sequence of words, where each n-gram is composed of n words: for example, the sentence "it is a new nice car", which consists of 6 words, consists of 5 bi-grams "it-is" "is-a" "a-new" "new-nice" "nice-car" and 4 word tri-grams "it-is-a" "is-a-new" "a-new-nice" "new-nice-car"), and so on; in general, a text that contains x words will contain x - (n - 1) word n-gram tokens The relative frequency of word n-gram tokens are calculated by dividing the frequency of a given word n-gram token, e.g. 4-gram, in a text by the total number of 4-gram word tokens. Wordn-grams help to capture all possible n-word combinations used to complete sentences in a given text. Segmentation of a text into a bag of n-word combinations give new hints or clues to identify the style of an individual author.

iii. *Character n-grams*

A character n-gram is defined as a string of contiguous alphanumeric symbols, perhaps including also punctuation symbols. For example, the clause 'the child laughed', which consists of 15 letters, consists of 15 1-gram tokens (T, H, E, C, H, I, L, D, L, A, U, G, H, E, D), 14 2-gram tokens (TH, HE, EC, CH, HI, IL, LD, DL, LA, AU, UG, GH, HE, ED), 13 3-gram tokens (THE, HEC, ECH, CHI, HIL, ILD, LDL, DLA, LAU, AUG, UGH, GHE, HED) and so on; in general, a text that contains *x* characters will contain *x* - (*n* - 1) n-gram tokens. The relative frequency of n-gram tokens are calculated by dividing the frequency of a given n-gram token, e.g. 3-gram, in a text by the total number of 3-gram tokens. Naturally, some will argue that character n-grams are letters. Of course, they function as letters in a given word. Yet they are quite basic elements to distinguish between authors since they capture all possible 2-3 character combinations occurring in words in a given text. This approach represents an author's stylistic choice of vocabularieswhich can capture n-character combinations used by author.

c) *Stylometric Methods*

Historically, attribution methods used in authorship attribution were statistical univariate methods measuring a single textual feature, for example word length, sentence length, frequencies of letter *n*-grams, and distribution of words of a given length in syllables. Common univariate methods are T-test, which compares the averages of two samples and Z-score, which calculates the mean occurrence and the standard deviation of a particular feature and compares it within the normal distribution table. These univariate methods were used to analyze texts in terms of a single stylometric criterion or two and the results derived from them are therefore described as a simple form of statistical analysis. Other examples of the univariate approach are those based in Bayesian probability and cumulative sums. (Holmes, 1998)

Today, univariate methods are far less popular in the domain of authorship attribution than they once were. Their limitation is self-evident and has been noted by numerous authors (e.g. Grieve, 2005, Holmes, 1994) except perhaps in very special cases, authorial style is a combination or more or less numerous characteristics, but univariate analysis permits investigation of only one characteristic as a time, and results for different characteristics are not always or even usually compatible, and the consequence is unclear overall results.

More recently, therefore, multivariate methods have increasingly been used, e.g. (Aljumily, 2015A, 2015B; Khandelwal et al, 2015; Forsyth, 2007; Juola, 2006).These are essentially variations on a theme: cluster analysis. Cluster analysis aims to detect and graphically to reveal structures or patterns in the distribution of data items, variables or texts, in *n*-dimensional space, where *n* is the number of variables used to describe an author's style. Cluster analysis methods are proven to be the best performing methods in authorship attribution: works by the same author can be grouped according to their genre or writing styles and authors can be distinguished from one another: the work x of author A can be different from or similar to his/her work y or work z, and the work of author A can be distinguished from the work of author B or author C or disputed work(s) (D, E, F, etc).(Moisl, 2015; Everitt et al., 2001)

After selecting the stylistic feature, we represent a text as a numerical vector $X= (x_1,\ldots., x_i, \ldots\ldots x_n)$, where n is the number of stylistic features and x_i is the relative frequency of feature *i* in the text. Once labeled texts have been represented mathematically in this way, we applied four different clustering methods to group the texts into similar or dissimilar clusters.

a. *Hierarchical clustering*

Hierarchical clustering is characterized by a tree-like structure called a cluster hierarchy or dendrogram. Most hierarchical methods fall into a category called agglomerative clustering. In this category, clusters are consecutively formed from vectors on the basis of the smallest distance measure of all the pairwise distance between the vectors. Let $X=\{x_1, x_2, x_3,\ldots,x_n\}$ be the set of vectors. We begin with each vector representing an individual cluster. We then sequentially merge these clusters according to their similarity. First, we search for the two most similar clusters, that is, those with the nearest distance between them and merge them to form a new cluster in the dendrogram or hierarchy. In the next step, we merge another pair of clusters and link it to a higher level of the hierarchy, and so on until all the vectors are in one cluster. This allows a hierarchy of clusters to be constructed from the left to right or the bottom to top. The proximity between two vector profiles is calculated as the Euclidean distance between the two profiles taken on by the two vectors. Euclidean distance is the actual geometric distance between vectors in the space and Euclidean distance is the square root of the sum of the squared differences in the variables' values. This is expressed by the function:

$$d_{Euclid\ (BC)}=\sqrt{\left(X_{B-X_C}\right)^2+\left(Y_{B-Y_C}\right)^2}$$

b. MDS

Multidimensional Scaling (MDS) is a dimensionality reduction method which can be used for clustering if the data dimensionality is reduced to three or less. MDS preserves the proximities among pairs of objects on the basis that the proximity is an indicator of the relative similarities or dissimilarities among the physical objects which the data represents, and therefore of information contained in: if a low-dimensional representation of the proximities can be built, then the representation preserves the information contained in the original data. Given an $m \times m$ proximity matrix P derived from an $m \times n$ data matrix D using one of the linear distance metrics, MDS finds an $m \times k$ reduced-dimensionality representation of D, where k is a user-specified parameter. MDS is not a single method but family variants. (Moisl, 2015; Lee & Verleysen, 2007; Borg & Groenen, 2005). Given an $m \times n$ data matrix D, therefore, the first step is to measure the $m \times m$ Euclidean distance matrix E for D. A simplified view of how the method works is as follows:

- We find mean-centre E by calculating the mean value for each row Ei (*for* $i = 1...n$) and subtracting the mean from each value in Ei.
- We calculate an $m \times m$ matrix S each of whose values Si, j is the inner product of rows Ei and Ej, where the inner product is the sum of the product of the corresponding elements as described earlier in the discussion of vector space basis and the T superscript denotes transposition:

$$S_{i,j} = \sum_{k=1...m}(E_{i,k}, \times E^T_{j,k})$$

- We calculate the eigenvectors and eigenvalues $E1$ $E2$ of S, as discussed above.
- We use the eigenvalues to find the number of eigenvectors K $(k_1, k_2, k_3......k_n)$ worth keeping.
- We project the original data matrix D into the reduced k-dimensional space:

$$D^T{}_{reduced} = E^T{}_{reduced} \text{x } D\ matrix^T$$

c. Kernel K-means

This method works well when the function that generates data is nonlinear. Kernel K-means projects vectors in input space to a higher dimensional feature space by using a nonlinear transformation Ø. This gives a linear separator in the dimensional feature space that will act as a nonlinear separator in input space. Let $X=\{x_1, x_2, x_3, \ldots, x_n\}$ be the set of vectors and 'C' be the number of clusters.

- We randomly initialize 'C' cluster center. We then calculate the distance of each vector and the cluster centre in the transformed feature space using the following objective function:

$$D(\{\Pi_c\}_{c=1}^{k}) = \sum_{c=1}^{k} \sum_{xi\ \epsilon\ \Pi c} \|\emptyset(X_i) - \mu_c\|^2$$

Where:

$$\mu_c = \frac{\sum_{X_i \epsilon \Pi_c} \quad \emptyset(X_i)}{\Pi_c}$$

Where

C^{th} cluster is denoted Π_C.

μc denotes the mean of the cluster ΠC.

Ø (x_i) denotes the vector (x_i) in transformed feature space.

- We assign vector to that cluster centre whose distance is minimized.
- We repeat from step (2) until all vectors are reassigned.

(More detailed information, together with mathematical equations and codes can be found in, e,g., Blondel, 2016; Chitta, 2013; Rogers and Girolam, 2011)

d. Voronoi Map

Voronoi map is a nonlinear clustering method used to partition a manifold into regions or cells based on distance to vectors in a specific subset of the manifold surface. These regions are called cells which surround each vector. The partition of a manifold surface into areas surrounding vectors is a tessellation. Each cell contains all vectors that are closer to its defining vector than to any other vector in the set. Subsequently, the boundaries between the cells are equidistant between the defining vectors of adjacent cells. That is, the neighborhood of a given vector in a Voronoi tessellation is defined as the set of vectors closer to its defining vector than to any other vector in the set. The set of neighborhoods defined by the Voronoi tessellation is known as the manifold's topology (Moisl, 2015).Let X be a metric space with distance d. Let K be a set of indices (whose members label members of another set) and let (P_k) $k\ \epsilon\ k$ be a cell in the space X. The Voronoi cell R_k related to the cell P_k is the set of all vectors in X whose distance to P_k is not bigger than their distance to the other cells P_j, where j is any index different from k. That is, if d(x, Z) = inf {d(x,z) | zϵZ} denotes the distance between the point x and the subset Z, then:

$$Rk=\{x\ \epsilon X \mid d(x,Yk) \leq d(x,Pj) \text{for all } j \neq k\}$$

The Voronoi map is simply the tuple of cells (Rk) k ϵ k.

The application of Voronoi map on a given data matrix is a three-stage process. The first step is the construction of a 2-dimensional Voronoi plot for a set of vectors in a data matrix. The second is the construction of Delaunay Triangulation (Voronoi map) on the same 2 dimensional plot. The third step is the computation of the Voronoi map to obtain a 2-dimensional topology of the Voronoi map for the set of vectors in a data.

e. Data and preprocessing

We collected 193 electronic raw texts representing all the (154) known sonnets of Shakespeare, taken from The Project Gutenberg EBook of Shakespeare's Sonnets, by William Shakespeare, and some (38) surviving poems available in the public domain that are widely agreed to be written by Edward de Vere, taken from Literature online http://literature.proquest.com/searchFulltext.do?id=Z200338111&childSectionId=Z200338111&divLevel=2&queryId=2911490928155&trailId=15256B22E85&area=poetry&forward=textsFT&queryType=findWork). We converted the texts into ASCII.txt.doc format, and removed anything that isn't body text (e.g. headings, numbers, section headings, titles, etc). Some texts were really short, containing less than 20 lines. Such texts were impossible to cluster. Thus, we decided to adjust test text sizes and make them of comparable length. For each author, we aggregated every 3 or 4 works into one independent text file which should be analyzed. We had 49 text files as a test set, 30 text files for Shakespeare named ShSo1-4 to ShSo49-154, and 19 text files for de Vere, named deVere1 to deVere19. These texts are shown in Table/1.

Table 1 : 49 text files representing Shakespeare 154 sonnets and de Vere's 38 poems

deVere1	ShSo29-32
deVere2	ShSo33-36
deVere3	ShSo37-40
deVere4	ShSo41-44
deVere5	ShSo45-48
deVere6	ShSo49-53
deVere7	ShSo54-58
deVere8	ShSo59-63
deVere9	ShSo64-68
deVere10	ShSo69-73
deVere11	ShSo74-78
deVere12	ShSo79-82
deVere13	ShSo83-86
deVere14	ShSo87-91
deVere15	ShSo92-96
deVere16	ShSo97-103
deVere17	ShSo104-109
deVere18	ShSo110-116
deVere19	ShSo117-127
ShSo1-4	ShSo128-134
ShSo5-8	ShSo135-140
ShSo9-12	ShSo141-149
ShSo13-15	ShSo150-154
ShSo16-19	
ShSo20-24	
ShSo25-28	

Finally, we tokenized (segmented) each input text.doc into a bag of words and then removed content words. Content words are the words which appear less frequently in text files but provide less information in identifying the important style features of each text file. After this preprocessing, each text file is represented by a variable vector of style features. These style features are variables that attempt to represent the data used for this authorship test. We generated a lexical frequency data matrix (D1) with 5081 lexical types, a lexical frequency data matrix(D2) with 4893 lexical types, and a lexical frequency data matrix(D3) with 4889 lexical types. We reduced the dimensionality of (D1, D2, and D3) to 100, 80, 80 respectively. In each of these data matrices, each text file is represented by text lexical type score. Then all text lexical type scores are ranked in descending order according to their scores. A set of the highest FW/W.bi-gram/Char.bi-tri-gram score text files are selected as text FW/W.bi-gram/Char.bi-tri-gram summary based on Variance Term Frequency. Inverse Document Frequency (VTF.IDF), in which:

- The variance for each column was calculated and saved as vector $v_{variance}$.
- The TF/IDF for each column was calculated and saved as vector $v_{tf/idf}$.
- The 49 vectors were then sorted in descending order of magnitude and plotted:

The first set consists of 100 function words and is shown in Figure/1.

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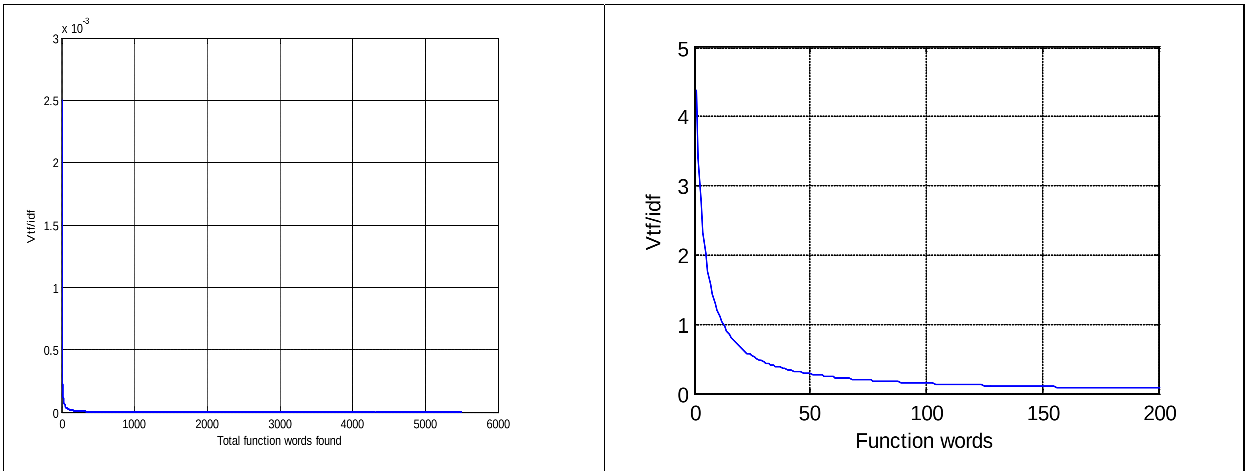
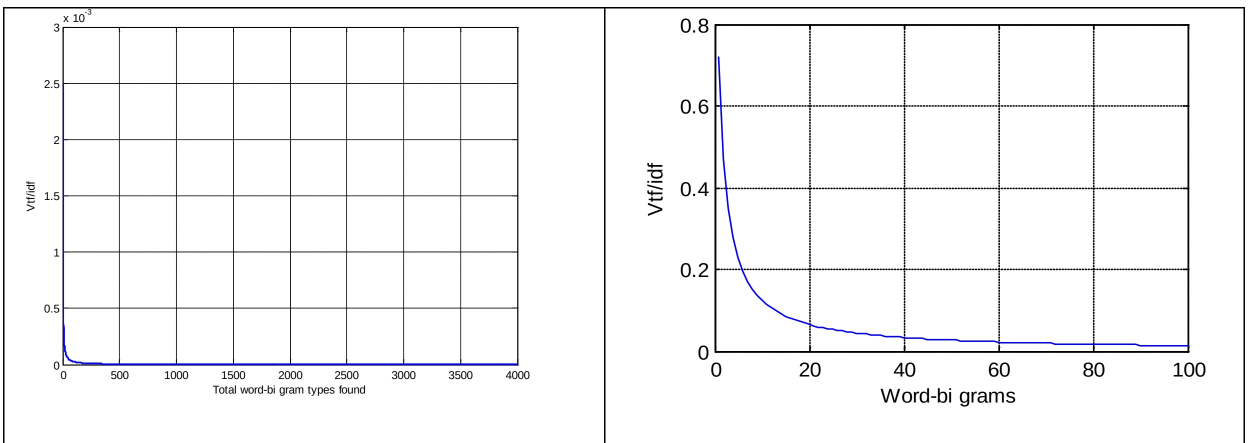


49 x5081(D1)	49x100(D1)

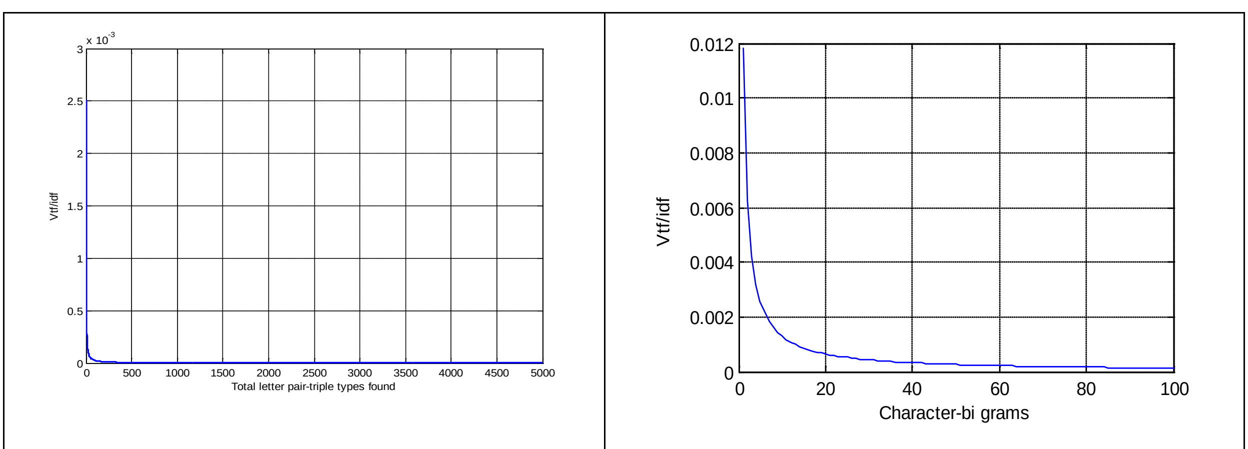
Figure 1 : The selection of FWs from D1

The second set consists of 80 word bi-grams and is shown in Figure/2.



49 x4893(D2)	49x80(D2)

Figure 2 : The selection of word bi-grams from D2



49 x4889(D3)	49x80(D3)

The third set consists of 80 word bi-grams and is shown in Figure/3.

Figure 3 : The selection of character bi/tri-grams from D3

Here, the intention was to determine which author uses a given 3-character combination based on his usage of all words in a data matrix, and, for this reason, content words were kept and not removed from this data matrix.

d) Analysis of D1, D2, D3

As described above, a variety of clustering methods are used to examine the three data matrices (D1, D2, D3) generated in Figures/1,2,3. For each data matrix, we run an assessment of clustering tendency test to examine the proximity matrix to determine whether or not a non-random structure actually exists in (D1, D2, D3) prior to applying four hierarchical clustering methods (average, Single, Ward, Complete). The cophentic is used to validate and select the most best hierarchical method. Then we applied MDS, Kernel K-means, and Voronoi, to examine (D1, D2, D3) and also to validate the clustering results. Specifically:

- Hierarchical clustering methods are all linear methods based on preservation of distance relations in data space, though they differ in how distance among clusters is defined.
- MDS is a linear method based on preservation of distance relations among objects in data space.
- Kernel K-means identifies nonlinearly separable clusters based on defining k centers, one for each cluster.
- Voronoi map is a nonlinear method based on dividing the space into cells, each of which consists of points closer to one particular object than to any others.

i. *FW analysis (D1)*

The hierarchical clustering analysis generated by Average linkage analysis seems to fit the data matrix (D1) more well than the clusterings produced by Single analysis, Complete analysis, Weighted average analysis, Ward analysis, and Median analysis, as shown in Table/2.

Table 2 : Cophenetic correlation coefficient for (D1) and for four hierarchical clustering analyses

Hierarchical clustering method	Cophenetic correlation coefficient
Single	0.7135
Complete	0.4893
Average	0.7794
Ward	0.684

Average linkage analysis is therefore selected: it defines the degree of closeness between any pair of subtrees (X, Y) as the mean of the distances between all ordered pairs of objects in X and Y: If X contains *x* objects and Y contains y objects, the distance is the mean of the sum of (X_i , Y_j), for $i = 1..x$, $j = 1..y$, as shown in Figure/4.

$$D_{avg}(A,B) = \frac{\sum_{1=1..m,\, j=1..n} d(a_i \in A, b_j \in B)}{m \times n}$$

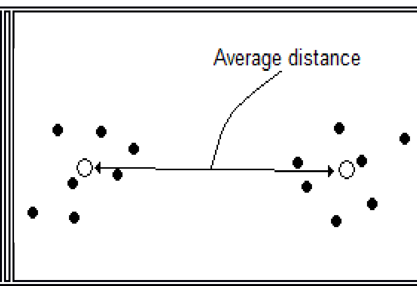
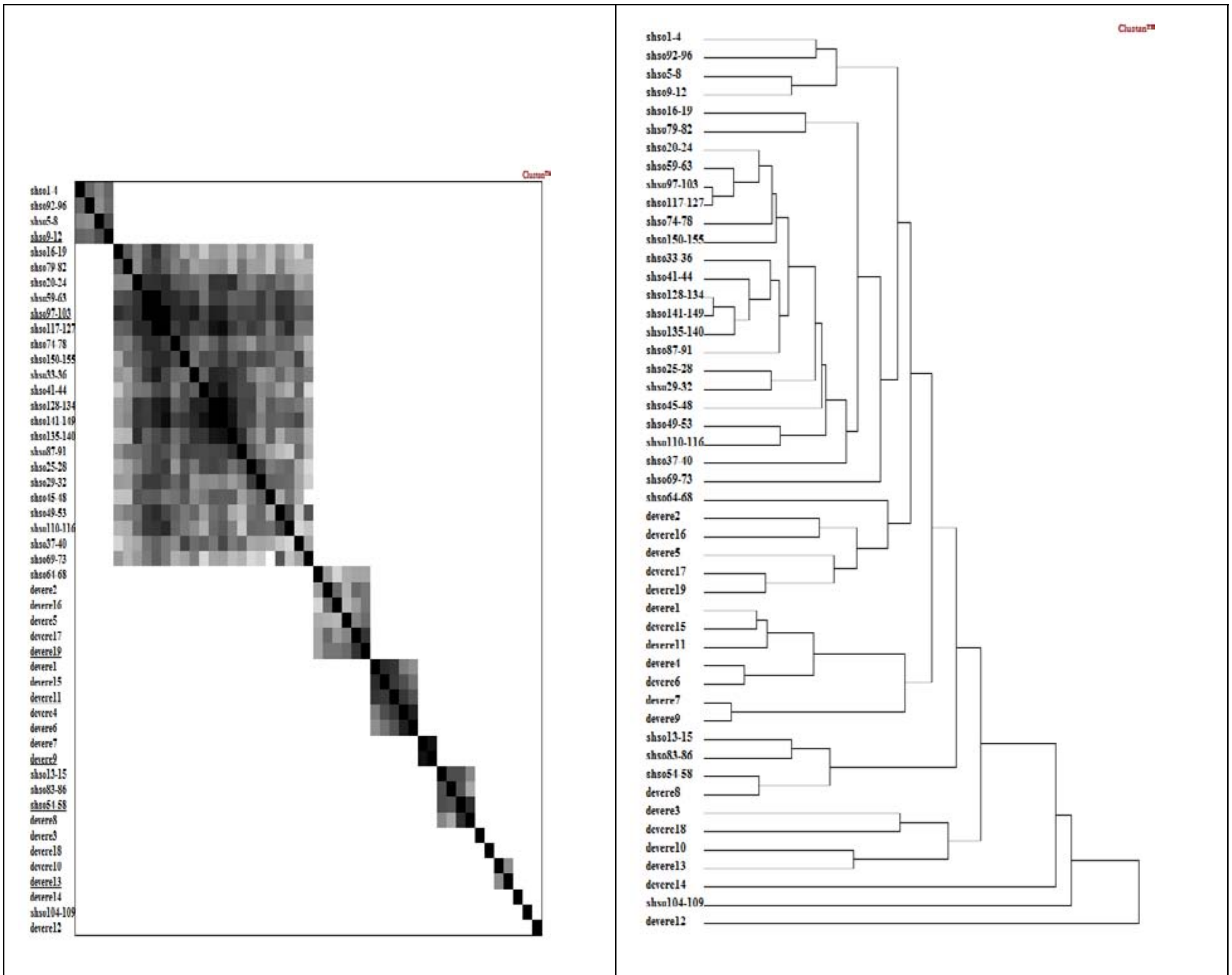


Figure 4 : Average linkage clustering

The result of the assessment of clustering tendency test indicates the presence of 12 well separated clusters in (D1), as shown in Figure/6 (left).



Visual Clustering Tendency for (D1)	Hierarchical average clustering(D1)

Figure 6 : Assessment of clustering tendency test (left) and average linkage clustering (right) D1

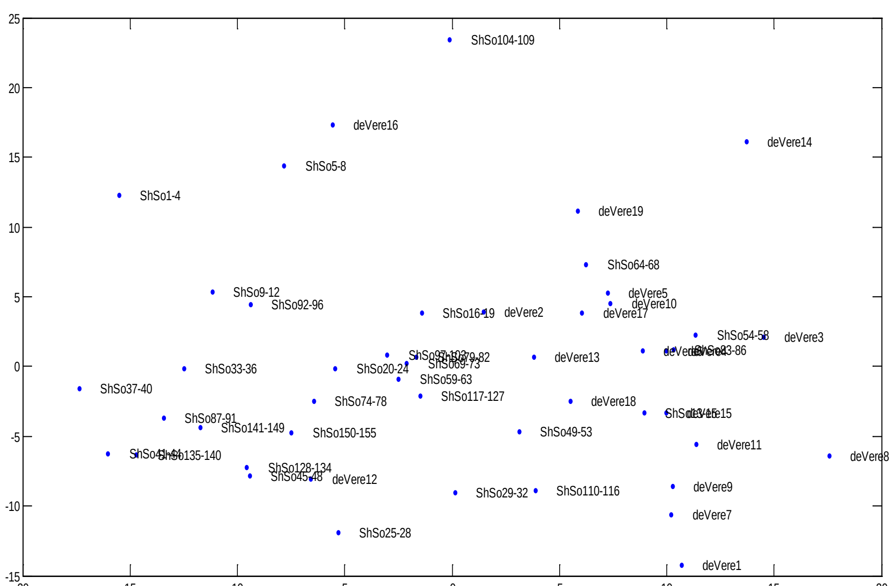


Figure 7 : MDS non-hierarchical linear clustering for D1

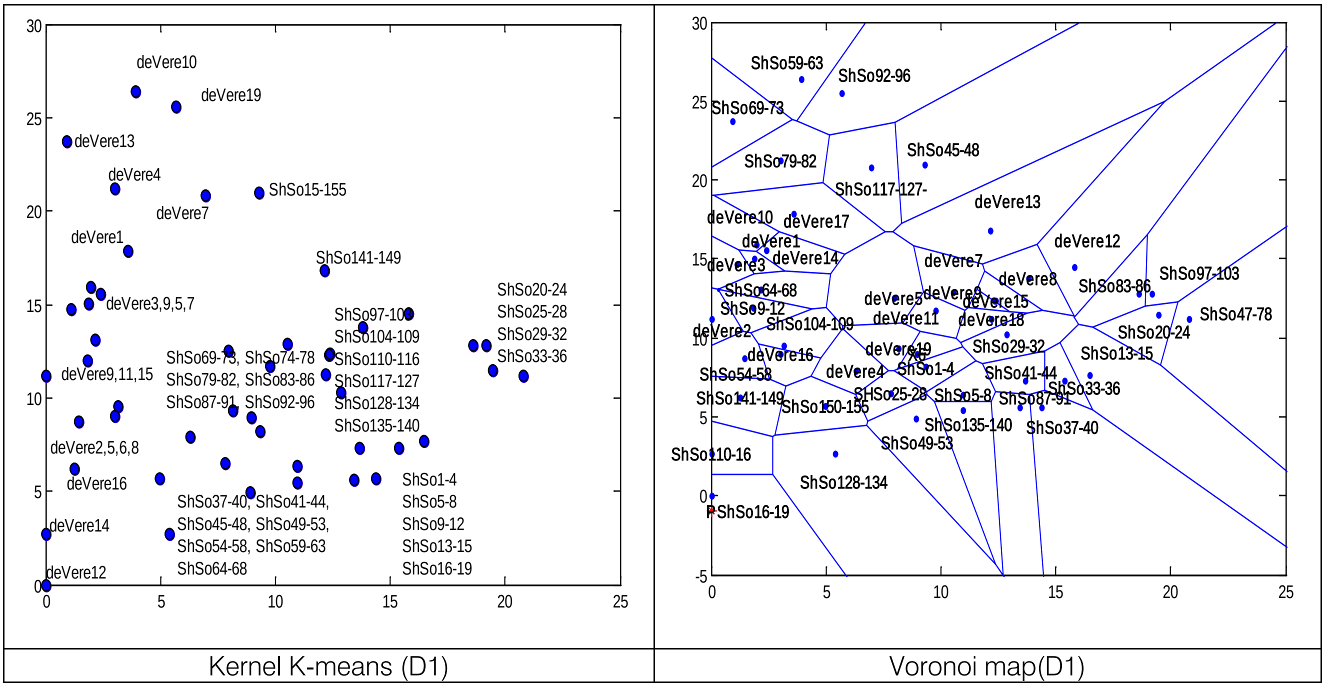


Figure 8 : Kernel K-means and Voronoi map non-linear clustering for D1

Examination of all the clustering methods applied to the function words matrix (D1) rows as shown in Figures/6, 7, 8 reveals a strong consistency in the way that the 49 text files are clustered in terms of their relative distance from one another. The analyses show that Shakespeare's texts are much more similar to each other than they are to de Vere's. Only few de Vere's works clump together with Shakespeare, e.g. de Vere19 and ShSo29-32 and deVere 19 and ShSo25-28 in MDS analysis in MDS, but this does not mean or indicate that de Vere wrote these works; it is just a similarity between the genre conventions or in the use ofthe same function words. To identify the function words in which they most differ, we compared the variable centroids of each column data matrix: for a given data matrix, we calculated each one of the columns by taking the centroid of variable values for the row vectors in each data matrix, and plotted the results. A variable with a larger amount of variability in its centroid than the other variables in (D1) is taken to be the most important discriminator between Shakespeare and de Vere because there is much change in the values of that variable throughout text file row vectors. Ten of the function words (in, to, by, with, shall, and, not, from, yet, for) are looked at and selected for the current purpose. They showed the most variation among them, the other 90 function words showed the least variation among them. The centroids for Shakespeare and de Vere tested in D1 are first calculated and the results are plotted on the same 2-Ds, so it is immediately apparent which function words are relatively rare or frequent in which authors as shown in Figure/9.

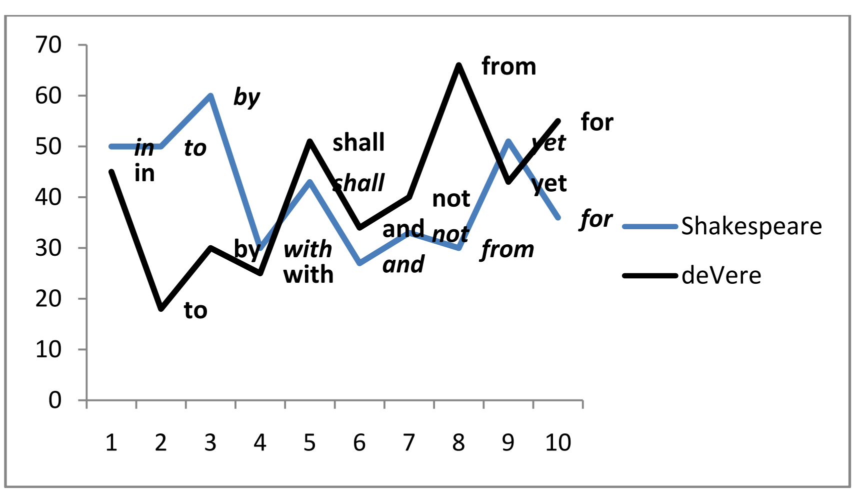


Figure 9 : Shakespeare's usage of a set 10 function words vs de Vere's

As can been seenin Figure/9, the variation between Shakespeare and de Vere, in the use of function words for the selected set of function words, is appreciably greater than the variation within them. These function words distinguished the works of the two authors very well and on the basis of function words comparison, we assume mathematically-based characteristics of the writing style of Shakespeare and de Vere. Shakespeare tends to use 'to', 'by', 'shall', 'and', 'not', 'from', 'yet', and 'for' more than does de Vere, who seems to use a lot more 'from' and 'for'. The other 2 function words 'in' and 'with' seem almost frequent for the two authors. In summary, the use of function words is significantly different between Shakespeare and de Vere.

The hierarchical clustering analysis generated by Average linkage analysis seems to fit the data matrix (D2) more well than the clusterings produced by Single analysis, Complete analysis, Weighted average analysis, Ward analysis, and Median analysis, as shown in Table/3.

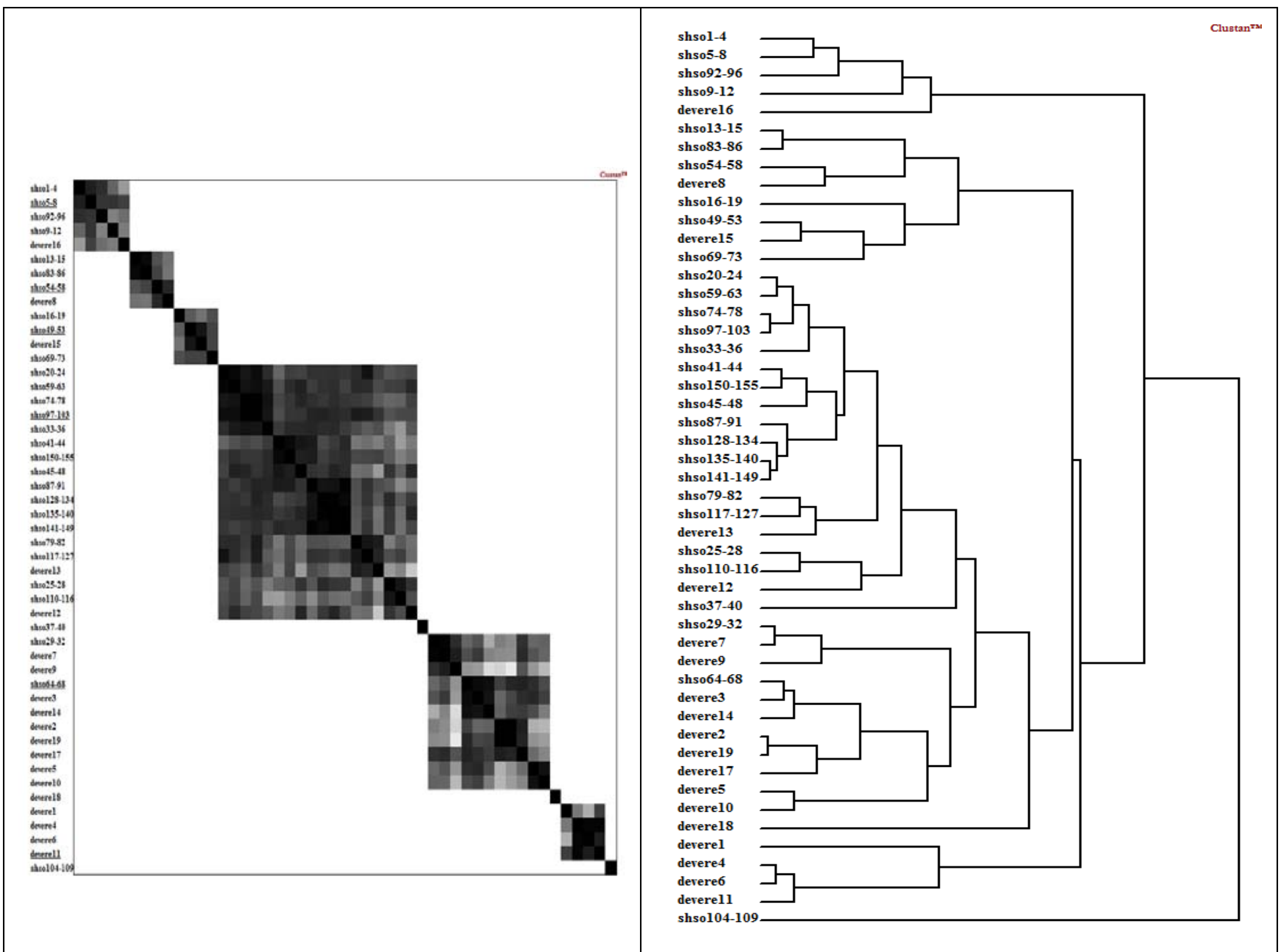
Table 3 : Cophenetic correlation coefficient for (D2) and for four hierarchical clustering analyses

Hierarchical clustering method	Cophenetic correlation coefficient
Single	0.7105
Complete	0.7893
Average	0.8724
Ward	0.633

ii. *Word bi-grams analysis (D2)*

Average linkage analysis is selected and the analysis is shown in Figure/10.

The result of the assessment of clustering tendency test indicates the presence of 9 well separated clusters in (D2), as shown in Figure/10 (left).



Visual Clustering Tendency for (D2)	Hierarchical average clustering(D2)

Figure 10 : Assessment of clustering tendency test (left) and average linkage clustering (right) D1

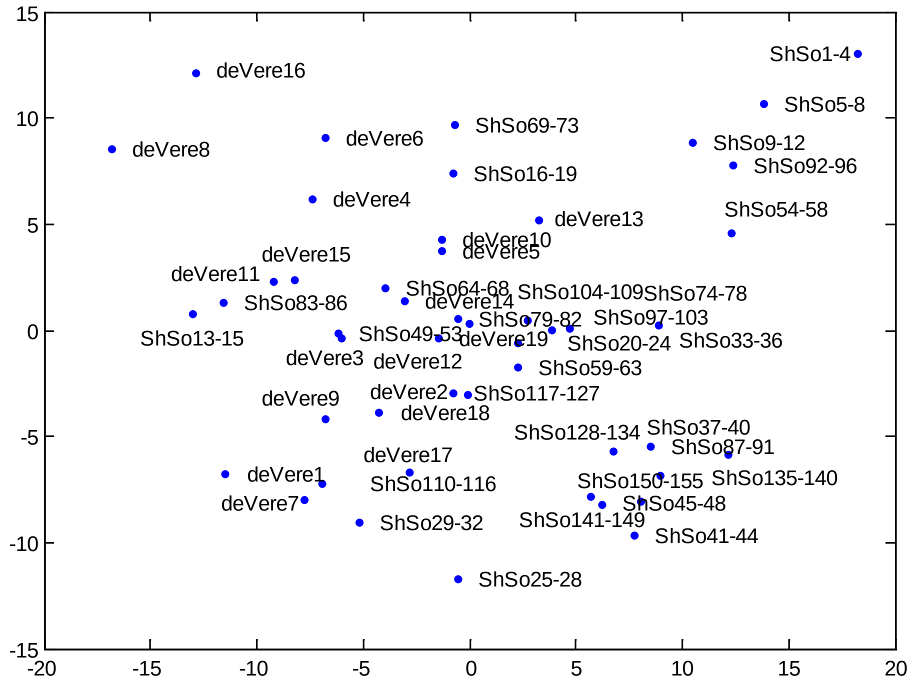
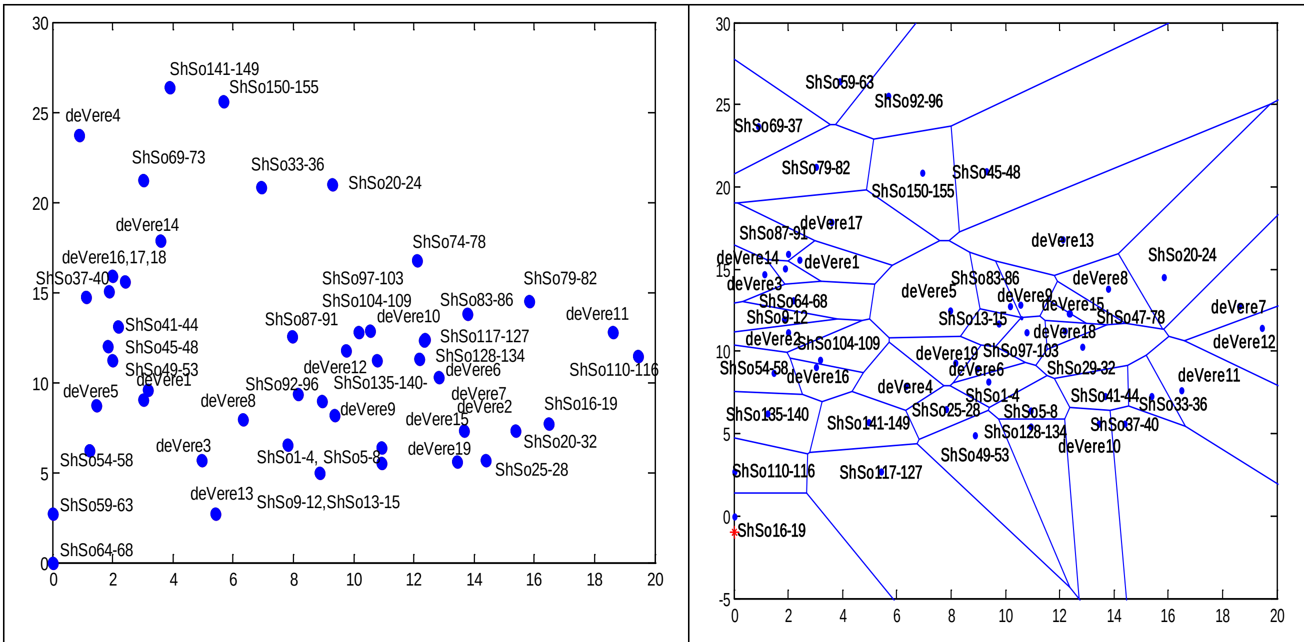


Figure 11 : MDS of D2



Kernel K-means (D2)	Voronoi map(D2)

Figure 12 : Kernel K-means and Voronoi map non-linear clustering for D2

As can be seen in Figures/ 10, 11, 12, the four clustering analyses distinguish Shakespeare's from de Vere's texts, except that few texts (e.g. de Vere 16, de Vere8, de Vere 15, and de Vere7) are clustered with the Shakespeare texts or Shakespeare's text ShSo64-68 is clustered closer to de Vere's texts in the hierarchical analysis. As previously said, this does not mean that de Vere wrote these works, but as a similarity between the genre conventions and in using the same set of bi-gram words. The 10 most distinctive word bi-grams 'that I', 'in my', 'to be', 'of my', 'not to', 'and shall', 'on me', 'me no', 'for to', 'of his' that determine the clustering results are selected from D2 on basis of the Centroid analysis and the amount variation among them. They are plotted using centroid line graph as before. The graph for our comparison is shown Figure/13.

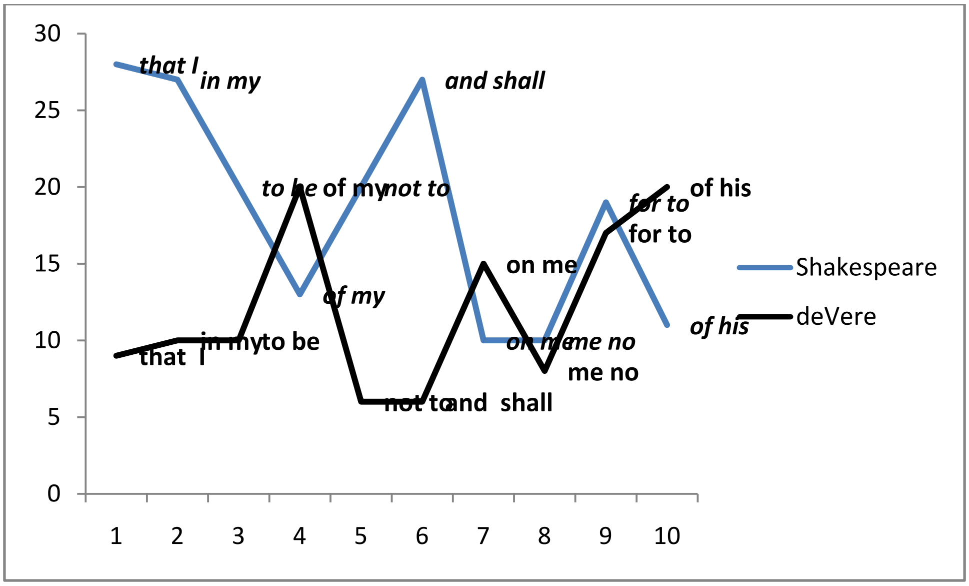


Figure 13 : Shakespeare's usage of a set 10 word bi-grams vs de Vere's

From this plot graph it is clear that the frequencies of the 10 word bi-grams selected from D2 very distinctly separate the writing style of these two authors. Three words 'to be', 'me no', and 'for to' are more frequent in all of the texts by the two authors. 'that I', 'in my', 'of my', 'and shall', and 'on me' are more frequent in the texts by Shakespeare than in those by de Vere. The two word bi-grams 'not to' and 'of his'are more frequent in the texts by de Vere than in those by Shakespeare. In summary, we clearly see that Shakespeare and de Vere have a significantly different writing style when it comes to word bi-grams.

iii. *Character tri-grams analysis (D3)*

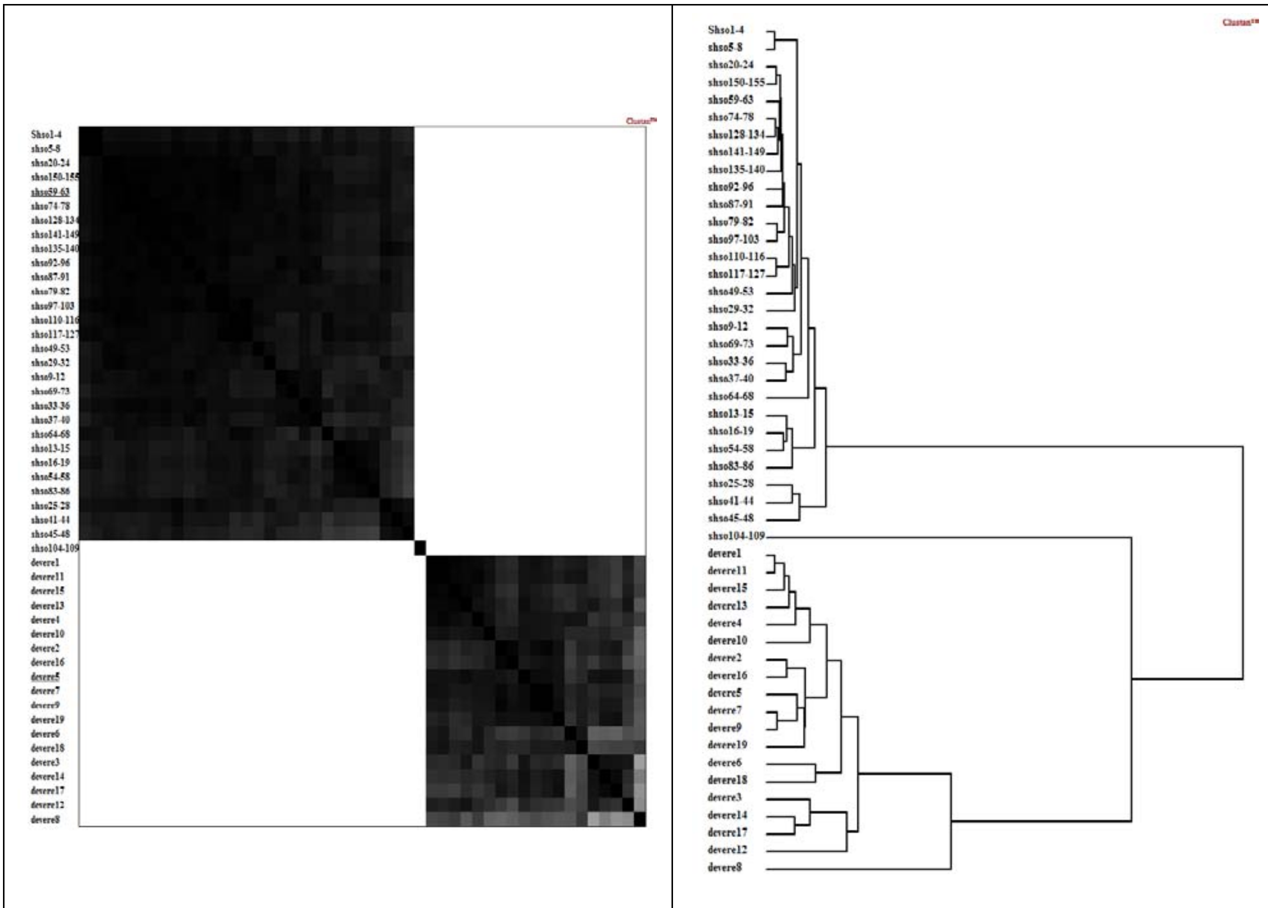
The hierarchical clustering analysis generated by Average linkage analysis seems to fit the data matrix (D3) more well than the clusterings produced by Single analysis, Complete analysis, Weighted average analysis, Ward analysis, and Median analysis, as shown in Table/4.

Table 4 : Cophenetic correlation coefficient for (D3) and for four hierarchical clustering analyses

Hierarchical clustering method	Cophenetic correlation coefficient
Single	0.7100
Complete	0.7992
Average	0.8824
Ward	0.656

Average linkage analysis is selected and the analysis is shown in Figure/10.

The result of the assessment of clustering tendency test indicates the presence of 3 well separated clusters in (D3), as shown in Figure/14 (left).



Visual Clustering Tendency for (D3) | Hierarchical average clustering(D3)

Figure 14 : Assessment of clustering tendency test (left) and average linkage clustering (right) D3

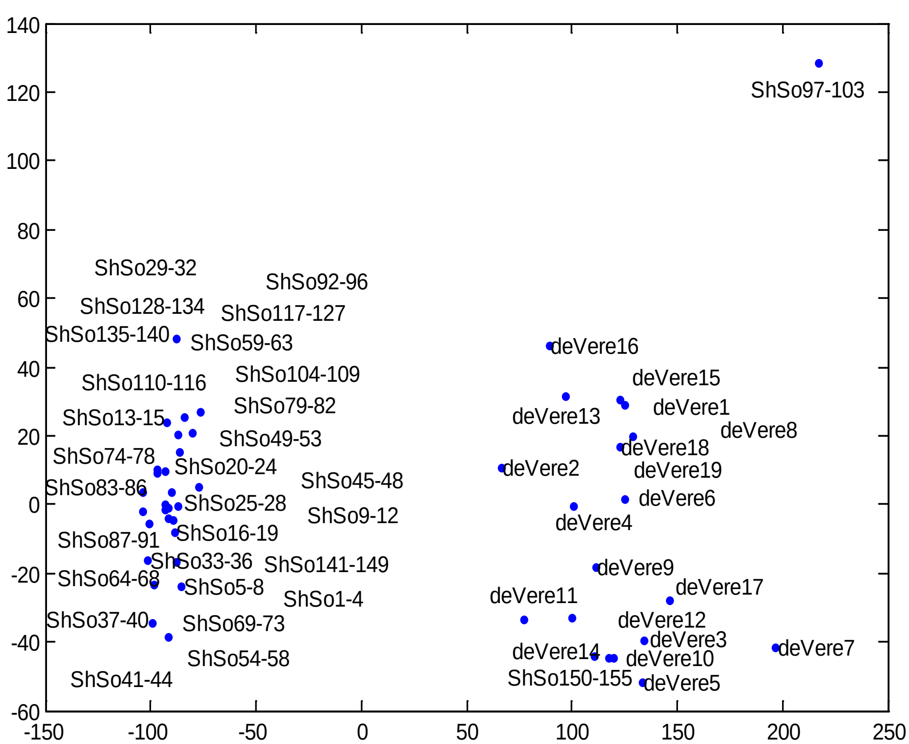


Figure 15 : MDS of D3

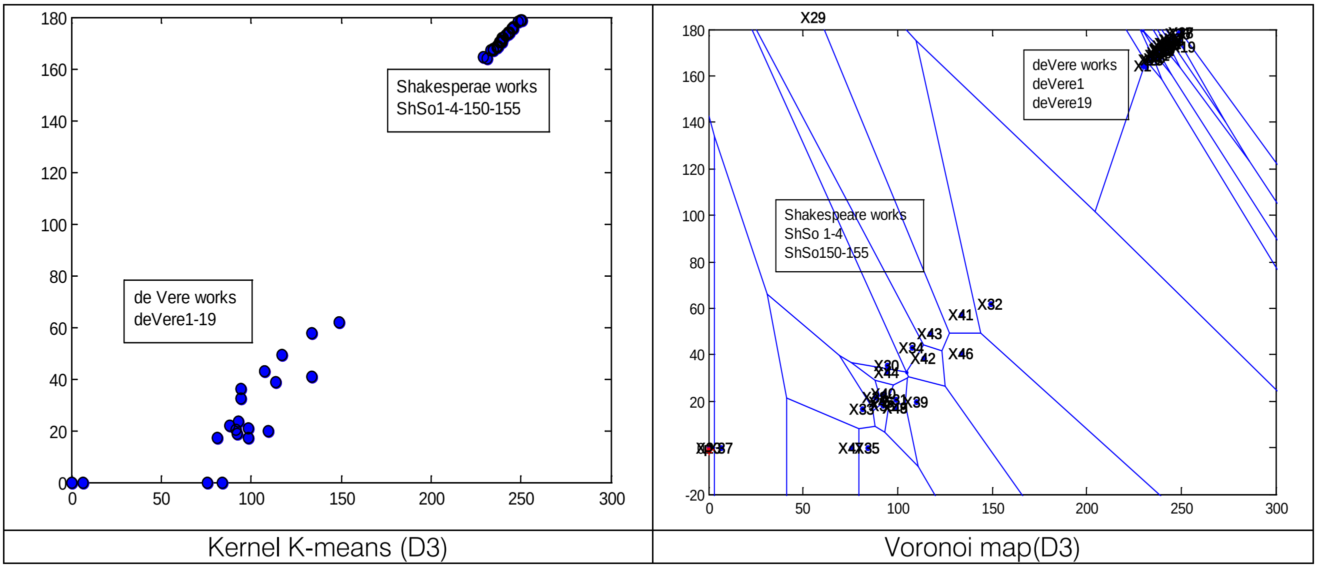


Figure 16 : Kernel K-means and Voronoi map non-linear clustering for D3

Inspection of Figures/ 14,15,16 shows a close match between the results from different clustering methods. Specifically, there is a strong degree of correspondence between the clusters generated by the analyses based on the frequencies of all 80 character tri-grams. All the clustering methods well separated the 49 text files into two distinct clusters, one for de Vere's works and the other to Shakespeare's works. There is no need to say any more, the whole picture is clear.

As above, we selected the 10 character tri-grams 'oth', 'thy', 'ove', 'sha', 'hou', 'hee', 'fai', 'eet', 'hat', and 'uty' most important in distinguishing the Shakespeare works from de Vere's worksbased on the Centroid analysis and the amount variation among them. They are plotted using centroid line graph as before. The graph for our comparison is shown Figure/17.

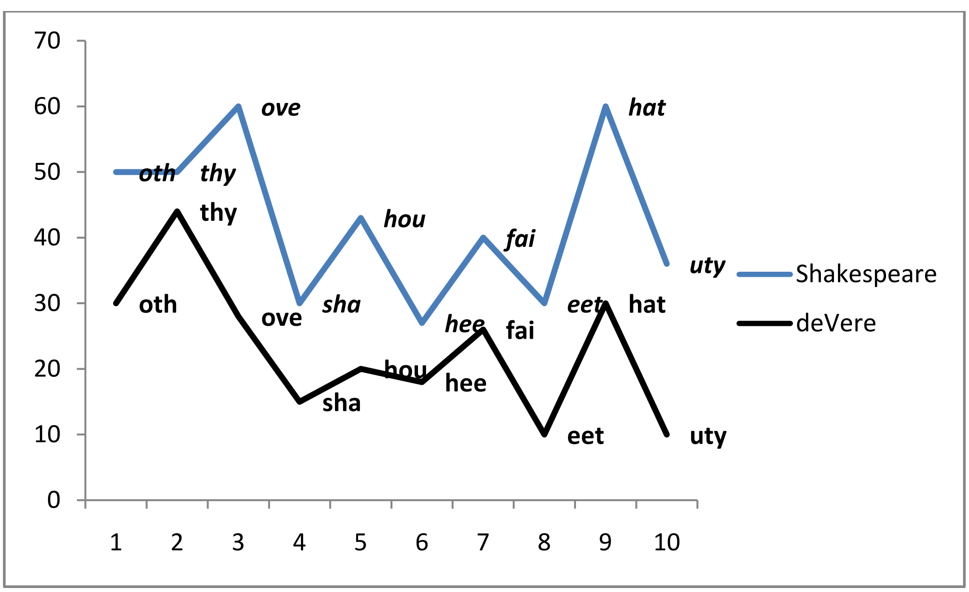


Figure 17 : Shakespeare's usage of a set 10 character tri-grams vs de Vere's

As can be noted, the use of a set of character tri-grams is extremely differentiated Shakespeare's writing style from de Vere. Character tri-grams captured some of the style features used by de Vere and Shakespeare such as suffixes, prepositions, and other frequent features in a natural way without unnecessary complex textual processing.

II. Conclusions

Was Edward de Vere, The Earl of Oxford, the true author of Shakespeare's works?

To answer this question, we conducted a stylometric experiment using hierarchical clustering, MDS, Kernel K-means, and Voronoi mapto cluster analyse a selection of texts in poetry traditionally attributed to Shakespeare and de Vere on the basis of function word, word bi-gram, and character tri-gram frequencies found in them, the aim of which was to find evidence about whether the writing style of Shakespeare's works and de Vere's works are similar to one another, and also to identify the main determinants for that similarity or dissimilarity between different clusters of text files. We constructed three data matrices (D1, D2, D3) and pre-processed them using a range of quantitative tools prior to the actual analysis. We also validated the data through Visual Assessment of Tendency (VAT), and the analyses were validated using Cophenetic Correlation Coefficient Measurement. However, the answer was NO. The function word, word bi-gram, and character n-gram frequency profiles for Shakespeare texts are compared to those of de Vere texts using centroid analysis. Edward de Vere's writing style differs from the Shakespeare profiles on all 4 analyses. Based on this result, it appears strongly improbable that the works traditionally attributed to Shakespeare were written by de Vere. We are very suspect that Edward de Vere did in fact write any of Shakespeare's works. However, because the focus was exclusively on function words, word bi-grams, and character tri-grams and exploratory clustering methods, the study does not claim to have said the last word on this debate, nor to have solved Shakespeare-de Vere authorship question. But, in short, the current research leads the author to believe that de Vere's works will always be different from Shakespeare's works no matter how many text samples we take and what types of methods or stylistic criteria we use to examine this question This is not an easy claim to make, but the writing style of the two authors is clearly and completely very different. Nevertheless, further research on Shakespeare-de Vere authorship debate using different style features and analytic methods should be conducted to expand and support these results further. Finally, given the results, the study concludes that cluster analysis is very effective in attributing authorship and that character n-grams are important feature for author style detection; they can identify authors with a high degree of accuracy.

III. Acknowledgments

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Conflicts of Interest

The author declares no conflict of interest.

References Références Referencias

1. Borg, I. and Groenen, P.J.F. (2005). *Modern multidimensional scaling.* 2nd edition. New York: Springer.
2. Brain Everitt, Sabine Landau, and Morven Leese. (2001). *Cluster Analysis*. 4th edition. Arnold: London.
3. Radha Chitta. (2013). Partitional Algorithms to Detect Complex Clusters. retrieved on 22 Feb. 2016 from: http://www.cse.msu.edu.
4. David Holmes. (1998). The Evolution of Stylometry in humanities scholarship. *Literary and Linguistic Computing*, 3, 111-117.
5. ……………(1994). Authorship attribution. *Computers and the Humanities*, 28 (1994): 87–106.
6. Mathieu Blondel. (2016). Kernel_kmeans.py. Retrieved on 22 Feb 2016 from: gist.github.com.
7. Hermann Moisl. (2015). *Cluster Analysis for Corpus Linguistics*. Berlin: De Gruyter Mouton, 2015.
8. Jack Grieve. (2007). Quantitative authorship attribution: An evaluation of techniques. *Literary and linguistic Computing*, 22 (2007): 251–70.
9. …………… (2005). *Quantitative authorship attribution: A history and an evaluation of techniques*. Master Thesis, Simon Fraser University, Burnaby, Canada.
10. Lee, J.A. and Verleysen, M. (2007). *Nonlinear Dimensionality Reduction*. New York: Springer science and business media.
11. Maciej Eder. (2011). Style-Markers in Authorship Attribution A Cross-Language Study of the Authorial Fingerprint. *Studies in Polish Linguistics*, 99–114.
12. Mark Anderson. (2005). *Shakespeare by another name*. Penguin Group: USA.
13. Patrick Juola. (2006). Authorship attribution. *Foundations and Trends in Information Retrieval*, 1, 233–334.
14. Pooja Khandelwal, Aishwarya Mujumdar, Nandita Lonkar, Ankita Magdum. (2015) Document clustering for authorship analysis. *International advanced research journal in science Engineering and technology*, Vol. 2, (10), 205.
15. Refat Aljumily. (2015A). The Anonymous 1821 Translation of Goethe's Faustus: A Cluster Analytic Approach. *Global Journal of HUMAN-SOCIAL SCIENCE: A Arts & Humanities – Psychology*, Vol.15 (11), Version 1.0.
16. ………………(2015B). Hierarchical and Non-Hierarchical Linear and Non-Linear Clustering Methods to "Shakespeare Authorship Question". *Soc. Sci*. 4, 758–799.
17. Richard Forsyth. (2007). Notes on Authorship Attribution and Text Classification. Retrieved on 12 April 2012 from: http://www.cs.nott.ac.uk/~pszaxc/-DReSS/LFAS08.pdf
18. Shlomo Argamon and Shlomo Levitan. (2005). Measuring the usefulness of function words for

authorship attribution. Retrived on 12 March 2016 from: https://www.researchgate.net/publication/227400638_Measuring_the_Usefulness_of_Function_Words_for_Authorship_Attribution

19. Simon Rogers and Mark Girolam. (2011). *A First Course in Machine Learning*. Chapman and hall/CRC: USA.
20. William Farina. (2006). *De Vere as Shakespeare: An Oxfordian Reading of the Canon*. McFarland and Company Inc. Publishes: USA.

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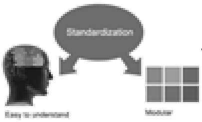

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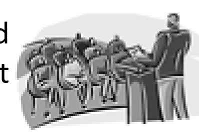

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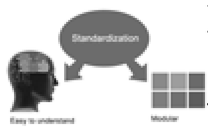

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1. General,

2. Ethical Guidelines,

3. Submission of Manuscripts,

4. Manuscript’s Category,

5. Structure and Format of Manuscript,

6. After Acceptance.

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- As always, give awareness to spelling, simplicity and correctness of sentences and phrases.

Procedures (Methods and Materials):

This part is supposed to be the easiest to carve if you have good skills. A sound written Procedures segment allows a capable scientist to replacement your results. Present precise information about your supplies. The suppliers and clarity of reagents can be helpful bits of information. Present methods in sequential order but linked methodologies can be grouped as a segment. Be concise when relating the protocols. Attempt for the least amount of information that would permit another capable scientist to spare your outcome but be cautious that vital information is integrated. The use of subheadings is suggested and ought to be synchronized with the results section. When a technique is used that has been well described in another object, mention the specific item describing a way but draw the basic principle while stating the situation. The purpose is to text all particular resources and broad procedures, so that another person may use some or all of the methods in one more study or referee the scientific value of your work. It is not to be a step by step report of the whole thing you did, nor is a methods section a set of orders.

Materials:

- Explain materials individually only if the study is so complex that it saves liberty this way.
- Embrace particular materials, and any tools or provisions that are not frequently found in laboratories.
- Do not take in frequently found.
- If use of a definite type of tools.
- Materials may be reported in a part section or else they may be recognized along with your measures.

Methods:

- Report the method (not particulars of each process that engaged the same methodology)
- Describe the method entirely
- To be succinct, present methods under headings dedicated to specific dealings or groups of measures
- Simplify - details how procedures were completed not how they were exclusively performed on a particular day.
- If well known procedures were used, account the procedure by name, possibly with reference, and that's all.

Approach:

- It is embarrassed or not possible to use vigorous voice when documenting methods with no using first person, which would focus the reviewer's interest on the researcher rather than the job. As a result when script up the methods most authors use third person passive voice.
- Use standard style in this and in every other part of the paper - avoid familiar lists, and use full sentences.

What to keep away from

- Resources and methods are not a set of information.
- Skip all descriptive information and surroundings - save it for the argument.
- Leave out information that is immaterial to a third party.

Results:

The principle of a results segment is to present and demonstrate your conclusion. Create this part a entirely objective details of the outcome, and save all understanding for the discussion.

The page length of this segment is set by the sum and types of data to be reported. Carry on to be to the point, by means of statistics and tables, if suitable, to present consequences most efficiently.You must obviously differentiate material that would usually be incorporated in a study editorial from any unprocessed data or additional appendix matter that would not be available. In fact, such matter should not be submitted at all except requested by the instructor.

Content

- Sum up your conclusion in text and demonstrate them, if suitable, with figures and tables.
- In manuscript, explain each of your consequences, point the reader to remarks that are most appropriate.
- Present a background, such as by describing the question that was addressed by creation an exacting study.
- Explain results of control experiments and comprise remarks that are not accessible in a prescribed figure or table, if appropriate.
- Examine your data, then prepare the analyzed (transformed) data in the form of a figure (graph), table, or in manuscript form.

What to stay away from

- Do not discuss or infer your outcome, report surroundings information, or try to explain anything.
- Not at all, take in raw data or intermediate calculations in a research manuscript.
- Do not present the similar data more than once.
- Manuscript should complement any figures or tables, not duplicate the identical information.
- Never confuse figures with tables - there is a difference.

Approach

- As forever, use past tense when you submit to your results, and put the whole thing in a reasonable order.
- Put figures and tables, appropriately numbered, in order at the end of the report
- If you desire, you may place your figures and tables properly within the text of your results part.

Figures and tables

- If you put figures and tables at the end of the details, make certain that they are visibly distinguished from any attach appendix materials, such as raw facts
- Despite of position, each figure must be numbered one after the other and complete with subtitle
- In spite of position, each table must be titled, numbered one after the other and complete with heading
- All figure and table must be adequately complete that it could situate on its own, divide from text

Discussion:

The Discussion is expected the trickiest segment to write and describe. A lot of papers submitted for journal are discarded based on problems with the Discussion. There is no head of state for how long a argument should be. Position your understanding of the outcome visibly to lead the reviewer through your conclusions, and then finish the paper with a summing up of the implication of the study. The purpose here is to offer an understanding of your results and hold up for all of your conclusions, using facts from your research and generally accepted information, if suitable. The implication of result should be visibly described. Infer your data in the conversation in suitable depth. This means that when you clarify an observable fact you must explain mechanisms that may account for the observation. If your results vary from your prospect, make clear why that may have happened. If your results agree, then explain the theory that the proof supported. It is never suitable to just state that the data approved with prospect, and let it drop at that.

- Make a decision if each premise is supported, discarded, or if you cannot make a conclusion with assurance. Do not just dismiss a study or part of a study as "uncertain."
- Research papers are not acknowledged if the work is imperfect. Draw what conclusions you can based upon the results that you have, and take care of the study as a finished work
- You may propose future guidelines, such as how the experiment might be personalized to accomplish a new idea.
- Give details all of your remarks as much as possible, focus on mechanisms.
- Make a decision if the tentative design sufficiently addressed the theory, and whether or not it was correctly restricted.
- Try to present substitute explanations if sensible alternatives be present.
- One research will not counter an overall question, so maintain the large picture in mind, where do you go next? The best studies unlock new avenues of study. What questions remain?
- Recommendations for detailed papers will offer supplementary suggestions.

Approach:

- When you refer to information, differentiate data generated by your own studies from available information
- Submit to work done by specific persons (including you) in past tense.
- Submit to generally acknowledged facts and main beliefs in present tense.

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Introduction	Containing all background details with clear goal and appropriate details, flow specification, no grammar and spelling mistake, well organized sentence and paragraph, reference cited	Unclear and confusing data, appropriate format, grammar and spelling errors with unorganized matter	Out of place depth and content, hazy format
Methods and Procedures	Clear and to the point with well arranged paragraph, precision and accuracy of facts and figures, well organized subheads	Difficult to comprehend with embarrassed text, too much explanation but completed	Incorrect and unorganized structure with hazy meaning
Result	Well organized, Clear and specific, Correct units with precision, correct data, well structuring of paragraph, no grammar and spelling mistake	Complete and embarrassed text, difficult to comprehend	Irregular format with wrong facts and figures
Discussion	Well organized, meaningful specification, sound conclusion, logical and concise explanation, highly structured paragraph reference cited	Wordy, unclear conclusion, spurious	Conclusion is not cited, unorganized, difficult to comprehend
References	Complete and correct format, well organized	Beside the point, Incomplete	Wrong format and structuring

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