Before all memories are lost: from self-sufficiency to monetization to market during the 1970s-90s; historical, economic and cultural changes in Bor District, South Sudan

Zanen, Sjoerd T.M.

African Studies Centre Leiden
The Netherlands

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Sjoerd T.M. Zanen

African Studies Centre Leiden
Leiden University
ASCL
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African Studies Centre Leiden
P.O. Box 9555
2300 RB Leiden
The Netherlands
Telephone +31-71-5273372
Website www.ascleiden.nl
E-mail asc@asc.leidenuniv.nl

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1. Introduction

Earlier this year (2020) the report *South Sudan's Changing Tastes* was published. It was written by South Sudanese scholars and their international peers.[2] Although the publication concerns a 'sector' (agricultural production), it is about people, their daily occupations, challenges and changes, living in a multitude of interconnected 'sectors'. The accounts by Deng Kuol and Elizabeth Nyibol about the value attached to grain varieties and the risks and pains taken to preserve them, even in times of war and displacement, are especially heart-warming. 'Sectors' are abstractions or categories, often constructed from the analysis of statistics which cut them out of the society as a whole without attention to other contexts. Studies of sectors are seldom focused on people's beliefs, experiences, preferences, stories and memories. Often, in works on sectors, the people studied disappear in quantitative figures, graphs and averages and become lost in abstractions, trends and theories. In this way, much of what people do and why they do it, the choices they make, the challenges they deal with, are not properly clarified, and hence forgotten in the course of time and generations, wars and displacements. Sources like *South Sudan's Changing Tastes* (combining macro-economy with context and stories) contribute to a better understanding of historical processes, and to a memory of bygone days. Since South Sudan is changing rapidly, one should hurry to collect stories and to tap information from oral histories, lest memories evaporate.

It is not only real-life memories that tend to get lost quickly. This is also the case with written reports of studies conducted in the pre-computer, pre-internet era, reports typed on ribbon or wax, stencilled or photo-copied in very limited editions, and in the course of time discarded as obsolete, removed from obscure libraries

[1] The author is grateful for contributions by the following persons: Brendan Tuttle, Edward Thomas, Hans Bonarius, Tjark Struif Bontkes.and Gine Zwart.

[2] Researched and written by Deng Kuol, Edward Thomas, Eiizabeth Nyibol, Jimmy Pitya, Jovensia Uchalla, Loes Lijnders, Luga Aquila and Steven Amosa. The report is a product of the X-Border Local Research Network, a component of DFID's Cross-Border Conflict – Evidence, Policy and Trends (XCEPT) program, funded by UKaid from the UK government and conducted in partnership between RVI and the Catholic University of South Sudan (Rift Valley Institute, 2020).

or cleared away when institutions, departments or organizations are dissolved. This happened to almost all the material produced during seven years of multi-disciplinary research and project implementation in the Bor District (as it was called) in South Sudan between 1976 and 1984 by the Dutch Pengko Pilot Project and Bor Area Development Activities, bilateral programs funded by the Dutch government and implemented by Ilaco (International Land Consultants). When the programs had to close down in 1984 due to the outbreak, a year earlier, of the second Sudanese civil war (1983-2005) the handling of records was unsystematic, careless and incomplete. Written and printed materials were either locked up in cupboards (as the Dutch expected to come back) or dropped in the Dutch Sudan embassy in Khartoum which was no longer concerned with the region after the independence of South Sudan in 2011, and got rid of all documents concerning "southern Sudan". Later investigation in the archives of the Dutch Ministry of Foreign Affairs in The Hague produced little more than financial reports of the biggest Dutch-funded projects, like the road-construction projects in Equatoria, and correspondences. Moreover, Ilaco/Euroconsult, the engineering company executing or coordinating the projects in Bor, ceased to exist in 2007 (when it was sold to Mott MacDonald), and no project material from Bor survived the transition.

I would not be surprised if documents from other big projects have undergone the same fate. Norwegian Church Aid had a very big, long-term multi-sector development program based in Torit, and the Jonglei Executive Organ, based first in Khartoum and later in Malakal, Panyagoor and Bor respectively (until 1984) carried out a number of projects. Many more or less sophisticated studies were conducted by these programs, and much practical knowledge was obtained about cultural habits, agricultural and cattle husbandry practices, ecology, and so forth. The same applies to the documents of the few NGOs that operated in the area in the early nineteen-eighties. Much of this material has been lost or only preserved in the possession of the authors of those reports (Sudanese and expatriate academics, engineers, students, etc.), and destined to disappear when their authors move house or die, or to be removed from libraries, where they are not considered important enough to be digitized. Published sources about the knowledge accumulated during those projects are rare. Re-inventing the wheel is therefore a common phenomenon in development projects of this kind since they have no institutional memory.

An exception is the book published about the Jonglei Canal (1988)[3] by the Mefit Babtie team that conducted research, from 1979 till 1983, in the canal area from Bor in the south to Malakal in the north. The book mainly covers ecology: hydrology, vegetation, soils, cattle, wildlife, fish, etc., but also contains chapters on the population, their ways of life and how they would have to cope with the future canal. However, the excavation of the canal was interrupted during the second Sudanese civil war (1983-2005), and never resumed. The authors of this book tried to collect and summarize all information related to the canal-area that was available to them at that time, including some internal Ilaco reports.[4] This Jonglei canal study was a repetition and follow-up of the research conducted by the Jonglei Investigation Team[5] (1954) which had to be updated after major hydrological changes appeared in the area since the 1960-s which seriously influenced the Jonglei wetland-ecology.

This article is called 'Before all memories are lost'. It is meant to dig up and preserve some unpublished documents (some of my fieldwork notes, among other things), which were produced by project staff and students doing internships in the Bor area. Among the documents found is a map I drew of "Bor District" in 1983, on which are shown the Bor Gok and Bor Athooc sections (*wut*), "court centres" (*boma*) and other village centres, recently drilled boreholes equipped with hand pumps, mechanically re-excavated hafirs (*wer*), flood protection dykes, forest boundary, abandoned areas, swamp and river channels, etc. I have remarked that some placenames have changed in the course of time. The map is annexed to this article.

Speaking about the history of South Sudan, one must credit the historian Douglas Johnson who in 1981/82 recovered (and saved from destruction) colonial archives from South Sudanese District capitals and brought them over to the Southern Record Office in Juba. This also reminds me of my own efforts to save a library with many historical works, in Bor, in 1983, recounted by Brendan Tuttle in a 'Mediation of the Past' workshop at the Catholic University in Juba in 2018:[6]

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[3] Howell, P.P., M.Lock and S.Cobb (1988) (ed): *The Jonglei Canal. Impact and Opportunity* (Cambridge University Press).

[4] Two Ilaco PPP/BADA team members (Tjark Struif Bontkes and Sjoerd Zanen) are mentioned as contributors to the book.

[5] The Equatorial Nile Project and its Effects on the Anglo-Egyptian Sudan, 4 vols (Khartoum).

[6] Tuttle, B. (2020) Memories Across Generations (Juba: The Institute for Justice and Peace Studies – IJPS – Catholic University of Juba).

There is a junction in Bor called Pan Macuor. It is not named after Archdeacon Archibald Shaw, a missionary nicknamed Macuor who published many translations of Dinka-language songs and stories. The junction is named for Jereboam Macuor, one of Archdeacon Shaw's students. He became famous for being the first—and at the time, only—pharmacist in Bor and for possessing a well-stocked library with many old books that he had collected. He had copies of Emin Pasha's diaries, Rudolf Carl von Slatin's account of his captivity, Charles Gordon's letters and diaries, Evans-Pritchard's ethnographies of the Nuer and Zande, Richard Gray's and Robert O. Collin's histories of Sudan, and many other volumes. His pharmacy, like his library, was well stocked with items that his many British and other friends sent him. He lived in a good stone house, one of the very few that was outside the center of the town.

But in 1983, when the mutiny was being planned, Jereboam Macuor asked a friend of his, a Dutch anthropologist named Sjoerd Zanen (Tong Mabior, who told me this story), to take his books and store them in the International Land Development Consultants (ILACO) compound in Pakuau. His son, Marial, said that his books had later been wrapped up to protect them from termites and hidden in a luak and, later, donated to the library at Juba University.

When I revisited Bor in 2015 I learned the importance of pre-war memories for people in Bor, and the great value placed on their revival through images, stories, facts and voices of the past. People asked me if I had kept the notes I made in the 1980s about their family histories. They also asked for photos of ancestors and family members and famous cows. These requests multiplied after my book[7] with photo illustrations became known among the South Sudanese Diaspora in the US and in Australia in 2020. When I sent photos, a man from Duk Faiwil was greatly moved by seeing on one of them, for the first time in his life, the face of his father who had died or disappeared before his birth. This article was written in particular for the youngsters who grew up in Bor District (County) during the *interbellum* period (1972-1983).

Apart from the Bible, prayer books and the books in the library of Jereboam Macuor, there were hardly any books to be found in Bor in 1972-1983. Even paper was scarce. Doctor's prescriptions were written on ballot papers of the 1977/78 elections (which were available in abundance); these strips of paper were also in use by pupils in primary schools. Newspapers rarely arrived from Khartoum or elsewhere. At that time, apart from Francis Mading Deng, there were no publishing southern Sudanese historians and, in Bor, no local publications were to be found except those produced by churches.

[7] Sjoerd Zanen: Tong Mabior. In het gebied van de Boven-Nijl – tussen verleden en toekomst. African Studies Centre; Occasional Publication 33, 2018 [*Tong Mabior. In the Upper Nile region – between past and future*].

Most knowledge of the past was in the heads of people, and transmitted orally from one generation to the next. People had fantastic memories. In 1978 I overheard a conversation between Gabriel Gany (who was then Commissioner of Jonglei Province) and a friend who asked him where he had been on the 20th of February 1963. He answered: "let me see, on that day I left Ayod and walked to Waat". In contrast to colonials who had a writing-culture and published information about local events and happenings in "notes and records", writing was not a favoured pastime among post-colonial intellectuals and administrators in Bor. Most events were remembered in oral accounts, stories and songs. In Bor, around 1980, there was no television, no internet, no telephone. Most communication between people was oral. Leisure activities mainly consisted of visits and social calls during which news was exchanged, songs listened to, and histories recalled. It was only when sound recorders were available that students started to tape songs. Some were politically motivated, meant to support political claims with songs about the prophecies of Ngundeng Dong (1830-1906) and other prophets. New techniques provided new opportunities but also limitations. In 2015 the Honorable Philip Thon Nyok, parliamentarian in Bor, told me a story about how he had typed an account of historical events in the Greater Bor area on a computer, where he compiled stories recounted to him by local informants, but lost the entire text when the computer crashed and its contents could not be recovered. Nowadays, there are many more ways to store and conserve information (including social media), and publications based on fieldwork abound, more and more by South Sudanese scholars.

But let us look to the 1970s and 1980s, before the Bor mutiny and the outbreak of the second Sudanese civil war in Bor in 1983. In the 1950s,[8] Bor District, with its schools, hospital, open wells, roads etc. had a very favourable (colonial) reputation. The Jonglei Investigation Team (1954) judged the district "the most advanced of Upper Nile Province". During the 1960s, at the time of the first civil war (1955-1972), southern Sudan was practically isolated from the outside world. Bor District was hit hard by acts of war (mainly attacks by Anya-nya in 1965, and killings by the Sudan army in 1967), by annual Murle raids, by Nile river floods, by smallpox and cholera epidemics and, by lack of medical services, other fatal

[8] The history of Bor District in southern Sudan from Turkiya and Mahdiya till the end of the colonial period can be found in Robert O. Collins (1962): Southern Sudan 1883-1898. A struggle for control (Yale University Press), Richard Gray (1961): A History of the Southern Sudan, 1839-1889 (Oxford University Press); H.C.Jackson (1960) Pastor on the Nile. A memoir of Bishop L.H. Gwynne; Toniolo, M. and Hill, R. (1974): The opening of the Nile Basin (London, C. Hurst & Co); Jonglei Investigation Team (1954), etc. See also the more recent dissertation by Tuttle (2014) Life is prickly. Narrating history, belonging and common place in Bor, South Sudan (Temple University), based on fieldwork in Bor in 2009/2010.

tropical (human and animal) diseases. The region was later called (by British academics) "one of the most remote and least developed corners of the globe" (Howell e.a. 1988:7).

During the 1970s southern Sudan was recovering from the first civil war.[9] To support the region, donor aid projects entered the country.[10] One of the first Dutch projects in southern Sudan was the construction of the Nile bailey-bridge in Juba, followed by road construction in Eastern Equatoria (the Juba-Nimule Road) and the agricultural pilot project for large-scale agriculture in the Pengko Plain east of Bor. Like the Jonglei canal which was *in statu nascendi* during the same period, a large-scale, mechanized Pengko Plain grain-project never materialized as the feasibility study advised against it. However, the focus of recovery gradually shifted to 'integrated rural development' during the eight years' presence of the Dutch in the Bor area. With this focus came projects for agricultural extension, veterinary services, primary health care, rural drinking water supply, rural infrastructure, forestry, etc. all of which needed preparatory studies.

As a preparation for the Bor Area Development Activities, a Dutch agro-economist (Hans Bonarius) and an anthropologist (myself) were recruited to undertake studies in the rural and urban areas of Bor District, the Bor Rural Council or Bor County (Bor Dinka Gok and Bor Dinka Athooc). Annoyed by the at times disrespectful or even racist attitudes of some of the expatriate staff on the project compound, I put up a tent near the cattle camp in Palek-Anyidi court center, where I was later adopted as a son of court-president Nai Achol, and brother to his son, Achol Nai, the cattle-camp leader. I obtained cattle, a local name, and built a house which became the center of rural studies and agricultural extension and came to be called Pande Tong Mabior. A Dutch student from Wageningen University (Gine Zwart) was asked to study the life of Bor Dinka women. She did so in three areas: the Palek rural area (about 30 km from the town), the semi-urban area around the Pengko Pilot Project, which provided employment to men and some women, and Bor Town. In the following sections some materials from studies by Gine and various other scholars (including Hans Bonarius and myself) in these three locations will be presented. The studies show the transition from a more or less subsistence to a more or less monetized rural

[9] Only In 1983 did Bor District have a service sector which was comparable (though modernized) with that of the 1960-s. So its "recovery" from the Sudan post-independence war lasted more than 20 years.
[10] Today, some people may remember the "white elephants" (failed projects) in Gemmeiza and Mongalla, namely the failed sugarcane plantation and the materials of a complete modern slaughterhouse for cattle (stored on the Nile's riverbank)?

market economy. Care is taken to present material that has not been published before, and cannot be found on the internet.

2. Bor District in the 1970-s and 1980-s

Bor District[11] (Bor Dinka) extended from Pariak (an old slave station), the border with Equatoria Province in the south, to Jalle and Wutcung, a cattle camp in the north where the district bordered Kongor District (Twic, Nyarweng, Hol Dinka). The Bor Dinka consisted of Bor Gok with its court centres[12] Kolnyang[13], Anyidi[14] and Makuac[15], and Bor Athooc with its court centres Baidit and Jalle.[16] Fisherman villages (Monytany) resided under the mentioned courts, but the fishermen Monytany's three sections held their own court in Bor town. Mading fishermen are considered the founders of (part of) Bor town which is called Mading by local inhabitants.

By the end of the 1970-s[17] Bor District (excluding Bor town) counted about 50,000 rural inhabitants. The rural gross natural population growth was 2.7%; however, because of urbanization and out-migration, the net growth rate in rural Bor District was 0%, leaving villages with an ageing population. In 1981, Bor town counted between 13,500 inhabitants (wet season) and 17,500 inhabitants (dry season). Most dry-season visitors were from Bor District. A small number came from Kongor District. The reason for the dry-season displacement of mainly older people was a lack of drinking water in villages and, towards the end of that season, a lack of food in the so-called 'hunger period' when the *durra* stock of last year's harvest was exhausted. During that period the youth stayed in cattle camps in the *toic* (dry season grazing area, in or near the Sudd swamps). A still smaller group of dry-season Bor District dwellers were Murle (Beir) from Pibor District. In 1975 Murle obtained the right to reside in Bor Gok territory during the dry season, after the departure of Dinka cattle to the *toic*. Murle cattle then grazed on the grass despised by Dinka cattle. Each day, Murle girls bartered milk for *durra* in Bor town. From 1978-1983 some Murle families stayed permanently in the Achol area (family

[11] Now called "Bor County".
[12] Court centre, nowadays called "boma"; "villages" with centers of sections (wut) nowadays called: "payam".
[13] JuorAbiei (with "sections" Awan, Nhiciak and Nyara) and Juor Hol (with "sections" Guala, Gol, Abang and Adol).
[14] Juor Palek (with "sections" Gaya, Piol, Pakom and Kucdok).
[15] Juor Koc (with "sections" Atet,Adumor, Deer, Koc).
[16] Baidit with "sections" Biong, Angakuei, Pathuyith; and Jalle with "sections" Alian, Abodit, Juet.
[17] The Relief, Rehabilitation and Resettlement Bureau in Bor mentioned that in 1973, just after the Addis Abeba peace agreement, the number of returnees in Bor and Kongor Districts counted 43 000 people.

head: Jon Kuc Kudumor) behind Anyidi until Murle raided Anyidi cattle camp in 1983.

In 1976 Bor became the capital of Jonglei Province (now Jonglei State) where the Provincial Commissioner and his administration resided. The first Commissioner was Venancio Loro, followed by Gabriel Gany (1978), Jonathan Malual Leek (1979), Nathaniel Anay (1981), Nikonora M. Aguer (1983) and Michael Mario Kong (1983). During the 1970-s Bor started to build up a provincial administration, with provincial departments from ministries in Juba. The army headquarters (with Commander John Garang de Mabior, succeeded by Kerubino Kuanyin) were moved from the town to Malualcat, outside the town, with help from the Dutch PPP (Pengko Pilot Project).

The town grew in size and in population (8% per year), and employment increased.[18] The government was the biggest employer. In 1980, 983 men and women were employed by the government in Bor town (excluding army, police and prison personnel). Although almost devoid of financial means, the local government-built offices and started to undertake activities. The hospital was improved and schools were built. In my recollection, at the end of the 1970-s, during the Commissionership of Venancio Loro, a proud, optimistic, self-conscious spirit reigned among the new district and provincial government staff. The small, clean town was well governed with the civil administration building up, there was law and order, and people (among whom there were many returnees from North Sudan and other East African countries) cherished hopes that 'projects' (like the Dutch programs and the Jonglei canal projects) would bring development to the impoverished area. Even the national government at that time followed a development policy. However, contacts between the Provincial Headquarters and the rest of the province remained limited.[19] The other districts lagged behind, especially Pibor district.

The Nile steamer enabled transport to Juba and Khartoum. Around 1983, all-weather roads existed between Bor and Juba, and between Bor and Kongor. Within the district, four of the five court centres (*boma*) were accessible throughout the wet season. The road from Pengko to Gumuruk and Pibor Post remained waterlogged during most of the wet season. North Sudanese trader's "souck

[18] All figures are data collected by Ilaco researchers/students: cf Ilaco (dec 1979, 1980, nov 1981, Smit (july 1981), Struif Bontkes (1991, 1993); Zwart (1981) – see Bibliography.
[19] Because of lack of a functional car Commissioner Gabriel Gany once had to walk more than 150 km from Bor HQ to solve problems in the Nuer districts. At that time most main roads were impassable most of the wet season.

lorries" travelled easily from Renk and Malakal via the Jonglei canal road to Kongor, and from there continued on the improved road to Bor. A Road Maintenance Unit had its headquarters near the Pan Macuor junction and Malualcat, with a workshop and houses, which was transformed into a government compound after the Dutch had left. With the population growing and government employment increasing, the market in Bor slowly grew, but was still controlled by Arab merchants and the arabized wholesaler Dinka Doka Beka, among others. In 1984 there were 24 primary schools in Bor District and two junior secondary schools in Bor town. The Dutch built a new airstrip (the old one was in town) and created an infrastructure in Pakuau, an old cattle camp site (opposite the airstrip, nowadays called the "NGO area"). Agricultural research was conducted on the fields of the Pengko Pilot Project. Irrigated rice cultivation was successfully introduced. In 1982, the combined Dutch projects employed about 120 persons.

As part of a provincial Primary Healthcare Project (PHCP) health-unit-buildings were constructed in the court centres of Kolnyang, Makuac and Baidit, and provided with trained staff, medicines, and equipment. Bor Hospital also received a large stock of medicines. A medical school was opened in Baidit. Bor Area Development Activities (BADA), in collaboration with the provincial Water Department, drilled 39 boreholes in rural areas and equipped them with sturdy[20] Belgian Duba hand pumps, and 7 in the urban area; a large stock of spare parts was provided; village pump operators were trained in maintenance and repairs. These hand pumps complemented diesel-operated (Lister or Petter) pumps in court centres which were often short of fuel and spare parts. In Malek, the erstwhile missionary station, the Malek Appropriate Technology Center (MATC) introduced the ferro-cement building technique which was quickly used in utility buildings.[21] The province, together with various projects, coordinated veterinary care and vaccination campaigns for cattle. In Langbar, north of the town, the headquarters of Jonglei Development Projects (JEO) was constructed, from where a FAO/UNDP fisheries project was launched. A start was made with the construction of a flood-protection dyke in Bor Athooc and further north. The

[20] The Belgian manufacturer, De Backer en Cie, had tested the pump in the Congo (DRC) and advertised the pump as being "Africa proof".

[21] The ferro-cement building technique and its application in Bor District were described by me in December 1991 in an Appropriate Technology periodical called Source de TA (Technologie appropriée) – Vol 19, no 4: *La construction en ferrocement. Transfert de technique et de technologie dans la province de Jonglei, dans le Sud du Soudan*. Source AT was published by Agromisa, CICAT, TOOL (Netherlands) and ATOL (Belgium). It was supported by CTA (Centre Technique pour l'Agriculture et la Coopération Rurale), an EEC financed institution for ACP countries.

excavation of the Jonglei canal which had started in the north of the province near mouth Sobat had reached Kongor District.

Today, little trace of all these achievements have survived. Tuttle testified to the destruction and following that, the loss of memories:

> … it was possible to forget how Bor blossomed between 1973 and 1984 because so little that was built during that time survived.
> Some evidence remains. The compound where the local ministries have their offices is called De Groot after the Dutch road-construction company that built the bailey-bridge in Juba (replaced in 2006) just after the Addis Ababa agreement, and laterite roads connecting Juba to Torit and Juba to Bor, Kongor, and Panyagoor. De Groot's Road-Maintenance Unit was based in Pan Macuor until their staff evacuated in 1984. Much else has disappeared. The ILACO compound in Pakuau beside the Bor airport is where many NGOs are now located. Prior to 1984, there were 10 villa-houses, an office, a guest-house with a borehole and big workshop and a water tower, a fuel station and a bar with a swimming pool. Only two houses and the office remain.
> In 1984, the Sudan Armed Forces (SAF) systematically demolished and removed everything that had anything to do with development in an effort, it seemed, to crush morale. Only a ruined pump remains where there used to be irrigated fields stretching between Pakuau and Pan Macuor. Some of the PHCUs, vocational centers, and boreholes constructed under the Bor Area Development Activities (BADA) during the interwar period remain, but most were destroyed. So was the Jonglei compound in Langbar.[22]

3. Bor Dinka –customary and administrative arrangements

The following description concerns the situation in the 1970-s and 1980-s.
The period from 1972 to 1983 can be called the *inter bellum,* the period between two civil wars. For Bor District it was a time full of promises in many fields ("… how Bor blossomed …", cf quote above), though in the field of politics thundery skies appeared on the horizon. What the approach of the Jonglei canal and the discovery of oil by Geo Survey/Total would bring was then still unknown. The development of Bor town, slow as it might have been, also had an impact on Bor's hinterland. The inhabitants of Bor District's rural areas maintained a predominantly 'subsistence' economy (i.e. a mixed, self-sufficient, non-monetized economy with none or hardly any surpluses) based on transhumant cattle husbandry and manual *durra* cultivation, with a corresponding social life based on bride wealth cattle exchange, on seasonal migrations by young people, and a reliance on clan divinities (*jok*) which mediated between men, God, and the earth,

[22] In 1991 Bor town and Bor and Kongor districts received a second blow during the 'Bor Massacre' when the town and countryside were attacked by Nuer "White Army". In December 2013 a second murderous White Army attack on Bor and its hinterland took place.

and demanded blood sacrifices. Dry-season courts, based on customary law, solved all but the gravest juridical offences. They represented rural law and order, and were a crucial factor in *checks and balances*.

The predominantly 'subsistence' economy based on self-sufficiency was regularly threatened, either by cattle diseases, by inundated pastures and fields (*bor* means flooded land in Dinka), or by droughts. When *durra* harvests failed and/or cattle provided too little milk, small stock (sheep and goats) and cattle (oxen and dry cows) had to be sold on the cattle auction in Bor town. With the proceeds of the sales, *durra* imported from Renk, was purchased on the grain market in town. Studies indicate that the rural economy was hardly ever totally self-sustaining and self-contained[23] under the prevailing circumstances, which created an increasing dependence of the rural population on the town: the need to search out wage employment or to rely on relatives residing in the town. In the past, during periods of extreme hunger, people in the rural areas complemented their milk and/or grain diet with forest and river products.[24] Their reliance on kin living in areas with better harvests and/or less severe cattle diseases was stronger than today (according to villager's accounts) and necessitated occasional, seasonal displacements of families.

Before presenting some economic, data I will briefly lay out some highlights of the rural Bor administrative structure.

Bor town is part of Bor Gok, which encompasses the area where the Dutch projects were installed and where most project activities took place. Together with Bor Athooc, these two divisions form the so-called Bor Dinka. Before colonial government there was no leadership *system*. A *system* of chiefs and courts was imposed after the colonial occupation at the beginning of the 20th century. Since then, Bor Gok has during about 50 years been a (loosely structured) corporate unit. From about 1900 till 1957 Acol Deng (Gaya) was recognized as chief (*banydit*) of whole Bor Gok. The Eastern Dinka as a whole (Bor, Twic, Nyarweng, Hol) have (during the 20th century) known "paramount chiefs" representing the whole

[23] "Bor District as a whole is always short of grain" (JIT 1954: 367).
[24] Wild rice and 'bad durra' (*raudit*), forest fruits of Balanites Aegyptiaca (*thau*), and seeds of water hyacinth. I have also seen old men looking for lungfish surviving the dry season in the mud underground. The men make a soft whistling sound or make a small sound on a drum which is answered by the fish in the mud from a small opening through which they breathe. The men then know where to dig. Murle also dug up lungfish near Bor. Compare E. Thomas (2019: 72), and M. Arensen (2017:21).

of the Eastern Dinka (e.g. Deng Malual Aleer Goi, a Nyarweng Dinka)[25]. But the whole *system* of formalized chieftainship, i.e. the selection, nomination and installation of "chiefs" was a colonial creation, and so were "tribal courts" and "tribal borders" as they exist today.

The Bor Dinka formally consist of two entities, Gok and Athooc, but the criteria for this division were based, merely, on administrative convenience and have no significance for the inhabitants. Between Bor Gok and Bor Athooc there is a relationship through the related sections of Guala (Bor Gok) and Angakuei (Bor Athooc). In the past they were "one," living together in the Gok area, until two brothers quarrelled and one of them went to stay in the Athooc area. Despite this division, the sections shared joint clan divinity, Lir Piau, who has been of spiritual significance for all Bor Dinka until it was destroyed in the 1990-s. The "sacred spear" alternately resided in Guala and in Angakuei.[26]

Sections (*wut*) are not necessarily territorially strictly separated, their borders may overlap, and cattle camps and pools may be shared although their 'ownership' is based on historical claims. For instance, the border between neighbouring section Biong (Bor Athooc) and Deer (Bor Gok) is arbitrary, as parts of section Biong are now living in what used to be Deer and parts of Deer are now in Biong (information by B. Tuttle). Intermarrying between most of the Bor sections is frequent. They form a network of kinship relations independent of "tribal borders", which can be relied upon in times of hardship. Perhaps one can say that a formal system of territorial units with "tribal courts", comprising "tribal sections" (*wut*), has in the course of the 20th century been administratively formalized and has stabilized "tribally" (the colonial system of rural administration has been kept in place after independence in 1956). If territorial border problems occur between sections (*wut*), this is most of the time due to agreements in the past which are not remembered or misinterpreted today.

[25] In the 1970-s and 1980-s no Dinka paramount chiefs were recognized although some claim that Abel Alier from Angakuei, a BorAthooc section, the first president of the southern Sudan High Executive Council was the Eastern Dinka paramount chief. In the 1980-s, some people proposed that David Mabior, from Adol, a BorGok section, would qualify as paramount chief. One becomes such a chief because of personality, political and diplomatic skills.
[26] In 1910, photos of the shrine and the *banyjok* (keeper of the shrine), Biordit, were taken by the family Seligman (Pitt Rivers Museum collection, University of Oxford) during a visit to the missionaries in Malek..

The Dutch Bor Area Development Activities (BADA) systematically made use of the existing rural administration system[27] in its communication and collaboration with the local population. Instead of encouraging 'development committees' to be formed in villages, as happened in other programs, BADA used the court (*boma*)-*wut*- lineage system to discuss, plan and execute borehole-drilling, road improvement and *hafir*-execution projects. In order to select borehole *locations*, meetings were organized in the five court centres where a consensus was found to first drill in the largest section (*wut*), then the second-largest section, etc., leaving it to each *wut* to indicate the preferred site for a borehole (based on their own criteria[28]). In order to avoid jealousy *between* villages, BADA/Jonglei Water Department first drilled in the largest section in the southernmost village, then moved to the largest section in the next village, etc., then returned to the first village for drilling in the second-largest section, then to the second-largest section in the next village, etc. This has proved a satisfactory arrangement, and no conflicts occurred nor were complaints heard. Some sections preferred the excavation of their *hafir* (*wer*) as they already disposed of a pump or well nearby. With the improvement of roads, veterinary vaccination campaigns etc. more or less the same method was applied, each time based on the principle of consensus and thus 'ownership' during 'tribal' meetings. It was the start of a decentralized, participatory, bottom-up planning system which was also applied by the UNDP/IRDP in Kongor District.

Thus, the Bor Dinka "tribe", society, district or county consisted[29] of territorial villages composed of a number of "sections" or "clans" (*wut*) which were interrelated by kinship, either by descent, by affinity or by the adoption of settlers from elsewhere. Each *wut,* a word also designating 'cattle camp', was thus a community of people and cows, i.e. those who jointly herd their cattle. They lived in a defined territory with residential areas, fields and cattle-camps over which they claimed ownership rights. They were corporate entities, had an elected chief and one or more section divinities (*jok*).[30] Sections (*wut*) consisted of smaller, exogamous kinship units ("clans" and lineages). Juristically and administratively, villages (*juor*) had court centres (today called *boma*), headed by a court president who was usually (but not necessarily) the chief of the biggest, so-called dominant section. Juor Palek, for instance, consisted of the four interrelated sections Gaya, Piol, Pakom and Kucdok of which Gaya was the biggest. The court-system was

[27] The chief's court system was (arbitrarily) reorganized by SPLA zonal commanders in the late 1980-s. Hutchinson mentions customary law changes among the Nuer by a zonal commander; Tuttle (2014) mentions imposed taxes as a contribution to the SPLA by a zonal commander among the Dinka.
[28] Except that the program demanded that from each borehole site two volunteers were designated to attend a hand pump/borehole maintenance and repair training. Women also attended the trainings.
[29] I write in the past tense. The description represents the situation in the 1970-s/1980-s.
[30] Local divinities and their emblems were destroyed after the 1991 massacre, including Lir Piau.

introduced by the British in 1922. Until 1957, Bor Gok counted one court, in Anyidi, located near the section cattle camp wut-Anyidi of Gaya/Piol. After the death of chief Deng Acol (Gaya) in 1957, his successor Gay Ayuel (Piol) decentralized the Bor Gok court into Kolnyang, Anyidi and Makuac courts. The court centres also functioned as service centres – sites of primary schools, mechanical water pumps, medical services, tax collecting and election centres.

All Eastern Dinka live on the so-called floodplain. In the wet season the flat land with its heavy, impermeable soils is inundated by rainwater, leaving dry only the highest ground or ridges, where the residential areas with fields and wet-season cattle-camps are located. Sorghum, maize, tobacco, some beans, pumpkins and sesame are grown around homesteads. When the Eastern plain (*aying*) dried up the long grasses were burnt. Young people took some of the cattle to the plain where cows grazed on the fresh re-growth of grass. In the past, the Eastern plain was settled and people had dug water-ponds (*wer*, *hafir*) there to retain rainwater run-off. Cattle could stay in *aying* as long as these *wer* still contained water. When they dried out, cattle and their herders returned to the villages where, in the meantime (often) a second (ratoon) *durra* crop had been harvested, supplying stalks for cattle to feed upon. The herds roamed about on "intermediate" land until the riverine pastures (*toic*) were accessible again after wet season floods receded. The Bor Gok had to cross the Bahr-el-Jebel (White Nile) to reach their cattle camp locations in the *toic* in the so-called Aliab valley swamps. Further north, in Dinka Twic country, the *toic* was more easily accessible. People and cattle stayed there as long as possible. Halfway the dry season *juor* Hol and *juor* Palek cattle were herded on pastures near the river in Mundari and even Bari lands more to the south (20% of Bor Dinka cattle). Before the 1960s (i.e. before the water level of the river Nile rose) the Bor Dinka shared or fought over good pastures in Aliab Valley with the Aliab Dinka from the west bank (Lakes Province). After the first rains, when water was again available in villages, people and cattle returned, and the elders starting land preparation for the first *durra* crop.

Thus, there was an annual movement of people and cattle (but not all people nor all cattle), first to the east (*aying*), then to the west (*toic*)[31], and back east again to the permanent villages. The *juor* borders reflect these movements of cattle which

[31] The 19th century Turkiya and Mahadiya periods are well-known for their slave and cattle raids. While later Murle raids on Dinka cattle camps took place by warriors who travelled far from Murle to Dinka areas when the latter's cattle still resided in (wet season) cattle camps, I assume that Turkiya and Mahadiya soldiers (stationed in *zeribas* or military barracks near the river) waited with their raids till the dry season when Dinka cattle herds were driven to that same river to reach their riverine (toic) grazing areas, thereby forming an easy prey for well-armed troops.

form parallel east-west lines between which the *juor* territory is located. This does not mean that cattle herders always respected these borders, particularly if a scarcity of fodder or water forced them to look for better grazing areas (which may have resulted in clashes between *wut*).

Before indulging in the history of one Bor Gok village (*juor* with its various *wut*) a few remarks must be spent on the history of villages and sections *in general.*
Stories about new sections usually start with a man settling in an area where he starts a lineage and obtains a founder status (*kocpiny*)[32]. Later generations trace their descent to this founder. When the founder's clan grew in size, quarrels might have arisen whereby part of the clan moved elsewhere to form a new clan, a process called *fission*. On the other hand, newcomer clans might join founder clans, a process called *fusion*. Fission and fusion led to new descent and territorial units. The following story contains examples of both fission and fusion. These processes may still go on although in Bor and Kongor Districts today the availability of potential new settler areas is limited because of the Murle threat. Inhabited areas have even been abandoned for that reason. In the 1970-s/80-s the Bor and Twic Dinka settled areas were actually congested and overpopulated.

4. Bor Gok, juor Palek: origin and echoes from the past till the present

The above mentioned *ayiŋ*, called the Pengko plain in the Bor area, has significance for all Bor Dinka who used to have settlements in the east. The following information concerns Palek, i.e. the four sections or clans[33] united in Anyidi court, which is situated 27 km east of Bor town, halfway from Bor to the Pengko plain.[34]

The first known ancestor of the two Palek sections Gaya and Piol was (said to be) a man named Thiok, who had come "from *toic*" (perhaps from Aliab, west of the Nile) and settled in a place called Bor Alian, near present-day Cueiker.[35] According

[32] The area where the founder (*abokok*) settler created a new lineage might have been an uninhabited place, but could also be part of an area inhabited by more ancient Dinka sections, as the following example shows..
[33] Section or clan: the largest group of agnates who trace their descent from a common ancestor and between whom marriage is forbidden and sexual relations considered incestuous (cf Evans Pritchard 1940:192).
[34] The following information was recorded in: The social and economic setting of rural Bor Dinka – Volume I (December 1979), PPP Technical Note No. 9, Arnhem, The Netherlands.
[35] The information was collected bit by bit through conversations with elders from Palek and Abiei (Cueiker). Several times data of one place was checked in the other. There is no uniform agreement on the past and the collected stories differ in certain details. The historical heritage which includes stories of semi-mythical events, handed down orally from generation to generation, has an aura of sacredness and secrecy and cannot easily be revealed, for fear of making mistakes and misinterpretation by the listener. An effort was done to compile different versions and pieces of information into a logical and comprehensive story.

to genealogies this must have been about ten generations, or about 200-250 years ago (18th century). One of his sons was Luol Thiok. Luol had four sons. One of them, Jo Luol, left Bor Alian and moved to the Anyidi area which was at that time called Kayiti. There were already four sections living there: Papender, Padolnyang, Pageer and Payenday. Papender was the first section to have settled in the Anyidi area, in Ajager ("Penykou") and in Ayingkur further into the plain. Little is known about these people. Names of their pools and cattle-camps near Anyidi, like Thiong Gamal and Pangwal, are memories left. Present-day section Pakom (who in the past was settled in the plain) used to propitiate divinities in Ayingkur, namely the spear Bonga and the stone (meteorite?) Ayingkur. It is possible that the mentioned people occupied land further into the plain where today Murle are living.

Jo Luol, the newcomer in this area, possessed magical powers. He gained an influential position among the people and became their chief. He moved with them to the plain where they chased away a section called Pageer. They settled in Ajager, where later the open well "Pengko" was dug (1951), after which this part of the plain was named. Jo Luol established a number of cattle-camps (Lagoro, Malau, Amal Ajok) and dug two *hafirs*, both called *wer* Manyiil. Calculating back, it seems that the Pengko plain area was settled by Jo Luol's people in the beginning of the 19th century. Jo Luol's end is clouded in mystery. His first wife, Anyiir Gumbir, gave birth to two sons, Borong and Kon. Kon quarrelled with his father who did not even visit Kon's grave after Kon was killed by a python. However, Kon kept troubling his father in his dreams. One day, when Jo was visiting his junior wife, "sitting on his chair he was taken away by the wind".

Around that time a man called Kom arrived from Biong (Bor Athooc, in the area of today's Makolcuei, Baidit court), "as a refugee". He was granted hospitality and adopted the children of Jo Luol's junior wife Akuol. The offspring of these children are called Apir Wong. When Kom was about to die he made Aloc Anyang, another newcomer, from Twic, a chief of his people. Clan Apir Wong, plus the offspring of Kom and of Aloc Anyang are now called section Pakom. A third man came to the area, Deng Kuol. Through an adoption, part of Deng's people became related to Pakom (now clan Leek Rith), and all their offspring are collectively called Kucdok.

Borong Jo grew up in Ajager (but later returned to Anyidi because of fighting with Murle) where he married two wives: Acol Gop and Aman.[36] Acol Gop gave birth to Cot, Kuol, Deng and Herjok, while Aman bore Jo, Ker, Ayuel and Gong (only the male offspring are remembered). Borong made a remarkable arrangement. In order to avoid jealousy between the offspring of his two wives, he sent one son from each wife to live with the other, "as an eye". Cot, the son of Acol Gop, went to stay with Aman, while Ker, son of Aman, went to stay with Acol Gop. The descendants of these two wives form the actual sections of GAYA (the offspring of Kuol, Deng, Herjok and Ker) and PIOL (the offspring of Jo, Cot, Ayuel and Gong).

When Gaya and Piol had separated, Borong's sons Kuol and later Herjok became the first chiefs of Gaya, while Ayuel took up chiefship in Piol, later followed by Mac. After the burial of deceased section members and the emergence of shrines, like Dengmuk or Dengdit in Abui for Gaya, and Thiau for Piol, rights on different areas and borders became fixed. Chief Herjok of Gaya was succeeded by Deng Herjok (or Deng Atho) who is known to have been killed by the Mahdists (in the 1890-s). Deng's son Acol Deng (mentioned above as the chief of all Bor Gok) is the grandfather of court-president Nai Acol who was killed by White Army militia in 1991. After Nai's death, Malak Ayuen succeeded him.

Shortly after 1900, during the Condominium government, the sections Piol and Pakom moved back to Ajager. The Murle were a perennial threat, but the British temporarily pacified them with the successful second military Beir Patrol from Bor via Pengko in 1912. New *hafirs* were dug in Ajager, like Wermacdit. The work started in 1927 and lasted 3-6 years, with 10 to 100 young men digging regularly. The pool is named after "the great Mac", son of the first chief of Piol. The pool-digging may be seen as a major investment in human capital, showing the value that people accorded to allow a maximum number of people to stay in the villages during the dry season as long as possible, both for social reasons (to allow the elderly and sick to stay at home) and for economic reasons (to allow a workforce to return back from the *toic* to start land preparation at the onset of the rains).

In the 1950-s the Murle resumed their raids on all the villages in Bor District. In 1952, after a particularly cruel killing of a pregnant woman by Murle, both sections Piol and Pakom moved back to the Anyidi area. Throughout Bor and Twic Dinka,

[36] Up to this day, when Gaya's cattle has returned to their home cattle-camp in Anyidi (coming from the *toic*), the first milk is taken to the people living near *wer* Acol Gop out of respect for Borong's senior wife.

between Bor and Kongor, settlements were abandoned because of Murle attacks. From the 1960-s onwards many Bor Athooc and Twic sections are squeezed between Murle in the east and river floods in the west which has resulted in settlement in flood-prone low-lying areas, overgrazing on intermediate land, and congestion in the *toic*.

One question remains to be answered. Why are Palek people so attached to the eastern plain? Old people who had lived there were unanimous in their answer. Not only were grazing conditions good, but the area was much more suited to agriculture than the forested area in the Anyidi region. There was more high ground and thus there was more choice about where to settle and fewer crop-destroying inundations.[37] Moreover, soils were more suited for *durra* farming. There were no perennial weeds, so less time was spent on weeding; there were hardly any birds in the treeless area, so no labour was needed to chase them away (from platforms made from tree trunks, as in the Anyidi area). The elders claim that, because of these conditions, there was more *durra* and more milk available, and generally, people were healthier and happier in those days.[38] Murle raids are the only reason why people returned westwards to (re)settle in Anyidi area.

Some complementary remarks on the ecology of the floodplain concern the water run-off from the Eastern Plain. Because of the heavy clay soils and the flatness of the terrain, water flows as a 'creeping flow' slowly westward towards the Bahr-el-Jebel. Downstream the flow is concentrated in broad drainage depressions ('*khors*'). The biggest of these in Bor District is Khor Aduar in Bor Athooc (between Baidit and Jalle). When the river water table is high the area is flooded where the *khor* meets spill from river Atem (one of the channels in the swamps). The area between Pathoyith (Baidit court) and Alian section (Jalle court) often suffers from floods destroying harvests (in spite of small flood protection dykes erected by them). They used to dispose of high ground more to the east which allowed avoiding the floods, but (as was mentioned above) these settlements and cattle camps were abandoned because of Murle attacks. Another *khor* with spill from the Eastern Plain (*khor* Hong) passes east of Bor town. With the recent

[37] Not far east of "Pengko" is a watershed between rainwater running off to the west (Bahr el Jebel) and to the east (Pibor river). This watershed-area, running from south-east to north-west must be the driest area in the Pengko plain, hence most suitable for agriculture and wet-season grazing. Following the watershed would also be the best alignment of a south-north road connecting Pengko with the Lou Nuer area. In the watershed area there are "scattered areas of high land" (Howell Southern Development Investigation Team, IMG1950). Bor as well as Twic Dinka used to have settlements and cattle camps in these areas (see "abandoned areas" on the attached map).

[38] Moreover, before the river floods in the 1960-s, grazing conditions in the *toic* were also more favorable than today. The JIT report gave nutrition data for the whole flood plain which suggested that people in the canal area ate much better in the 1950s than they do today – which is confirmed by the statements of Palek elders (above).

expansion of the town, the *khor* now causes inundations in neighbourhoods which were built in low places.

In 1978, in order to reduce flooding of villages in the Bor Athooc area, Abel Alier (originally from Bor Athooc), organized a big work party with more than hundred young men to close the river Atem channel by sinking a container into the water way (in vain as the current was too strong).

Here we end the early history of Palek[39] and the ecology of the Eastern Plain.
In order to trace the sample of Zwart's research among Palek women, we follow Cot Borong (underlined above) of section Piol. Cot's wife gave birth to three sons: Beek, Jo and Ayuel. Ayuel Cot Borong is the lineage studied by Zwart. Zwart's key-informant was called Ayan, the second wife of Guet Garang (five generations from Ayuel Cot, ten generations from Thiok).[40] Ayan gave birth to three sons: Majok Guet, Nhiany Guet and Madol Guet. Ayan died in 2019 in Bor town. Her youngest son fought battles as a boy in the SPLA and, after being seriously wounded, he settled in Australia, where he was taken to recover. He now lives there with his wife (from *wut* Adol) and children.

To finish this historical account, I present some memories of old informants from the Bor Gok area. With the help of local primary school teachers we arranged those memories chronologically and attached dates to them (1900-1976):

[39] Tuttle (2014; ch. 3) presents similar stories of founding ancestors of Bor Dinka sections (clans). Juor Koc sections also trace back their origin to Thiok and his son Luol Thiok. While Jo Luol Thiok was founder of Palek, the descendants of one of Jo's brothers formed (what is now) section Deer and section Koc (Makuac court). In this version the place Bor Alian near the river is also mentioned, and so are a number of communities living in the eastern plain before the sons of Luol Thiok arrived there. The name "Koc" refers to the leader of one of those communities (Payak).
[40] Thiok-> Luol->Joo->Borong->Cot->Ayuel->Abekgar->Guet->Nhiany->Garang->Guet

Year(s)	Event(s)	Year(s)	Event(s)
1903-1905	Murle raids in Biong, Abang, Piol	1951	fight Angakuei (Baidit) and Pathuyith (Mathiang), start building Bor Hospital; wife of Ayath Awoi killed in Ajager by Murle, sun-eclipse
1906	missionaries arrive in Malek	1953	sections Piol and Pakom move from Ajager to Anyidi
1912	Second Beir Control campaign	1953/54	primary schools A and B (boys) in Bor opened
1914	Malek dressing station opened	1955	opening Bor Hospital, civil war in the south
1917	highest river flood (before 1962)	1956	Independence of Sudan
1919	Aliab rebellion	1957	death of Deng Acol, successor Gay Ayuel decentralizes Bor Gok court; "keralueth" (unsuspected rains in February)
1927	start digging Wermacdit in Ajager	1962	*toic* flooded and inaccessible; primary schools A and B (girls) in Bor opened
1930	fight with Murle in Anyidi	1967	Ayom Dor (Kucdok) and Alier Leek (Gaya) shot in Anyidi
1938	Anyidi dressing station opened	1968	chief Kuol Col (Pakom) dies in Bentiu; Anyanya attacks on Malek, Kolnyang, Gak, Mareng, Makuac which ruined all stone buildings
1945	Adol-Guala conflict, chief Maciek Deng (Adol) killed	1969	Nimeiri president, Pariak and Anyidi attacked by Anyanya, smallpox epidemic
1946	sacred spear "Lir Piau" arrested, taken to Khartoum, major Cumming (Kerkuei) district commissioner Bor District	1970	death of chief Gay Ayuel (Piol
1947	death of paramount chief Deng Malual, Bor-Anyidi road opened and maintained under supervision of Cumming's driver	1971	smallpox and cholera epidemics
1948	opening court center Anyidi	1972	Addis Abeba agreement, Abel Alier from Angakuei (BorAthooc, Baidit) president of the High Executive Council, diesel operated Lister water pump in Anyidi built, Pariak dressing station opened
1949	resthouse, dispensary and open well in Anyidi	1973	"Lir Piau" returns to Kolnyang, primary schools in Makuac, Anyidi, Kolnyang and Cueiker, Kolnyang dressing station, celebrations Unity Day in Juba
1950	merchants build shops in Anyidi	1975	Pibor Agreement, chiefs of Bor Gok dismissed
		1976	Jonglei Province, 2 junior secondary schools in Bor opened, Dutch Pengko Pilot Project established, commissioner Venancio Loro.

The events mentioned above only form a skeleton of the local history. Local histories are interwoven with the landscape and the people. In that landscape one can see innumerable small cattle paths which form a spider's web of little white threads between cattle camps, grazing areas and hamlets. Most people have followed many of those tracks sometime, and every villager has the landscape at his fingertips, including trees, anthills and water pools. People and stories are connected with these landmarks. When somebody wants to show you the way, he or she refers to all these landmarks and events, and the stories and songs connected to them as reference points. As Tong Mabior, I had the habit of making walks with close friends, teachers and villagers from village to village. During these walks we visited homesteads, chiefs' meeting places, and shrines. In every location we were told stories of events that happened there in the past: the place where the father of X was eaten by a crocodile; where the wife of Y died when her kitchen caught fire, where twin *rial* cows were born, where a fight broke out during a dance, where the daughter of Z was eloped, where an army truck was attacked by Anya-nya, and so forth.

For the inhabitants the landscape, stories and songs form a complex fabric of experiences, memories, and signs which people use to find their way through life: to situate new discoveries, and to base choices for the future on lessons from the past. Old habits, old social connections, certainties about life and death are deeply and partly unconsciously embedded in the landscape. Since no local histories and stories were written down, it would be useful to systematically collect oral histories and Dinka songs before all these memories are lost. The people's culture and identity are embedded in these landscapes, histories and stories.

Brendan Tuttle's research in Bor in 2009/10 was almost wholly based on such story-collection (and linguistic analysis). Those stories are the fruit of (what he calls) "a lifelong process of accumulating the experience of living with others and moving through a landscape" (Tuttle 2014: 223).

5. Women's job: nourishing the family

The following information was collected in Bor Gok area between 1978 and 1982, and recorded in several unpublished project reports.[41] This section is concerned

[41] Bor Dinka: Prospects for Development; Pengko Pilot Project Technical Note no. 20 (November 1981); Ilaco (Bor Dinka Development, volume II); Gine Zwart (1981): I'm so glad I'm a woman. A study of the socio-economic position of Bor Dinka women in a changing society; Department of Home Economics, Wageningen, The Netherlands (unpublished).

with the economic role of women and how this role evolved in the late 1970s and early 1980s. It is written in the past tense, although many of the data presented will still be valid today.

In rural areas, a girl helped her mother with household activities, but was usually spared the strenuous labour of agriculture. Adolescent girls enjoyed cattle camp life and joined cattle camps during their migrations. There, they milked the cows of their family and distributed the milk among their relatives. "She has to drink milk, grow fat and strong as a preparation for marriage", people said. When of a marriageable age, girls engaged in courtship activities during dancing parties which took place in dry-season cattle camps where they met other, non-related youngsters, and during wedding parties after the first *durra* harvest. After marriage, the young wife still stayed in her parents' home until one or two children were born. Through her children she became blood-related to her husband's family with whom she then could eat.[42] Only then did she move and stay with her husband who, in the meantime, had built a house for her, usually close to his parent's homestead. That house was the center of her domain (or yard) where she lived, cooked meals, raised her children, received guests and started cultivation, together with her husband. Her granary was built in which she kept the harvested grain, seeds and utensils. She also bred some sheep or goats in her yard. When her husband had obtained cattle, he would build a cattle byre (*luak*) nearby with the assistance of his relatives. A party of women cut grass for the thatching of the buildings and transported big grass bundles to the building site.

Cultivation was the woman's most important economic activity. The average size of a woman's field, which she cultivated together with her husband, was 0.64 ha[43]. When a man had more wives (the average was 1,51), the total polygynous family's fields measured on average 0.96 ha. The proceeds of two crops of *durra* from a woman's field were on average 900-1100 kg per year. This quantity usually sufficed to feed her family for about 300 days of the year. Self-sufficiency in grain was thus 85%.

Lilian Smit (July 1981): View of the commercial Structure of Bor District; Pengko Pilot Project (unpublished).

[42] Dinka custom forbids that boys/men eat with non-related girls who are potential brides. This may complicate doing research with a mixed team of youngsters. Once an embarrassing situation occurred when I was travelling with such a group of boys and girls and I proposed to stop somewhere to eat food that I had taken with me. When I served the food on a plate no-one seemed eager to start eating. I then realized the problem and the stalemate – until one girl saved the situation by saying: "… but we are the educated class, and this is not our problem …", after which, reluctantly, each person (in turn) took bites of food, turned away and ate it.

[43] On the basis of the measurement of 62 cultivated areas; cf Ilaco 1979:130.

There is a correlation between cultivated plot-size and the availability of labour to prepare the land. As mentioned before, cattle-camps and their occupants came back to the village after the rains had started, when there was sufficient surface water and grass for cattle to survive. Meanwhile, elders who had stayed in the village or returned earlier started land preparation which was a heavy job. The month of May was the labour peak period (350 manhours/ha). The sooner other kinsmen joined them (preferably coming back from the *toic* earlier), the more land could be prepared. However, for their food the cultivators depended on the *durra* which was left from the last crop. If there would be no *durra* available for cattle camp returnees they would stay away, resulting in smaller cultivated fields. To avoid small tilled fields (which might be felt as shameful, as the husband, the wife or the couple could be accused of laziness or bad cooperation), the latecomers would sometimes organize a working party to help them, but that party had to be provided with food which would not always be available. In this case *durra* had to be bought on the market, to be used to brew beer to provide food for the workers.

Apart from food availability there was a cultural factor which limited labour availability for agricultural work. Youth, boys and girls, were spared this task. Their life was centred on cattle, on leisure and play, not on manual labour and physical suffering, and their sphere of life was the cattle-camp, not the village. Many initiated boys (potentially the most vital labour force) stayed in the cattle-camp, even if this camp was in the village area. The agricultural labour profile showed that boys (7-19 years of age) hardly assisted in cultivation practices. The advantage was that in this way less (scarce) *durra* was consumed in the homesteads, so that the stock lasted longer to survive the 'hunger gap', the period before the first crop was harvested.[44]

After land-preparation the next labour-intensive activity was weeding, a hard job which from June till September occupied a married woman, assisted by her husband and perhaps her small children. Harvesting was mainly a woman's job, just like preparing food which consisted of winnowing, thrashing, pounding or grinding, and cooking. The work took two to four hours a day. Other women's tasks were fetching firewood from the forest and water from a water source (pump or *hafir*).

[44] In the early 1980-s, 53% of the Bor Gok population spent the dry season in cattle-camps or in Bor town; most of them (60.6%) leaving the villages in January/February, and 43.9% returning in April.

Cultivating women developed a sophisticated knowledge of agronomy, hydrology and soils with regard to their fields. They knew how to cope with the risks of water logging, drought and bird pest, and where and when to sow various varieties of grain in order to obtain maximal yields and tastes. Table 2 below, which was compiled by a local agricultural extension agent, shows a number of *durra* varieties sown in "Greater Bor".[45] It is just a small collection of existing *durra* seeds in the area. By chance, I discovered that John Garang de Mabior who, when he was commander of the Bor garrison in Malualcat, promoted the late-maturing sorghum variety *Calla* on the ridge near the river. The white *Calla* was said to grow well on relatively sandy soils and was relatively bird resistant[46]. Another source (Isaiah Malek from Jalle, Bor Athooc) mentioned, apart from *Akuor-Acoot*, *Beer* and *Lueel*, other varieties: *Dhet* (red), *Anyuol* (yellow and white), *Kec* (light yellowish/orange), *Yar-Agong-kou* (white).

Staple food in the village consisted of *durra* and milk. Sometimes meat was consumed, after sacrifices; when meat was available, thin pancakes (*kisra/ayot*) were prepared, dipped in a sauce with boiled meat and ladies fingers (*okra)*. Otherwise the *durra* was eaten as a thick gruel (*madidah/adhath?*) or as porridge (*asida/cuen*), with water or milk, or as "couscous" (*aköp*). At least one meal each day was taken at about 8 p.m.; but if sufficient food was available, another meal was taken earlier, at about 11 a.m. When *Merissa* beer (*mau*) was available in the morning, the morning meal was skipped.

[45]Annex 6 from "Living with the floods: securing and improving livelihoods in Jonglei State, South Sudan. An explorative study for Care, S.S."; by Ted Schrader, Maurice Mogga and FetienAbay. June 2012 (Centre for Development Studies, Wageningen University, The Netherlands).

[46]Agriculture was a hobby of John Garang. He put women and children who followed soldiers (spouses, prostitutes) to work to produce their own food as they became a burden for the garrison in times of limited availability of army supplies or of grain on the market.

Table 2: Descriptors of *Sorghum bicolor* landraces in North/South Bor (2002/2003)

S/N	Variety	Head formation	Grain colour	Maturity	Flour colour	Taste	Use	cane taste	Storage	planting time	Stalk height	Insects, pests & diseases
1	AKURACHOT	open (big)	grey	3 months	brown	palatable	food brewing exchange	sweet	short term (weevil susceptible)	May (1st season) October (2nd season) (adopted)	tall	weevils birds borers tolerant to waterlogging & dry spell
2	DHUET/WHITE (two)	compact (bigger)	red white	3 months	brown white	less palatable	brewing food exchange	less sweet sweet	durable (weevil susceptible)	May (1st season) October (2nd season) (adopted)	short tall	tolerant to birds and pests
3	NYA-KU-KO /NUER) (not common)	compact big	white grey	3 months	white	palatable	food brewing exchange	sweet	durable (weevil susceptible)	May (1st season) October (2nd season) (adopted)	tall	susceptible to birds, pests (borers)
4	LITH (BEER)	Compact (medium)	Grey white	3 months	white	palatable	Food	sweet less sweet	durable (under good storage)	May (1st season) October (2nd season) (adopted)	tall	susceptible to birds, pests (borers)
5	NUER (TUNG-GONG)	(big) goozed	brown	3 months	brown	less palatable	food brewing	sweet	less durable (weevil susceptible)	May (1st season) October (2nd season) (adopted)	tall	less susceptible to birds, dry spell, waterlogging
6	ATHIL	Open (medium)	white	3 months	white	palatable	food	sweet less sweet	short term (weevil susceptible)	May (1st season) October (2nd season) (adopted)	tall	susceptible to weevils, birds, borers
7	AGAANY	compact (medium)	grey	3 months	white	palatable	food brewing	sweetest	short term (weevil susceptible)	May (1st season) October (2nd season) (adopted)	tall	susceptible to weevils, birds, borers
8	LUEEL	compact open (medium)	red	3 months	red	less palatable	brewing food	sweet less sweet	Less susceptible to weevils	May (1st season) October (2nd season) (adopted)	medium	less susceptible to birds, weevils
9	THIEP (ATHIEP)	open (medium)	grey	2.5 months	white	palatable	food brewing	sweet less sweet	short term (weevil susceptible)	May (1st season) October (2nd season) (adopted)	short	susceptible to birds tolerant to dry spell, waterlogging
10	MADING	open (medium)	Brown	3 months	brown	less palatable	food brewing	sweet less sweet	less durablez	May (1st season) October (2nd season) (adopted)	tall	less susceptible to birds
11	DEEC-DIT (not common)	compact (big)	grey	3 months	Brown	Less palatable	Food brewing	weet	Less durable	May (1st season) October (2nd season) (adopted)	short	less susceptible to birds
12	AYENCEK (not common)	Compact (medium)	White	2 months	White	Palatable	Food	Sweet	Less durable	May (1st season) October (2nd season) (adopted)	short	susceptible to birds

Source: State Ministry of Agriculture & Forestry-Bor County (Contact person: Solomon Deng-Director for Extension

The researchers first weighed the *durra* grains and then the flour used for every meal in ten households. Half of the amount of grain was kept for *merissa* brewing (for the family) while the other half was pounded into flour. The average amount of flour used per meal, per person, was 220 gr. the same amount of *durra* was used in this way each day. However, the amount any given person would eventually consume depended on the number of people who joined the meal that night. Although each household owned its own food, did its own cooking and provided individually for the needs of its members, men (especially) ate in each other's homes to such an extent that, looked from outside, the whole community seemed to be partaking of a joint food supply. A meal could never be refused to a relative. In the hunger-gap period lots of relatives depended on each other, "for it is scarcity and not sufficiency that makes people generous" (Evans Pritchard, 1956: 85). As we will see, for people in town, the burden of family obligations prevented or delayed their accumulation of wealth.

A final remark on food. Wet season primary school pupils in the village were provided a simple meal of *durra* broth. Those children who were not going to school could be seen drinking milk, collecting and eating fruits in the forest, catching and preparing fishes and other small animals the whole day through. They looked much healthier than the schoolchildren.

6. Toward cash transactions

There were not sufficient cows to provide milk for all people the whole year through. The same applied to *durra*. When the *durra* stock was finished, and lactating cows were not around, two possibilities remained: either go to town and stay with cash-earning relatives or earn money for oneself by engaging in income generating activities. Both possibilities were exploited. In the course of the dry season, compounds in the town were crowded. The town population had then increased with almost 40%. Sales of animals through the Bor Livestock Auction increased during the dry season, particularly when *durra* crop yields had been bad.[47] Between 1974 and 1979, the total number of animals sold at the Bor Livestock Auction increased a little over 100%, the average prices increased 40%. The origin of auctioned cattle (1979/1980) showed similar percentages for Bor Gok and Bor Athooc (22% each). 26% of the animals came from Kongor District, and 12% from Pibor District. Most auctioned cattle stayed in Bor District: 31% in Bor

[47] Information from Bor Dinka: Prospects for Development (November 1981), PPP Technical Note no.20, Ilaco.

Town, 24% in Bor Gok and 16% in Bor Athooc[48]. Only 9% seemed to be taken to Juba (of 13% the destination was unknown). Among the reasons for selling (apart from transactions in the commercial channels), two main motives could be distinguished. The first one was to obtain cash (for certain needs such as food and medical treatment, to pay taxes and pay off debts). In times of hardship, sheep and goats were sold more frequently than cows. These sales were not usually registered by market authorities. The second main group of reasons concerned expenses related to maintaining 'traditional' culture, e.g. to improve the cattle herd structure, i.e compensation of losses (mortality or bride wealth). These figures show that the commercialization (selling and buying) of cattle in the 1970-s doubled. However, in the countryside, the mixed economy of cattle husbandry and agriculture still functioned in the conventional way, according to *the logic of the 'tribe'*. Cash transactions were used to deal with emergencies and to supplement shortages and deficiencies, in other words, to sustain the subsistence economy rather than to replace it. In the eyes of the rural population transforming 'dead', unproductive money into wealth with a generative value was considered a (socially and economically) productive investment.

But in the villages and in the semi-urban area's things began to change. It was women who began to undertake regular commercial activities, out of necessity and also because of an awakening entrepreneurial spirit. In the Bor area commercialization started with small sales of farm products (tobacco, peppers, forest fruits) by women in order to be able to buy such products as oil, salt and soap – almost like barter, and without making a profit. In the 1970-s and early 1980-s village girls sold fruits of *lalop* (*Balanites aegyptiaca, thau* in Dinka) on the market in Bor during the dry season.[49] With the proceeds they bought festive clothes and ornaments to be worn during parties and feasts. Village women only went to the market in town once a month, mostly in the dry season when there was less farm work to do. But soon afterwards, the main opportunity for income generation (which they grabbed with both hands) was commercial beer (*merissa*)-brewing. Beer-brewing is a traditional activity in the rural areas. A little locally produced *durra* was kept apart from every meal for *merissa* brewing for family occasions (celebrations like marriage feasts, ceremonies, etc.). According to the

[48] From February 1979-April 1980 the balance of origin and destination of auctioned cattle was + 13.5% for Bor Gok, and – 26.6% for Bor Athooc. That balance for the whole of Bor District was -6.9% (407 animals arriving, 437 animals leaving), representing cattle trade.

[49] In times of famine the kernels of *thau* used to be ground and used as flour. *Thau* is thought to have medical properties, and is considered healthy for people as well as cows. The Bor throw *thau* fruits in pools (or plant *thau* trees around pools) believing that *thou* chases away the snails causing *bilharzia*. I think this is so as the nuts increase the acidity of the water which the snails flee.

women in Zwart's target group: "no woman can stay in the Southern Sudan without knowing how to make *merissa*". Not having *durra* to brew beer is a sign of poverty.

In Anyidi, in the late 1970s, earning money by brewing *merissa* in big quantities was a recent development. Women explained this activity by saying that it was initiated by the need to meet the changing needs of women: buying clothes, paying school fees for their children and being able to feed the family, especially in the hunger period (May-September). In 1980, in the Anyidi/Palek village area, there were only two places where *merissa* was brewed commercially. *Merissa*-brewing in large quantities requires an empty oil barrel which was hard to get. In one of the *merissa* brewery places there was a barrel for hire for 2.50 (Sud.) pounds a day[50], which every woman in the vicinity was permitted to use. The brewers took their own (purchased) *durra* with them. The two female barrel owners controlled the *merissa* business, the quantity of beer produced and the price. Turning one 50 kg bag of *durra* (20 Sud. pounds) into *merissa* could produce a profit of about 40 pounds (without counting the three days labour needed). Profits were used to buy *durra* for consumption or sheep and goats, which could be used to buy cows later.

From 1976-1983, the Dutch agricultural project provided employment in a semi-rural area. A number of women were engaged as farm labourers, and also as cooks to prepare breakfast (*ftour*) for the project labourers. Most of the employed women lived close to the project in the new neighbourhood of "Dar-es-Salam" opposite the Pakuau project compound, where they could start a small garden. These small gardens were not enough to feed the household throughout the year. Additional food had to be bought in the Bor town-market, which was about 4 km from the project. Several women who were employed on the farm formed a single woman headed household.

An example:

> A. is a woman working for the project for three years. She looked for employment in order to earn money for the sake of her children. She earns 13 pounds a month. Her husband and co-wives live in a village approximately 50 km north of Bor (Bor Athooc). After harvest her husband sends her a small quantity of home-grown *durra*. She herself cultivates a small garden with sorghum, maize, sesame and groundnuts, for home consumption. However, this is not enough to feed the household the whole year through. When she has time and money to buy *durra* she brews *merissa* for commercial purposes. *Merissa* sells well as it is nutritious and often

[50] In April 1981 1 Sudanese pound equaled +/- 1.4 US dollar.

serves as an alternative to a meal. Each time the profit she makes from brewing and selling *merissa* is about 20 pounds. Her total annual monetary income (sales' revenues and wages) was calculated as about 400 pounds.

Every year, A. buys eight 50 kg sacks of *durra* on the market in Bor town (160 pounds). She sends two sacks to her husband and co-wives and one and a half sack to her brother. In the past three years she has managed to buy two cows (200 pounds) and two sheep (20 pounds) which are kept in the cattle camp of her husband. She says: "from my salary and garden I eat, from *merissa* I buy cows". Including the livestock, her total annual expenses are thus about 390 pounds.

The profit she has made from commercial activities was spent on family relationships in the rural areas in the form of *durra* and cattle (not money)[51].
In the urban area of Bor town money played a more important role of course, both because of wage employment and of commercial activities, mainly by women.

C. is a married housewife living in town. She doesn't have a garden but she is engaged in the *merissa*-brewing business. One of her children attends school. Her husband is an office employee; he earns 45 pounds a month. The couple owns one milking cow in town. They have built their own house.
C. receives 35 pounds from her husband each month to feed the household. Her monthly profits from *merissa*-brewing are about 30 pounds. Her total annual income is calculated as 750 pounds.
C.'s expenses include the payment of school fees, and the purchase of sacks of *durra*, charcoal, water and food items for her own household and guests. These expenses total about 700 pounds a year. From the small profit and the little remainder of the husband's salary the couple invests in cattle for bride wealth for their children.

D. is a divorced woman living in town with one child. She doesn't have a garden but has a business in *merissa* and other alcoholic beverages. From her business profits she has built nine houses (*tukuls*) which she rents out. To build these *tukuls* she paid two labourers 25 pounds each during one month. Her total annual income was calculated as about 3,800 pounds.

[51] It is the men who remit money to relatives in the village, although remittances are more often in kind. It has been estimated that the total amount annually remitted to the approx. 7,000 rural families in Bor District was (*in money value*) between Sud p. 110,000 and 125,000 (cf Ilaco, 1981 – Bor Dinka: Prospects for Development).

> Her total annual expenses were calculated as about 1,460 pounds but are probably much higher considering the nice clothes she always wears and her well-furnished house. From her business profits she has bought two cows in two years' time, as a contribution in bride wealth for the marriage of her son.

These examples show increasing participation in the cash economy, especially by women, through commercial activities, i.e. the trade in alcoholic beverages like *merissa* and in a lesser degree the distilled *ariki* (*guntuk*) and *suki-suki*. Distillery equipment was still a novelty in Bor in 1980; to make alcohol one needed welding, a rare skill in town at that time. A disadvantage of the *merissa* trade was that much sorghum was used. In 1981, in Kongor District, where less sorghum is available on the market than in Bor, the chiefs restricted commercial *merissa* brewing.

In all cases women engaged in commercial activities in order to satisfy their social needs, in particular to guarantee the wellbeing and future of their children, allowing them to attend school, and to obtain a desirable bride. Men sold their labour to be able to invest in bride wealth cattle and luxury goods, hardly ever to save money or to invest in profitable means of production.

A number of remarks can be made about the social and cultural impact of the commercialization process. While in rural areas a man was dependent on women (his mother, his wife) for food, in semi-urban and urban areas he could buy food and live without a woman. On the other hand, in town, a woman without a field and without an income depended on her husband's money to be able to prepare food for the family; hence the dependence on her husband increased. Men were not always inclined to provide that money in sufficient quantities (available cash is often spent on drinking). In a general way, men were more interested in their posterity and cattle than to live a happy, cosy family life. Women's dependence on a husband, which restricted their ability to optimally care for their children, was the most important motivation to start trading. Hence the relative "subordination" of women, with respect to men, led them to trading. In trading, women had a comparable advantage; prospects to earn money and accumulate wealth were much brighter for women than for men. In the egalitarian society, family obligations forced a man to assist his kinsmen, either in kind (livestock, *durra*) or in money. While a man with an income remained attached and dependent on his family (for judicial protection, bride wealth for the marriages of brothers and eventually his own marriages) and could not escape the norms of reciprocity, a woman was less burdened with family care. Since her marriage she belonged to a

new family for which her husband was responsible, while her brother(s) took care of her parental family. Hence in (semi) urban circumstances it was easier for a woman to obtain wealth and keep it for herself. It appears that she did so with the aim of being able to feed her family and to care for her children by shouldering the costs of clothing, schooling, healthcare, and future bride wealth for sons.

With their entrepreneurial spirit, adding value to agricultural produce, women would have been more successful in running shops[52] (either in villages or elsewhere) than men as they had fewer family obligations, could more easily protect cash against the demands of others, and stayed more permanently at home. Apart from selling household necessities (oil, soap, salt, dried fish, clothes, etc.) she could also trade in much demanded grass-bundles (for roof-thatching), and firewood, to be collected by urban traders with means of transport.

In the 1970-s the life of Bor Dinka women implied hard work, either in cultivation, food preparation and child rearing or in preparing and trading in *merissa*. But in both the rural and the (semi) urban settings she enjoyed a relative independence and economic freedom, and she had therefore considerable informal power. Her economic activities also made her and her children resilient in times of hardship. The relation between man and wife was relatively equitable.[53] This state of affairs was why the words of one of Zwart's friends, "I'm so glad I'm a woman", inspired her to use that saying as the title of her report. This doesn't mean that men would not be glad to be men, but, certainly in town, married men had, in economic and financial respect, less room for manoeuvring than women had under the prevailing circumstances in which men were still very reliant on their family in the rural areas. Therefore, in town, where money plays a predominant role, men looked more worried. From a social point of view the increasing commercial opportunities of women led to increasing alcoholism among men which had negative effects on family stability. In town, marital relations were already threatened by the decreasing interdependence between men and women: men could obtain food on the market, and women kept their own milking cows independently of her husband's family herd. Moreover, widows and divorced women discovered the

[52] In the 1950-s there used to be shops in Anyidi, run by Arabs (who were the only people with a supply-line), but during the post-independence civil war these disappeared and never returned in the Bor Gok villages.
[53] Among the Bor Dinka the situation was the same as what Evans Pritchard observed for the Nuer (1940:178): "… relations between the sexes (…) are more equitable and give females more privilege than in any other tribe I have visited in the Southern Sudan. Nevertheless, they are subject to men". And again, cf 1951: 133.

town with its economic opportunities as an escape route from the rural areas where their dependent position was inferior to that of other women.[54]

7. Overall economic situation of Bor District in the early nineteen-eighties

Increasing commercialization in (semi)urban areas does not mean that the Bor District economy developed favourably. The quasi-subsistence economy was still predominant, and this economy, as was explained before, was confronted with a number of misfortunes. The prevailing production system depended on an extensive exploitation of the natural environment which in the Bor (and Twic) Dinka case required:

a. optimal availability of high ground which allows for (shifting cultivation) *durra* production;
b. security and surface water availability which allows cattle grazing in the Eastern plain (*ayin*g) during the early dry season;
c. access to dry-season riverine pastures (*toic*);
d. groundwater availability in the settled areas (water pumps and *hafirs*) which allow villagers to start land preparation early.

In the 1970-s, all these favourable conditions, upon which the traditional economic system was built, were under pressure. Murle raids prevented the use of the Eastern plain for settlement, *durra* production, and wet and early dry season grazing, causing the congestion of villages on low land susceptible to flooding. The *toic* was flooded since the 1960s which reduced its use. And rural infrastructure (including water sources) was destroyed during the (first) civil war. All these circumstances prevented the optimal use of the environment, and reduced animal- and grain production, which caused a decline of the rural economy. Bovine diseases further restricted the productivity of cattle herds.

The population tried to cover losses by selling and buying animals on the cattle auction, and buying *durra* on the grain market in Bor town. Cattle sales increased by 100% (between 1974 and 1979) and the imports of *durra*, mainly by river steamers coming from Kosti and Renk, increased twentyfold between the 1950-s and 1960s/1970-s (548 Tons in 1950, 10,607 Tons in 1980). Part of the imported grain was consumed in Bor town (including the grain brewed into beer), a part was transported to Kongor district (which usually had a lower deficit in grain than Bor District), and a considerable amount was bought by the rural population of Bor

[54] Apart from the two cases presented, unfortunately, we have no further information on female-headed households.

District. River transport by the River Transport Corporation, as well as the trade in *durra* and sugar was government-controlled, but organized by Arab traders with trade links in North Sudan. It must be mentioned that the provincial grain distribution system functioned in a sub-optimal way because of the dependence on Arab merchants, enabling them to decide when to sell and when not to sell. The lack of clear guidelines for distribution caused ad-hoc decisions, depending on the members of the Distribution Committee. In times of shortage there was a black-market in *durra*.

Thus, to maintain the subsistence economy, inputs from outside markets were necessary. Under the prevailing circumstances there were few prospects for productivity increases in crop production and cattle husbandry, although some of the above-mentioned constraints were tackled (cf. section 9). The economic aim of the system as a whole was *self-reliance*, not self-sufficiency in *durra* or overproduction of grain or cattle with the intention of making a profit. Even if a "surplus" occurred (because of a favourable rainy season without droughts or flooding) *durra* would not be sold but would be transformed into beer and locally consumed. What can be seen is the functioning of "coping mechanisms" (urban-rural remittances, urban wage labour, commercial *merissa* brewing) to sustain self-reliance of the system, or as a defence of the so-called subsistence system which implies much more than mere *homo economicus* reasoning. We clearly see here that people are ready to change (in this case in adopting "coping mechanisms") in order to remain the same as much as possible (cf section 12).

The promotion of Bor as a provincial capital in 1976 created employment and an increasing demand in consumer goods which led to a slow process of economic activity, mainly in the informal sector. 1977 and 1978 were peak years in the increase of employment in the government and trade and transportation sectors. These gains did not continue in later years. The informal sector absorbed mainly young and semi-educated people (76% school leavers), who obtained their products from Arab merchants (soap, cigarettes, matches, oil, salt, tins of sardines and milk powder,[55] etc.). Their success in trade (profit, saving, investment) and capital accumulation remained limited because of family obligations which consumed their meagre profits. Profits streamed back into the subsistence system. Compared with young Nuer men who, around that time, found employment on private farms and in the employment sector in northern Sudan, the employment

[55] In the course of time I counted nine brands of milk powder in Bor shops (cf Zanen 2018:37).

opportunities in Bor district were much more limited. The money earned was mainly used to buy (bride wealth) cattle.

From research in Bor District it appeared that annually between 110 000 and 125 000 Sudanese pounds were remitted from townspeople to the 7000 rural families, which means less than 20 Sudanese pounds per family. Little as that may be, the amount equals the value of 50 kg of sorghum which represents a quarter of the (average) 'hunger gap' shortage of 200 kg per family.

Wholesale trade remained in the hands of northern Arab merchants, who controlled trade networks reaching from Khartoum to Juba. During colonial times Arab merchants opened shops in villages (which proves that villagers already possessed money), but they gave up after the independence of Sudan, the departure of the British, and the outbreak of the first civil war. A limited number of shops run by Dinka petty traders could be found in the court-centres farther north, far removed from Bor town. They were either supplied by Arab wholesalers in Bor or by Arab "souk lorry" merchants coming from North Sudan on their way to Bor and Juba.

Most government employees recruited during those years were inexperienced. Skilled mechanics or trained administrators were scarce. In Bor, at the time, there was no car-repair garage, no fuel-station; there were only some bicycle-repair shops.[56] The various projects provided on-the-job training (masons, mechanics, operators, drivers), but once these technicians had acquired skills they quickly left for bigger towns in search of better-paid jobs.

In their spare time, carpenters employed by the government produced and sold wooden doorframes, corrugated iron doors and wooden furniture. Young males started tailoring with sewing machines bought or hired from Arab merchants; others produced footwear made from rubber tyres or beds from hardwood and leather strips. Very few products from the rural areas were on sale[57] – sometimes earthenware pots, grass bundles, firewood and charcoal or construction wood, and ostrich egg ornaments were taken to the Bor market by women after walking between 10 and 20 km. I also remember some entrepreneurial individuals producing smoking pipes (made from ebony hardwood and copper from bullet

[56] As mentioned before, mechanical skills and welding equipment were rare in Bor. Physically disabled persons (victims of the first civil war) had their wheelchairs or crutches repaired in the Ilaco project workshop. One Dutch mechanic even rigged up artificial limbs for them.
[57] In the past there has existed a trade in cattle hides, but this trade all but disappeared.

cartridges), the blacksmiths producing spear and *maloda* blades ("African" or "Italian" hoe for manual land tillage) from scrap iron, and a single welder making distillery equipment and chair frames covered with plastic ropes. There were also fishermen mending their nets.

Dried fish from the Monytany fishermen sold well on the market. Trade in dried and well-preserved fish, as one of the few export products out of the province, had a commercial future. As was mentioned above, the Dinka-dominated cattle trade also functioned well, but extra-provincial trade in cattle remained limited. Probably the most profitable enterprise (apart from the Arab wholesale business) was the pharmacy run by Jereboam Macuor.

Although the government was growing, it was not effective or useful for the rural areas because of a lack of means of transport and funds.[58] The Department of Agriculture had some staff (agricultural extension staff trained in Yambio) but it lacked a working program, bicycles/motorcycles and housing, while their salary arrived in Bor irregularly. They could be seen sitting before their office in town for sometimes weeks, waiting for their salaries to arrive. The Bor Rural Council also suffered from either lack of a means of transport or fuel. However, in times of tax collection and elections cars miraculously appeared in the villages. Primary school teachers, an occasional medical dresser, two policemen (in Anyidi) and the village chiefs were the only government-paid personnel operational in the Bor District rural areas. The Dutch projects helped the departments with transport (e.g. during cattle vaccination and well drilling campaigns), cf section 9. Tax proceeds could not cover the provincial financial shortages.

Summarizing,[59] we could say that during the (first) civil war period (1960-s) a process of change set in which put the traditional subsistence system under heavy pressure. This system was still functioning in 1983, but economic conditions were deteriorating. The primary sector was no longer able to provide the district's population with what it needed. Cattle herds did not increase in number for the last decade and their composition was less balanced than before. Crop production had not kept pace with population growth, and imports of *durra* were steadily increasing. The government sector, which was not directly productive in economic

[58] The Wildlife department in Bor must have gained an income from a hunting camp near Baidit, run by Portuguese from ex-colony Angola, serving rich Americans who bought licenses for shooting elephant, antelope and other animals (1980-1981). In 1978 I witnessed the capture by Northerners of living giraffe, zebra and ostriches, to be transported by a big airplane, and to be sold as zoo-animals. It looked like institutional poaching.
[59] Cf. Ilaco; November 1981; Bor Dinka: Prospects for development. PPP technical Note no. 20.

terms, had grown over the years. With it came rapid urbanization and an increase of commercial activities. With the extension of Bor town the district's forest reserve started to be over-exploited at an alarming rate driven by growing demand for fuel and construction wood.

Bor Dinka youth, civil servants and some traders moved to fast-growing Juba, the regional capital, in search of education and employment. There, they maintained close mutual bonds and formed Diaspora groups, just like what had happened during the first civil war (especially in the 1960-s) in North Sudanese cities. In 2012 I visited a cultural function of the Bor Youth Association in Khartoum where also ex vice-president Abel Alier and other notables from Bor gave *acte de presence*. In the early 1980-s, in Juba, the Bor Dinka tried to conquer a position on the Juba meat market, which failed and led to Dinka-Mundari hostilities. In 1991, during and after the "Bor massacre" the population that survived the onslaught escaped in the direction of Juba, many of them ending up in Kakuma refugee camp created in early 1992 in northern Kenya by UNHCR.

8. Prospects for large scale grain production

The Dutch projects in Bor started with the Pengko Pilot Project during the first government of Abel Alier. In this government Dr. Gamma Hassan was Minister of Agriculture. Gamma Hassan had a dream of creating a large-scale mechanized grain production scheme, like the Gezira scheme in North Sudan, to be located in the 'uninhabited' Eastern plain, popularly called the Pengko Plain after the only landmark there, an open well dug in the 1950-s. It was hoped that such a scheme would solve the annual food-shortage in the southern region and become the 'breadbasket' of East Africa. The Dutch settled in Pakuau in 1976 and created a pilot project where rain-fed *durra* and maize were cultivated in fields (300 ha) between Pakuau and Pan Macuor near Bor town.

Trials with mechanized cultivation of sorghum and maize on a large scale did not produce well; the types of soils there led to drainage problems and complicated tilling with machinery.[60] Five years later, in 1981, a preliminary economic analysis on the basis of a farm of 1,000 ha in the Pengko plain showed that an annual yield of at least 4.5 tons per hectare would be needed just to cover recurrent expenditures, excluding the costs of capital development. As such yields were

[60] For mechanization large plots of land are needed which have to be levelled to prevent water logging. The Bor black cotton soils were very difficult to level, even with sophisticated technology (laser).

never obtained even in small-scale trials at the pilot farm, it was concluded that there was no scope for fully mechanized production of sorghum or maize (Ilaco studies summarized in Howell et al 1988: 439). This was a great disappointment for authorities and residents who had hoped for a big agricultural enterprise as vehicle for development.

Mechanized irrigated rice production faced the same problems of high transaction costs, but wet land tilling (leveling with a cage-wheel tractor) and transplanting rice seedlings by hand on smaller plots by tenants produced high paddy yields, to the delight of the tenants who made good profits after deduction of their costs. On the basis of agronomical, financial, economic and social considerations an internal (Ilaco PPP) evaluation concluded in December 1983, during the last year of Ilaco's operation, that this system with rice-planting tenants was preferable to fully mechanized production: because the yields per hectare were higher, the production costs lower and the effects on the regional economic development higher. With a modest agricultural 'mother-farm' (producing seeds and providing necessary inputs, advice and training), 50 ha rice field schemes on various locations along the future Jonglei canal could be designed which would avoid competition with local *durra* cultivation and cattle husbandry. Such small farms would only need one tractor and would not be dependent on much other technology or advanced management. After an initial take-off period, the small farms would no longer be dependent on the government budget. Such farms could prevent 'hunger gaps' and the over-reliance on imported sorghum from the North, i.e. have an import-substitution function.

It is remarkable that a farm which was meant to research large-scale mechanized (export oriented) farming developed in the opposite direction and ultimately recommended a much simpler model as better fitting local conditions and people's aspirations. Cultivated rice, being unknown in the area, was immediately introduced in the countryside where a number of individual households made nurseries and transplanted the seedlings on the low, flooded parts of their fields.[61] When commercial *durra* was not available in Bor, and famine threatened in Pathoyith section, I personally transported sacks of paddy and sold them to some local shopkeepers in Mathiang (Bor Athooc). At first people didn't like rice as they found it less nutritious than *durra*, but mixed with oil and milk it became a treat.

[61] Or sown together with *durra* in one field, as risk-spreading: with unreliable rainfall either *durra* or rice would survive. Trials were done on 200 local farms. One mixed cropping test resulted in a grain production increase of the field by 60% (cf Struif Bontkes 1985: 169).

Women quickly learned to pound the paddy in the same mortars as those used for *durra*. Very soon the local traders came to ask for more supplies.

A final remark on agricultural extension. As I mentioned in section 1 (above), my house in the village of Anyidi became an agricultural extension centre. Local, minimally educated staff was employed there to do all kinds of jobs: simple investigations, interviews, and work on an experimental field (*durra* and rice). They were also trained as agricultural extension workers. While in other areas Yambio college-graduates were employed by the Bor Department of Agriculture (which faced all the problems mentioned above), local employees had easier access to the village farming women (within walking distance) who were in fact their relatives: mothers, aunts, in-laws, neighbours. In this way various vegetables and pulses, and rice transplantation techniques were introduced at the village level. For communication with the villages, use was also made of PPP-labourers originating from surrounding villages, who had worked several years on the project-farm in Pakuau, and were familiar with the project research culture. They developed as 'change agents'.

9. Integrated rural development

When the feasibility study advised against large-scale grain production, the Pengko Pilot Project (PPP), a research project, changed into an integrated rural development program called Bor Area Development Activities (BADA). By 1983, BADA coordinated all the Dutch projects operating in the Bor area: Bor Production Farm, Primary Health Care Program, Road Maintenance Unit, Rural Water Supply Project, Malek Appropriate Technology Centre, Animal Services Project, Agricultural Extension Service, and the Bor Afforestation Project. These projects were all supported by a Logistical Support Unit and a Repair and Maintenance Workshop. At the same time the Jonglei Executive Organ, with its operating base in Langbar, north of Bor town, launched the FAO/Sudd Fishery Development program.

"Integrated" rural development programs were in demand in the 1980-s. Struif Bontkes (1993: 19) who (later) designed a system dynamics simulation model of interrelated elements for Bor District (population dynamics, crop production, animal production, food consumption) concludes that planning separate interventions can lead to unforeseen effects. "In the case of (Bor District), one could even argue, it is better to leave the area alone than to start a project that

addresses one or two problems. If it is decided to undertake efforts to develop this area, an analysis of the dynamics of the total system can help to improve the decisions regarding the required mix of interventions". "To correct shortcomings of such modelling approach, it is important to facilitate interaction between modelers and target group enabling a more participatory approach" (Struif Bontkes 1992: 97). Such an approach was exactly what was followed by BADA.

BADA coordinated its activities with the Southern Area Council and the Integrated Rural Development Project of UNDP/FAO in Kongor (Panyagoor). Towards the end of 1982 BADA and UNDP/FAO Kongor organized a conference focused on coordination in the planning and execution of development activities within the Area Council, which was composed of all Regional, Provincial and Area Council officials, and representatives of all the donor-funded projects in the area. Thus, at the start of 1983 a solid basis for the coordinated planning and execution of development activities was operational in the Southern Area Council.

Area Councils were installed in 1982, they represented a decentralized provincial government structure. The former Bor and Kongor Districts (later Rural Councils) together formed the Southern Area Council. Together with the Western, Eastern and Northern Area Councils they formed Jonglei Province. In 1983 Jonglei Province and Upper Nile Province were joined to become the Upper Nile Region. Although the Southern Area Council was confronted with many capacity constraints, BADA managed to cooperate closely with its Chief Executive Officer. Unfortunately, the Provincial and Area Council development and investment funds were in many cases used to cover operational shortfalls as funds for salaries, fuel, office materials etc. arrived too late or not at all. Through unrealistic budgeting and an absence of budgetary discipline, among other things, only about 25% of the development budget was ever spent on what it was intended for (according to a representative of the Regional Ministry of Finance and Economic Planning during a regional conference, Juba, 1983).

The key elements of the 'Six Year Plan of Economic and Social Development 1977/78 – 1982/83" (Directorate of Planning 1977) were: the balanced growth of income and spread of services, and independence from outside resources. The Dutch projects conformed to this philosophy, although it considered the second element unrealistic for the Bor District in the circumstances of the time. They also overlooked the security factor (the threat of cattle raids), which was missing in the

plan. BADA studies pointed to an overriding need for the Southern Area Council (especially Bor Rural Council) to increase the productivity of the primary sector, to equalize access to services for town and countryside, to discourage further growth of the government sector, to develop alternative energy sources, and to preserve Bor forest (cf Ilaco, November 1981).

In the primary sector, the crucial thing needed to improve 'traditional' *durra* production was an increase in the quantity and quality of the labour force during the time of land clearance and preparation through the provision of water, namely drinking water for humans (boreholes provided with hand pumps) and improved *hafirs* for cattle. This is what BADA, with help of the Dept. of Rural Water Supply and the Road Maintenance Unit, had realized by drilling boreholes (46 in number) in all of the settled areas in Bor District (Bor Rural Council) and by mechanically excavating (deepening) a number of *hafirs*. In order to maintain and improve the physical condition of the adult labour force, children and school pupils, a primary healthcare program was initiated. The PHCP laid the foundation for primary healthcare in the whole province, with Bor Hospital as a referral and supply centre.

But what about cattle husbandry? It is clear that the Murle threat and the flooding of the *toic* had reduced the grazing potential in the Eastern plain as well as in the *toic*. All this negatively impacted on herd productivity. There was no short-term solution for either phenomenon. With the increasing influx of automatic weapons in the region it was feared that violence related to cattle would increase instead of diminish. Underequipped police and army forces did not seem to be able to control the security situation in areas like the Eastern plain, which were vast and without roads. Armed self-help defence groups were likely to be established, creating a spiral of violence. The only solution seemed to be to develop the Eastern Area Council (Pibor district) which BADA proposed (Ilaco, September 1984). Apart from security, a trial of rotational grazing had started in the Pengko plain. Alternative cattle feed and genetic improvement had been (carefully) considered. The Jonglei canal could have had some effect on the water tables in the *toic*, but the works on the canal had been suspended shortly after the outbreak of the second civil war, after an attack on Sobat Mouth, CCI's main base, in February 1984.

Preventing cattle diseases and mortality, and curing diseases in order to improve herd productivity seemed a more feasible intervention,[62] which could be realized by upgrading the Veterinary Department. However, it was not expected that these measures would result in a significant increase of the commercialization of cattle, as commercialization of cattle as an economic activity was not an ambition of the rural people at that time. Cattle had a primarily socio-cultural value, and served as a mechanism to cope with events that threatened the subsistence base. Cattle guaranteed the resilient character of the rural/urban Dinka society. They were intentionally kept away from markets as much as possible.

Finally, a word on energy and the service sector. The appropriate technology centre in Malek (MATC) experimented with wind energy, bio-gas, a wheel pump driven by the river current, brick presses, and other technologies.[63] All techniques had their disadvantages (insufficient wind; too dangerous for use in schools; hindered by floating water hyacinth and attacks by hippos; inadequate availability of sand-clay mixture, etc.). What was finally successful was the ferro-cement building technology, with gauze, cement and teak poles (all available on the local market). The MATC built a big house, a cattle byre, several offices, a three-class school building, a primary healthcare unit, and designed a six-sided *tukul* (to be constructed by an individual trainee as final test for graduation and obtaining a certificate). The labour force, which consisted of young men who had not previously attended school, was trained in the 18 techniques needed for ferro-cement constructions. A local builder, a labourer of the Department of Housing and some employees of UNDP/FAO-Kongor were also trained. The technique needed no foundations (as the walls of the buildings were 'hanging') and appeared to offer a solution to the problem of building on heavy, moving soils, which caused cracks and fissures to form in traditional brick buildings. The ferro-cement buildings were easy to design (with standard measures) and very cheap in comparison to all other durable techniques employed in the district.[64] Ferro-cement building was a good and more durable (termite resistant) building technique which needed no wooden poles from the forest.

Summarizing, it can be concluded that integrated rural development was taken up seriously in the early 1980s by the Southern Area Council, assisted by two

[62] A PPP survey among Bor Dinka cattle indicated that low productivity was due partly to a wide range of bovine diseases.
[63] Many more reflections found place, for instance to invent a steam engine driven on biomass from the Sudd!
[64] The ferro-cement school in Anyidi was still in reasonably good condition when I checked it (after 30 years) in 2015.

important donor programs. It resulted in the favourable situation described in section 2 (above) and the statement that "Bor" was full of promise. In some respects, the well-being of the rural inhabitants improved with the installation of water pumps, which shortened the walking distances from women's homesteads, and the operation of healthcare centres (relatively) nearby. A year-round water supply in *hafirs* allowed more milk cows to stay in the village during the dry season. These cows provided food for family members starting land preparation at the start of the rainy season. All these interventions contributed to sustaining the subsistence base of the rural households. The idea was to allow the population to become more self-sufficient and resilient and, then, gradually, to introduce income generating activities. BADA did not expect an immediate improvement of government capacity in guiding rural people in the direction of a modern economy. Therefore, the program refrained from making people dependent on high-tech innovations or costly investments. The movement towards a cash economy had then, hesitatingly, already begun.

From a development point of view, the transition from a large, expatriate-dominated, top-down enterprise into a multi-sector rural development program in reciprocal collaboration with the population and the local government, was a favourable policy turn which started to bear fruit and could count on enthusiastic participation by the rural population. After years of research and experimenting the donor programs had found an appropriate, integrated approach to tackle the major problems the population faced. Moreover, there was a long-term donor commitment to support this approach. However, the political environment proved not enabling to continue this process

10. The year 1983: violence and insecurity

In 1983 the political situation in southern Sudan worsened. It seemed that the Addis Abeba agreement of 1972 would not hold. There were violent clashes between militias, e.g. Anyanya II, and the Sudanese army on the borders of eastern Jonglei. The discovery of oil reserves in the southern region accelerated the national government of Sudan's move to abolish the autonomy of the South, to bring the oil-rich areas under northern control, and to introduce a national Islamification policy. The policy of re-division of the southern region created tensions between Equatoria (striving towards its own autonomy) and the provinces with a Dinka/Nuer majority.

On May 17th, 1983, after the Bor garrison (Battallion 105) mutinied, Bor was attacked by the Southern Command of the Sudan Armed Forces. The so-called *Bor mutiny* is generally considered as the start of the second Sudanese civil war. Historical analyses about this period have been published in a number of books (e.g. Hutchinson 1996, Johnson 2003, 2016, Thomas 2015). Since this article concerns Bor, and since I was there during the army attack, I hereby recount some of my memories about the spring and summer of 1983 which for the Dutch was, to their regret, felt as the beginning of the end of the beginning (The Beatles), and considered by others as the end of a decade of unfulfilled promise (Howell et al 1988:431). Seven years later, in 1991, the attack on the political, socio-economic and cultural fabric of the Bor Dinka population threatened its very existence.

In 1983, the Bor garrison in Malualcat refused to be disarmed and to be transferred to the North as was commanded by the national army headquarters in Khartoum. The rebellion was planned to take place on August 15th (a close collaborator of John Garang told me). However, the garrison troops had not received their pay, and rumours had it that garrison commander Kerubino Kuanyin had embezzled the funds, a situation which accelerated open revolt. On May 16th, in the early morning, the Southern Command arrived from Juba and attacked the army quarters in Malualcat which were deserted at that moment as troops had moved to the town. The reason for that move was probably the presence at Malualcat of a 70 tons supply of dynamite, stored there by Geo Survey, the company commissioned by Total to execute oil exploration in the Jonglei area. Had it exploded because of military action the consequences would have had serious repercussions for the hearing of soldiers and inhabitants of the town. The army occupied the airstrip in Pakuau and put-up camp. Battallion 105 entrenched itself in the drains along the road near Pan Macuor. When army trucks with heavily armed troops arrived to occupy Bor town Kerubino's men launched an anti-tank attack from the drains, destroying one truck and its passengers, and thus halting the army assault on Bor. Later that day the Southern Command army started to shell Bor town with mortar fire launch from the air strip and causing seventy-five casualties.

The following morning the Police, Prisons and Wildlife departments road on cars with white flags, surrendering to the army. The town and suburb settlements were then already almost deserted, the inhabitants having fled in every direction. Meanwhile, in the early morning, a Dutch mechanic from the Road Maintenance Unit (in the vicinity of Malualcat) was awakened by Kerubino Kuanyin himself,

who, at gunpoint, demanded the keys of a Toyota pick-up with which he left Bor. The Dutch were later accused of assisting the "rebels" by supplying that yellow car, which was found with an empty fuel tank near Kongor. John Garang de Mabior, just back "on holidays" in Bor, having come with his family from the United States where president Nimeiri had sent him to do a PhD study (University of Iowa), followed in a car from Bor Hospital to UNDP-Panyagoor, some 100 km northwards. From there he wrote letters which were sent to Khartoum (by UNDP diplomatic mail!) to announce the rebellion officially to the concerned authorities. Two days later he moved to Ethiopia with Battalion 105, where the SPLM and the SPLA were created.

The Dutch on the Pakuau compound were in regular radio contact with their embassy in Khartoum where the Dutch ambassador beat the alarm, informing the authorities that the Dutch in Bor were in the line of fire. Perhaps as a consequence of that diplomatic action, a Hercules plane arrived on the airstrip in the afternoon. A big tank rolled out and entered the project compound, where a northern general stepped out of its dome. He spoke the unforgettable words: "It was just an unfortunate small incident" (as he qualified the Bor mutiny and the attack on Bor), "it is all over now". At that moment no one suspected that what had just begun would only end twenty years later, after two million civilian deaths.[65] A few days later, with an Ilaco representative, I attended a meeting with the government authorities in Bor (where Abel Alier was also present) to discuss the security situation. Awaiting further political developments, with the army promising to guarantee security, all BADA programs continued operations and people returned to the town.

However, the army's control did not exceed the boundaries of Bor town. It had no control whatsoever of the countryside. This lack of control may have been deliberate to allow 'tribal militia' to attack the Bor cattle camps. While Bor town was attacked by the Southern Command in May 1983, in the month of July 1983 it was the countryside of Bor Gok that was attacked by tribal militias, Juor Palek from the East by Murle, Juor Hol from the South by Toposa. Literature suggests that the Sudan government had facilitated both attacks (Johnson 2003:68). Both tribal attacks failed, as had the attack by the Southern Command on the garrison in Bor town which had the aim to disarm the mutineers. Being at that time BADA's "rural coordinator", I was witness of both "cattle raids".

[65] By the way, the tank has remained idle in Bor as the "rebels" had already left the town.

On the early morning of July 17th Murle attacked cattle camp Anyidi where at that moment there were approximately 2,000 animals present. The Murle were armed with automatic weapons with which they immediately killed several persons; cows were also hit. They jumped around loosening the cows from their ropes or cutting them. Then, with a whip smeared with lion fat, they caused panic and a stampede among the cattle by which they drove them in an easterly direction. Cattle owners armed only with spears and clubs pursued the attackers. A few others ran to the village to collect some guns. In the forest east of Anyidi a battle started. Hearing the pandemonium of gunfire, armed young men came running from other villages, Juor Koc (north of Anyidi) and Juor Hol (south of Anyidi).

At six o'clock in the morning a lad who had raced by bike all the way from Anyidi tumbled into my garden in Pakuau and excitedly told me what was happening. I jumped into my Toyota pick-up (leaving behind my driver, a Murle) and raced to Bor to warn the police and my assistant Johnson Alier (from Anyidi). The police had no vehicle at their disposal so we took them on my car. We also picked up the Rural Council Executive Agot Herjok (also from Anyidi), and raced to Anyidi, 27 km to the east. Approaching Anyidi, some armed men along the road begged to be taken to the front. The car became a living tank. On arrival in the cattle camp, we met despairing, crying, shouting and traumatized people who mourned the death of several people, among whom was Loi Achol, brother of Court President Nai Achol. The armed men wanted to descend from the car and pursue the raiders in the forest, but we stopped them. We needed a battle plan. While we were discussing, young women came with pots of beer and pieces of half raw meat from killed animals which they had been roasting quickly. They insisted on being taken by us on the car. Later I have understood that those fighters who have eaten have more energy and can fight longer. The young women acted as provisioning troops.

We decided to continue on the road to Pengko, as we knew that Juor Hol approached the front from the south and Juor Koc from the north-west to join the people of Anyidi on the battlefield. On the way the wounded were being treated along the roadside, among whom was my brother Achol Nai, in shock. He was hit by a bullet in his shoulder. The women stepped down to take the food to the front. We left the wounded and continued. Bypassing the front (in the forest to the left of us) we arrived in the Pengko plain and turned from the road in a northern direction to surround the fighting, thus blocking the way to the east to which the Murle drove the cattle. The armed men left the car which risked stranding in the mud. Agot told me to return with my assistant Johnson Alier as

we were unarmed; moreover, we had heard that many members of Johnson's family had been killed, including his father and a brother. A Dutch colleague had meanwhile joined us from Bor, his pick-up full of project labourers (many also from Juor Palek/Anyidi), who were dropped on the same place beyond the forest boundary in Ajager, north of the road to Pibor.

On the way back I took as many wounded people as I could fit on the car and transported them to Bor Hospital. After dropping them off, I hurried back to Anyidi to collect more wounded people. On the way I met my colleague who had come back from Pengko. His car was also full of wounded people, among whom was my brother Achol, son of chief Nai. Approaching Anyidi for the third time, sometime at the end of the afternoon, we witnessed a magnificent spectacle: the Palek cattle arriving back in their cattle camp. The raiding Murle had been attacked from all sides and taken flight in a north-easterly direction into the plain, the only direction they could go. Despite having repelled the raiders, the atmosphere in Anyidi was not jubilant. Eighty-seven men and women had been killed (not including Murle). I told Nai that two of his sons were in Bor Hospital with minor wounds; the chief, at least two meters tall, embraced me and spit on my hair. Later that evening I returned home in Pakuau.

I will not go into detail about the Toposa raid on Juor Hol (Cueiker and Kolnyang) two weeks later. Armed Toposa had come a long way and apparently were hungry. On arrival at the settled areas of Juor Hol they entered houses to get hold of food, killing inhabitants with their characteristically very long Toposa spears. But after what had happened in Anyidi, the occupants of the cattle-camp were prepared. A few days earlier, on the periphery of the village, they had strewn fine sand and ashes in the terrain. Upon checking the sites the next morning they found footprints. Thereupon they mobilized all cattle camp occupants with whatever weapons they had. When the attack came, the Toposa met a well-prepared fighting force and were utterly defeated. Their firearms were taken. I was shown the attacker's corpses. Some had items of military or police uniforms on their bodies, suggesting that the raid was (at least) facilitated by the Equatorial armed forces. The attack itself also testifies of political motives; during the whole of the 20th century, Bor Dinka never had an armed conflict with Toposa. Toposa had nothing to do with Dinka, their homeland being very far from Bor District. They had probably thought that, since the flight of Battalion 105 to Ethiopia, and other armed forces having surrendered to the Sudan Army Southern Command, Bor

people and cattle were unprotected and easy prey. This appeared to be a deadly miscalculation.

On the basis of the two attacks on Bor a number of observations can be made.

- In the first place, starting in the 1980-s, Bor has been particularly important to northern as well as southern Sudanese politicians. Was it because of the rivalry between the two southern politicians Abel Alier (from Bor) and Joseph Lagu (from Equatoria), and the assumed Dinka "domination" in Alier's government and in the administration? Was it because of the resistance by Dinka politicians against the "decentralization" policy of Nimeiri which Equatoria favoured? Was it because of the Bor-garrison rebellion and the founding of the SPLM by John Garang de Mabior (from Twic East/Greater Bor) in 1983? Was it all these factors, and perhaps others, together?

  I am not a political scientist, and I have no inside information about the games that were played in the political arenas in Juba and Khartoum during the 1970-s and 1980-s. What I have witnessed, however, was a military attack on Bor, which, later, after the Dutch had left, resulted in the complete plundering, looting and destruction by the SAF-Southern Command of all that was meant to contribute to the development of the region (Ilaco compound in Pakuau, and JEO/UNDP compound in Langbar, stores, supplies, equipment), obviously (as Tuttle remarked) "to crush morale". This infamous action of large-scale robbery and capital destruction (in numerous convoys all goods and materials, machines and buildings, even bricks from foundations, were transported to Juba) was obviously more than an attempt to crush a military mutiny.

- In the second place we have witnessed, during the Anyidi cattle raid, solidarity between tribal sections, on *juor* or village level. During the raid, young men came running from Juor Koc (Makuac court/*boma*) and Juor Hol (Kolnyang court/*boma*) to join Juor Palek (Anyidi court/*boma*) in the battle with the Murle. I do not know which sections (*wut*), exactly, joined the battle (nearest to Palek are Atet and Adol). But I do know that there is a lot of intermarrying going on between the sections so that most non-Palek sections have a stake in Palek's (bride wealth) cattle. The reverse of this solidarity, inter-*juor* armed confrontation, has not occurred in Bor District in the 20th century. The highest level of armed conflict causing casualties was on section or *wut* level. One still remembers the conflict in 1945 between Guala and Adol, both being Juor Hol sections, causing the death of a chief, whereupon the "sacred spear" Lir Piau (Guala) was arrested and taken to Khartoum by the colonial authorities – it was returned in 1973 -, and also the fight between the Bor Athooc sections Angakuei and Pathoyith in 1951. Such fights usually concern cattle (grazing, theft) or women (competition among men, elopement, unpaid bride wealth cattle, etc.) issues. Normally, tribal courts can settle these disputes, but conflicts may run out of control when there are human casualties, as in the case of the death of Adol chief Maciek Deng. On the Nile's east bank, Dinka inter-tribal fights are rare. The only cases recorded concern Bor Dinka-Aliab Dinka skirmishes (1909, 1929, 1939) over grazing issues before the 1960s floods. The water level remained high and no

violent encounters have taken place in the so-called Aliab Valley *toic* since then. The Nuer intrusion into Dinka land (1991) has had precedents during Turkiya and Mahadiya (19th century). Once, in 1818, the garrison in Bor was exterminated by Nuer ánd Dinka under the leadership of the prophet Donluc (Emin Pasha, Diaries, 21 April 1880).

- Bor Dinka armament with automatic firearms started in the course of the 1980-s, when Murle raids increased. While the elder generation had known (civil) war, the next generation had not known war or armed conflict; they came to adulthood during the so-called *inter bellum*, the peaceful period between 1972 and 1983. Meanwhile, many Nuer in the north of Jonglei were already armed with guns.

  During Turkiya (1820-1885) and Mahadiya (1885-1899) the Bor Dinka must have been tough fighters against foreign traders when slave trade came in the train of the ivory trade. In the 1850-s contacts between traders and the local population along the Nile deteriorated, "as the result of an unbridled clash between widely differing societies and cultures" (Gray 1961). Around 1860 when intruders started to attack the Dinka and took their cattle by force, the Bor started to fight back. Fights between the Bor and Arab occupants of the "Bor station" ("planted" by a certain Agat in 1860) continued during Mahadiya from 1888 onwards. During the two periods there had been almost continuous fighting in the Bor area. Collins (1971) mentions that the repeated killing of chiefs and commoners and the deprivation of the land by way of raids on cattle and grain, years of oppression, the death of capable leaders and the decimation of the tribe have altogether disrupted the traditional way of life, and made the Bor reluctantly to accept Anglo-Egyptian occupation. They found in the British an alley against the Murle (Beir). Two so-called military Beir patrols, in 1908 and 1912 were needed to submit all Murle chiefs, and no raids occurred until the 1930s, 1950s and 1970s. Police records mention that during the 1970s, Murle raids took place in Bor Rural Council in 1970 (Makuac), 1972 (Anyidi), 1973 (Baidit and Kolnyang), 1976 (Lilir), 1977 (Mathiang), in spite of the 1975 tribal "reconciliation" conference in Pibor, facilitated by the Alier government.

  In 1978 I interviewed the Murle chief of Rith section from Gumuruk (staying in Bor Gok during the dry season with their cattle) who said that he would never allow his people to raid Dinka. Those chiefs of other sections that formerly raided the Dinka, he told me, had been dismissed in 1975. He also said that he would not bother the Dinka when they wanted to resettle in the Pengko plain. However, confronted with the statement that Pathuyith/Mathiang (Bor Athooc) had been raided in 1977, he did not dismiss the statement as a lie.[66]

Bor Dinka have almost always been incapable of resisting the Murle when they raided their camps, largely because of the fact that the Murle had been supplied with firearms by the Khartoum government (in the 1960-s) while Bor Dinka had

[66] Bert van den Hoek, Sjoerd Zanen, Philip Leek Deng (1978, reprint 1985): Social-anthropological aspects of the Jonglei development projects in South Sudan (ICA Leiden)

few firearms and little ammunition. For the same reason there were no retaliatory raids by Dinka on Murle territory. It was only after the raids on Anyidi and Kolnyang in 1983 that young Bor Dinka started thinking seriously about firearms and military tactics. The defence line composed of fine sand and ashes strewn on the terrain in Juor Hol is an example. After my friend Achol Nai recovered from the shoulder wound he received during the raid on his camp in Anyidi in 1983, he sold two good cows from the family herd in order to buy a gun. The importance of this purchase is underlined by the fact that it delayed the marriage of a brother, his own marriage, and the third marriage of his father, court president Nai Achol. The latter was so angry that he had his son arrested because of the sale. However, Achol left and stayed away for months. Upon his return he showed me his new gun, secretly. His happy youth was finished; his life as a warrior and protector of the family herd had begun. He was not interested in joining the SPLA. In 1991 he and his father were killed by White Army militia.

In Bor, in October 2015, after a Murle raid on Jalle, I witnessed the meeting whereby the Bor civil society (young and old) decided to mobilize itself as defence against Murle attacks, since neither army nor police seemed capable of protecting them. The 'militarization' of the Bor Dinka is a result of the anarchy created or allowed to exist by the national South Sudanese armed forces.
However, fighting is no solution. A proper integration in a state with good governance, development investments in education, human healthcare and cattle husbandry (water provision, veterinary care, range management) are in the long run better prospects for peaceful coexistence between the tribal communities.[67]

In the spring of 1984 all project activities ceased. The Dutch were evacuated, the staff of JEO joined John Garang, and (as recorded by Tuttle in section 2 above) all physical traces of the Dutch and JEO development programs were erased by the Southern Command of the Sudan Armed Forces. From the air, for a long time, one could still see traces in the landscape of that promising *inter bellum* period: a straight line marking the remains of the unfinished Jonglei canal, and the pattern of the erstwhile experimental fields of the PPP. But the traces have become ever fainter together with the memories connected to them.

[67] In 1978 I was part of a team commissioned to design an 'eastern' alignment of the Jonglei canal starting in Bor town. We designed an alignment that would turn east of the Bor Athooc and Twic Dinka settlements. This alignment would be very profitable for various reasons, one of them being that the canal would form 'a natural barrier of protection between the Dinka villages and the Murle bands '(Hoek, v.d., Zanen, Leek Deng (1978/1985). Bringing water into the Eastern Plain would also open prospects for the development of that huge area from which would also profit Gaweir and Lou Nuer. However, the proposed line (supported by the population) was rejected by the (Khartoum) Ministry of Irrigation "on economic grounds" (?).

11. Cultural change?

A 'culture' may change due to changing circumstances or contexts. However, while changing contexts will be met with varying degrees of adaptation (in social and economic behaviour), a culture or system of thought that gives meaning to people's actions, is usually more resistant to change, or more sustainable, so to say. People (communities, societies) are usually inclined to change (in behaviour) in order to remain the same as much as possible (in culture). Systems of thought have a logic which guarantee that the constituent parts of the society are linked together in a consistent way, such as, in the Nilotic case, the logic or inter-consistent linkage between kinship and marriage systems, modes of livelihood, customary law, etc. which are all aligned, or at least not in conflict with each other. If contradictions occur, corrective measures generally can be expected within the system itself, for instance through the judgments in customary lawsuits by the assembly of chiefs in chief's courts. Behavioural change does not come out of the blue. So-called *human agency* (following Giddens) or *habitus* (following Bourdieu) of 'change agents' are not arbitrary: these agents attempt to come to grips with the changing world around them and they do this both *cognitively,* on the basis of existing cultural categories, and *organizationally,* in the way they interact with other individuals and groups. However, when one of the constituent components ("institutions" or "sectors") changes radically for one reason or the other, the logic of the whole system may be adjusted in order to provide a new frame of moral references in which 'new' behaviour fits.

Since the 19th century, all South Sudanese societies have interacted with foreigners who have enslaved them, oppressed them, killed them or tried to impose their ideas of 'civilization' upon them. Among others, the Nuer and Dinka have been coping with Turkiya and Mahadiya traders, cattle raiders and slave hunters. These were followed by Anglo-Egyptian colonialism, an oppressive northern Sudanese government, a military national liberation regime, Islamic and Christian missionaries, and recent 'development' agencies, humanitarian and 'peacekeeping' organizations. They have also cooperated with these foreign powers. 'Globalism' is absolutely not a new phenomenon in the lives of the populations of South Sudan (or most other societies in Africa), and, of course, this kind of globalism has had an impact on Dinka society. In spite of all the changes in the life of the Bor Dinka, it remains to be seen whether, and if so, how the Dinka *culture* has changed over time.

The transformation of the Bor society from a cashless, kinship ordered subsistence economy towards a monetary market economy started some time before the beginning of the 20th century and continues up to today. In retrospect, the *inter bellum* period of the 1970-s and 1980-s in Bor District may be considered an intermediate phase of this transformation process, during which the accelerated monetization of Bor society since 1976 has played a significant and decisive role. Hutchinson (1996) studied the relationship between cattle wealth and monetary wealth among the Nuer from the 1930-s (the time of Evans Pritchard's fieldwork among the Nuer) until the 1980s (the time of her own fieldwork). From the works of both authors it appears that monetary economic development in the northern, Nuer areas of Jonglei proceeded more rapidly, together with the acquaintance with firearms, than that of the southern, Dinka areas. The colonization process in the north was more violent and so was the introduction of money and modern weapons. The Nuer were more economically influenced by northern Sudan with its employment opportunities, trade and markets (guns, grain and cattle). Islam and Christianity influenced the tribal society there more than in the south. The economic and social changes among the Bor Dinka were more gradual but not necessarily much different from those in most Nuer areas. In Bor District, dramatic change, in all respects, took place shortly after the period under consideration, from 1991 onwards.

The descriptions by Evans-Pritchard and Lienhardt of the Nuer and Dinka during the 1930s and the 1950s seem obsolete, but it remains a question whether the highest cultural values of those Nilotic societies radically changed. These cultural values were, according to Mading Deng (1972) and Hutchinson (1996:61): 'procreation, physical well-being and communal peace'. These values were previously dependent entirely on cattle. The only continuation of life for tribal Nuer and Dinka, it was said, was through procreation. The continuation of the family or the lineage depends on cattle. In concluding a marriage, cattle serve to replace the bride (bride wealth); similarly, cattle serve as a compensation for manslaughter (blood wealth). "As bride wealth enables a woman to be replaced by a woman so blood wealth enables a man to be replaced by a man" (Evans Pritchard 1951:98). In these exchanges, according to *the logic of the tribe*, cattle cannot be replaced by money, which lacks social significance and generative value. Cattle will multiply for the lineage of the people who have lost a member, "continuity of generation in cattle thus being balanced against continuity of human generation which has been broken by the loss of a member of the lineage" (Lienhardt 1961: 25). Bride wealth cattle will be used for the marriage of another

male member of the lineage. Bride wealth creates a vast network of social relations and functions as regulating the ties within these networks. Marriage, married life and procreation are represented by the *luak*. As it is said in Bor Dinka: "We respect the *luak* like we respect the mother", referring to the former as the 'womb' for cattle and the latter as the 'womb' for children. Both serve to increase the *dhien*, which means both cattle 'hearth' and human 'lineage' (Zanen et al. 1987). As regards physical wellbeing (before modern medical facilities) people depended on the sacrifice of cattle in the case of serious diseases.

In our article, mentioned above (Zanen et al 1987), it is argued that, for the Bor Dinka, the typical Nilotic opposition between cattle camp and village is not only an economic but also a cosmological distinction reflected in myth, symbolism and ritual and based on the ontological properties of the Sky and the Earth which were once connected but have long been separated. It is also reflected in social structure and social organization, and in the valued environment. The internal logic of the cultural system as a whole form an overall order (p.193). Constituting parts of this order are cultural ideas and attitudes that relate to production and consumption, abundance-affluence-surplus and scarcity-hunger- deprivation, leisure and toil – which are expressed in Dinka mythology. The origins of cattle husbandry and cultivation, the two principal economic activities, figure in mythology. Both start with a negative act. A very widespread myth of origin relates how death, hardship and division came into the world. All of the versions of this myth express the same theme: the severing of a rope between heaven and earth and the consequent separation of mankind from God the Creator (Nhialic). Although the story is told in various ways, all of them indicate that the connection with God was broken because of greed, or, more accurately, due to a lack of modesty of mankind in its relation to Nature, to God. This consideration is of utmost importance in understanding the Dinka cultural attitude to their environment, which is one of modesty or moderation, and in which overexploitation of natural resources is an offence on both a social and a sacred level. On a social level, material surplus should be redistributed immediately and hence cannot be accumulated for one's personal interest. On a moral level it is not overproduction that is valued but rather endurance in times of hardship. The killing of cattle merely for food is considered an offence on a sacred level. Even hunting is not done on an economic basis. Killing, it is felt, is something which has come about almost by accident and is not in the original nature of things (p.177).

In Dinka mythology, one killing in particular marks the separation which now exists between wild buffalo and domesticated cattle: man killed 'the mother of cow and buffalo'. Both buffalo and cow vowed to take revenge on man. Buffalo would kill man in the forest, while cow chose to live among men, so that they would kill each other for her sake. Again, man caused a division in the world by encroaching upon nature. The theme of division and separation, most often linked to greed or a lack of reciprocity, pervades Dinka mythology. The two primary myths, of severing the rope and of killing the natural ancestor of cattle, depict the human condition in a very ambivalent way. Man's two basic and closely linked endeavours, procreation and the husbandry of cattle, both originate from a transgression. The two principal economic activities, cattle husbandry and cultivation, both originate from a negative act. These acts, which express a lack of modesty in the relation of mankind to Nature, are an offence on a sacred level (p.177). This cultural value is again confirmed by the Dinka Ayuel corpus of myths. One version (Tuttle 2014:255) of this myth concerns the throwing away of food given to Ayuel by God, whereupon God, through the moon, kills Ayuel with a fishing spear coming from Heaven (as lightning) and transfixing Ayuel to the earth. Again, death was a consequence of the offence of wasting the modest supply of food (grain) that God or Nature had provided to man. The consequence of death is the necessity of procreation, and procreation depends on cattle.

Hutchinson, who treats the economic changes among the Nuer (forced introduction of money through court fines, cattle auctions and sales, cash incomes from employment, etc.) concludes that by 1983 money had *not* developed into a generalized, impersonal medium of exchange among the Nuer.[68] Cattle remained the dominant 'metaphor of value'.[69] While one could say that cattle were being progressively 'commodified', one could equally say that commodities and even cash money were 'cattle-ified' (p.98). This statement is illustrated (and Bor Dinka does not differ from Nuer in this respect) by the continuing use of cattle as bride wealth and blood wealth, even where the origin of this cattle was not the family hearth. Even items, like guns and other objects, began to play a complementary role in marriage arrangements. Therefore, although the money economy resulted in social and economic changes in Nuer and Dinka regions, the value of cattle in

[68] Even in 2009 money was not widely and frequently used. Thomas mentioned that in Akobo in that year 63% of people had not used cash in the last seven days (p.36).

[69] However, 'modernization', starting with colonial rule, has led to changes on customary law *practices* in which cattle is involved, such as with regard to marriage, divorce, inheritance, homicide, adultery, cattle ownership, blood wealth, and the like (cf Hutchinson 1996), but in the 1980-s had not seriously affected basic Nuer values or the *logic* between the mentioned customs. In the 1990-s a zonal commander in a Nuer area radically changed the nature of blood wealth, which, according to the SPLA, was not necessary in case of killing during military action.

social networking did not fundamentally change. The interdependence and complementarities between the generative value of man and the generative value of cattle remained the most significant value in Nuer and Dinka culture during the 1980-s.

However, money has threatened the fundamental values of 'communal harmony', one of three basic Nilotic cultural values discussed above. In contrast to cattle, money can be concealed, a property that affords greater individuality. Leonardi (2011) writes about the "individualizing properties of money". In the past, rural Dinka used to explain their public nakedness by saying that they had "nothing to hide". But with the wearing of clothes, obtained with money, this moral state of mind seems to have been affected. Lineage members who were absent from home started to build up their own monetary and material capital, bonds with the family and the community weakening in the process, resulting in marriages and children that were not properly legitimized in the family. In this way the so-called typical "reciprocity", considered by many authors as the key element of *the logic of the tribe* started to be mixed or replaced by the accumulation of wealth according to *the logic of the market*. The latter's logic very often implies or at least provide more room for cunning and secrecy, selfishness and greed as features of the monetary, capitalistic world, characterized by inequality between people rather than fundamental, moral equality. The difference with the past is that greed, deceit and selfishness, which have always existed, are no longer corrected, and have even become indispensable for social success. The underlying morals, although remembered, had eroded in the 1990s. As Thomas (2019:8) remarks: "Many South Sudanese people do not want to sentimentalize the kinship-based subsistence systems of the past, which, while having social and moral resonance, do not reflect contemporary aspirations and the desire to accumulate wealth through the market".

These emerging standard ideas and attitudes in economic endeavours and home economics mark change in the typical cultural, moral codes of the Nilotic cultures. In the Bor area the change was announced by the purchase of cattle (by fathers as well as by mothers) to supplement bride wealth for the marriages of sons, thereby separating individual and lineage interests, and weakening existential bonds between intra- and inter- lineage members, on which the social and economic fabric of the *tribe* (the network of blood relatives, affines and potential affines) depends.

As we have argued, in the transition period of the *inter bellum,* the subsistence system was not abolished, but the mindset inherent in the purely kinship-based subsistence and reciprocity system, or *the logic of the tribe*, started to mix with *the logic of the market*, characterized by commoditization of grain, cattle, and labour. The changing circumstances forced people to change their economic, social and moral behaviour. Among the Eastern Dinka this shift occurred, dramatically, by the end of 1991 with warlords systematically raiding the properties of the tribal sections of military competitors, and chasing away people from their land, with dramatic social, economic and cultural consequences for their way of life. But even then *the logic of the tribe* was not abandoned when, through control over cattle, military commander started to intervene in marriage arrangements in order to increase their kin networks for military purposes.

12. After 1991

The split in the SPLM liberation movement in 1991 resulted in the so-called Bor-Massacre or 'genocide' by Nuer White Army and other militias. The massacre was all but a death blow to the very existence of the Bor Dinka society as many people took flight, and left Bor's rural areas. Those who returned were massacred, or chased away again, in 2013/14 by the same category of militias. When I visited the countryside of Bor Gok in 2015, the villages were all but deserted. Many Bor Dinka cattle herds had been taken to Equatoria and Lakes states where one tried to replicate the Bor society with its kinship networks and marriage arrangements. In the aftermath of the massacre, people destroyed their clan divinities (*jok*), including the mentioned Lir Piau (Guala-Angakuei). New Christian sects were established in Bor town.

There have been more massacres during almost 30 years of war in Jonglei. The state of Jonglei has been a battlefield of armies, "warlord" militia and tribal militia. The economic consequences of this war were analysed by Thomas (2015, 2019 and 2020). The period described by Thomas does not fall within the scope of this article but concerns its aftermath. I will highlight a few of Thomas' conclusions.

- Away from the land, loss of properties

Extreme violence destroyed the social rules of subsistence and made the kinship-ordered system of production impossible as it prevented people from cultivating their own food. Without land to cultivate, and without sufficient cattle, people had to give up reciprocity and were pushed towards markets where prices were manipulated by a coalition of merchants and security men. Refugees (Internally Displaced Persons) were pushed to towns or

displacement camps, where food was a commodity. These IDP played a major role in the shift to the market and, in general, the commoditization of labour, of livestock and of land.

- The oil boom, dependence on the government payroll

During the oil boom, as from 2005, the government recruited and paid about 400.000 people, half of them army and security personnel (Thomas 2019: 75). South Sudan's government spent half of its revenues on wages. The state's creation of patron-client networks resulted in more ethnic antagonism. Moreover, no money was invested in the economy and hardly any money in the development of the population (Thomas 2015). The displaced people who had lost access to land and natural resources had shifted away from self-reliance and had to adapt to the market society in towns, and to follow *the logic of the market* or rather *the logic of war*. "Instead of using the kinship order to organize production, individuals had to persuade their kin to provide for them, crowding the homes of wage-earning bureaucrats who had the means to provide for dependents" (Thomas 2019:38) on a permanent basis, thereby creating new social hierarchies.

- Non acceptance of the state: hostile militia

In Jonglei one category of people refused to abandon the *logic of the tribe*. A number of Murle sections in the Jonglei hinterland did not give up their independent existence. They refused to be incorporated in a state and had no part in the Comprehensive Peace Agreement of 2005. Their militias based on age-sets were not incorporated into the SPLA (army), raiding continued, followed by disarmament campaigns by the army on an ethnic basis which resulted in new conflicts and clashes (Thomas 2015). Raiding cattle became a "restocking strategy" or even a "livelihood strategy" (Thomas 2015: 226) for both Nuer and Murle youth, creating new forms of accumulation in societies at the edge of the market. One may consider these developments (Thomas says) as a revolt against the cash economy. This development has had immediate consequences for the Eastern Dinka who have frequently been, and are still, targets whereby they are time and again deprived of their properties, not to mention their lives. If this situation is not controlled, and law and order are not restored, the "Bor Dinka" will remain a dispersed and scattered people, spread over the whole of South Sudan, its neighbouring countries and three non-African continents. Bor county, most of its territory, will then stay depopulated, its resources underutilized.

13. Amnésie de la genèse

The reason why I chose to write about the history of some tribal sections of the Bor Dinka, the pastoral way of life, the gradual monetization of economic life in the 1970-s, and the violent "incidents" of politically motivated "cattle raids" and military attack on Bor in 1983, was that it was the preamble of a radical change in the life of the Eastern Dinka, Bor Dinka in particular. The Bor massacre in 1991 marked the transition towards a society such as described by Thomas, summarized in the previous section. That massacre caused the emigration of mainly youthful

people to neighbouring countries, to the United States, Australia and Europe. A new generation born there has never experienced cattle-camp life and the wandering through the landscape, or heard the stories about their history and about local events which testify of *the logic and the morals of the tribe*. They have, in other words, not directly experienced the local culture, the social relations between people, the relation between man, nature and God, and the system of thought that gave meaning to life. There is talk of what Bourdieu called *amnesie de la genèse*, or loss of memory of the imagined origin, and the logic behind the way the culture and the society developed since. Perhaps there will also be talk of a loss of *belonging*, typically of diaspora and returnees' psyche (Geschiere 2009; Tuttle 2014)).

This text is only a skeleton or overview of some historical events and modes of life, presented by a relative outsider. The details have to be filled in with stories told by local people (preferably those who are still alive). The testimonies by Deng Kuol and Elizabeth Nyibol with whom this article started are examples of the sort of oral history material that can still be collected. But there is no time to waste.

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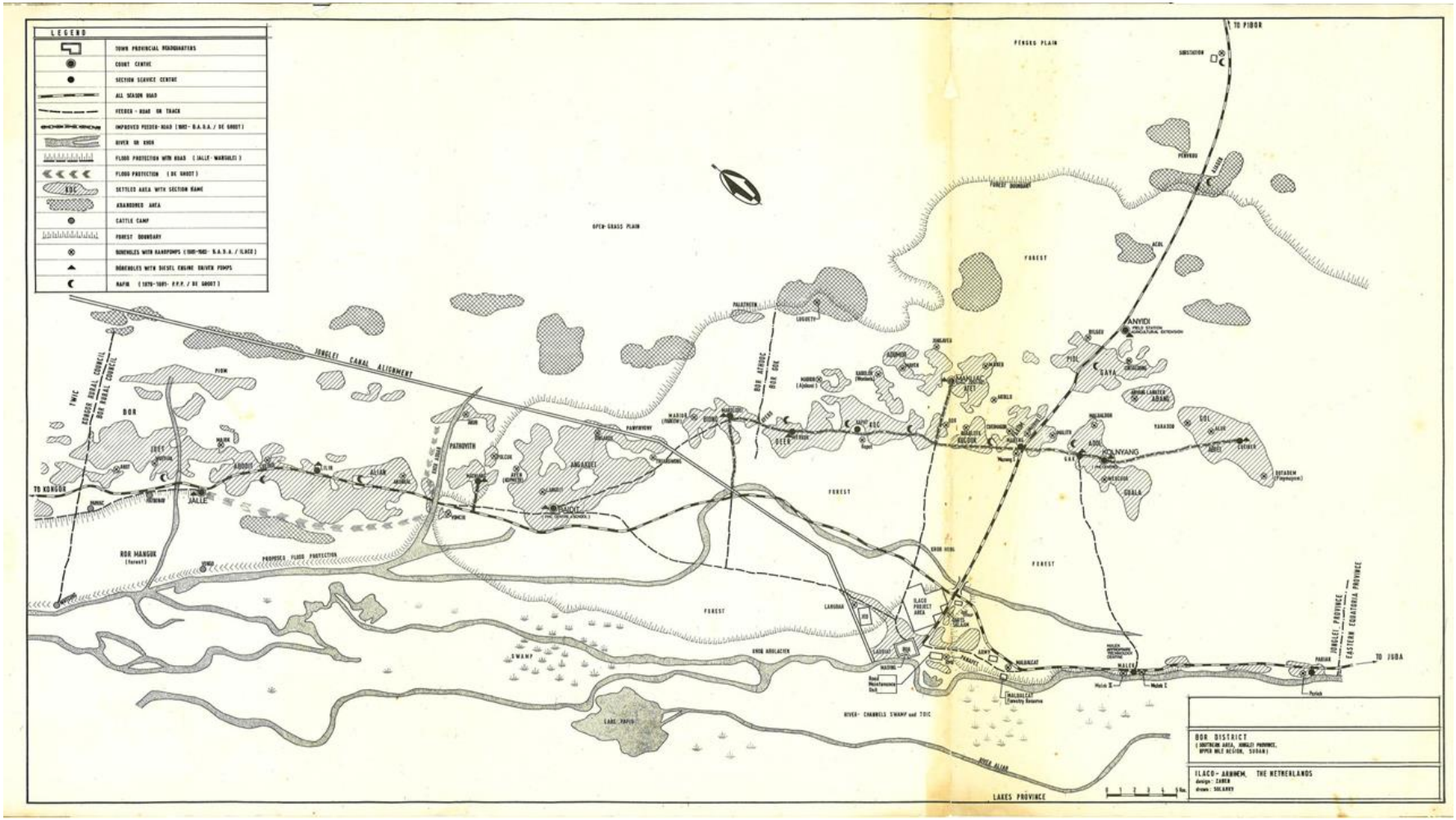
Sjoerd.zanen@gmail.com



Map 1: Bor District (1983)

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