THE LEGACY OF COLONIALISM ON MAPPING IN AFRICA:
WITH FOCUS ON NIGERIA.

DR R. O. OLOMO
Department of Geography and Regional Planning,
Delta State University, P.M.B. 1, Abraka, Nigeria.
richolomo@yahoo.co.uk

ABSTRACT:
Colonialism is the principle or practice in which a powerful country rules a weaker one and establishes its own tradition and culture there (Longman Dictionary, 1995). The nature of colonial education also had serious impact on mapping in Africa. In all the colonial territories, the educational policy was to train as many Africans as the government considered necessary to supply middle-level manpower in administration and the schools. Too much learning would have been both superfluous and dangerous for clerks and messengers.

In Nigeria, the funding of colonial mapping was carried out based on the expected gain derivable from such ventures. Thus, a survey department could not start in Northern Nigeria until 1908 because the protectorate was not generating enough revenue.

INTRODUCTION:
The slave trade and European colonization affected all Africa and together have had a lasting imprint on inter group relations, the population distribution, the economy and the politics of contemporary Africa (Udo, 1982). According to him, some Europeans considered the slave trade and the occupation of African land to be beneficial to Africans in the belief that both slavery and colonization made it possible for Africans to be brought into the orbit of superior European civilization. In this paper we shall examine the impact European colonization had on the cultural landscape, the economy and aspects of life of the people of contemporary Africa as reflected in their mapping programme.

Faced with the evidence of European exploitation of Africa, many bourgeois writers would concede at least partially that colonialism was a system which functioned well in the interests of the metropoles. Their argument suggests that on the one hand, there was exploitation and oppression, but on the other hand, colonial government did much for the benefit of Africans and they developed Africa (Rodney, 1972). The colonial period can be considered to constitute political and economic accidents and interruptions in the historical evolution of present day Africa because of the legacies left behind.

One of the problems facing the colonial masters was the surveying and mapping of the newly acquired territories. It was apparently clear to the colonial powers that maps were essential for all development projects in the colonies. Thus a programme of topographic mapping had to be embarked upon prior to, or simultaneously with, the development projects. The failure of agricultural development projects in British East and West Africa during this period can in fact be linked at least in part, to the failure to survey and map the lands initially (Areola, 1985).

Colonialism in Africa:
Colonialism is the principle or practice in which a powerful country rules a weaker one and establishes its own tradition and culture there (Longman Dictionary, 1995). The weaker countries are regarded as their colonies. According to Udo (1982), a colony is a territory or country developed by people from another country and which is fully or partly controlled from the mother country. The period of colonialism in Africa last from about 1890 to early 1960s. During the “scramble for Africa” by European powers which started from the Berlin conference of 1885 and ended at the beginning of the first world war, the important colonial powers were Britain, France, Germany, Belgium and Portugal.

The techniques of administration adopted by each colonial power were fundamentally different both in theory and practice, and, as might be expected these policies were to have a great impact on the pace and character of the economic, social and political development of the various territories (Udo, 1982). Economic interest is the major motive behind colonialism in Africa. After the second world war, the advanced countries of Europe and America turned to the countries of the tropics for much needed industrial raw materials to rebuild their damaged economies. In addition there were fears about possible world food shortages. In order to avert such food shortage plans were drawn up for agrarian and landuse reforms in the over seas colonies of the European powers (Areola, 1985).

The ambivalence of British colonial policy in West and East Africa confirms the view that European powers did not scramble for territories in Africa because they wanted to carry out charitable works for Africans, but because of economic interest and fears of the political intentions of rival powers (Crowder, 1970).

Before 1880 there had been few attempts at systematic mapping in Africa. Even settlers colonies in southern Africa were poorly mapped by European standards Bartholomew, (1890) in reviewing the state of world mapping,
found that in Africa only 200,000 square miles (518,000 square kilometers) of the continent was covered by “detail” survey, with approximately double that area covered by topographic maps. For the other 95% of the continent there were only route surveys (20%), “general mapping, largely approximate” (41%) or no mapping at all (Bartholomew, 1890). With the exception of the “settlers colonies”, such as Algeria or those, such as Egypt, where there was a history of central government, there were no survey organizations responsible for producing systematic mapping (Collier and Inkpen, 2001).

Following the “scramble for Africa” the new political boundaries between European colonies needed to be mapped and a start made on providing the maps necessary to administer the newly acquired territories (Collier and Inkpen, 2001). Most colonial powers after the war established topographic mapping, soil survey and land resource survey units in the colonies. In Britain, for instance, the Directorate of Overseas Surveys was created in 1946 to provide geodetic control and to map the colonial empire (Warren, 1969). According to Warren, by 1969 the Directorate had published maps, mostly to the scale of 1:50,000, covering more than 4.5 million square kilometers, over thirty different, commonwealth countries throughout, the world.

According to Areola (1985), the aerial photography for the mapping was and is still often obtained through special contracts with British firms specializing in aerial surveys, including Hunting Surveys and Aero films Ltd. The Land Resource Division of the Directorate has been particularly active in Africa. It has carried out land system mapping and land resource evaluation using aerial photographs in parts of Nigeria, the Gambia, Kenya, Malawi, Lesotho, Ethiopia, Zambia, Botswana, Tanzania and the Seychelles (Areola, 1986).

How the mapping should be carried out was far from clear during the early colonial period. The techniques were simply not suitable for mapping extensive areas of land during the period of European colonization. The Royal Geographical Society (RGS) was essentially responsible for mapping during this period. According to Collier and Inkpen (2001), to meet the changing needs for the kinds of maps that needed to be produced, the courses taught within the RGS needed to change. In part, this was because the RGS was moving away from giving instruction to explorers, towards providing training courses for the new class of colonial administrators generated by the fruits of the “Scramble for Africa”. The colonial Office required its officials to take an elementary course in Surveying before taking up appointments in Africa and elsewhere (Reeves, 1933).

According to Collier and Inkpen (2001), the 9th Edition of Hints for Travellers (1906) went still further along the way towards being a convention text in land surveying and mirrored the changes in the RGS courses. In 1910 the course received official recognition from the colonial office as the training for young officials in surveying and mapping. Reeves (1933) records that, between 1902 and his retirement in 1932, he had trained some 1700 students, of whom 890 were sent by the colonial office for training. In addition to raising the prestige of the RGS, the courses had also become an important additional source of revenue, receiving 2 shillings and six pence per hour for each student trained with the shift in emphasis from survey for exploration to survey for settlement, exploitation and government we see a move towards the systematic collection of geographical data which parallels the shift towards more systematic geography within the British geographical community (Collier and Inkpen, 2001).

The nature of the colonial education also had serious impact on mapping in Africa. The two greatest legacies of the colonial period are that English or French is the official language of most countries and the fact that the educational systems of the various countries are based on the patterns existing in the metropolitan countries in Europe. In all the colonial territories, the educational policy was to train as many Africans as the government considered necessary to supply middle – level manpower in administration and the schools. The idea of education for the purpose of uplifting the mind did not exist and was even considered to be dangerous since it produced the elites that constituted a thorn in the in the flesh of the colonial administrators (Udo, 1982).

African soil and African labour in Northern Rhodesia produced vast wealth, but African children under colonialism had little access to that wealth in the form of Education. In 1935, of the total revenue collected from taxing Africans, in French West Africa, only 4.03% was utilized on education. In the colony of Nigeria, it was only 3.4%. In Kenya, as late as 1946 only 2.26% of the revenue was spent on African education. By 1960, those percentages had all gone up two, three or four times; but being so small to begin with, they still remained insignificant (Rodney, 1972). According him, generally speaking, the unevenness in educational levels reflected the unevenness of economic exploitation and the different rates at which different parts of a colony entered the money economy. Inside Tanganyika, a map showing the major cotton and coffee areas virtually coincides with a map showing areas in which colonial education was available. Thus those the colonialists could not readily exploit were not offered even the crumbs of education.

Too much learning would have been both superfluous and dangerous for clerks and messengers. Therefore, secondary education was rare and other forms of higher education were virtually non-existent, throughout most of the colonial epoch (Rodney, 1972). According to him, new ideas that were incorporated in the capitalist metropoles never reached the colonies. In particular, the fantastic changes in science did not reach African classrooms, for there were few schools where science subjects were taught. Similarly, the evolution of higher technical education did not have any counterpart in colonial Africa. In Africa, colonialism did not bring those benefits – it merely intensified the rate of exploitation of African labour and continued to export the surplus.
Thus, the changeover from colonialism to what is known as neo-colonialism did have element of conspiracy in it. In Africa, the colonialists were training low level administrators, teachers, rail road booking clerks, etc, for the preservation of colonial relations and it is not surprising that such individuals would carry over colonial values into the period after independence regained. The colonialists meanwhile ensure wherever possible to make sure that persons most favourable to their position continued to man African administrations and assumed new political and state police powers (Rodney, 1972).

Colonialism also had serious effects on Economic development in Africa. Although the countries of Africa have become independent of European rule, almost all of them are still tied to the economic apron – strings of their former colonial over lords (Udo, 1982). Thus, the pattern of development in agriculture, industry and other sectors of the economy has not changed much since independence.

In mapping, the tradition laid down by the colonial administrations still lingers on throughout the countries of Africa. Large topographic mapping and resource evaluation projects are still largely contracted out to foreign firms and agencies which, therefore, continue to be primarily responsible for providing aerial photographic cover and for promoting the application of aerial photographic interpretation techniques on the continent (Areola, 1985).

**Colonial Mapping in Nigeria:**

Colonial mapping started in 1791 with the establishment of the Board of Ordinance Survey and the extension of British systems such as education, government, military, operations to her colonies. According to Balogun (1992), the system of mapping in Nigeria could be explained by the general British policy in her African territories. According to him, while France adopted a policy of assimilation in which French colonies were treated as part of France, Britain’s intention was to allow her colonies to develop at their own respective paces and in accordance with their resources. Thus, when the Colonial Survey Committee was set up in 1905 by the colonial office, the aim was not to execute the systematic survey and mapping of the colonies but to:

“define the exact limits of national territory, to show the areas and villages under the rule of native chiefs for land registration and settlement, for the allotment of mining and forest concessions and for the organization of internal communication” (Colonial Survey Committee, 1906, p.8).

Also Balogun (1992) identified five periods in colonial mapping, they are, the period dominated by exploration and the mapping of Nigerian rivers (1788 – 1861); the period of colonial expansion and consolidation and the mapping of colonial units (1861 – 1910); revenue searching and mapping for geological and revenue surveys period (1910 – 1926); period of systematic triangulation (1926 – 1939); and the period of aerial survey and topographical mapping (1946 – 1960). Each of the periods was marked with definite mapping programme. According to him, by 1939 when the Second World War started, the triangulation of the country had not been completed. However, adequate foundation had been laid for accurate topographical mapping, which started after the war.

Topographical maps produced before world war II on a standard scale of 1:125, 000 were based on hurried triangulation and were very fragmentary, having been designed to cover economic patches (Balogun, 1992). He identified some events that contributed favourably to the systematic topographical mapping of the country, among them are: establishment of the Directorate of Colonial Surveys (later Directorate of Overseas Survey) to carry out mapping in the colonies, the lesson of the two World Wars on the importance of maps the appreciation of the advantages of the aerial survey technique and the arrival of the first Royal Air Force aircraft to start aerial photography of the country in 1946. Accurate systematic topographical mapping began in 1948. Topographical mapping in Nigeria was not completed before Nigeria’s independence in 1960 but the technical assistance programme of the British government made it possible for the Directorate of Overseas Surveys to continue aerial photography and topographical mapping after independence (Balogun, 1992).

Colonial mapping in Nigeria was carried out by various bodies, this is because various factors determined the mapping projects embarked upon at different times. Among the bodies are the Geographical section, General staff (GSGS), the Colonial Survey Committee, Local Survey Departments and the Directorate of colonial surveys. GSGS continued its mapping of the country from maps produced and published by other agencies. With the beginning of topographical mapping using aerial surveys, large masses of detailed information on relief, drainage and cultural features were just beginning to be collected. This was the time the GSGS had a chance of collecting tangible information about Nigeria for military intelligence purposes. As a result of the military and secret nature of most of the activities of the GSGS its efforts in mapping British colonies were not fully appreciated.

The earlier surveying works carried out in Nigeria were designed to cope with cadastral survey for the generation of much needed revenue. Thus surveys were executed for land taxation assessment and land allocation. Once a while, a surveyor might be desirous of determining geographical positions of some places, and compiling maps based on his survey records. Otherwise, efforts were not directed towards the establishment of a mapping unit up to the first decade of the 20th century (Balogun, 1992). One of the weaknesses of the Survey Department pointed out in the Interim report of Brigadier Winterbotham (Winterbotham, 1929) was the constant employment of survey staff in a variety of projects that should not have been executed by the Survey Department. One important role the Ordinance Survey made to surveying and mapping in Nigeria was in 1891 when, on the request of the government of Lagos and Colony, it started the Survey of Lagos designed to delineate land ownership.
The funding of colonial mapping was carried out based on the expected gain derivable from such ventures. According to Balogun (1992), one factor that influenced colonial office’s decision to approve application for fund for mapping was the amount of money being realized in the colony. Thus, a survey department could not start in Northern Nigeria until 1908 because the protectorate was not generating enough revenue. When Nigeria was financing mapping from her own revenue, a major consideration was the immediate economic gain such a mapping project could bring. Long-term economic development as a beneficiary of systematic survey and mapping was not as important as the immediate satisfaction of the geological survey requirements.

Winterbbotham rightly summarized the state of mind of the colonial administrators in Nigeria: “geology brings up delicious thoughts of gold or copper and a booming budget” (Winterbotham, 1936, p.298). Another observation is that it was easier to get large sums of money for surveys listed under other projects such as railways, water projects, roads, harbour development and siting of administrative headquarters, than to get for topographical surveying whereas, such special survey would have been avoided had there been detailed topographical surveys and maps. According to Balogun (1992), in Nigeria, there were many instances of the difficulty of making the administrators realize the importance of systematic surveying and mapping. To get any survey and mapping done, justification had to be made in terms of the effects on geological survey and mineral prospecting which was the greatest revenue-yielding venture mostly dependent on maps.

The Impact of Colonialism On Mapping in Nigeria:

One of the impacts of colonialism on mapping in Nigeria is in the area of Education and Training. The educational policy was to train as many Africans as the government considered necessary to supply middle-level manpower in administration and the schools. Qualitative education was not encouraged. According to Ikuhuria and Onyeka (1992), in a survey of 270 cartographic personnel in government, private and university employment, only 16 people or 5.9% have degrees in cartography (including Geography with emphasis in cartography). However, a substantial number of people or 14% from other disciplines such as urban and Regional Planning, Architecture, Surveying and Geology occupy professional cartography positions. The limitations in cartographic skills of the personnel undoubtedly have grave implications. Also their perception and appreciation of the range of maps, content and sophistication of the maps they should produce is shallow.

The symposium held for Ormeling on his retirement in 1982, captured “the true situation of mapping in most developing countries”. Some of the conclusions drawn from the symposium include that:

- Maps are basic requisites for social and economic development.
- A number of developing countries are far behind in meeting their mapping requirements.
- Many of them do not have sufficient well – trained manpower in cartography.
- In a number of developing countries there is insufficient educational and training facilities in cartography, and manpower requirements therefore cannot be satisfied.
- Industrialized countries must help by providing educational facilities in cartography and by co-operation in the gradual establishment of better educational infrastructure in this field in developing countries themselves (Elzakker and Oxtoby, 1984).

The Land and Survey Training School, which was established in 1928, the foremost cartography training institutions in Nigeria, grew from craft schools established by our colonial masters to suit their immediate needs. After independence, the requirement for running mapping institutions rested on the shoulders of African experts whose experience and managerial skills were inadequate to maintain the level of production attained by expatriate personnel during the pre-independence period (Fanta, 1992). A survey of cartographic personnel in our mapping organizations shows a serious lack of professional cartographers. All these indicate that the urgency of establishing a cartography discipline in Nigeria is now imperative (Ikuhuria, 1994). As there is no academic specialization in cartography in Nigeria, Cartographic professionalism is being stagnated (Olomo, 1997).

From the foregoing discussion, the professional cartographers needed to fill positions in various establishments are lacking, mainly because of the limited professional training opportunities available in the country. The Kaduna Polytechnic is one of the major institutions that offer a wide range of courses in cartography. Among them are: Certificates course in elementary cartography, Intermediate cartography, Advanced cartography, National Diploma course in cartography and Higher National Diploma (HND) course in cartography. Others are Regional Centre for Training in Aerospace Survey (RECTAS), Ile-Ife, Federal School of Survey, Oyo and Federal Survey School, Lagos (now Abuja). RECTAS offer three programmes: Draughtsmanship course, Technician’s course and Technologist’s course. However there are restrictions and limitations in the admission policy of these institutions.
Another obvious impact of colonialism on mapping in Nigeria’s is foreign dominance in the sector. Large topographic mapping and resource evaluation projects are still largely contracted out to foreign firms and agencies which, therefore, continue to be primarily responsible for providing aerial photographic cover for promoting the application of aerial photographic interpretation techniques on the continent (Areola, 1985). According to him, the aerial photography for the mapping was and is still often obtained through special contracts with British firms specializing in aerial surveys, including Hunting Surveys and Aero Films Ltd. This situation is so, since aerial photography has remained largely in the hands of foreign firms and government agencies; indeed most aerial survey departments in Africa nations are merely engaged in printing aerial photographs from films provided by these foreign firms and agencies. Most of the survey organizations that made use of these imagery were for a long time manned by foreign experts.

This syndrome continues after independence. According to Balogun (1985), the poor state of cartographic facilities in government establishments can be attributed to the “oil boom malady”, when most mapping activities were given out through contracts. This factor, more than any other, accounts for the present dormant state of the cartographic and photogrammetric branches of most surveying and mapping organizations (Balogun, 1985).

The impact is also felt in the organizational structure of mapping as reflected in Federal Survey, the apex mapping organization in the country. The designation of Surveyor – General is a product of colonial rule in the country. The Federal Survey Department is headed by the Surveyor – General of the Federation, assisted by six other Deputy Surveyors – Generals of the Federation, each in charge of the six divisions. Each of the divisions plays some specific role in the mapping process. These management positions are exclusively reserved for surveyors to the neglect of other mapping professionals.

A final impact of colonialism on mapping in Nigeria has to do with selective mapping. Initially coverage was restricted to areas of special interest such as crop or mineral – producing areas or metropolitan areas. Indeed, many countries did not have complete aerial photographic cover until after political independence (Areole 1985). A major factor that influenced colonial office’s decision to grant approval for applications for fund for mapping was the amount of money being realized in the colony. As a result, a survey department could not start in Northern Nigeria until 1908 because the protectorate was not generating enough revenue.

CONCLUSION:

The era of colonialism can be considered to constitute political and economic accidents and interruptions in the historical evolution of present day Africa because of the legacies left behind. Economic interest was the major motive behind colonialism in Africa. Before 1880 there had been few attempts at systematic mapping in Africa. Bartholomew (1890) in reviewing the state of world mapping concluded that Africa was poorly mapped. The nature of colonial education also had serious impact on mapping in Africa. In Africa, the colonialists were training low level administrators, teachers, railroad booking clerks, etc, for the preservation of colonial interests. Colonialism also had serious effects on Economic development in Africa. In mapping, the tradition laid down by the colonial administrations still lingers on throughout the countries of Africa.

Colonial mapping started in 1791 with the establishment of the Board of Ordnance Survey. According to Balogun (1992), the system of mapping in Nigeria could be explained by the general British policy in her African territories. The goal was to define the exact limits of national territory for their economic benefits. Balogun (1992) identified five periods in colonial mapping, from the period dominated by the exploration and mapping of Nigerian rivers (1788-1861) to the period of aerial survey and topographical mapping (1946-1960). Colonial mapping in Nigeria was carried out by various bodies. The funding of colonial mapping was carried out based on expected gain derivable from such ventures.

The tradition laid down by the colonial administrations still lingers on throughout the countries of Africa, especially in Nigeria. One of the impacts of colonialism on mapping in Nigeria is in the area of Education and Training. Qualitative education was not encouraged. Thus mapping professionals notably cartographers needed to fill positions in various establishments are lacking, mainly because of the limited professional training opportunities available in the country. Another impact of colonialism on mapping in Nigeria is foreign dominance in the sector, as many mapping projects are contracted out to foreign firms and agencies. Finally colonialism is responsible for selective mapping in Nigeria, as areas with resources receive more mapping attention as reflected in the Niger Delta region. The aim of the mapping project is to facilitate resource exploitation.

REFERENCE


THE LEGACY OF COLONIALISM ON MAPPING IN AFRICA: WITH FOCUS ON NIGERIA.

Olomo, R.O.

Department Of Geography And Regional Planning,
Delta State University, P.M.B. 1, Abraka, Nigeria.

Biography
Name: Dr. Olomo Owigho Richard
Place and Date Of Birth: Emevor, October 20, 1963
Nationality at Birth: Nigerian
Permanent Home Address: Edhomoko Quarters, Owhe-Logbo (Iluelingbo), Isoko North Local Government Area, Delta State.
Marital Status: Married
Faculty of Social Sciences Delta State University, P.M.B. 1, Abraka, Nigeria.

Education Institutions Attended/Academic and Professional Qualifications Obtained with Dates:
! Edo State University, Ekpoma 1990 . 1996 Ph.D Geography (Cartography)
! University of Ibadan, Ibadan 1983 . 1986 B.Sc (Hons) Geography
! Govt. College, Ughelli 1980 . 1982 G.C.E. A/L
! James Welch Grammar School, Emevor, Delta State 1975 . 1980 WASC DIV. II

Area of Specialization:
Cartography, Remote Sensing, Surveying and Environmental Studies.

Professional Association:
Member, Nigerian Cartographic Association (MNCA), NEC Member as a Journal Editor and President of NCA Edo/Delta State Chapter, Member, Nigerian Geographical Association (MNGA), Member, Environmental Behaviour Association of Nigerian (EBAN), Member, Canadian Remote Sensing Society and Canadian Aeronautics and Space Institute.

Working Experience:
Lecturer, Dept. of Geography and Regional Planning, Ambrose Alli University, P.M.B. 14, Ekpoma-Nigeria.

Present Job And Date of Commencement:
Senior Lecturer, Department of Geography and Regional Planning, Delta State University, P.M.B. 1, Abraka, Nigeria, December, 2nd, 2002.