# Land Use Methodology for Settled Nomads in Djibouti: Slums and the Nomadic Notion of the Living Environment

#### MAKIKO OGUSA

Graduate School of Media & Governance, Keio University

Since France colonized the Republic of Djibouti in the 19th century, nomads have formed settlements in the area, concentrated on the outskirts of Djibouti City. The Balbala District is one of the biggest such settlements, which today is largely made up of slum quarters. To stem the expansion of slums, the government has resorted mainly to "lotissement," or the creation of land allotments for settled nomads. However, this strategy has had only limited success, because it was designed from the viewpoint of the administration and disregarded the nomadic notion of the living environment. Here, we assessed the adequacy of this method of land use and clarify its current status. We conclude that to better manage slums in this district, it is necessary to consider the settled nomads' viewpoint of land use.

Key words: slum, land use, nomad settlement, Issa, Afar

#### 1. INTRODUCTION

The Balbala District, 8 km from the center of Djibouti City, the capital of the Republic of Djibouti, is considered a residential area for low-income groups and is characterized by extremely high population growth (Ministère des travaux publics 1998: 68; Piguet 1998: 297). The population of the area is estimated at about 200,000, although no official census has been performed. The majority of the district comprises slum quarters with cheap, temporary barracks, located mainly between 8 and 12 km from the city center. Slums are spreading toward the boundary of the city at an exceptional pace. Throughout its history, the area has suffered from a shortage of infrastructure and public facilities, and living conditions have remained poor due to the extreme population density. Various measures have been taken to improve the situation, but to date none has had success, due to a lack of consideration for the characteristics and values of the inhabitants.

## 2. HISTORICAL BACKGROUND

Djibouti was colonized by France at the end of the 19<sup>th</sup> century, and the basis of Djibouti City was formed by the middle of the 20<sup>th</sup> century. In the 1960s, the French military attempted to control the developed area by restricting the migration of nomads. The area was enclosed by a large fence, and nomads were prevented from entering the restricted area (Pérpise de Montclos 2001: 65). During this period, a small village of nomads formed outside of the fenced area, which today is the Balbala District. These nomads were eventually employed by the French military for construction work in

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		able I. I cito	45 01 11111111611	tion to Daibar			
	1950-1976	1977-1982	1983-1988	1989-1993	1994-1996	1997	TOTAL
Balbala Total	2.5	13.6	30.1	36.8	14.3	2.5	100
District:							
Cheick Moussa				48.7	37.8	13.5	100
Ancien Balbala	18	45	13	11	12	1	100
T3		27.9	31.5	23	15.2	2.4	100
Hayabley			51.1	41.2	4.6	3.1	100
Afar Miterle		4.5	72.1	9.9	9.9	3.6	100
Bache a Eau			2.9	89.6	7.5		100

Table 1. Periods of immigration to Balbala

Source: Ministère des travaux publics, de l'urbanisme et du logement, Schème directeur de Djibouti et identification de projets prioritaires, Group Hiot-Tractebel Development, 1998

the city, resulting in a rapid increase in immigration to Balbala (stemming from perpetual drought or ethnic conflict in neighboring countries such as Ethiopia and Somalia).

According to the latest statistics on the Balbala population, about 70% of inhabitants arrived between 1983 and 1993 (Table 1) (Ministère des travaux publics 1998: 128), a period of social and environmental instability in neighboring countries (e.g., drought in northeast Africa in 1983–1984, 1988, and 1992; ethnic conflict in northern Ethiopia in 1988; an uprising by the Issaq in Harfeisa, Somalia, in 1988; civil war in Somali in 1990; collapse of the Mengistsu regime in Ethiopia in 1991; collapse of the Siad Barre regime in Somalia in 1991; war in Somalia in 1993; and independence in Eritrea in 1993) (Pérpise de Montclos 2001: 57–58; Laudouze 1989: 179–162).

During this decade, approximately 230,000 refugees settled in Djibouti, many of whom settled in rural areas of Djibouti and in the Balbala District. Nomads who had lost their livestock settled the outskirts of the city and searched for employment, while those who still had livestock continued a semi-nomadic life in rural areas. However, climate change has driven the majority of settlers to an urban life. In 1950, about 70% of settlers still led a nomadic life, while only 16% did in 1989 (Godet and Guedda 1984: 99–119).

The first project to stem population growth in Balbala was implemented in the 1970s. It consisted of simple land allotments (called "lotissement") for the settled nomads, whereby land was divided into quadrangle lots arranged in one-block units enclosed by roads. The strategy is efficient, simple, and economical, and is still practiced today.

## 3. CURRENT STATUS OF BALBALA

The Balbala slums are classified into two types: spontaneous and planned. Fig. 1 shows the distribution of each type of slum. Spontaneous slums (Fig. 1, dark gray) were formed spontaneously by settled nomads, and the majority of habitants are immigrants and not the main ethnic group of Djibouti<sup>(1)</sup>. Most are unemployed and extremely poor. This type of slum usually forms in areas without administrative intervention, which are typically characterized by unfavorable geographical conditions (e.g., steep slopes, lowlands), hazardous areas (e.g., near railways or highways), and difficult access. Naturally, such areas have poor infrastructure and organization. Inhabitants are illegal occupants ("squatters") who build their dwellings freely and irregularly (Fig. 2). There are no regulations on land use (Fig. 3), and such areas tend to become densely populated. For example, the population density of the "Bâche à eau" slum is 827 persons/ha<sup>(2)</sup>.

Planned slums (Fig. 1, light gray) are residential areas formed by lotissement. The land is organized in regular square lots (Figs. 4 and 5) and is also densely populated. For example, the population density of the "Wahedé Daba" slum is 369 persons/ha<sup>(3)</sup>, which is less than that of spontaneous slums but

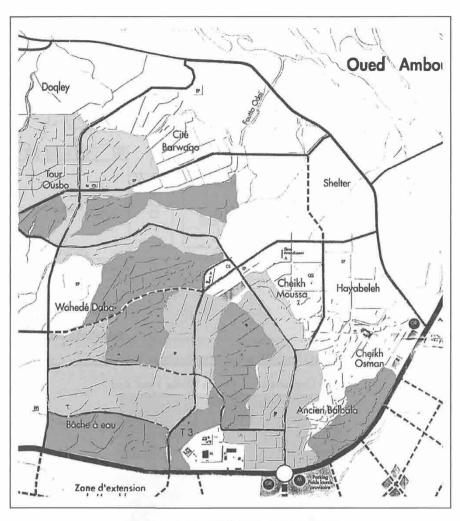


Fig. 1. Distribution of the slums in Balbala

still too high for a healthy living environment. Most inhabitants belong to the main ethnic groups of Djibouti Issa and Afar, and individuals have permission from the government to temporarily occupy one specific plot. There is a general infrastructure, and these slums usually border roadways.

In both slum areas, dwellings are typically frame-and-cover structures using wood for the frame-work and metal sheets for walls and roofing, although the materials vary depending on the economic situation. The structures are typically weak, lack durability, and are not fixed to the ground, and thus may tilt and even collapse in time (Ogusa 2002: 765–766).

Despite these shortfalls, this type of construction is similar to the Djiboutian nomadic tents, which are designed for portability and based on a simple and instant building technique using light materials (Ogusa 1999: 221–222). In fact, as shown in Fig. 6, there has been a gradual transformation in the spontaneous slums from nomad-type abodes to the settled nomads' dwellings (e.g., from an archshaped frame to wooden pillars and beams), with buildings at various stages sometimes coexisting within an area. Retaining a level of portability may be important to squatters worried about being evicted.

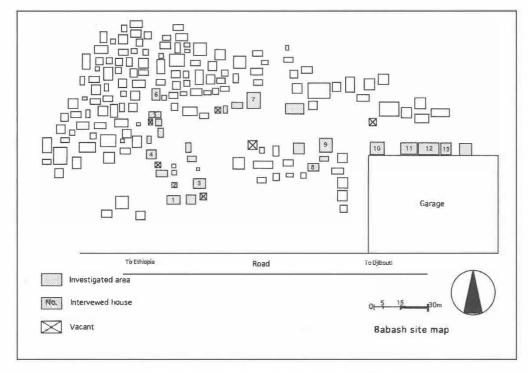


Fig. 2. Organizational plan for "Bâche à eau" slum



Fig. 3. Spontaneous slum

## 4. NOMAD SETTLEMENT PROCESS IN URBAN AREAS

A social structure among nomadic tribes in this area consisting of various networks of relatives or clans augmented the settlement process, leading to the rapid expansion of the slums. For example, a social unit called "jijib" in Somalian and "gulub" in Afar consists of subunits of families or bands ("reer" in Somalian and "buda" in Afar) that support the nomadic life and cooperation in emergencies. Under this system, which may span both rural and urban areas, groups share certain possessions, such as livestock or land.

Table 2 shows the results of research by Chiré (1998) on residents in the general slum area<sup>(4)</sup>. More than 70% of immigrants were helped for settlement by relatives or clan members, indicating that the nomad group system augmented urban settlement. The process of settlement and obtaining official permission to occupy the area takes a long time to complete. Chiré (1998) divided this process into four stages, as detailed below.

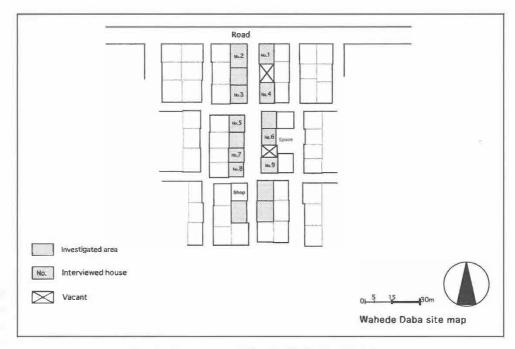


Fig. 4. Organizational plan for "Wahedé Daba" slum



Fig. 5. Planned slum



Fig. 6. Transformation of dwelling structure

Host	Number	Ratio (%)	
Propinquity	97	60.25	
Clan	17	10.56	
Relation	2	1.24	
Friend	2	1.24	
Employer	9	5.60	
Individual	30	18.60	
Other	3	1.90	
No answer	1	0.60	
Total	161	100.0	

Table 2. Host of settlers

## 4.1. Sojourning at the home of a relative

When immigrants begin the settlement process, they initially live with a relative or clan member. During this period, they begin looking for space to settle using their group network, a process that in effect extends the territory of the entire group in the urban area. Within each group, the solidarity of members is one of great discipline, which is necessary for survival. This network tends to urge members living in rural areas or still living a nomadic life to emigrate to the urban area, thereby enlarging the groups' territories. The property of the newcomers, including the land and any rights of possession, belong to the group as a whole. Each network tries to acquire more land in areas without administrative intervention, which eventually leads to a high population density.

## 4.2. Squatting

Squatters can be newcomers or established inhabitants. For newcomers, squatting helps begin an urban life, and for inhabitants, it is a way to gain more property. In either case, squatters find vacant space in lawless zones and construct shanty-type dwellings out of pieces of wood, clothing, metal, and other material. At this stage, the goal is to locate and occupy a living space.

## 4.3. Acquisition of a "Permis d'occupation provisoire" (POP)

The POP is the official permission of temporary occupation for a certain site. It is normally acquired when one resides in an arranged site nominated by the authority<sup>(5)</sup>. Because this type of land distribution is rare, and the applicant should be a registered citizen of Djibouti City, it takes a long time to acquire this permission. Moreover, the permission is not permanent, and POP holders may be required to eventually return their land to the authorities. Nevertheless, after acquiring a POP, residents attempt to upgrade their dwellings.

## 4.4. Acquisition of a "Permis avec Titre Foncieris" (PTF)

The PTF is the official possessive right. To acquire a PTF, a POP is indispensable; however, it is only rarely officially granted.

Table 3 shows the results of research by Chiré (1998) on the dwelling status of the inhabitants in the slum area. Each item can be classified into one of the stages of settlement detailed above. For example, "sojourning" and "borrowing from family or an acquaintance" take place during the first stage of settlement, which is considered part of the support system of the nomadic social unit, and "squatting" is clearly part of the second stage. The item "rent" depends on the site and where the building is located, and cannot be clearly classified into any of the four stages. Similar problems arise with other items, such as "homeless." Nonetheless, some generalizations can be drawn, and the stages of settlement account for about 29.95% (Stage 1), 27.41% (Stage 2), 23.85% (Stage 3), and less than 1.52% (Stage 4) of the process.

<sup>\*</sup>Questionnaire by Chiré (1998)

Table 3. Dw	elling status
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Status	Number	Ratio (%)	
Sojourn	42	21.32	
Воггом	17	8.63	
Rent	23	11.67	
Squatter	54	27.41	
POP	50	25.38	
PTF	3	1.52	
Homeless	2	1.01	
Other	4	2.03	
No answer	2	1.01	
Total	197	100	

<sup>\*</sup>Questionnaire by Chiré (1998)

According to this result, 57.36% of all inhabitants live in unstable conditions. People in the first stage shift to the second stage, where they remain for a long period of time. Thus, the number of squatters increases gradually but consistently, leading to an increasingly dense population.

#### 5. "LOTISSEMENT"

The aim of "lotissement" is to avoid illegal occupation by squatters and to administratively control land and its occupation by distributing organized lots with temporary permission to occupy them. Because this methodology is simple and economical, and tends to make nomads feel like they have some private space, it has been considered an efficient method by administrative leaders. However, it has led to some negative results.

## 5.1. PK12 project

PK12 is a district located about 12 km west of Djibouti City. It was established as a residential area by the government using the "lotissement" land use strategy. The PK12 project began in the early 1990s (Ministère des travaux publics 1998: 129–134; Ministère des travaux publics 2001), in response to overcrowding in the Balbala District and because squatters had already started settling the area. Fig. 7 shows the master plan of the project. The land is divided into 5,000 lots, each around 30–35 m², with 5.5 persons/lot. The project will include an educational facility, medical office, mosque, police station, waste treatment center, and commercial facilities. The area will be linked to the Balbala District, as the latter gradually expands toward PK12.

A panoramic view of this area is shown in Fig. 8. The present population is around 14,000, made up of about 2,800 families. Roughly 70% of the population had settled each lot by 1993, and 83.2% of inhabitants hold a POP (Ministère des travaux publics 1998: 130). Although all lots have already been distributed, there are many vacant lots, and 40.7% of the buildings are vacant. The majority of the dwellings are shanty-type structures, although some nomad tents can be found, and some families maintain livestock nearby. The road is partially paved, there is no electricity, and water is provided occasionally by a water wagon. Except for a mosque and a primary school, the public facilities have not yet been established. Because of these conditions, many people leave their lot empty, even though they have a POP, and continue to live in another district. Many of the conditions (vacant space, little traffic, unclear site boundaries, no administration, and some established squatters) are conducive to slum formation and the emigration to urban life, an unexpected result of "lotissement." This demonstrates that the strategy of "lotissement," which was intended to stem slum growth, may in fact help form slums.

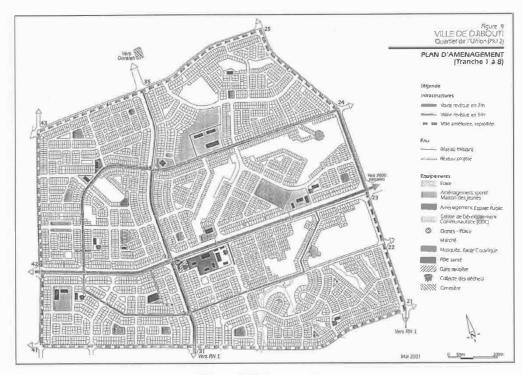


Fig. 7. PK12 master plan

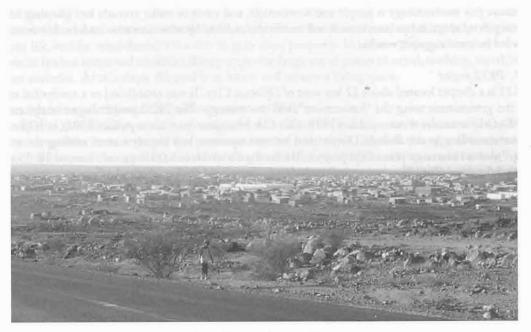


Fig. 8. Panoramic view of PK12

# 5.2. The nomadic notion of the living environment

It is questionable whether the idea of forming lots can be adapted to the nomadic concept of space utilization. In the case of the nomadic Issa, each dwelling is basically occupied by one nuclear family. These nomads travel in the smallest social unit (i.e., band). Normally a band consists of 1–6 families, and the members are relatives or clan members. When they find a preferable place for pasturage, they form a base camp where they remain for a certain period. The camp is typically away from traffic and far from any other bands. The Issa have no concept of private land but rather hold territories. At the camp, dwellings are built about 12.5–22.5 m from each other, and they share some types of common activities. Such band-living practices are retained among the semi-nomads (Ogusa 2004: 715–716).

Semi-nomads settle in areas relatively close to urban areas, and they can therefore engage in pasturing but also depend on urban life. Because they usually have good conditions for water and access to the city, they tend to attract other bands, which gather and settle, eventually forming a small village. The PK20 village of semi-nomads is located 20 km west of Djibouti City, with a population of about 300 (Ogusa 2001: 515–516). A map of the village is shown in Fig. 9.

The dwellings are denoted by small circles, and each band is enclosed by a dotted line. The distance between dwellings is around 2–10 m, closer than those of the nomads, because land is limited and must be shared with other bands. There is a mosque, reservoir, school, and shop. The roadway tracks are linked by path. According to research on the inhabitants of PK20<sup>(6)</sup>, 34.8% are satisfied with life there; 75% of those respondents indicated that the reason for being satisfied was that they live together with their relatives.

In urban areas, bands are different. In spontaneous slums, it is difficult to find enough space for

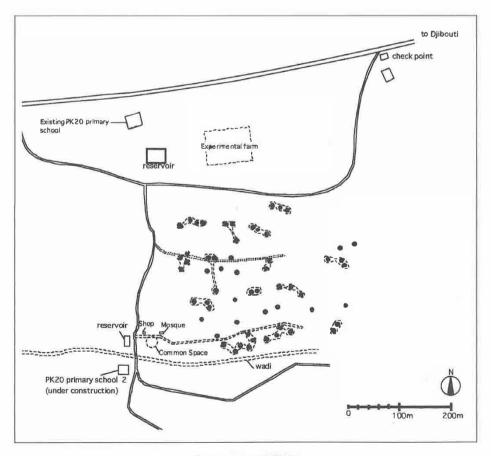


Fig. 9. Map of PK20

all members of a band to settle. Therefore, bands are divided into distinct family units, which settle separately. In the planned slums, several families may share a lot. However, due to the limited area, it is difficult to have one dwelling for each family. It is unusual for nomads to share a dwelling. Of course, in some cases, a single nuclear family may live alone in a lot, indicating a band that is no longer intact. According to a questionnaire distributed throughout the slum<sup>(7)</sup>, many settled nomads hope to live with their relatives or to build larger dwellings, indicating the importance of maintaining their traditional living units.

## 6. CONCLUSION

A new land use methodology should be considered to better manage the spread of settled nomad slums. "Lotissement" was designed during the colonial period as a first-aid response by the administration to control squatters and avoid slum development. However, to ensure proper land use management in the area, the viewpoint of settled nomads should also be taken into consideration.

To this end, it would be useful to consider the villages of semi-nomads. Semi-nomad villages form spontaneously where there are no administrative restrictions. They have a well-planned traffic network and certain dwellings allocated for maintaining band living units. They place common facilities, such as mosques, at the core of the village, and these help guard the community. These villages demonstrate that nomads can arrange their communities with some regularity, applying their own notions or sense of space utilization to create more comfortable living environments. Most importantly, the nomad settlers demonstrate that they value a village structure in which dwellings are allocated freely and changing dwellings is made easy. This idea is very nomad-like and is in stark contrast to the concept of the lot system. However, in an urban area, the land and the population must be administrable and well-controlled. Therefore, future designs of this region should consider five key aspects: a free plan, nomad living units, traffic network, a core facility, and a constant population.

#### Free-block system

One example of a land use methodology that applies the key points listed above is the free-block system. In this system, land is divided into blocks enclosed by streets. Several blocks constitute one district. The scale of this district should be about the size of a school district. In each block and district, the population is controlled by an administrator selected from among the inhabitants. There are no lots in the blocks, and dwellings are occupied by choice (vs. being allocated by an authority), allowing inhabitants to maintain their living units. Sites within a block are not fixed, and thus occupants can move around freely within in it. Moreover, units may transfer to different blocks within a district, with some restrictions. Common facilities should be placed at the center of each district.

## NOTES

- (1) In Djibouti, there are two main ethnic groups: the Issa of Somali origin, and the Afar of Ethiopian origin. In general, the Issa have settled the southern region, and the Afar have settled the northern region.
- (2) According to our research (by the author and a team from Keio University) on the living environment of the slum area of Balbala performed in November 2001. The target was 60 households in three slums, Bâche à eau, Wahedé Daba, and Tour-Ousbo. The method of the research was mainly a questionnaire.
- (3) According to the same research as noted in (2).
- (4) This research was performed in 1997 by Chiré to clarify the current living conditions in the slums. The questionnaire was administered to 200 residents in two different districts, Balbala and PK12. PK12 is located 12 km west of the Djibouti city center, and was established by the government in the 1980s.
- (5) During the colonial period, the French authorities began clearing out slums in Balbala. However, this sparked riots in each district, and in response, the authorities established the POP method of land use. Today, residential lots are still arranged via the POP method.

- (6) This research was performed in February 2005 by the author and a research team from Keio University. The method of research was mainly a questionnaire, and the target was 30 households in PK12.
- (7) This research was performed in February 2005 by the author and a research team from Keio University. The target area included five slums, Tolabora, Hayabley, Bâche à eau, Mitel, Wahedé Daba (east and west), and the questionnaire was given to 60 households.

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