

Anatole Romaniuc : Pioneer in African Demography

Séraphin Ngondo a Pitshandenge
Democratic Republic of Congo

Ibrahima L. Diop
Sénégal

Daniel M. Sala-Diakanda
Democratic Republic of Congo

Jean Wakam
Cameroon

Romaniuc's African Itinerary

Anatole Romaniuc has devoted a great deal of his long professional and academic career to African demography - particularly to the Congo. He dedicated a full eight years (1953-1961) in the Congo, primarily working on this country's first national census. From 1961 to 1964 he made his home at Princeton University, participating in *The African Demographic Project*, under the guidance of Ansley Coale and with such luminaries in the field as Frank Lorimer and William Brass. The team-work culminated in a comprehensive book, *The Demography of Tropical Africa* (Princeton University Press, 1968).

After joining the Faculty of the University of Ottawa in 1964 as Professor in Demography, A. Romaniuc continued to devote much of his time to research on African demography. His major work, *La fécondité des populations congolaises*, appeared in 1967. His list of publications grew with a number of articles and papers on Africa even as he assumed a new role and focus at Statistics Canada. Most notably, he presented his paper, *Polygamy and Kinship in Tropical Africa: A Demographer's View*, at the African Population Conference in Dakar in 1988, during his tenure as Director of the Demography Division at Statistics Canada.

Séraphin Ngondo a Pitshandenge, Ibrahima L. Diop, Daniel M. Sala-Diakanda & Jean Wakam

These days, A. Romaniuc is busy considering broader issues relating to demography. Yet he is determined to return to what he calls "*mes premières amours*", namely African demography. His contributions to African demography are both substantive and operational. What follows is an outline of his contribution in three major areas: fertility and infertility in tropical Africa; polygamy and kinship; modernity and demographic behaviours. That said his major achievement remains the organisation and execution of the first comprehensive census of population in the Congo, when he was still a young demographer, at the very start of his career in the 1950s.

As Professor Ngondo writes (we kept in French to respect its style): "Sans Romaniuc, ce recensement serait resté dans les oubliettes des archives. Le Congo n'aurait jamais été connu autrement qu'à travers tous les troubles qui l'ont marqué depuis l'indépendance".

Historical Background that Favoured Interest in Demography of the Congo

The vast empire 'discovered' by Stanley (1887), and subsequently seceded to King Léopold II (1908) as his private fiefdom, was coveted for its natural resources. The imperative of the exploitation of these resources awoke real interest in the Congo's population. Yet estimates of its size remained for a long time the subject of much controversy. Professor Léon de Saint-Moulin (1989) estimated that the population of the Congo in 1880 was not less than 15 million – and, at some point in the nation's history, had perhaps even counted as many as 20 million. While the exact figure is obviously open to debate, there is a general consensus that the country underwent depopulation until the First World War. There is no doubt that razzia of Arab slave traders and later the heavy-handed treatment of the native populations by the King Léopold II mercenaries, for cause of economic exigencies (*la mise en valeur des richesses du pays*) and in the name of the "white man's burden" (*mission civilisatrice*), exacted a heavy human toll.

However, one good came out of these controversies about population. As violent and passionate as the arguments may have been between those who extolled the colonial 'mission to civilise' and those who decried it by evoking the 'nobility' of pre-colonial African society, these controversies sharpened the quest for an accurate enumeration of the Colony's population.

The colonial administration set forth to develop a statistical system capable of monitoring the evolution of the population. Starting in 1920 a system of continuous registration of inhabitants at the smallest administrative level, "*chefferies*", was established (*registre permanent de la population*). At the beginning, the population register was regularly updated using the so-called "*recensement sur fiches*" and, as soon as in 1925, the newly instituted small

surveys, targeting designated population groups, were used to gain greater insight into the dynamics of population growth. This led to the production of annual statistics of population by sex and broad age groups, children, adults and elderly. Starting in 1950 a system of births and deaths registration (*état civil*), applicable earlier only to European residents, was extended to the native population. It is the combination of these sources of population information, along with the lists of villages available for the whole country, that served as launching pad for the 1955-57 large scale national socio-demographic survey. For all intent and purpose, it was the first national Census of population, undertaken in the colonial Congo. It is on this occasion that the young demographer, Anatole Romaniuc, has displayed his talents as organiser and his pursuit of scientific rigor.

Statistical Innovations

“Finally, Anatole Romaniuc has come” - some of us, committed to Congolese demography, would almost call his arrival a providential event. His appearance on the Congolese scene indeed altered perceptions of what demographic work in the colonies should entail. A new orientation and impetus to the built-up of the demographic statistical wherewithal was given. Soon after his arrival in 1953, and his assignment to the services of Indigenous Affairs (*Affaires Indigènes et Main-d'Oeuvre* - AIMO), he undertook the task of revamping the existing population statistical system. Foremost, he advocated the replacement of the small surveys – “*coups de sonde*” - by a comprehensive socio-demographic survey, on the scale of the national census of population. This survey, which he conducts from 1955 on, has a number of innovative features within the Congolese context.

In regard to *methodology*, one innovation stands out as the most consequential: instead of deliberately selecting particular, “typical” groupings of population for the “*coups de sonde*”, the survey covered the whole country. Moreover, the sample was drawn by a probabilistic method using the village as the sampling unit in rural areas and the housing compound in urban areas. Thus a representative sample of the country’s whole population was constituted. It included all regions, all tribes and all types of settlements (rural, semi-urban and urban) commensurate in proportion with their respective sizes (10% of rural and 15% of urban and semi-urban populations). A total of 1.4 million people were enumerated, out of a population estimated at 14 million in 1955. It was a mammoth enterprise equivalent to a real census of population. Sampling, rather than an exhaustive census, was adopted as the method of enumeration, for both operational and cost-effective reasons.

The approach to the *field work* underwent a major innovation, as well. In fact it was a complete break with tradition. Instead of employing Belgian administrators as in all previous surveys, the 1955-57 Survey was carried out by

Séraphin Ngondo a Pitshandenge, Ibrahima L. Diop, Daniel M. Sala-Diakanda & Jean Wakam

Congolese personnel specially trained for the purpose. To enhance their professionalism and dedication, they were hired as permanent employees with the possibility of being re-employed in the future surveys, and they were given special travel bonuses to compensate for whatever absence from home. They had clear advantages over the European administrators. They became truly professional in their field of activities, knew the language of the people, and enjoyed the trust of their countrymen. According to Anatole Romaniuc himself much of the success of the 1955-57 Survey can be attributed to the personal suitability of the Congolese survey takers, their professionalism and their dedication. His direct involvement in the field work also contributed to the Survey's success. He recorded his involvement as follows: "During the field work, I spend most of my time with the survey teams. We travelled together across this huge country, visiting numerous villages, shared the charm and hardship of the *brousse*, fostering a real team spirit. Following closely the work's progression gave me the opportunity to correct things on the spot that otherwise could have caused things to go wrong at a later stage. My direct involvement in the field work compensated to some extent for my lack of experience, and, in spite all the odds, to carry out this vast enterprise to its successful completion."

The range of data collected was greatly extended - well beyond the birth and death data collected in previous, small scale surveys. A whole array of variables (demographic, cultural, and economic - the characteristics, generally recommended by the United Nations) were included in the questionnaire. Particular attention was paid to the information on ethnic affiliation, as it was recognised that demographic profile, particularly fertility, takes an ethnic configuration. The range of data and the population coverage were indeed so wide that in his writings A. Romaniuc often speaks interchangeably of "survey" and "census". The distinction is indeed more in semantics than in substance.

A significant innovation associated with the 1955-57 Survey/Census was the *analytical depth*. Unlike the summary reports submitted to the Colonial administration and the Chamber of Deputies in the past, an analytical programme was implemented to maximise the utility of the survey's statistical output. The data were submitted to a thorough evaluation for accuracy and reliability, by testing for internal and external consistency (against other data sources). Non-conventional techniques (Brass, Coale) were used to derive estimates of the basic demographic parameters, in particular mortality and fertility rates. Fertility received a great deal of attention not only because of its importance as a population growth component, but also because its level and regional patterns were subject to a great deal of disputes for many years. Likewise, marital status, types of marriage, monogamous and polygamous, were given particular attention, because they were at the very heart of the kinship network of African societies. Rural-urban differentials were examined to gain insight into the processes, especially those associated with modernity, which may explain changes in the demographic behaviours. Of equal importance was

the analysis of demographic variables against their ethnic background, as later work by Sala-Diakanda has convincingly revealed. The dimension of ethnicity provides the link between quantitative demographic analysis and qualitative insights borrowed from anthropological research and thus allows us to better comprehend demographic behaviours (see below, on sterility).

The results of the 1955-57 Survey were given a wide diffusion and publicity. A dozen volumes of statistical tables, ordered hierarchically bottom-up, from the smallest territorial subdivisions to the national level, were published by the Statistical Services of the Central Government in Kinshasa. It is a remarkably rich collection of statistical data on a wide range of variables. In his capacity as Chief of the Demographic Bureau and the architect – or *cheville ouvrière*, to use Professor Ngondo's expression - of the 1957-57 Survey, Anatole Romaniuc took it upon himself to write the analytical report thereof. The report, entitled *Tableau général de la démographie congolaise*, was published in Kinshasa in July 1961, shortly before his departure for the United States. It did not escape our attention that, in way of recognition, all participants of the 1955-57 Survey, irrespective of their rank and position, were nominally listed at the back of the front page of the General Survey Report. That, of itself, speaks volumes about the man's character, especially considering the *epoch*.

Many books and articles have been written owing to the wealth of data generated by the 1955-57 Survey/Census. Some of the analytical publications were written by Anatole Romaniuc himself, who had the benefit of first hand knowledge of the data. Some of these are listed in the bibliography. (Some earlier publications appeared under his name ending with "k" rather than "c". It is a matter of his name's transliteration).

Upon completion of his work in the Democratic Republic of Congo in August 1961, he joined the Office of Population Research at Princeton University, where he continued his work on Congolese demography as part of the *African Demographic Project*. The team work culminated in a major book, *The Demography of Tropical Africa*, under the joint authorship of W. Brass, A. Coale, P. Demeny, D. Heisel, F. Lorimer, A. Romaniuc and E. Van de Walle (Princeton University Press, 1968).

What made Romaniuc's role in the venture of Congolese demographic unique was his active participation in and assumed leadership at every stage of the census - from content determination, questionnaires design, survey team formation, data quality evaluation, and finally the analysis and publication of the results. The work has been widely acclaimed. It has been given due recognition by the highest political authorities of Independent Congo. The *Ministre de la Coordination Economique et du Plan*, under whose jurisdiction statistical services fell, addressed a letter to Anatole Romaniuc, dated June 27, 1961, which pays a tribute to the outstanding work he accomplished under “difficult circumstances.” We have reproduced the letter in its original French:

Séraphin Ngondo a Pitshandenge, Ibrahima L. Diop, Daniel M. Sala-Diakanda & Jean Wakam

Monsieur,

J'ai l'honneur de vous informer que c'est avec une vive satisfaction que j'ai pris connaissance du rapport définitif rédigé par vous sur les résultats de l'enquête démographique entreprise sous votre direction au Congo en 1956/57.

Je n'ignore pas que ce document d'envergure, dont les services gouvernementaux et les organismes scientifiques sauront apprécier la valeur, a été élaboré dans les conditions particulièrement difficiles pour vous.

Je saisis l'occasion pour vous en féliciter et vous remercier tant pour l'élaboration du document que pour l'intérêt que vous n'avez pas cessé de porter aux activités de notre Bureau de la Démographie.

Je vous prie d'agréer, Monsieur, l'assurance de ma considération distinguée.

*Le Ministre de la Coordination Economique et du Plan
A.Kabangi
(signature)*

Sterility and Infertility in Congo

This is a field in which Anatole Romaniuc has contributed a great deal, and earned the recognition of many fellow demographers. By way of sociological and anthropological studies, in combination with quantitative analysis, he placed the problem of infertility in the framework of procreative behaviours and reproductive health. He used interchangeably the terms "sterility" and "infertility" in a demographic rather than in a strictly physiological or medical sense. Women's reproductive history and, more specifically, the proportion of women, by age, who never gave birth to a live child, were taken as indicators of infertility/sterility incidences.

Three features stand out when sterility data are analysed: 1- sterility or infertility are widespread phenomenon in Tropical Africa, and particularly acute in central Congo; 2- the regions most affected are those at one time exposed to outside contacts via communication network such as rivers (for instance, the Congo River, Uélé and Lake Victoria); 3- sterility often coincides with the natural habitat of certain ethnic groups (Mongo, Azande). The phenomenon indeed takes a distinctly ethnic configuration. Certain ethnic groups, such as the Azande, inhabiting both Congo and Sudan, are afflicted by infertility to a similar degree.

Studies by Daniel Sala-Diakanda gave further prominence to the thesis of ethnic configuration of sterility in the Congo. For example, two ethnic groups that suffered from excessive childlessness - Topoke and Mongo - shared the same territory. Descendants of certain ethnic groups tend to preserve their distinct ethnic reproductive features even when they resettle in further afield, in remote cities.

Having circumscribed sterility in space, Romaniuc looked into the phenomenon's underlying factors. He rejected as unfounded the prevailing theories at the time such as those claiming that women used post-coital infusions which work as a contraceptive or induced abortion or caused other reproductive complications. He also rejected other, more nebulous theories, that had many believers, such as the belief that some African tribes lost the will to perpetuate their race. He sought out the clues to the true causes of sterility by turning to medical literature and health statistic, and concluded that widespread sterility is caused by venereal diseases, primarily gonorrhoea and syphilis. A strong positive correlation was established empirically between the incidence of venereal disease and that of sterility.

Subsequently Dr. Retel-Laurentin - a demographer, anthropologist and medical doctor - extended the study of infertility to cover the whole of Central Africa. Her in-depth study of infertility among Nzakara in the Central African Republic yielded additional empirical evidence of the medical causes of sterility in Africa.

A survey undertaken in 1975-76 in the Eastern provinces of the Congo (EDOZA, 1977) revealed the prevalence of sterility in the same regions as those identified by the 1955-57 Survey. Interestingly, however, the incidence of childlessness had diminished among the younger generations as compared to the older generations of women – apparently, as a result of the anti- venereal campaign that took place during the later years of Colonial rule.

A further step had to be made to complete the chain of causality. Why among certain ethnic groups were venereal diseases and related childlessness more prevalent than among others? The answer lay in the matrimonial customs, marital instability, and sexual behaviours. Ultimately, the underlying causes were revealed to be social and cultural. The chain of causality emerges clearly enough: birth rates are low because of high sterility; the latter is caused by venereal diseases, the incidence of which varies in degree according to sexual promiscuity and conjugal mobility.

Through his research Anatole Romaniuc alerted the public and scientific community of the existence of an important phenomenon in Africa – namely, large scale excessive infertility as a major social and health problem, and this notwithstanding the fact that Africa as a whole was (and is still) known for its high fertility. In so doing, he had to convince many sceptical demographers

Séraphin Ngondo a Pitshandenge, Ibrahima L. Diop, Daniel M. Sala-Diakanda & Jean Wakam

who believed that the apparent high childlessness observed in some regions of Africa was a statistical artifact resulting from the underreporting of deceased children.

Polygamy, Fertility, Kinship and Modernity

Much thinking about demographic behaviour, particularly in the spheres of family and reproduction, has been influenced by evolutionist and functionalist schools of American sociology and, in more recent times, by its newer brand - the theory of modernisation. These theories anticipate a more or less rapid decline in fertility and polygamy, and an inevitable universal convergence toward the Western nuclear family model under the impact of modernisation.

In his paper, *Polygamy and Kinship in Tropical Africa: A Demographer's Point of View* (1988), A. Romaniuc comes to the view that "...polygamy in Tropical Africa has proven more resistant to modernisation than had generally been anticipated. It has withstood the colonial order, the zeal of Christian missionaries and, so far, the reform-minded, post-colonial regimes."

"Yet, upon deeper reflection, its resilience is understandable. In a kinship system which relies on uni-linear descent as its principle of organisation and which places a strong emphasis on the immortality of lineage, there is great pressure to produce collectively as many children as possible. Polygamy is an important device for maximising the reproductive capacity of the lineage ..."

"On the one hand, it ensures the early and universal marriage of females and, on the other, it facilitates compliance with the custom prescribing prolonged sexual abstinence during lactation, which by spacing pregnancies increases the chances of offspring survival." It would be premature, he concludes, to write off polygamy as a factor of kinship and procreation in Tropical Africa.

"Were polygamy no more than a means of achieving sexual gratification and economic exploitation of women by men, and were it not so tightly woven into the fabric of the kinship and culture of a society that is heavily procreation-oriented, it is doubtful that it would have survived, as it has, into the present." Ngondo a Pitshandenge came to similar conclusions in his research on polygamy in the Congo (1978).

Effectively, as revealed by the more recent censuses and the DHS Surveys, polygamy is still alive and well, so to speak; it persists even among the "modernised", educated and wealthy, under disguised forms (commonly known as "*les deuxièmes bureaux*"). A number of studies do question the thesis of the family "nuclearisation" in African context; they argue that the process is much more complex than "occidentalisation" theories imply. Paradoxically, if family nuclearisation takes hold in urban centres, it does so more among the poor and vulnerable classes of society.

As to fertility, to be sure, the transition to the lower modern pattern has begun in many parts of Africa, albeit with considerable delay and slowness. But even here our understanding of the underlying processes leaves much to be desired. How is it that this decline takes place in the midst of a generalised economic crisis and impoverishment (the Malthusian poverty trap)? One would have expected the contrary – that it would occur in a situation of prosperity, if we believe in the argument of *rationality* put forward by the “*economicists*” (Wakam, 1994, 1999). Echoing the economists' thesis concerning fertility in Black Africa, O. Adegbola (1977: 473) writes: “One expects fertility to decrease because of changes that tend to reduce fertility (urbanisation, improved educational levels, better living standards and the introduction of family planning) have come about quickly in Africa.” Yet, how can we explain that fertility, polygamy and extended family have such a long life span even in countries that have adopted family planning programmes (Ghana) or enjoyed a significant economic growth (Côte d'Ivoire, Cameroon, Nigeria) or in those countries where the population density is so high that vital space is a critical problem (Rwanda, Burundi, Comoros). The “*economicists*” and “*occidentalists*” are at pain to come up with an adequate explanation of these apparent paradoxes.

Anatole Romaniuc was one of the first researchers to question the validity of the classical theory of demographic transition, and advance the notion of a plurality of the demographic transitions. In his article, *Increase in Natural Fertility During the Early Stages of Modernisation : Evidence from an African Case Study, Zaire*, (1980), he produced evidence and theoretical justification of the increase in natural fertility during the early stages of modernisation.

“Populations of pre-modern societies are known to be subject to various biological and behavioural reproductive checks which tend to keep actual childbearing performance well below the potential. However, as they undergo modernisation, these checks are weakened or removed altogether. Improvements in living standards and particularly in health conditions, which generally (though not always) accompany early modernisation, increase the chances of conception and delivery of a live child. Education and urbanisation make people receptive to modern ideas, while contributing to the breakdown of family-kinship dominance and the erosion of various customary sexual restraints. Post-partum sexual abstinence, widespread in Africa, is likely to be abandoned first. One factor which ranks highly as an inhibitor of fertility in practically all traditional societies, is protracted breast-feeding. But the length of lactation is shortened as breast milk is replaced by bottle-feeding.”

When all these events happen prior to the adoption of small family norms and large scale birth control, a rising cycle of natural fertility emerges. For example, the birth rate in the Congo rose from about 41 per thousand in the early 1930's, to about 48 per thousand in the early 1960's. In addition to a relaxation

Séraphin Ngondo a Pitshandenge, Ibrahima L. Diop, Daniel M. Sala-Diakanda & Jean Wakam

of the restrictive fertility customs outlined above, a significant factor in this increase of the birth rate was the reduction of sterility, due to anti-venereal programmes and improvements in reproductive health.

It should be stressed: Anatole Romaniuc does not deny the importance of modernisation, but he has demonstrated that at least at certain stages of evolution, it can produce opposite effects from those postulated by the classical theory of demographic transition. "Rationality" can be selective, and in the instances mentioned above, it runs counter to what "occidentalisation" theories anticipate. There is no deterministic relationship between modernisation and the family or fertility. All depends on the particular type of needs one tries to satisfy and on the value system one adheres to (Wakam, 1994). It is not difficult to discern the West's temptation to project certain family models and system values as having universal appeal.

Anatole Romaniuc has shown great interest in the cultural context of the family and reproductive behaviours in Africa. In so doing he approached it without any ideological prejudice. As Frank Lorimer also did long ago (1954), he pleads for an integration of demographic variables within the broader socio-cultural context. It is no doubt the way to follow if one wishes to understand the evolution of family and fertility in Africa and wants to help Africans promoting progress, humanely, economically and socially.

Romaniuc's Legacy

No doubt the foremost legacy of Anatole Romaniuc is the 1955-57 Survey/Census, with its wealth of information on a wide range of variables - demographic, social, economic and cultural. No history of demography of the Congo can be written without due reference to it. It is the most secure baseline for any attempt to trace the demographic developments that have taken place prior to and after it. This stands out all the more when we realise that 40 years after, no survey of that scale has been conducted in the country. The demographic survey, EDOZA, carried out between 1974 and 1976 by the University of Louvain (Belgium), though high in quality, covered only four out of nine provinces. And the analysis thereof was essentially limited to fertility. The Population Census taken in 1984 was never published, except for one single publication of the individual characteristics. Even today, analysis of mortality and fertility draws much on the data from the 1955-57 Survey, with some updates, based on the United Nations evaluation. This was the case of the demographic projections for the period 1970-1984 carried out by professors Joseph Boute and Léon de Saint-Moulin, as well as those covering the period 1984-2000 by professors Ngondo a Pitshandenge, de Saint-Moulin and Tambahe.

A. Romaniuc's scientific achievements are equally worthy of acclaim. Owing to his numerous publications, we have a widely improved knowledge of the mid-XX century demography of the Congo. The analysis of this country fertility remains unmatched in scope and depth. His contribution to the knowledge of infertility as a pathological phenomenon, that affects many regions in Africa is well recognised. His approach to the study of polygamy is void of the prejudices that too often cloud studies of this marital custom in Africa. What many have easily dismissed as "barbaric" custom, Anatole Romaniuc knew to discern the deeper social and cultural underpinnings thereof. His publications on the demography of the Congo still serve as a reference in research and teaching in the Congo and elsewhere. No one has better captured the essence of Romaniuc's legacy than professor Ngondo a Pitshandenge, and we prefer to let him speak for himself, as he wrote in French:

“Romaniuc fait aujourd’hui figure de référence, et sans doute la plus importante référence en matière de statistiques démographiques de la République Démocratique du Congo. Ses travaux sur la polygamie et sur l’infécondité ont longtemps servi de bréviaire aux étudiants en démographie des universités congolaises, des universités de Louvain et de Montréal ainsi que de l’Institut de Formation et de Recherche Démographiques (IFORD) de Yaoundé. C’est en partie à travers ses travaux que nombre de ces étudiants ont appris à connaître et à aimer la démographie. Très connu des chercheurs en sciences sociales, en général, et en démographie en particulier, cet illustre personnage est resté cependant quelque peu inconnu de l’administration post-coloniale africaine peu encline à recourir aux statistiques. C’est pour remédier à cette lacune que les auteurs de cet article ont tenu à rendre un vibrant hommage à Romaniuc afin que les nouvelles générations se souviennent comme il se doit de ce véritable héros dans l’ombre.”

The Secret of Success Story

The success of an enterprise depends as much on one's skills as on one's personal qualities. How is it that this "apatride" (stateless) who landed in the Colony, as a young man, without experience, was able to carry out a work on the scale of the 1955-57 Census? He certainly must have been a fast learner to cope successfully with the complexities that are involved in such a mammoth endeavour. But, those of us who know the man, have come to discern certain personal qualities that allowed him to overcome his lack of experience: stamina and determination, dedication to the cause of Congolese demography, but also the simplicity and the sense of friendship which gained him the unfailing loyalty and support of his entourage. He used to say, "I was lucky to have such fine people working with me." A Wanzoame Philippe, who later took over the Bureau of Demography, a Naté Fabien who assisted him in every day work, and many others he fondly remembers, gave him all their support. He was able to

Séraphin Ngondo a Pitshandenge, Ibrahima L. Diop, Daniel M. Sala-Diakanda & Jean Wakam

bring to the Bureau some outstanding individuals. Joseph Pongo, still a student while working with A. Romaniuc, was a young talent, who became after independence Ambassador to United States and subsequently to Canada. During his tenure as Ambassador in Ottawa the two families often met socially and reminisced about the days in the Congo. But it was his “right hand” man, Ernest Kashemwa, a Bashi from Kivu, later also Ambassador, whom he feels he owes so much. Kashemwa in turn was most lavish in praising this “*Mondele*” (White man) for his competence and his unfailing friendship. When independence came, Anatole Romaniuc was among the handful of colonial agents who were asked to continue serving the new Independent State. Not surprisingly, he still has many friends in the Democratic Republic of Congo.

Acknowledgements:

The authors of this article are leading demographers of Sub-Saharan Africa. Dr. Séraphin Ngondo a Pitshandenge is Professor of Demography, and formerly Dean of Social Sciences, National University of Kinshasa, Democratic Republic of Congo; Dr. Ibrahima L. Diop is executive director of "Agence pour la promotion des activités de population - Sénégal", formerly Executive Secretary of the Union for African Population Studies; Dr. Daniel M. Sala-Diakanda, currently UNFPA Representative in Chad, formerly Chief of the Department of Demography and Professor, National University of Kinshasa, Democratic Republic of Congo; Jean Wakam, Professor at IFORD-University of Yaounde II, Cameroon. They wished to take the opportunity of this special issue of the Canadian Studies in Population to express in the form of an article their appreciation of their colleague and friend, Anatole Romaniuc, for his pioneering work in Africa and in the Congo in particular. While the article is a narrative of his achievements in Africa, it raises at the same time broader issues in demography of this part of the world.

References:

- Adegbola O. ,1977, New Estimates of Fertility and Childmortality in Africa South of Sahara, *Population Studies*, Vol.31, No 3, pp.467-486.
- Brass W. et al. 1968, *The Demography of Tropical Africa*, Princeton University Press.
- Diop Ibrahima, L. 1975. *Les aspects démographiques de la main d'œuvre au Sénégal*, Yaoundé.
- Diop Ibrahima L. 1990. *Étude de la mortalité à Saint-Louis, Sénégal*, Paris

- EDOZA. 1978. Synthèse des études démographiques de l'Ouest du Zaïre 1974-1977, Université Catholique de Louvain.
- Gendreau F. 1998, *Crises, Pauvreté et Changements démographiques dans les pays du Sud*, AUPELF-UREF/Ed.ESTEM, Paris.
- Lorimer Frank .1954. *Culture and Human Fertility*, UNESCO.
- Ngondo a Pitshandenge S. 1974., *Évolution et caractéristiques de la croissance démographique en République du Zaïre. De la colonisation à nos jours*. Thèse de maîtrise en démographie, Université Catholique de Louvain, Louvain-la-Neuve.
- Ngondo a Pitshandenge S. 1978., *De la polygamie et fécondité dans la société Zaïroise. L'exemple de Yaka de la zone de Popokabaka*, Working paper no 57, Département de Démographie, Université Catholique de Louvain, Louvain-la-Neuve.
- Ngondo a Pitshandenge S. 1982. *De la nuptialité et fécondité des polygames. Le cas de Yaka de Popokabaka*, Annales du Musée Royal de l'Afrique Centrale, Tervuren, No 1. 340 p.
- Ngondo a Pitshandenge S. (jointly with L. de Saint Moulin and Oleko Tambashe). 1992 Perspectives démographiques du Zaïre 1984-1999 et population d'âge électoral en 1993 et 1994, Centre d'Études et Action Sociale (CEPAS), Kinshasa 74 p.
- Pilon Marc, Th. Locoh., E. Vignikin., P.Vimard (Ed.). 1997. *Ménages et familles en Afrique. Approches des dynamiques contemporaines*, Les Etudes du CEPED N°15, Paris, CEPED, 408 p.
- Retel-Laurentin, Anne. 1974. *Infécondité en Afrique Noire. Maladies et conséquences sociales*. Paris, Ed.Masson, 188p.
- Retel-Laurentin, Anne, 1975. Aspects culturels de la sexualité en Afrique Noire, *Le Concours Médical*, vol.97, n°1, pp. 32-40.
- Retel-Laurentin, Anne, 1978. Evaluation du rôle de certaines maladies dans l'infécondité. Un exemple africain , *Population*, vol.33, n°1, pp.101-119.
- Romaniuk, A. 1959. *Evolution et perspectives démographiques de la population au Congo Zaïre*, XIII, 6, p. 563 – 626.
- Romaniuk, A. 1961. Fécondité et stérilité des femmes congolaises,. *Congrès International de la Population*, New-York, t. II, p. 109 -116.

Séraphin Ngondo a Pitshandenge, Ibrahima L. Diop, Daniel M. Sala-Diakanda & Jean Wakam

- Romaniuk, A. 1961. *L'aspect démographique de la stérilité des femmes congolaises*, Léopoldville, I.R.E.S. – Lovanium,.
- Romaniuk Anatole, 1967. *La fécondité des populations congolaise*, Edition Mouton, Paris - La Haye, p. 348.
- Romaniuk, A. 1968. Infertility in Tropical Africa, paper presented at the *First African Population Conference*, Ibadan, Nigeria, 3-7 January, 1966, and published in John C. Caldwell and Chukuka Okonjo (ed), *The Population of Tropical Africa*, Longmans.
- Romaniuk A. 1980, Increase in Natural Fertility During the Early Stages of Modernisation : Evidence from an African Case Study, Zaire, *Population Studies*, Vol.34, N°2, pp. 293-310.
- Romaniuc A. 1988, Polygyny and Kinship in Tropical Africa: A Demographer's View, *African Population Conference, Dakar 1988*, IUSSP, Liège, Vol.2 : 5.1.45-5.1.60.
- Sala-Diakanda Mpembele, 1980. Approche ethnique des phénomènes démographiques : Le cas du Zaïre, Cabay, Libraire-Editeur S.A. Recherches démographiques, Cahier n°4, 433 pages.
- Sala-Diakanda Daniel M., Problèmes d'infécondité et de sous-fécondité en Afrique centrale et de l'ouest, *Congrès international de la population, Manille 1981*, IUSSP, Liège, Vol.3, pp.643-666.
- Sala-Diakanda Daniel M., Fécondité et caractéristiques socio-économiques et culturelles, selon le milieu d'habitat au Zaïre, *Canadian Studies in Population, Edmonton 1982*, Vol.9, pp.45-69.
- Sala-Diakanda Daniel M., Utilité et définition du concept *ethnie* en démographie africaine", paper published in AIDELF, *Démographie et destin des sous-populations*, Paris, 1983, n°1, pp.53-62.
- Vimard Patrice. 1997. Modernisation, crise et transformation familiale en Afrique subsaharienne, *Autrepart* (2), pp.143-159.
- Vimard Patrice. 1998). Transitions démographique et familiale. Une relecture des théories à la lumière de la crise, in Gendreau F. (ed), *Crises, pauvreté et changements démographiques dans les pays du Sud*, AUPELF-UREF/Ed.ESTEM, Paris.

- Wakam Jean. 1994. *De la pertinence des théories "économistes" de fécondité dans le contexte socio-culturel camerounais et négro-africain*. Les Cahier de l'Iford N°8, Yaoundé, 527 p. (Thèse de doctorat en démographie soutenu en 1992 à l'Institut de Démographie de l'Université Catholique de Louvain, Louvain-La-Neuve, Belgique).
- Wakam Jean. 1996. Modernisation et nucléarisation familiale en Afrique. Cas du Cameroun, de la Côte d'Ivoire et du Sénégal, 32 p (à paraître dans les *Actes de la Chaire Quetelet* 1996 sur Entre l'utile et le futile: Pistes pour une démographie du xxiè siècle).
- Wakam Jean. 1997. Différenciation socio-économique et structures familiales au Cameroun, in Pilon M.et al. (Ed.), *Ménages et familles en Afrique. Approches des dynamiques contemporaines*, Les Etudes du CEPED N°15, Paris, CEPED, pp.257-277.
- Wakam Jean, Rwenge M. & Kuepie M. 1998. Pauvreté et structures familiales dans trois métropoles africaines: Yaoundé, Abidjan et Dakar, in Gendreau F. (ed.), *Crises, pauvreté et changements démographiques dans les pays du Sud*, AUPELF-UREF/Ed.ESTEM, Paris pp. 167-182.
- Wakam Jean. 1999. Transition de la fécondité et facteurs culturels en Afrique. Le cas des Bamiléké du Cameroun , in Tabutin et al (Eds.), *Théories , Paradigmes et Courants Explicatifs en Démographie*, Chaire Quetelet 97, Academia /L'Harmattan, pp. 419-444.