Structures for the Displaced: Service and Identity in Refugee Settlements

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Abstract

The design of refugee camps presents an extreme form of urban architectural practise. Despite the large numbers of those who are forced to live in such camps, their vulnerability, and the emergency nature of the camps' construction, relatively few texts to date have been focused upon camp design, and the state-of-the-art type commonly used by humanitarian organisations reveals an emphasis upon short-term rather than long-term solutions, and an emphasis upon camps being a delivered collection of shelter objects, rather than being considered in the light of the social performance of the settlement as a whole. This thesis investigates:

- How institutional, financial and design constraints have combined to influence the form of refugee camp design.
- To what extent those influences have created a predominant type, adhered to through humanitarian organisations' guidelines, and through actual camp construction.
- How gaps in performance of the current refugee camp type can be identified and categorised, through an analysis of the form, and through a single case-study of an instantiation of that type.
- To what extent an amended design tool for camps can be developed, on the basis of the analysis provided through the thesis.

The research method is interdisciplinary: it employs knowledge from humanitarian law, urban sociology, environmental studies, and architectural theory. It also employs the case-study approach, using the specific case of Ifo refugee camp, in north-eastern Kenya, as well as making reference to the design of a number of other specific camps previously and currently in existence.

Within the field of refugee camp design, the thesis draws heavily on the work of Cuny and Davis, and those who have collaborated with them or built upon their work, in particular Corsellis and Vitale. With regards to architectural theory, the thesis makes significant use of the observation and design methodology developed at TU Delft's Design Knowledge Systems Research Centre, and in particular the work of Alex Tzonis on issues of methodology of analysis of performance and user-needs. For the case study, the thesis departs from the observational and participatory methodologies delineated by Gans, but argues for an adaptation of such methodologies for specific cases in refugee camps.

The tool developed, can be applied in refugee camps, and could be adapted for camps for other categories of displaced people whereby the lifespan of the camp is undetermined.

Keywords

Refugee camp	Design Tool
Camp design	Design Methodology
Refugee law	Minimum standards

Preface and Acknowledgements

The research for this thesis has been closely related to my work and over the past years as an emergency shelter consultant. Through this work, I have been involved in the construction and upgrading of camps, as well as shelter programmes where the goal was to support families in reconstruction on their customary land, without their being displaced to camps. Throughout my work, and conversations with other professionals in the field, there has been a growing awareness that much work in the field of emergency shelter is in effect being done blind, with little in the way of feedback or evaluation of programmes, and even less work done in assessing the impact of settlement and shelter programmes over the long-term. This in turn has become my impetus for looking at the criteria through which such life-cycle changes might be assessed, and also for examining ways in which the design of camps can be reinforced as a process, in order to reflect and adapt to the changing needs of the affected populations.

The progress of this thesis have been conducted as a series of field missions with my then returning to my home-base, to more reflective stages of research and the responses and support of a number of people, without whom this thesis would not have taken its current form or have whatever strengths and depths it does contain, and whom I would like to offer my gratitude.

First and foremost, I would like to thank my promotors, Professors Alex Tzonis, Liane Lefaivre and Jurgen Rosemann, for their generosity of insight, direction, support and kindness during the development of this thesis.

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Abbreviations

AU	African Union (successor to the OAU)
BPRM	United States Bureau for Population, Refugees and Migration
CAR	Central African Republic
DRC	Danish Refugee Council
DRC	Democratic Republic of Congo
ECHO	European Commission Humanitarian Aid
FGM	Female Genital Mutilation
GTZ	Deutsche Gesellschaft für Technische Zusammenarbiet (GTZ) GmbH
IDP	Internally Displaced Person
INGO	International Non-Governmental Organisation
IO	International Organisation
IOM	International Organisation for Migration
IRD	Institute of Research for Development
MSF	Médecins Sans Frontières
NGO	Non-Governmental Organisation
NFI	Non-Food Item
NRC	Norwegian Refugee Council
OAU	Organisation of African Unity (precursor to the AU)
SCF	Save the Children Fund
SDC	Swiss Development Co-operation
SGBV	Sexual and Gender-Based Violence
SPHERE	Sphere Project, *Humanitarian Charter and Minimum Standards in Humanitarian Response*
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WFP	World Food Programme

Introduction

The design of refugee camps raises unique challenges. Not only are the populations vulnerable, often traumatised, the time-scale that of an emergency and the funds likely to be inadequate (IFRC 2006), but the design must also operate under constraints of both an institutional and pragmatic nature which dictate that the camp itself will not be permanent, and that neither the construction materials to be used, nor the morphology of the camp should reflect any aspirations to permanency. These constraints must be taken into account whilst at the same time any design is forced to acknowledge the fact that the vast majority of refugee camps have been in existence for much longer than they had been intended, and that whilst the wishes for the majority of the refugees may be for peaceful and voluntary repatriation there are now many millions of refugees around the world who exist in what the United Nations High Commissioner for Refugees refers to as 'protracted refugee situations' (UNHCR 2004b) living for more than five years outside of their countries of origin.

There are camps in Palestine which have been in existence for sixty years, and where the built fabrics resemble permanent cities. But at the same time, there are cases like that of Cambodia in the mid-1990s, or more recently in Afghanistan or south Sudan, where camps for hundreds of thousands of people which had been in existence for more than a decade, were depopulated through voluntary repatriation within a matter of months: there are other less high-profile cases of camps in Sierra Leone which have been opened, shut down, and then re-opened and re-used in a rotation between different nationalities and different categories of refugees, Internally Displaced Persons (IDPs), and returnees. A camp must therefore be planned as a type of settlement whose lifespan is impermanent yet unpredictable, with many potential trajectories for social and livelihoods development, and with the awareness that the ultimate assessment of a camp's performance will lie in the fates of those who may eventually not live there any more, and a location which will be finally taken over post-use by other communities, for functions other than that of a camp.

Background

Until the early 1970s, any existing guidelines for the design of refugee camps advocated merely following the advice of military experts (League of Red Cross Societies 1959). However, instances of mass forced-migration in the decades after decolonialisation in Africa and Asia forced a reappraisal, led by small numbers of practitioners bringing claims for a community-centred approach to the design, and often working as consultants outside larger institutions. Camp designers from the 1970s, the foremost of whom was Fred Cuny, set out a design self-consciously in opposition to the 'military-style' design, and which combined elements of the sites-and-services approach, an awareness of the public health exigencies of a refugee camp situation, the division of a camp into residential and non-residential sectors, and the use of modules of small groupings of shelters with the aim of supporting neighbourhood-level 'communities' within the larger camp.

The exponential increase in numbers of refugees in single camps in high-profile emergencies and the equally sharp increase in the number of new or inexperienced humanitarian agencies insisting upon involvement in camp work led in the early 1980s to institutional attempts to

codify the elements of the type of Cuny's camp design through the application of numeric minimum standards, many of which had been adopted without wider debate from earlier World Health Organisation publications. The hierarchy of elements with which to design a camp, and the minimum standards which describe those elements, remain in place to this day, and are more or less universally adopted by the UN and the vast majority of major international Non-Governmental Organisations (NGOs) involved in disaster relief programming.

However, the development of this prevalent design type has created stresses which become evident from an examination of how the design has been used for actual camps in the field. Firstly, the set of elements and their hierarchical arrangement, were products of the interplay of specific times, locations and cultures, whilst the global type which has been derived from those specific instances is often assumed to be applicable in all circumstances. Little consideration is given to the fact that essentially open-plan 'community' module designs originally derived from work with rural populations in South America, may not form a good match subsequently with for instance Muslim communities from central Asia, whose concepts of the division between private and public areas may be more acute. Secondly, the minimum standards which guide the implementation of the design become quickly undermined by increases in population or the development of livelihoods within the refugee community (Kennedy 2005) with no clear institutional guidance on how to accommodate such changes, or how to assess the direction or speed of such changes and adapt humanitarian interventions accordingly.

Over the last number of years, some practitioners in the field of refugee camp design have made efforts to create an embryonic text vocabulary to describe the needs of a 'transitional' approach to shelter (Corsellis and Vitale 2005), but these concepts are far from gaining universal recognizance, and there remain questions about 'transitional to what' (Kennedy et al. 2007), and largely unexamined concerns as to whether the tools which have been adopted from Cuny and others' work in the 1970s are still the best options for meeting transitional needs.

Problem statement

The design of refugee camps as the state of the art is of a global composite type whose elements are described in UN or humanitarian organisation guidelines. All too often, these guidelines pay lip-service to the need to think of the long-term consequences of the design, whilst at the same time insisting upon standards which are only sustainable in the short-term. The greater emphasis has been upon the initial delivery and deployment of a set of shelter materials, with much less regard for the way in which a camp might operate or perform in any specific context.

The universalist tendencies of the existing camp design guidelines and the lack of development of the text and graphic vocabularies specific to the field, have meant that refugee camps built according to these guidelines often suffer from insufficient awareness of culture and backgrounds of the people who will inhabit them or the communities who will 'host' the camp as its nearest neighbours, the specific geographic location and its

environment, or the role of the camp in the long-term development of its inhabitants and hosts and the potential 'durable solutions' involved. In short, there is an acute need to see refugee camp design not as a series of objects but as a process with many actors engaged, and above all to examine the way that a camp operates, and how the performance of the camp over time may be judged.

The need therefore is to examine the design of refugee camps in terms of a series of physical scales each of which with cycles of re-intervention by the designer, and the development of a palette of tools which will permit an adaptability of such cycles, and adequate connections between scales of physical elements within the camp.

Method of investigation

This thesis will use a framework of investigation adapted from the TU Delft Design Knowledge System Research Centre focused upon the Morphology-Operations- Performance analytic methodology, in order to:

- Examine the common terms to be used in the research.

- Investigate the frameworks of institutional constraints on the design of refugee camps in terms of refugee law and other relevant sets of laws, and then investigate the development of the global design type as the state of the art operating within these constraints.

- Through the case study of one specific refugee camp, that of Ifo camp in northeast Kenya, analyse the relationship between the sets of stresses in refugee camp design apparent from the global guidelines, and the set of stresses in performance of the one specific camp which is the manifestation of many of the elements of that design.

- This will lead to the design tool which will seek to answer the challenge of being rigorous, widely applicable and locally adaptable. This will be done in two stages, starting with a design tool developed in response to a set of future scenarios posited specifically for Ifo camp, and then expanded to a potentially wider set of camp situations.

The case-study approach which forms the second half of this thesis, will be conducted through a method adapted from Gans (Gans 1967) to the specific context of refugee camps. The adaptations will take into account issues of the observer's status as an outsider to the refugee community, and take into account the practicalities of observation and data collection in harsh environments and situations of physical insecurity. Despite these practical limitations, the case study approach is adopted precisely in order to highlight the gaps between the assumptions underpinning the global camp design guidelines, and the reality of their implementation on the ground. The case study approach is also necessitated to demonstrate the degree to which the variables in the analysis are interconnected, and could not be expected to be analysed using other methods.

Outcomes of study

The aim of this research is to provide a basis for practical development of the design tool in the field, and to encourage further development of research tools for the analysis of the condition of refugee camps. Whilst this thesis is defined as addressing design issues limited to planned camps for those who fit the definition of 'refugee' under international law (having crossed an international border as a result of conflict or physical threat), there is scope to adapt this research in the future for planned camps for those displaced internally within their countries, or for those who have been displaced due to natural disaster. Applications for interventions in 'self-settled' or informal settlements of displaced groups in peri-urban contexts may also have potential. On a more pragmatic level, the reliance by many humanitarian organisations upon external technical consultants, and the short career-spans of many of those consultants often results in a lack of institutional memory and a re-inventing of the wheel in high-profile disasters: it is hoped that this research will also highlight some of the lessons previously learned but then widely forgotten in the field of refugee camp design, or discussions which may need to be re-opened.

* * * *

Chapter 1. Ifo Camp: an introduction

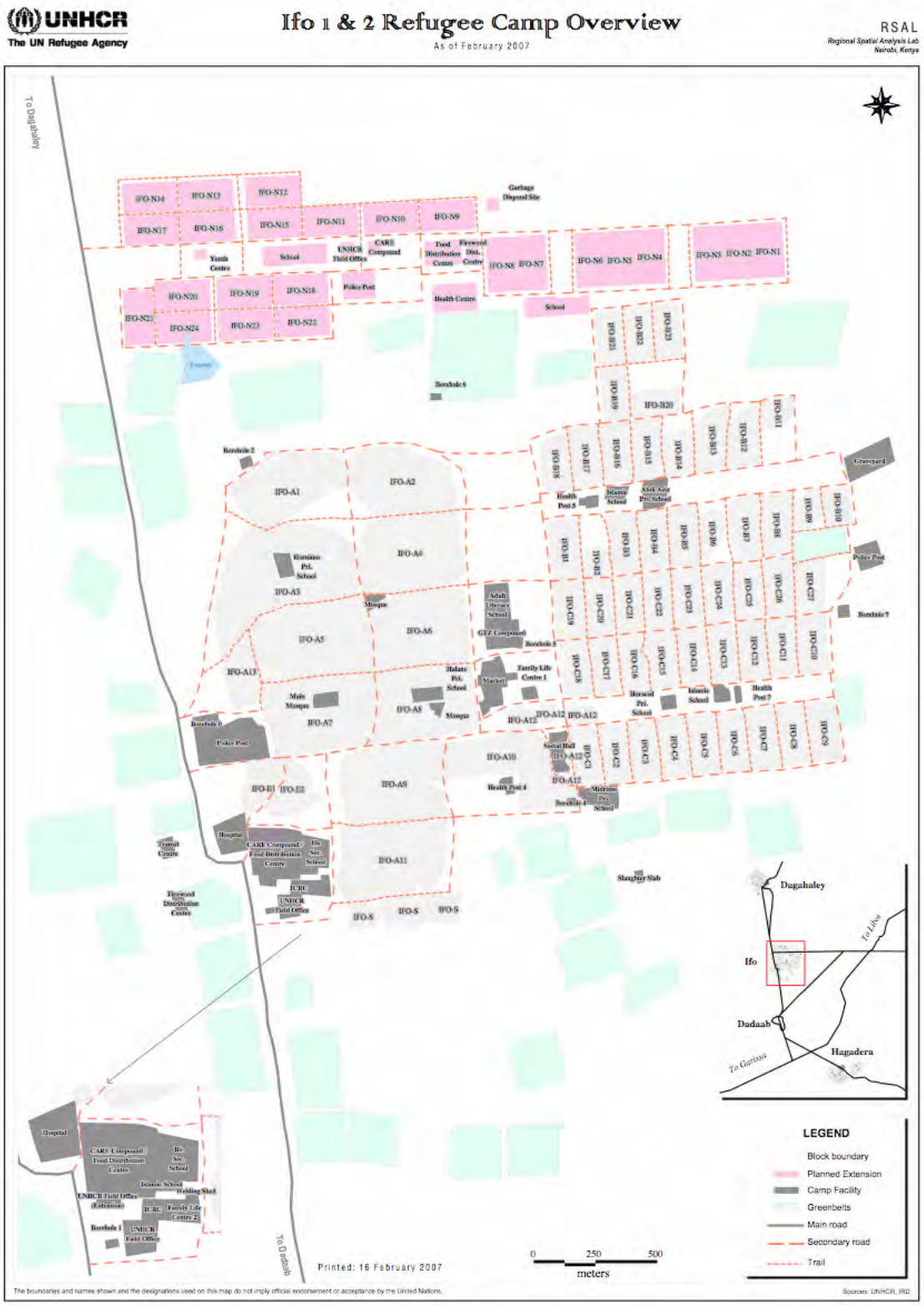

Fig. 1.1. Ifo refugee camp, February 2007 (UNHCR).

At first glance from the outside, it is difficult to discern that Ifo is actually a refugee camp, home to 70 000 people. From beyond the boundaries of the residential blocks, the observer stands in an expanse of sand and sparse vegetation, looking at a dense growth of trees and bushes, through the gaps of which peep out occasional glimpses of shelters. During the middle of the day, even the traffic on the road at the external edge of the camp has few if any pedestrians, to give away the density or population and overcrowding contained within.

Fig. 1.2. The edge of Ifo camp, as seen from the perimeter road. Only the water tower in the distance is visible as a sign of human settlement, but behind the undergrowth is a camp of 70 000 refugees.

Fig. 1.3. A water tower close-up, as the major navigational aid for traveling around the camp.

But as the observer approaches closer to the bush, it becomes clearer that the dense undergrowth, as well as the tree canopy, are completely constructed, and as much a product of man's intervention on the environment as the dustbowl outside. The bushes, often thorn-tree varieties, are woven together, and reinforced with bound-branch fencing, to create a dense skein of living fencing around each of the family plots: the external areas have been in contrast denuded of most if not all greenery, by the herds of goats which the families lead out every morning. It is this juxtaposition, between security and the environment, which more than anything else defines the physical existence of Ifo, and which is also defines much of the issues concerning the creation of systems frameworks for upgrading the design of the camp as a whole.

Fig. 1.4. An example of the dense live fencing, and narrow pathways inside Ifo.

Fig. 1.5. A further example of the narrow pathways through the residential areas in Ifo.

Ifo is formally a sub-part of a larger camp complex called Dadaab, which lies on the equator, approximately 80km inside Kenya from the border with Somalia, on the route which stretches eventually to Nairobi to the south-west, and to Mogadishu to the north-east. Dadaab as a refugee camp complex has been in continuous existence since 1992, and Ifo forms the oldest part of the camp complex. Together with the other two camps, Hagadera and Dagahaley, Ifo is home to a population which is estimated as being up to 170 000 people, approximately half of whom have now been born within the complex. All three camps lie at distances of between seven and 15 kilometres from the main compounds for United Nations High Commissioner for Refugees (UNHCR) and its humanitarian agency partners, situated within the village of Dadaab proper. During the same period, the local host community has grown from approximately 5000 people to approximately 30 000 people, primarily under the economic impetus provided by the three camps. The vast majority of the refugees living in the camp are Somali[1], and Dadaab is the primary camp for Somali refugees designated by the Government of Kenya.[2] Formal governance of the camp is the responsibility of the Government of Kenya, whilst UNHCR has the mandate for overall administration of the camp, aided by a small number of humanitarian agency partners, who take responsibility for programming in different sectors.

Dadaab is situated in the Northeastern Province in Kenya, which is classified by the United Nations as being 'Phase 3' for security for all its staff, indicating an assessment of security risk sufficient enough that all travel to camps must be done whilst accompanied by armed police escort, that no international staff may stay in the camps overnight, and that the staff compounds operate under nighttime curfew. Although security incidents both inside and outside the camp have decreased in the last five years, before which numerous publicly-released reports highlighted the lack of security for the entire area, the threats emanating from across the porous border with conflict-torn Somalia would imply that Dadaab would not be given an assessment of significantly lowered security risk any time in the near future. The historic and current lack of security, the longevity of the camp, and the protracted nature of the refugee situation from which the camp has arisen, has led to a certain degree of both notoriety and professional and academic attention being paid to Dadaab – a Google.com search under the term "Dadaab" results in 78,800 matches, whilst on www.unhcr.org, the official web-site for the United Nations High Commissioner for Refugees, 431 documents are displayed as a result of the same search.[3]

For the residents of the camps themselves, the security situation is even more chronic, if underreported to a greater extent. Official reports collected by the local police station and by the security managers of the UNHCR sub-office in Dadaab and of the other humanitarian agencies which work there, would appear to represent the tip of the iceberg, but with the cases reported during the period of this study mainly featuring crimes of violence, theft, or other crimes against the person. What is anecdotally probably the most prevalent form of

[1] More than 95% of the refugees in the camp are Somali, with small minority populations of refugees from Sudan, Ethiopia, Uganda, Democratic Republic of Congo, and Burundi.
[2] Anther camp, Kakuma, to the north-west of Kenya, closer to the borders with Sudan and Ethiopia, is also home to approximately 11 000 Somali refugees, but generally they have been placed in Kakuma for reasons of personal protection, and their location is seen as somewhat exceptional.
[3] Searches conducted on 15th May, 2007.

crime in the camp, Sexual and Gender-Based Violence (SGBV), predominantly against women, is probably also the most under-reported, with humanitarian agency field officers stating that most cases are hushed up, through a distrust of the authorities on the one hand, and a preference amongst the families, to make either settlements through transfer of goods or money, or else through marriages 'of honour' on the other hand.

With a minimal capacity amongst the humanitarian agencies over the years to monitor and control any spread of the boundaries of the individual family plots into the public areas, the living bush fencing has encroached upon and diverted many of the pathways and commons, and has become emblematic of the trade-offs which the refugees have made between the maximum possible security inside each family's residential plot, coupled with an appropriation and then isolation of the public spaces, and a closing off of escape routes and lines of sight. The choices made by the refugees come as results from the ways in which their cultural backgrounds have adapted to life in the camp, mutually reinforced over a number of years with the hardening and densification of the barriers between private and public within the camp, confounding the original expectations and intents of the first camp planners.

Although the vast majority of refugees in Ifo are Somali, it is known that many of them come from different backgrounds in terms of livelihoods, urban or rural places of origin, education, longevity of stay in the camp, and by no means least, clan affiliation. What is not available, is current data on exactly how such data categories break down on a family-by-family basis: the last comprehensive baseline survey of this kind, was published in 1999 by the French research institute l'Institut de Recherche pour le Développement (IRD) (Beaudou and Cambrézy 1999), and whilst comprehensive and in many ways an exemplar of its kind, the intervening eight years, and the successive waves of new arrivals in the camp (including 35 000 people alone during the period of ascendancy of the Islamic Courts Union in Somalia during 2006), have rendered inconclusive questions as to what degree that data can still be used today. Visual evidence, as well as other single-sector studies, continue to support the most fundamental statement of the research, that there are one way or another, many facets to the Somali community within the camp, whilst at the same time highlighting the fragmented, highly individualistic, often atomised nature of that community, to the point where those aspects challenge humanitarian organisations fundamental assumption of the meaning of 'community' itself.

In each of the camps at Dadaab, including Ifo, there are on the one hand large markets of 200-300 stalls, offering everything from fresh vegetables, to replica football shirts, to internet cafes to ice-making machines, and many services, including international currency exchange, which would otherwise not be normally available either at the local Kenyan village, or at the provincial capital Garissa, 110 kilometres back along the road towards Nairobi.

Fig. 1.6. Market area in Ifo.

At the same time, at the start of every day, there are families who lead their herds of goats out to pasture, and other families take their camels to the water pans, as the central resources for pastoralist and (prior to arrival in Dadaab) nomadic lifestyles. There are those whose shelters are built out of wattle and daub or mudbrick, and which are regardless of materials more redolent in design of a settled urban lifestyle, and those who have always lived in the easily-transportable, branch-frame *tukul* tents of the nomads.

Fig. 1. 7. Example of a shelter in Ifo built to emulate urban housing morphologies.

Fig. 1.8. Tukul *shelters in the Ifo II extension to Ifo camp.*

Fig. 1.9. Tukuls *– and live fencing – under construction in Ifo II.*

There are refugee students who have trained themselves in computer software and who gain scholarships for study at national universities, whilst at the same time of all the women reporting for casual labour employment during the period of this case study (a total of more than 500 women, selected in rotation from a number of different residential blocks), fewer than 10% could write their own names. As for the clan system, the 1998 report identified a number of clans and sub-clans as being present in Dadaab, and each and every Somali belongs to one clan or another, although collation of that information on a block-by-block basis has not been comprehensive since the IRD report. Nevertheless, it is clan allegiances which control much if not all of the negotiations between the refugees themselves, which have the largest influence upon where a refugee family might wish to settle within the camp, which force themselves upon the humanitarian agencies' considerations for apportioning of jobs amongst the refugees, and which act as stronger ties and obligations than strict regional origins from within Somalia, or block location within the camp, and superceded perhaps only by family ties as the determining factor in the refugees' own social engagement.

What undeniably underlies all these differences though, is the difficulties experienced in mobilising the refugees in Ifo to engage in NGO-led projects which have a strictly public or 'community' focus, without any immediate apparent direct benefit for the individual families. There are a number of possible influences upon this behaviour cited by the humanitarian agencies, of which it is fair to say all have had (and continue to have) some part to play: the engagement of beneficiary families primarily through cash incentives, practiced by the international humanitarian community in Somalia and then continued as standard practice in Dadaab; the general culture of dependency within camps which can erode group initiative in even a relatively short time; and at the same time a very individualistic and self-determined background culture originating from a relatively isolated and nomadic lifestyle. As an extreme example, at one point in February of 2007, a bush fire broke out in the open areas directly to the north of Ifo camp, and started to approach some of the residential blocks, coming at one point within 150 metres of some family shelters. Humanitarian workers battling the fire asked refugees who were bystanding to pitch in and help, but were rebuffed by the refugees themselves, who refused to work without a promise of some sort of 'incentive' payment beforehand.

This is not to say that the refugees in Ifo and in Dadaab in general are entirely passive in the fate of their own possessions and what might be termed their capital access: there are many indicators which would demonstrate that in many ways the opposite is true, and that many of the refugees have a flair for entrepreneurship. First and foremost, is the large number of shops, stalls and businesses in the main markets within the sub-camps already cited above, which are often the nodes on complex and international trade routes. But there are also profound examples of this desire for the individual and immediate control of personal capital resources which can only be said to have a cumulatively negative effect upon the lives of the families, and upon the camp itself. These manifestations include, but are not limited to, the large (although accurately undeterminable) proportion of refugees who regularly resell all or a portion of the fortnightly food ration which they are given as a subsistence[4] diet by the World Food Programme (WFP), despite the fact that in the camp as a whole, according to

[4] Each refugee is given food items equivalent to 2,100 calories per person per day, distributed as 'food baskets' twice a month, through a ration card system, to be collected by a designated family member.

those agencies tasked with monitoring the health of the refugees[5] there is a child malnutrition rate of 22%. It also includes the large number of refugees, estimated at 50-60%, who in December 2006, re-sold plastic sheeting which had been distributed to them by UNHCR, despite the fact that a large number of them had recently lost their shelters through severe flooding. It also, and perhaps most appositely as a demonstration of the choices made by the refugees between public and private benefits, includes the number of refugees who in late 2006 and early 2007 illegally removed and re-sold (or colluded in the removal and re-selling of) materials from approximately 100 communal latrines, intended by the humanitarian agencies to temporarily assist the equivalent of 500 families, despite the obvious ensuing disadvantages to the refugees in terms of privacy, dignity, security, and public health. However, the full potential for harnessing that entrepreneurial and independent spirit in ways which could benefit the camp as a whole, is at the same time severely circumscribed, firstly by the local scarcity of natural environmental resources, and secondly and more tellingly, by the terms of the refugee status accorded the refugees by the Government of Kenya, under which they are prohibited from undertaking legal employment.[6] The implications of these social structures for site-planning in Ifo and in Dadaab are far-reaching, with careful answers having to be given about the custodianship of public spaces and structures, both in the immediate and in the longer-term.

As should be obvious thus far, although the focus of the present thesis is upon the creation of a set of planning tools specifically originating from the case study of Ifo camp, there are a number of factors which site planning alone can not resolve, but must at best strive to contribute to the amelioration, and in the main part must be content with merely accommodating. For instance, at the widest, national scale, it must be constantly assumed that site planning for Ifo must continue to adapt to, rather than aspire to change, the restrictions upon activities or movement imposed upon the refugees by the Government of Kenya: good site planning can make a contribution to good governance of the camp and a reduction of security issues surrounding the camp, and thus any resulting improvements could be used as a point of argument should anyone wish to actively attempt to persuade the Government of Kenya to loosen restrictions upon refugees, but this aim should be held at best as being hypothetical, and not of the first focus for this thesis. Within the borders of the camp, there are also serious issues where camp planning might be expected to give support of some kind, where possible and appropriate, but where site planning could not be expected to carry the main burden of response, and these include the need to reduce levels of child malnutrition, the high levels of drug abuse[7] often cited also as a contributory factor to the

[5] Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (GTZ), with support from UNHCR.
[6] The refugees are however permitted to undertake 'incentive labour', i.e. various work roles within the confines of the camp, for which they are remunerated at a rate significantly below that of the national minimum wage in Kenya. According to the rationale provided by the Government of Kenya, this is in recognition of the number of free benefits – food, shelter, health, education, etc, which the refugees are provided, and in recognition of the fact that to then allow them access to the open national labour market under such circumstances would provide them with an unfair advantage in labour competition with the local Kenyan populace.
[7] The drug of choice in the camp, as amongst Somali populations in general, is *Meera* or *Qat*, purchased and consumed in the form of raw plant leaves. The leaves are chewed for a length of hours, often accompanied by sugary tea, and produce states of both heightened metabolism and alternately stupor in the user. Fresh bundles of the drug are on open sale on a daily basis in both the camp and the village markets, with many stalls offering no other commodities. The levels of use are difficult to monitor, but casual observation and anecdotal evidence would suggest that most if not all adult and adolescent males in the camp use *Meera* at some point.

malnutrition levels, or the high prevalence of ‘female circumcision’, or Female Genital Mutilation (FGM) practiced within the refugee families.

At this point, the question may then be turned around, and it must be asked to what aims site planning in Ifo camp context must be harnessed, and furthermore, in consideration of the modesty of the claims set out immediately above, why site planning should be seen as so central to Ifo, that the central case study of this thesis should still concern itself with examining the extents of the use of site planning as the lever to influence the quality of life within the camp and its surroundings. However, it is one of the contentions of this thesis, that in the context of Ifo, and potentially for a wider range of camps and planned emergency settlements, that site-planning is unique in its cross-sectoral placement and connections, and that whilst it may not be the sole solution to any one of the greater stresses effecting Dadaab, a well-constructed strategy for site-planning nevertheless can and should be contributory to the amelioration of all of them – given the fact that site-planning in the context of Ifo must to a large extent situate itself within the limits of a conceptual triangle defined by an increasingly degraded and hostile ecology, a legal status which is both restrictive and impermanent, and a typology of settlement tissue which is currently highly contributory to lack of personal security in public spaces, the definition of architecture once given by Tzonis, as being the creation of ‘non-oppressive environments’ (Tzonis 1972:11) becomes apposite and acute.

* * *

As stated above, Ifo is the oldest of the three camps which now form the Dadaab complex. Originally, during the period of the first influx of refugees into Kenya from Somalia in 1991, the Government of Kenya had originally ordered that those refugees crossing the border at that point be kept in facilities closer to the main border crossing at Liboi. However, the Government of Kenya was soon prevailed upon to acknowledge the fact that this location put the refugees at risk from cross-border attacks (and might well increase instability within the Kenyan side of the border area, by acting as a potential magnet for any such attacks). As an alternative, the Government of Kenya decided to move the refugees to Dadaab, with the stated intention that the camp to be constructed to last a projected six months, until the refugees could safely return to Somalia, at the presumed point of cease of hostilities.

From the first cross-border influxes of Somali refugees into Dadaab, the Government of Kenya has maintained a position that the refugees should remain in Kenya on a non-permanent basis, and that correspondingly, their status as either asylum seekers or refugees in Kenya should not grant them the full rights of Kenyan citizens. The full background to international refugee law, in the context of both the United Nations and the African Union, will be explicated in Chapter 3 of this thesis, but the restrictions which have had indirect but deepest effects upon consideration for site planning within the camp, have been the prohibition on refugees seeking employment, mentioned above, the related restriction upon refugees engaging in agriculture, and the prohibition upon refugees from travelling beyond the environs of the camp, which is enforced by a series of police-manned road-blocks between Dadaab and Nairobi. Whilst in practice the restrictions have not been enforceable in terms of for instance stall-holding or petty trade, or the ownership of livestock, or in terms of

growing vegetable gardens within the household plots, nevertheless, it would be impracticable to base any strategy for site planning upon any other assumptions, regarding the refugees' rights to land-use, or capital development.

There is no public documentation available which describes the decision-making process for why Dadaab was chosen specifically. Presumed advantages might have included:

(i) it was more than the minimum 50km away from the border stipulated as a necessary security measure in the Organisation of African Unity (OAU)'s convention on refugees,

(ii) it was located in a sparsely populated area, so that any impact would be on a minimally-sized host population,

(iii) the population of the Northeastern province, although holding Kenyan citizenship, are overwhelmingly of Somali ethnic origin, and this it may be imagined, might mean that ethnic tensions and communications difficulties between the refugees and the host communities might be lesser than if the camp had been situated elsewhere,

(iv) although the roads were of poor quality, and lacking a hardened, all-weather surface, nevertheless Dadaab was directly connected to both Liboi, which would remain as a temporary transit centre for new arrivals coming across the border, and with the main supply points of Nairobi and Mombasa. Given the sparsity of the host population, and the nomadic lifestyles retained by so many of them at that point, there might also have been the consideration that local negotiations for land rights for the camp would also be relatively simplified.

However, the disadvantages which accompanied the decision to relocate the refugees to Dadaab, were probably more numerous, and certainly more profound. Some should have been immediately obvious, and some have only become more manifest as the years have progressed, the population has expanded, and its prolonged impact upon both the economy and the environment of the Northeastern province has become more pronounced:

(i) First and foremost, the camp was situated in a place which may have been sparsely populated, but where the sparsity of the permanent host population at the time may well have been accounted for by the fact that the site for the camp is in the middle of a 20km-wide flood plain. Severe flooding does not occur every year, but when it does, at the time of one of the two rainy seasons[8], then the scale of damage is severe, as is ultimately the threat to the survival of the camp through the cutting off of both road routes and the airstrip. The effects of any inundation are prolonged by the low gradient of any slope in the camp (in Ifo, the gradient is approximately 1m per 1km), and by the fact that in the

[8] Dadaab, situated right on the equator, does not have pronounced seasonal changes in temperature or types of precipitation. Instead, the year is divided by two separate rainy seasons (although in previous drought years, rains have not fallen in either of those seasonal times): the 'long rains' from roughly April until July, and then the 'short rains' from November until January.

areas covering Ifo and Dagahaley sub-camps, the soil is predominantly of high clay content, with very slow permeability.

(ii) The environment is routinely described as ‘harsh’ or ‘hostile’ in humanitarian agency reports, and in more neutral terms is described as being ‘semi-arid’: apart from seasonal flooding, whose water is in any case non-potable, there is no constant surface water source. Host communities have traditionally relied upon digging water pans for the seasonal supply of water to livestock, but the camp itself has relied upon water brought to the surface through boreholes, by mechanised pump, from aquifers situated some 150-160m below ground. This pumping of water is done at no little cost in terms of diesel fuel imported into the camp, and there is constant anxiety amongst the camp administrators concerning the levels of fuel stockpiled for this purpose, in the knowledge that to run out of fuel would be to immediately plunge the entire camp into catastrophic failure.

(iii) The decision to concentrate all of the refugees in one camp, whilst perhaps allowing the authorities to streamline administrative and security costs, has meant that the impact to the environment has also been concentrated, and in a location where, because of the climate and geology, environmental recovery is a prolonged process, with very slow grow-back rates. Between 1996 and 2007, aerial and satellite photographs showed the camp as sitting in the middle of widening circles of sand, with almost all vegetation removed at the centre, save for that which the refugees had retained or planted within their own plots. According to UN estimates, there is an average need of 1kg per person per day for fuel for cooking. For the population of Dadaab complex, this is estimated at up to 170 000kg per day. On a yearly basis, this reaches 62 050 000kg. GTZ, through primarily UNHCR funding, was delivering firewood into the camp from licensed suppliers, who took the wood from areas which had been designated as permissible for sustainable harvesting, but even then, the fuel wood for the camp was having to be delivered from a 100km-radius of lands, and finally could only supply 17% of the camp’s needs.

Fig. 1.10. Aerial photography, showing boundaries of residential areas in Ifo, and the desertification of the environment outside the residential blocks. (IRD 1999).

Whilst points (ii) and (iii) directly above might have the more profound implications for the ultimate sustainability of the camp, it was large-scale flooding during November and December 2006, as described in point (i), which was the impetus for a decision to relocate approximately 30 000 people out of the most flood-prone areas of Ifo, to two new sites where flooding would be less of an issue. Each of the two sites would provide space for approximately 15 000 people, and would be demarcated and have the infrastructure and non-residential buildings constructed in two phases. The first of these, would be a site directly to the north of Ifo, and referred to commonly as Ifo II. The field work which contributed to the case study of Ifo, was conducted during a three-month period during which the first construction of Ifo II was commenced, allowing simultaneous observation of the processes of new site-planning and construction, movement of a significant proportion of the population, and significant discussions over the post-relocation uses for the older, flood-prone portions of Ifo.

Even before the relocation of parts of Ifo planned as a result of the 2006 floods, Ifo had expanded in stages at various points since 1992. However, at every stage of expansion, there had remained a tension between the wishes of UNHCR and its implementing partners to extend the periphery of Ifo in order to decompress the population and disperse the stresses upon both the environment and the water supply, with on the other hand a tendency of the refugees themselves, to settle as close in to the oldest parts of Ifo as possible, and in effect to re-densify what was already the most densely-populated areas of the camp. The results were that despite large-scale support for shelter-building undertaken by CARE in Ifo from 2002 to 2005, many of the shelters in the newest extension areas from that time (Section B on the map at the start of this chapter), remain incomplete, with vacated plots and abandoned shelters, whilst at the same time, the population in the oldest sections, A and D, merely increased. In part, this was because until the design for Ifo II was created, there had never been any serious attempt upon the parts of the site planners, to examine and counteract the effects upon settlement patterns, of an extremely mono-polar camp design for Ifo. All of the major ‘official’ non-residential buildings (which had been sited and built by the humanitarian agencies), as well as the majority of the ‘community’ or unofficial non-residential buildings, such as the market, mosques and *madrassa* Islamic schools (which had been sited by the UNHCR site planners and/or their implementing partners, but which had been built by the refugees), remain located in one central area, to the south and west of the most flood-prone parts of Ifo, and those parts which eventually were earmarked for relocation to the Ifo II extension.

To a certain extent, this pattern of attraction to the centre, and redensification of the immediately adjacent residential areas, had been exacerbated by a number of factors:

(i) the lack of personal security, and potential for inter-clan conflicts, real or perceived, which made it unattractive for many to walk through the camp to the essential services in the centre,
(ii) a tendency, perhaps natural, to wish to be close to where higher levels of human activity and interaction, for both social and economic reasons, as embodied by the large central market also located in the centre, but in any case self-reinforcing as a

tendency for population movement, as everyone moves to where everyone else is moving,

(iii) the fact that those most central residential areas were also the oldest (with all subsequent expansions of the camp happening from the edges), and therefore with the greatest potential for population densification through live births, regardless of any increases through new cross-border arrivals, or through informal relocations from other parts of the camp,

(iv) the possibility, although unconfirmed by any of the agencies in Dadaab, that new arrivals would attempt to locate themselves close to, or within the compounds of relatives, friends or clan-members who had been established in the camp for some time, and who were in the best position to give informal, community-level support to the newcomers.

In settlements not sharing the unique aspects of a refugee camp, there might be the possibility of responding to this centrifugal force by pursuing twin strategies of creating population magnets towards the periphery, whilst at the same time investing in housing types in the centre which could cope with the population density, perhaps in the shape of multi-family buildings. However, whilst the first prong of such a strategy was in fact followed in Ifo, the second prong was simply not an option, given the Government of Kenya's resistance to any permanent structures being built within the camp, complimented by UNHCR's policy of repatriation as the preferred solution to refugee situations, and the sheer lack of funding, and lack of housing materials available. Of course, a third option also existed, which would have essentially been to take a less interventionary approach. Under that scenario, the assumption would have been that the re-densification had not ceased because the refugees themselves had not yet reached a point where the densification had created for them an unbearable amount of discomfort: or in Tzonis' terms, that the actions of the refugees in crowding into the central residential blocks, had not yet resulted for them, in an oppressive environment. Under the same scenario, once that discomfort level had been reached, then there would be increased amounts of self-location towards the periphery of the camp instead, with little need for the humanitarian agencies to become involved.

Indeed, assessments of the flooded areas in sections A and D of Ifo, as well as of the adjacent main market area, conducted in January 2007, once the floodwaters had subsided, indicated that the refugees living in those blocks had developed coping mechanisms during the repetitions of floods over the years: shelters and market stalls were constructed of lightweight wooden poles, taken green from nearby trees, and if knocked over then they could be quickly re-erected, with any wattle-and-daub coating equally quickly re-applied – the live thornbush fencing surrounding each plot ensuring that the poles didn't actually wash away completely, and were not vulnerable to being pilfered by anyone else. Another concurrent coping strategy which was observed, was the temporary moving of families to slightly higher ground, using *tukuls* as shelters, whilst still retaining possession of their original plots through customary recognition, for return once the floodwaters had subsided. The primary area to which the families moved, to a total of between 5000 and 6000 people by the end of December 2006, was the area which would finally be demarcated by UNHCR as the long-term extension site of Ifo II.

However, although the minimalist, non-interventionist strategy had its attractions in terms of both costing and in terms of encouraging self-determination by the refugees, there were both long-standing and immediate reasons why this was not a realistic option. The long-standing, and formal reasons for choosing a more drastic intervention, were that:

(i) although the refugees' coping mechanisms appeared to be adequate as far as their shelters were concerned, this could not be said in terms of their latrines, or access to sanitation, as the pit latrines which the refugees had built with the support of the humanitarian agencies flooded, releasing septage into the floodwaters which remained at some depth on the ground of the camp for a number of days, and thus presenting a severe health risk, including a risk of cholera,

(ii) even though there were self-created coping mechanisms in place as far as the frames of the shelters were concerned, the speed and volume of the November and December 2006 floodings had in many instances damaged or washed away other possessions of the refugees, including in many cases some or all of the coverings for the shelters[9], as well as other essential 'NFIs' (Non-Food Items), such as water carriers, or cooking utensils. At the time, staff of some of the humanitarian agencies involved in Dadaab informally (though the agencies themselves never made such an expression as part of any published document) expressed the conclusion, that the response to the refugees demands for replacements of those shelter materials and NFI items would incur too much cost if it was to be repeated without there being some form of full solution (especially as, in the case of plastic sheeting, the scope of the eventual distribution had to be increased to a wider portion of the camp, including some not so badly affected by the flooding, merely in order to avoid exacerbating social tensions within the camp).

(iii) Similarly, because of the highly individualistic nature of the refugee populations, whilst there were coping and protection (e.g. the creation of sandbag barriers) mechanisms in place for the shelters and for private market stalls, neither of these seemed to be in place for public or 'community' facilities, like schools, which also suffered damage through the flooding, and at great cost.

(iv) regardless of the threats from flooding, which after all did not occur every year, the density of the population had increased to such an extent that, regardless of the refugees' own subjective discomfort threshold, the proximity of the refugees to each other, combined with the planting of the thornbush fences (which dried out significantly between the rainy seasons), and the construction of multiple shelters close together within one family plot (for multiple-generational and extended families), vastly increased the likelihood of transmission of communicable diseases, and of catastrophic fire hazard,

(v) and based upon the health and safety concerns, the density of population and proximity of shelters to each other, was in formal contravention of both UNHCR's own guidelines for minimum standards for camp and settlement construction, and of the Sphere Standards (Sphere Project 2004)[10], which constitutes the most widely-

[9] Often, one or more of the following: cloth, plastic sheeting, corrugated galvanised iron sheeting, re-cycled aluminium food tins, brush from bushes, grasses or trees.

[10] *Humanitarian Charter and Minimum Standards in Disaster Response*, Sphere Project 2004. Given the current centrality of its role vis-à-vis site planning for camps, and for all sectors of humanitarian response, the Sphere

accepted inter-agency forum for developing minimum standards for humanitarian response across all sectors, and to which all of the implementing partners were (and still are) signatory, therefore also leaving the various organisations open to accusations that they were operating against their own rules.

A number of iterations of the design for the plan of Ifo II were produced by UNHCR (Geneva, with input from Nairobi and Dadaab offices) over the period of December 2006-January 2007. To a significant extent, the layout of the camp extension was dictated by the confines of the areas directly to the north of Ifo which were deemed to be on marginally higher ground, and therefore with a lesser risk of flooding, with other considerations given to nearby boundaries for privately-owned land in the area. The information on the extents o the flooding, was obtained primarily through satellite photographs of previous flooding, whilst it was acknowledged that because of the lack of slope across the area (approximately 1m vertical change per 1km horizontal change, as described above), and the lack of porosity of the soil, that the area identified for Ifo II would be less flood-prone, but would not be entirely flood-free. The boundaries of the flooded area as seen from the satellite photographs, was then rationalised to incorporate the standard rectangular residential plot blocks which form modular units for conventional UNHCR camp site designs.

The geography of the place dictated that the plan for Ifo II departed from conventional UNHCR site plan guidelines in a number of ways, which will be enumerated below, but which will be returned to at greater length in the chapters which deal more centrally and comprehensively with the case study. Suffice to say, that centering the case study for this thesis around the project for the construction of Ifo II allows much scope for examining to what degree those changes were significant in the context of Ifo and Dadaab, and to what degree any findings might be extrapolated to other camps.

The standard practice for camp layout according to UNHCR guidelines and templates, lies much closer to what had been attempted in the older parts of Ifo, with the non-residential buildings clustered around a single entry point to the camp, itself connected by a short access road to the main public road, and with the residential blocks radiating away. As a typology, the standard camp layout has been implemented in a number of different countries, in Asia and Africa. The residential blocks may be re-aligned, to fit in with contours, or other geographical features, but the essential hierarchy of the layout, with a division between one central cluster of non-residential buildings closest to the access road, surrounded by the residential blocks, remains as a constant.

Standards will be dealt with specifically at greater length in Chapter 4, and will be referred to throughout the other chapters of the thesis.

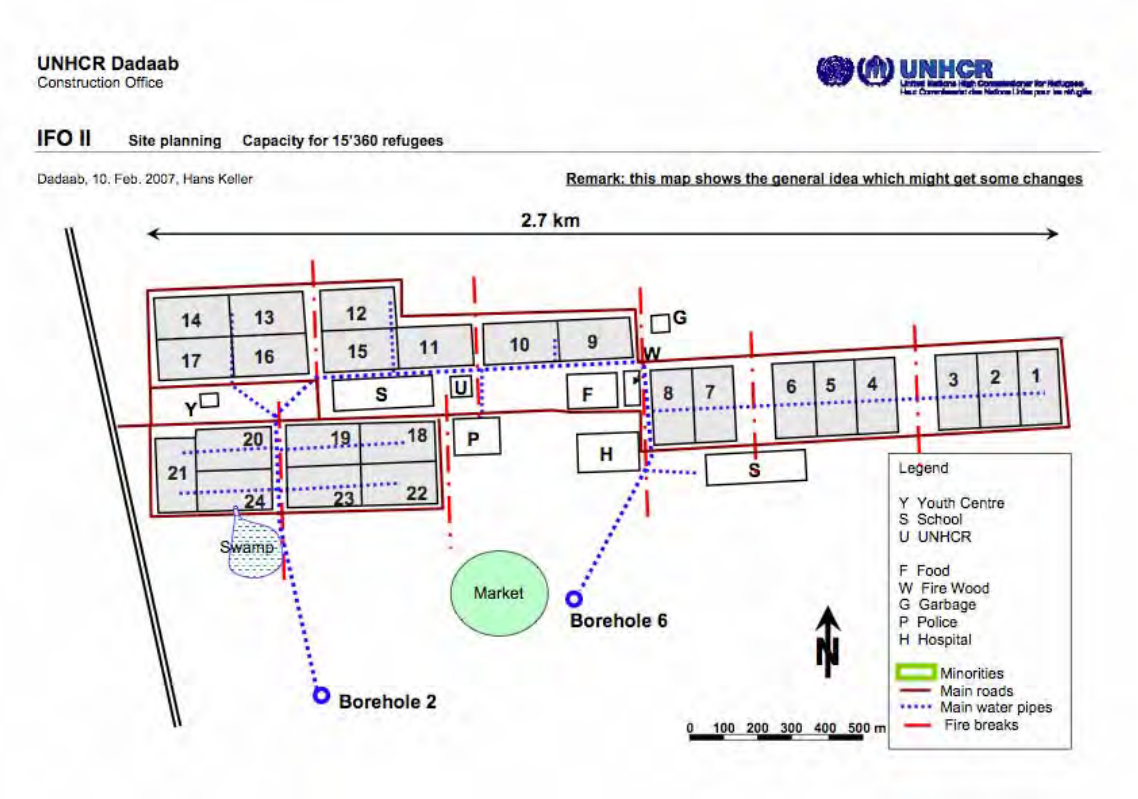

Fig. 1.11. Design for Ifo II, 10 February, 2007 (UNHCR).

In contrast, the design for Ifo II (above) arranged the non-residential buildings (in this case, as can be observed from the map, two primary schools, a police station, and a hospital) as well as space for other non-residential buildings whose inclusion had not been confirmed (the youth centre, and firewood and food distribution centres), along the main access road which reached along the entire length of Ifo II, meaning that the non-residential building furthest to the east, the East School, was 1.8km away from the non-residential building furthest to the west, and 2km away from the main public road. This also meant that for the refugees moving into Ifo II, each family would be in relative proximity to at least one major non-residential building. The reasons for doing so were four-fold:

(i) the limits of the higher ground upon which the rationalised perimeter of Ifo II had been imposed, constituted a narrow finger of land, perpendicular to the main public road, 2.7km along the east-west axis, and 800m at its greatest width, on the north-south axis, although tapering away at the eastern end. Within such confines, there simply wasn't enough space to insert all of the non-residential buildings in a non-linear cluster, within the first 200-500m of the junction with the public road,

(ii) although many families had spontaneously moved to the area corresponding to Ifo II during the time of the flooding, because the permanent non-residential buildings for Ifo remained back in the older areas, most of those families expressed a reluctance to move away to an area where there were few or no facilities close at hand, and where the walk to the food distribution point or to the nearest primary school would not only be longer, but might also potentially be through what could be seen as hostile

territory, inhabited by those from other clans. A decision was made therefore, to not only relocate the families from Ifo A and D sections, but also to relocate some of the central non-residential buildings, such as the main police station and hospital for the whole of Ifo. However, it was recognised that if those larger non-residential buildings were to be located according to the standard UNHCR guidelines, i.e. as close as possible to the point where Ifo II's access road would connect with the main public road, then those buildings would become insurmountably distant for other families who would remain in the less flood-affected parts of Ifo, particularly in B section. Therefore, the decision was made to move the location of the hospital and the police station to the centre of Ifo II, in order for them to be closer to the rest of Ifo, and to locate the market (also earmarked for removal from its present, flood-prone site), inbetween Ifo and Ifo II.

(iii) Whilst security concerns were high for all of the refugees, there were especially high for those who came from minority, and particularly from non-Somali refugee groups within the camp, and those groups had initially expressed reluctance or even refusal to move to Ifo II, until they were assured that adequate security measures, in the form of the construction of a main police station, and the set-aside allocation of the residential blocks closest to the police station for minority groups. However, on both practical design terms, in terms of the politics of the camp, and in terms of security itself, the police station could not be accessible solely through the residential blocks set aside for minority groups, and so therefore at the same time, at least part of the access routes had to be through or adjacent to residential blocks assigned to Somalis, thus necessitating at least two physical interfaces between the police station and the residential blocks, which would have been geometrically impossible if the police station was situated at one end of the camp.

(iv) Although not explicated before the commencement of the site plan design process, it was acknowledged informally later by staff from various of the organisations present in Dadaab, that that the extending of the area containing the non-residential buildings, would be useful in encouraging the refugees to not only move to Ifo II, but to stay there subsequently, without returning to their old plot locations in sections A and D, in that more of the refugees would be closer to at least one non-residential building, which was seen as a major advantage amongst the refugees not only in terms of convenience or security, but also in terms of various economic opportunities (including the placement of informal market stalls close by to the buildings).

However, during the first three months of the relocation of the refugees from sections A and D to Ifo II, many of the tensions described immediately above, pertaining to security, access to facilities, and the magnetism of the non-residential buildings, all came to the fore, and were highlighted or exacerbated by the movement, and in some cases threatened the success of the relocation programme itself. By the time that UNHCR and its partners were in a position to mobilise themselves and the targeted refugee communities, at the beginning of February 2007, the majority of those families who had spontaneously self-settled in the area of Ifo II, had then returned back to their original plots in the flood-prone areas, and from a high number of 5-6000 people estimated to have been in the Ifo II area at the end of December 2006, by the first week of February 2007 that number had reduced to an estimated 580, with numbers of abandoned *tukuls* littering the area of Ifo II, interspersed with open latrine pits from which the superstructures had

been stolen, and with a number of the families who remained creating larger compounds for themselves and their livestock, far in excess of the surface area or dimensions which they could expect to be given under formal allocation procedures.

Fig. 1.12. UNHCR staff walking past abandoned tukul *shelters, Ifo, February 2007.*

Those who did remain in Ifo II, or who relocated there anew over the course of February-May 2007, during which time approximately 900 families returned to Ifo II or relocated there for the first time, complained of thefts and attacks on their shelters during the nights, leading them to also engage immediately in the construction of thornbush fencing around their new plots, sometimes in advance of the construction of their actual shelters. Due to the schedule of the rainy seasons, and the funding deadlines for the 'emergency' relocation to Ifo II imposed by the donors for the project[11], the scheduled movement of the refugees could not wait for the completion of construction of the schools (or the other non-residential buildings), and so there were further concerns about the length of walk back to the schools in the old sections of Ifo, and the resulting concerns for safety, which then had a potential effect upon attendance levels amongst children of school age living in Ifo II. This concern was perhaps mitigated, but not solved, by the coincidence of Kenyan national school holidays occurring during part of April 2007.

[11] Principally, -- ECHO, the European Commission Humanitarian Aid office, and the United States Bureau of Population, Refugees and Migration (BPRM).

Not only was there a need to address the ways in which to appropriately encourage the refugees to move *to* Ifo II, but there was a need to come up with a coherent strategy just to the same extent, to ensure that the refugees moved decisively *from* sections A and D in old Ifo. Because of the lack of baseline information on the refugees, and the limited capacity of the agencies themselves, the general tactic for relocation into Ifo II during February-May 2007, was to allow any family from sections A and D to arrive in Ifo II at any time, and to then be given a large scope of choice about where their household plot would be, in the hope that this would ensure that the family would be able to locate itself close to their own relatives or clan members, and that they would not then be pushed back once more to sections A or D by hostile neighbours. However, whilst this tactic had its advantages in terms of protection, and in terms of the utilisation of limited amounts of humanitarian agency personnel resources, the primary disadvantage was that it was impossible to schedule a rolling series of close-downs of the residential blocks from where the refugees came, or the non-residential facilities, ranging from schools to water taps, which had been constructed in support of the blocks earmarked for depopulation: despite the fact that by May 2007, more than 900 families had moved into Ifo II, not one block back in A or D sections had been fully vacated, and not one block could be closed down. With the movement to Ifo II based entirely upon self-selection and self-motivation amongst the refugees, it was in fact entirely possible for all 24 residential blocks to become fully occupied, and for there still to be at least some families residing in each of the old A and D blocks, because after all, only half of the population of A and D blocks could be accommodated in Ifo II anyway, with the remaining half scheduled to move to another extension site further away, at the southern end of Hagadera, one of the other camps in Dadaab, later in 2007. Consequently, by May 2007, UNHCR, its partners, and the donors involved, were facing the prospect of having to fund parallel and ultimately overlapping or redundant services to not one but three different locations (sections A and D, Ifo II, and then the third site south of Hagadera), whilst only having the funding assigned to doing so for an equivalent of one of the three. At the same time, there was the increasing worry that some of the refugees would attempt to establish a new plot location, whilst actively holding on to their old one in the long-term, or even renting out their old one, to other families.

On a wider scale, the relocation of the families to Ifo II (and then to Hagadera), also needed to be considered in its effects upon Dadaab as a whole, with the implications for the plasticity of the boundaries of Ifo (including Ifo II), and Hagadera, and the corresponding changes in the *schwerpunkts* of the different camps. Beyond questions of the limens of the camps (defined as described above, primarily in terms of a change of topography from wooded to barren), there would also be more practical questions of redistribution of water systems, relocation of staff engaged in community services, or emphasis upon different environmental interventions. This reconsideration of the relocation project, would need to be done on two general levels, firstly that of the impact of the balance of weights and stresses within the camp as a whole, as described directly above here, and then secondly, as an emerging desire, particularly on the part of UNHCR Dadaab, that Ifo II be constructed as some sort of ‘model’ camp, to be used as an example or benchmark for future extension or upgrade projects which might be rolled out through the rest of Dadaab. Both these impacts, as additional mass on a relatively macro-level, and as exemplar for fine-grained upgrade tactics on a relatively micro-level will be dealt with in Chapters 4, 5, 6 and 7 this thesis.

Chapter 2. Definition of terms; Scope of Research: Delineation of a Methodology

The previous chapter described the current situation in Ifo refugee camp, highlighting the immediately apparent stresses upon the social and physical tissue of the camp, with particular emphasis upon concerns of security, environmental degradation and livelihoods opportunities. This chapter will define the scope for investigating the origins of such stresses, for investigating the degree to which these problems can be said to be present in other refugee camps, and the terms by which a design tool may be developed into order to create any improvements in the performance of refugee camps, following a methodology of analysis of Morphology, Operation and Performance.

* * * *

Description of the problem in global terms

According to reports made by UNHCR, there are more than 35 000 000 'people of concern' in the world, comprising refugees, Internally Displaced Persons (IDPs), asylum seekers, and in some cases stateless persons and recent returnees from refugee situations (UNHCR 2006)[12]. Of these, approximately 8 400 000 are refugees, and of those, 3 618 420 live in camps, although the number may be higher if it includes those living in camps which are small enough not to be officially recognised under such a designation by the host government. Although the global total of refugees of concern to UNHCR has decreased between 2000 and 2005 by 31% (UNHCR 2006:3), the number of refugees now living in 'protracted refugee situations' (defined by UNHCR as being a 'population of at least 25 000 persons or more, who have been in exile for five or more years in developing countries' (UNHCR 2004b:2)) now accounts for 90 percent of refugee situations, with the average duration of a refugee situation (protracted or not), lasting 17 years (UNHCR 2006:2). Of the 657 refugee locations designated as refugee camps by UNHCR (see the *Catalogue Raisonée* of camps attached as an annex to this thesis), 199 are known to have been in existence for at least 5 years, and therefore fall into the category of being in a protracted refugee situation (see the accompanying text to the *Catalogue Raisonée* for explanations concerning the lack of data on longevity for the majority of the camps, and why the total number of camps falling into the category of 'protracted refugee situation' is in reality probably higher than this total). When the numbers of camps for IDPs is added, the numbers increase significantly.

[12] The statistic of 35 000 000 derives from statements made by UNHCR since it began including estimates of all IDPs, in 2006. All the following statistics in this chapter though, derive from UNHCR *2005 Global Refugee Trends*, published in 2006, and the most current consolidated data on the subject at the time of writing this thesis. However, UNHCR acknowledges at various points within the document, that statistics on IDP numbers in particular are dependent upon reporting by host governments. Furthermore, as noted elsewhere in this thesis, there are gaps in the documentation, and significant examples include the apparent absence of those Tibetans who reside in India (though not those in Nepal), 1.5 million Afghans living in Pakistan but not in refugee camps, as well as 4.3 million Palestinians still residing within the Occupied Palestinian Territories and falling under the responsibility of the United Nations Relief and Works Agency for Palestinians in the Near East (UNWRA) (though not Palestinians residing in Egypt or other countries). The full tally of refugees and IDPs is hard to capture, and other sources give the number as 20 million refugees, and 25 million IDPs globally (Corsellis and Vitale 2005:6).

Despite the enormity of these numbers, to a certain extent it may be claimed that humanity, and the humanitarian organisations, have to this date not had to face any truly worst-case scenarios. To a certain degree, hard thoughts about refugee movements have been avoided, except in the most informal of discussions, because so-called 'mass' refugee movements have been small compared to the size of the greater population centres which exist around the world. This is in part because many of the conflicts or disasters have taken place in proportionally unurbanised countries. But there are an increasing number of cities in the class of Lagos or Tehran, in politically unstable and hazard-prone countries, where the populations of the cities are more than 10 million – in comparison to the 500 000 Rwandan refugees in Goma after 1994, or the 20 000 which UNHCR currently states as the maximum recommended population for any single refugee camp (UNHCR 2007a:211)[13]. With this potential for concentrated refugee or displaced populations numbering many millions and needing to avail themselves of refugee camps, and the discrepancy between those numbers and the current capacity for response, the question of the design of refugee camps becomes ever more pressing.

Camps are often described by UNHCR and other major actors, as being a solution of last resort for displaced populations (UNHCR 2007a:206), and there are a variety of ills commonly associated with camps (UNHCR 2000a:136 quoted in Corsellis and Vitale 2005:348). Since the mid-1980s, there has in fact emerged a school of thought which states that the ills of refugee camps are inherent to their existence, and that, in the words of Harrell-Bond, as a summary of the arguments of that school of thought,

> Today, refugee camps are often prison-like places that no one wants to live in and those who can, escape. Conditions are particularly bad for children. They may be exposed to potentially fatal epidemics and are almost inevitably undernourished. As adults in camps are generally denied the opportunity to work, children cannot learn the skills they would normally gain through working with their parents in agriculture and handicrafts. Although primary schools are often provided in camps, many children do not attend them as they are required to help with family chores.
>
> Refugee camps are also bad for the African countries that host them. Camps are expensive and often wasteful of valuable international aid. Yet when refugees are forced to repatriate, camp infrastructure, including schools and hospitals, is usually destroyed. Camps also tend to undermine existing local welfare services by paying higher wages and luring the most qualified staff. (Harrell-Bond 2002:1)

Nevertheless, according to the statistics on the previous page of this chapter, 43% of the world's refugees continue to live in camps, and many of them have been there for a very long time. Although Harrell-Bond and others advocate for local integration of refugee populations

[13] Please note that this thesis will refer to a series of different revisions of major texts, (For instance the UNHCR *Handbook for Emergencies* 1981, 1982, 1986, 1998, 2000 and 2007 editions), and will reference accordingly. In order to avoid confusion, the current edition will be quoted, unless a previous edition is quoted in order to demonstrate either the longevity of the issue at hand, or in order to demonstrate some change between revisions.

as an alternative to refugee camps in all instances (Harrell-Bond 2002:2), in the current political climate this stance is neither realistically implementable, nor given the existence of ethnic and socio-economic tensions in many border areas of the world, is it recommendable as an across-the-board solution. Given the fact that refugee camps will remain as at the very least a potential 'least-worst' option for some time to come (and in some cases may be the preferred option), the need is instead to find ways to create an improved condition, rather than to wish them out of existence.

As will become apparent in Chapter 4 of this thesis, with regards to refugee camps it is often a lack of consideration for the unexpected longevity of the camps which is at least in part to blame, as much as the specifics of the physical environment itself, with worsening overcrowding, environmental degradation, cultures of dependency amongst the refugees, and wasted opportunities, usually heading the list of ills with which they are charged (UNHCR 2004b:4, Loescher and Milner 2005:153-157) – a list which also describes many of the major stresses in Ifo camp. Given the large numbers of refugees who inhabit camps for longer periods of time, the design of a camp cannot be judged merely upon its morphology at the point of initial construction. Instead, this thesis will use the methodology developed by the TU Delft Design Knowledge Systems Research Centre, which posits a triangulation of design analysis through assessing Morphology, Operations, and Performance.

Therefore, this chapter will be divided into three sections. The first will look at the definitions of the primary terms to be used in the subsequent investigations, whilst the second section will expand upon the Morphology-Operations-Performance methodology of design analysis stated immediately above, with reference to the specific context of refugee camp design. The third section will introduce the scope of the development of the design tool which will emerge from the performative analysis of refugee camps.

The task of the first section of this chapter will be to answer the following questions:

> What is a 'refugee', what is a 'camp', and what are the terms which can be used to describe the various actors in the designing and constructing of refugee camps?
>
> What does 'designing' entail in this context?
>
> What are the appropriate terms for the various actors or contributors to the design, as well as the refugees themselves?

The second section will use the morphology-operations-performance framework to examine the following questions:

> What is a good camp, and what is the process for arriving at a definition of a good camp in the case of each camp? How can the performance of a camp be judged?
>
> What is a good *design* of a camp, in light of the definition of a good camp *per se*, and what might be the strategy for arriving at such a good design? To what extent can the design, i.e. the definition of the morphology of the camp, have an influence upon the

performance of a camp, and to what extent can the performance of a camp be used to judge the morphological design?

Given the fact that the majority of camp designs to date have been issued as sets of guidelines created on behalf of humanitarian organizations, what are appropriate methods of analysing either prescriptive guidelines for designing camps, or the camps themselves in relation to those guidelines, or as manifest adaptations of those guidelines?

The third section will be focused by answering the following question:

On the assumption that the answers to any of the questions above remain incomplete, to what degree is it appropriate for the thesis to expand from being descriptive, to taking on a normative or prescriptive role, and to what degree does a design methodology become propelled from the research methodology?

* * * *

Definition of key terms

Within the field of the study of humanitarian response, there are a number of specific terms which if not contentious, at least do require explicit definition at the commencement of any text, and which are particularly germane to this thesis. First and foremost of these are the terms 'refugee' and 'camp', and so whilst other terms may be defined or re-defined throughout the course of this thesis, the terms 'refugee' and 'camp' require some basic prior definition. This section gives working definitions, which may become more nuanced through the remainder of the thesis, and then provides umbrella working terms for the various types of implementing organisations involved in humanitarian work, and the other actors in refugee camp situations.

Whilst many of the guidelines to be discussed in this thesis now prefer to talk simply in terms of 'affected populations' or 'displaced populations', as a blanket term to describe those to whom humanitarian organisations usually offer assistance, this thesis will generally concentrate upon the subsection of those displaced populations defined as refugees, and in preference will use the term '***refugee***' not just when indicating those who fall into that specific category, but also in connection with texts or issues which refer to all categories of displaced persons, unless quoting directly from the texts, or making a specific point whereby refugees are directly contrasted with other displaced persons.

According to the 1951 charter for the United Nations High Commissioner for Refugees (to be discussed at greater length in a Chapter 3 of this thesis), the definition of a refugee is limited, to one who has crossed the border out of his or her country of origin, to seek asylum based upon a well-founded fear of persecution (UNHCR 1951(1967):1:A(2)). This definition does not include, for instance, those who have left their customary location due to well-founded fear of persecution, but who have not crossed any international borders. Over the last three

decades, in recognition that those who move within borders now vastly outnumber those who cross borders, UNHCR and the international community have developed terms of description (though no corresponding international legal instruments) to include 'internally displaced persons' (IDPs), and more recently, UNHCR's 'people of concern' (which as well as IDPs also includes those who are returning or have recently returned to their place of origin, and those who have been granted temporary asylum status but not full refugee status by various host countries): in recent years, UNHCR in some instances has also been invited to implement programmes and design camps for those who have been temporarily displaced due to natural disaster[14].

Despite this expansion of the mandate of the United Nations High Commissioner for *Refugees* [italics added], important legal distinctions remain between refugees, and those who are displaced, but who remain within the national borders of their country of origin, and these can significantly influence the parameters of design of the camps (not withstanding the fact that although in reality the differences in law, and the different levels of international protection which can be granted IDPs versus refugees do often appear to have a significant impact upon the size, location and physical boundaries of IDP settlements, there has not yet been any development of a different graphics guidelines for settlements specific to IDPs – for the most part, if planned settlements or camps are built for IDPs, the morphology is that of the standard one for refugees[15]). These differences in legal status will be addressed at greater length in Chapter 3 of this thesis, but in order to support the creation of a preliminary working terminology for the thesis in this section, it should suffice to indicate one primary distinction: an IDP may be denied access to some of the international legal instruments of protection available to those with refugee status, but those instruments which give the individual status as a refugee do so under the threat of *impermanency* of that status. A refugee as a categorical status of person, has come to be practically defined by the limits of his or her formal future choices, all of which heavily imply an impermanency in his or her current location, and particularly in terms of those whose primary shelter is in a camp: in practical terms, the status of refugee can resemble a type of limbo, with the transformation into one who has full status in society postponed until the refugee returns to be a citizen of his or her own country of origin, or else sheds refugee status by gaining full and permanent status within a host country or third country of resettlement.

With regards to the second term, 'camp' it is enlightening to start by referring to the institutional definitions of the possible solutions to the predicaments of refugees. According to UNHCR, the three possible categories of 'durable solutions' for refugees, are (i) voluntary repatriation, (ii) local integration, and (iii) resettlement in a third country (UNHCR 2007a:44-45). The first and third of these categories are obvious in their implications that a refugee would have to permanently leave a refugee camp in order to claim such status. For the second category, local integration, the implication of geographical movement is less clear, but at least in terms of those refugees who live in camps, there is an assumption in all texts, that a camp shall stand at least some distance from the nearest host community, and shall not

[14] For instance, during the response to the Pakistan earthquake of October 2005.

[15] As a practical example, see those camps built for earthquake displaced populations in Pakistan in the winter of 2005, which follow the design template now contained within the UNHCR 2007 *Handbook for Emergencies*.

be considered an already integrated part of that host community, and that it shall not be a place of permanence.

Although the definition of a camp is deeply tied to the definition of a refugee, in order to avoid reducing both terms to circular definitions ("a refugee is someone who lives in a camp**:** a camp is a place for refugees to live") revolving around a state of impermanence, it should be re-emphasised from the paragraphs above, that not all refugees live in camps, and not all camps are for refugees. Nevertheless, the definition of refugee as outlined above, is then mirrored in the way in the major texts treat the question of (im)permanency as part of their assumed definitions of what a camps is. As an example, Corsellis and Vitale, by including 'planned camps' in their 'transitional' approach, make it clear that 'planned camps' are at the same time not to be included in considerations for best practice in the construction of permanent settlements (Corsellis and Vitale 2005:3), and make it then more explicit, by stating, "Camps occasionally become permanent settlements. If this is foreseen before the camp is established, resettlement guidelines (UNHCR, 1996) should be used instead of these guidelines," (Corsellis and Vitale 2005:369) and indeed UNHCR does indicate a difference between a camp and a permanent entity, by splitting the guidelines for each between the *Handbook for Emergencies* (UNHCR 2007a) and the *Resettlement Handbook* (UNHCR 2004a), respectively. Despite the fact that there have been camps which have become permanent suburbs (e.g. various locations in India which started as refugee camps for either Bengali or Tibetan refugees), or which are constructed out of permanent building materials so as to be indistinguishable from the fabric of the surrounding 'permanent' towns (e.g. various Palestinian camps), nevertheless, the fact remains that the vast majority of the camps in the world have eventually become closed down, and it is this inability to assume any permanency, and furthermore the unpredictability of the finite longevity of a camp, which provides one of the central contrasts with the development of forms of non-emergency partial analogues, such as *favelas* or shanty towns, and also provides one of the central constraints upon the designs of the camps. Therefore, whilst noting the exceptions, this thesis will retain as part of its definition of the term 'camp' a condition of unpredictable impermanency, as a prerequisite for ensuring that core issues are indeed engaged for the thesis remainder.

The term 'camp' itself has become questioned over the last few years as a result of the realisation that so-called camps are being adapted to a variety of situations, and that there are a variety of different responses available towards the provision of shelter and other services to refugees or other displaced persons. In a previous text (Kennedy 2004b:2), I argue that in general layman's terms, the word 'camp' might contain too many associations with the very short-term, and with tent-centred images derived from the military or from recreational activities, to adequately define the set of typologies which are intended for refugee use, although a viable alternative continues to be elusive. UNHCR continues to use the word 'camp' to refer to large groupings of shelters for refugees (UNHCR 2007a:204), although it does so without giving an explicit definition of the terms. Another possibility would be to use the term 'settlement', and Corsellis and Vitale have described six categories of shelter which may be used by used by displaced populations ((i) dispersed settlement: with host families, (ii) dispersed settlement: rural self-settlement, (iii) dispersed settlement: urban self-settlement, (iv) grouped settlement: collective centres, (v) grouped settlement: self-settled camps, and (vi) grouped settlement: planned camps) (Corsellis and Vitale 2005:2). Of these,

the last three explicitly describe contiguous groupings of a population, but even the first three might conceivably in some or all cases, have connotations of there being a 'settlement' in terms of there being a grouping of a plural number of structures, primarily for the function of shelter, and where the inhabitants were primarily grouped according to their status as having been displaced from their customary locations. But of these, the first four do not involve the major site planning and construction which interests this thesis, and so the result is that the majority of cases and categories where the alternative term 'settlement' could be applied, do not in fact refer to situations contained within the ambit of this thesis, and in terms of this thesis, the final category of 'planned camps' verges on the tautological, as the subject of this thesis is precisely the relationship between camps and planning. Therefore, whilst the categories listed by Corsellis and Vitale are useful in other settings, they remain problematic in the context of defining terminology for this thesis.

The *a priori* insistence that for the purposes of this thesis, camps are things which are planned, leads to another question, which has arisen from the ongoing responses to disasters, rather than originating from written texts per se, and that concerns the definition of a camp according to minimum size of population and facilities therein. Although humanitarian agencies such as the Norwegian Refugee Council, with a stake in camp management, have insisted upon implementing camp management and other programming in planned settlements or self-settlements of small numbers[16], government authorities in recent disaster situations (post-tsunami Sri Lanka and post-earthquake Pakistan) have insisted upon national legal definitions of camps as being groupings of shelters for displaced populations of no less than 50 households. (And as an aside, the first 2004 edition of the Norwegian Refugee Council's *Camp Management Toolkit* also neglected to provide an explicit definition of what a camp is, in terms of population numbers or indeed any other criterion, although this is currently under revision) (Norwegian Refugee Council 2004). On the one hand, smaller groupings of shelters most certainly do require much the same attention as larger groupings in similar contexts, from the provision of adequate shelter materials to the support for camp governance structures, and protection for the inhabitants. But on the other hand, those smaller groupings do not have the population numbers to necessitate and support the complex of non-residential buildings such as schools, health clinics and food-storage warehouses enumerated in the camp planning guidelines published by UNHCR and others (although it must be said that the requirement of these other structures is dependent in part upon the level of isolation or access to pre-existing structures on the part of the refugees, and that the cut-off level of 50 households imposed by certain governments is in itself arbitrary). To a large extent, the problems with camp design which this thesis seeks to address, emerge specifically from the complexities of design, and in particular the complexity of elements and the different scales of design necessary in the larger settlements – and there is an argument to be made (and pursued in subsequent chapters of this thesis), that for smaller groupings of shelters which do not contain significant non-residential structures (outside the scale of, say, communal sanitation or cooking areas, or community-level places of religious worship), the design might be supported by humanitarian agencies or others with specific technical expertise, but should be primarily left to the inhabitants themselves.

[16] Particularly in Sri Lanka, 2005-2006.

Therefore, this thesis will continue to use the term '***camp***', to refer to the planned settlements for refugees central to the argument, but not without two provisos:

1. the term serves here as a short-hand for a planned and specially-constructed settlement for a number of displaced households significant enough to also need dedicated non-residential buildings as part of the planned settlement, and,
2. whilst a camp has an infinite series of potential lifespans. Few camps have truly infinite or permanent existences, but the shorter lifespans are those which are the less likely.

In terms of the design, it is the contention of this thesis that this interplay between the need for a complex and evolving built environment, and the insistence upon a lack of predictable longevity, are not only central to the definition of a refugee camp, but also central to the problems contained within those camps: thus, in this sense, the definitions of both 'refugee' and 'camp' both apply to states which are unstable and problematic.

A third major term which should be discussed here, is '***design***'. Whilst to a certain extent, the design of refugee camps is defined by its own actions, a general term is also needed in order to make initial indications of those actions. As will be elaborated further on in the thesis, the built environment of the camp is finally the product of the interventions of a multitude of hands, but for the purposes of this thesis, the design of the camps shall mean the considered and planned actions which produce a systematic and unified plan for the entire camp, and for its environs. Any design falling under this definition probably will take into consideration the ways in which the plan will be adapted in reality by those who actually construct the camp (and none more so than the refugees), but at the same time, the definition itself does not refer to any effort which is non-systematic, or which does not consider the effects upon the whole of any specific intervention.

As a corollary to the definition of 'design' given here, a brief definition of the composite term, design '*type*' should be provided. At first glance, with a large number of authors, working over a period of more than thirty years, and approaching the issues from different directions, with different limits of interest, and working largely independently of each other, and with different manners of evaluating their contributions (if at all), the appellation as a 'type' might seem a little ambitious. Nevertheless, inasmuch as the composite whole has a greater effect than the sum of its parts, and inasmuch as the vast majority of authors have claimed to be working to contribute (rather than counter) to mainstream of progress of best practice, the term design 'type' in this thesis shall refer to the cumulative tenets, expressed in terms of text guidelines, maps for layouts, and the overarching principles to which they claim to ascribe, which have been indicated by a loose collective of major humanitarian organisations as addressing the issues of the built environment associated with refugee camps. Although it is nebulous, in parts lacking self-consistency, and containing gaps, nevertheless it remains singular and systematic in that there is a general hierarchy of principles and concepts, and it is intended to answer for every eventuality presented in its sector. This point will be raised again below, in the paragraphs dealing with the current gaps in the design of refugee camps, but under these terms, unless exceptions are indicated, the term 'refugee camp type' shall also remain in singular rather than plural use for this thesis.

There is then also a subsidiary level of terms which need initial definition in this chapter, which relate to the various categories of non-refugee actors concerned with refugee camps.

The first of these terms is one which can provide an umbrella term for the variety of different organisations which contribute through direct programming to supporting the refugees. This term should refer not only to the (international) non-governmental organisations – (I)NGOs – but also to those organisations which include United Nations agencies, and other international organisations (IOs) like the Red Cross movement, and the International Organisation for Migration (IOM). There is a need to be able to refer to this group of organisations collectively and in an unwieldy manner at various points in the thesis, whilst still recognising that within that grouping there are still significant differences between the histories, charters, mandates and programming of the individual organisations. The term to be used should not only be sufficiently inclusive, but should also be understood to be exclusive in as much as it would not refer to governmental offices, nor would it refer to the community of donors who provide funding and support, but who do not directly implement programmes (and mindful of the fact that there are one or two organisations like Germany's Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), or Denmark's Danish Refugee Council (DRC), which are or have been either formally or de facto departments of governmental ministries, but which in the context of Dadaab act like implementing partners). Therefore, when referring to the collective of organisations which administer or implement programmes in Dadaab and elsewhere, this thesis shall use the general term '***humanitarian organisation***'. If further sub-sets need to be referred to, these will be done using the terms (I)NGO, IO and UN agency, as described immediately above.

Although it is the humanitarian organisations which (despite all claims to community involvement) take the lead in the formal planning of refugee camps, they are not the sole actors, nor in some respects can they even be considered the main actors. Whilst it will become clear in subsequent chapters the extent to which each of the different actors can claim to participate or influence the design of the camp, it is here that those actors are identified in broad terms, and names attributed. Firstly and formally, there are the '***host government(s)***', whose influence is not inconsiderable, given the fact that refugees as a class of person, are ultimately subject to national laws, rather than international law, and given the fact that with the exception of a few truly failed states, the humanitarian organisations have always had to operate under agreement of the sovereign governments, and indeed as a rule include within their mandates general statements concerning support for, and acknowledgements of the legitimacy of the host governments in any refugee situation. (UNHCR 2007a:17) The other actors which have an influence upon, and are in turn deeply affected by the design of the camp, are those who live in a geographical context with some physical connection with the camp, and who shall be referred to as the '***host communities***' albeit in recognition that their interactions with refugees and camps are formal and informal, social and economic, and go far beyond the legal frameworks which characterise the host government's role.

In the context of actors within the camp, it is worthwhile returning briefly to the definition of the camp inhabitants from above. The term refugee in those paragraphs referred mainly to a

definition of a category of persons in a legal sense. However, in this thesis, the same term, ***refugee*** shall also be retained for those who are defined as inhabiting the camp, and therefore exerting the primary influence upon the fabric of the camp: in such a way, awkward circumlocutions, such as 'affected population', or 'beneficiary households' will be avoided, unless as direct quotes from other texts. It should be noted here though, that beyond the confines of the definition of their legal status, the refugees in Ifo (as in all camps) come from a variety of backgrounds and bring with them a great variety of expectations in terms of their responses to the physical environment. It is a fallacy to be guarded against, that the body of refugees in any camp will act with any sort of unified force or will, and it will be one of the aims of this thesis, particularly during the case study in Chapter 4, to highlight the multifarious manner in which refugees and different groupings of refugees within the camp interact with their environment.

* * * *

Introduction to the design brief, and initial enumeration of gaps in the current design type

Despite the definition of terms immediately above, the question of what constitutes a good refugee camp *per se* remains to be determined. Without this ultimate definition, it would be hard to give a concrete example of a good camp design, beyond claiming that the approach to the design adequately fills in the gaps outlined in the paragraphs below.

Whilst this thesis makes the claim that the basis of judging a camp should be on its performative attributes, a comprehensive reading of the extant literature does not offer a unified definition of what specifically constitutes a good camp, except perhaps through holding up the obverse image of all the faults attributed to camps in documents like the UNHCR *Handbook for Emergencies* (UNHCR 2007a) or "Protracted Refugee Situations". (UNHCR 2004b)

The greater focus on the qualitative aspects of shelters, settlements and camps, has always paid more attention to what is adequate, or what are the minimum requirements, rather than what is 'good', or what are potential positive attributes (rather than just a lack of negative attributes). Furthermore, despite advocacy by some practitioners to the opposite, it is the contention of this thesis that the larger part of the extant literature, and the organizational guidelines in particular, has tended to concentrate upon a concept of camps as a set of delivered objects, (i.e. the morphological part), with little or no real consideration for the operational or performative aspects. Reinforced by funding constraints, such considerations have inevitably depended upon the issues which have been the most elemental of all: public health, sanitation, construction engineering in the face of environmental or climatic hazard – in short, how well the shelter or settlement survives, and assists in the bare survival of the refugees, rather than how it performs in terms of its impact upon the social or economic fabric of the refugees over the long-term. However, whilst acknowledging the ultimate primacy of those indicators which concern life-or-death issues, this thesis will take a far greater interest in those other aspects which qualitate how the camp *performs* as an influence upon the social and livelihoods scales.

To date, the most comprehensive list of qualities to which a shelter or settlement should aspire, comes not from refugee situations (i.e. those caused by population displacement from armed conflict or persecution), but from the inter-organisational strategic documents created in response to recent high-profile natural disasters like the 2004 tsunami. Nevertheless, because these documents describe qualities for adequate shelter for those who might be physically displaced as well as being homeless, those qualities can all be used to some extent to assess institutional assumptions as to what might be a provisional benchmark of what constitutes a good settlement as a wider genre, what constitutes a good shelter in a refugee camp, and by extension what constitutes a good camp as a whole. Whilst the UNHCR-led document on transitional shelter strategy for Sri Lanka after the tsunami (UNHCR 2005a:2:v.5)[17] makes recommendations concerning engineering strength (e.g. resistance to cyclones) and minimum standards (minimum number of square metres indoor shelter per person), it does also describes a number of qualities which a single shelter should embody, in terms of how it should perform as an active agent towards the recovery process. These performative aspects, focus upon the qualities in support of a 'transitional' shelter and settlement – that is, one which plays an active role in the recovery process, and which has been defined in *Transitional Settlements: Displaced Populations* by Corsellis, the lead author of the UNHCR Sri Lanka document, as:

> Settlement and shelter resulting from conflict and natural disasters, ranging from emergency response to durable solutions. The word originates from an approach which extends beyond the traditional response, with its limited focus on the provision of planned camps. The new approach considers the wider impacts of settlement and the options for settlement, emphasising the need for a transition to durable settlement solutions and local development. (Corsellis and Vitale 2005:7)

In the Sri Lanka tsunami-response strategy document, this expresses itself as shelters which have the qualities of variously: being "flexible"; giving "dignity"; expressly avoiding a one-size-fits-all design; placed in appropriate sites not only in terms of security and access, but also in terms of environmental impact; moveable or relocatable; made of elements which can be "reusable later in construction"; using local materials where appropriate, and local labour; "modular or extendable"; appropriate in terms of security, privacy, and cultural and religious norms, and whereby, "the affected population should be supported in all planning activities" (UNHCR 2005a:2:v.5:4-7).

More succinctly, this approach also focuses upon a 'livelihoods' approach, using shelter and settlements to support the 'formal and informal activities undertaken in order to obtain resources.' (Corsellis and Vitale 2005:23). As general aims, the qualities described in the two documents here, provide a direction for understanding what might be necessary in concrete terms on the scale of a camp, and given the limits of funding and permanency mentioned earlier in this chapter. However, in order to augment this institutional approach and make it more comprehensive, an emphasis greater than that contained in either *Transitional*

[17] These qualities of a good shelter, both technical and performative, are also echoed, though less explicitly, in inter-organisational shelter strategy documents used subsequently in the responses to the 2005 Kashmir earthquake. (Shepherd-Barron 2006)

Settlements: Displaced Populations or the UNHCR *Handbook for Emergencies* should be placed upon the camp performance within its specific location and context, and the relationship between the camp and its environment, and its host communities.

Based upon the general adoption of these aims, an institutional definition of a good camp design emerges, as one which performs in such a way as to actively support one or more durable solution for all directly affected by the existence of the camp, and as a methodology does so through a (as defined here) 'transitional' and 'livelihoods' approach, whilst as a series of implementations, manages to ameliorate the specific stresses of the camp associated with the camp's physical environment, and its impact upon its surroundings.

* * * *

With regards to an *institutional* consensus on what makes a good *design* of a camp, although there has been since the early 1970s a small body of literature with recommendations for how to make a camp better in terms of the application of physical design tools, in reality until now there has been no way of knowing what makes a good camp design or not (and the other larger question of what justification there would be for supporting the claim that camps are to be the option of last resort, beyond the anecdotal evidence of practitioners). Some of the recommendations for ameliorating life in a camp through a design intervention, such as the clustering of shelters together to form small community groupings, whilst remaining ultimately without documented justification would appear to be self-evident. (Kennedy 2004a:29) But many of these suggested amendments have been added in an ad hoc manner, often borrowed or justified by different sources from other disciplines, but without an explicit assurance that the composite remains a coherent whole, or any sustained monitoring to observe the effects of the amendments.

The issue at hand, and the major contention of this thesis, is that whilst the extant guidelines do make some reference to the performance of camps, in terms of using vocabulary like 'community-based' and 'durable solutions', in reality none of them take the issues of the operations within the camp, or the performance of the camp, into full account. As enumerated in more detail below, there is precious little analysis of how any camp actually operates in terms of the ways in which the different spaces within the camps are used by the various stakeholders, and almost nothing in terms of what would otherwise be referred to as post-occupancy analysis, unless it is in the stark elemental life-and-death terms of sufficiency of water, or protection from overwhelming danger. Whilst the extant literature on refugee camp design may make claims for the design supporting safety, privacy, or accommodation of community structures, there is little which has been done to test these claims in reality. In essence, this thesis proposes that without a greater focus upon questions of how refugee camps perform, and how those performances can be improved, there can be no answer to the question of what makes a good camp design.

This thesis will argue extensively in Chapter 4, that although there are and have been many *interpretations* of the design for a refugee camp in the field, in essence there has only been one central strain of design, or one design 'type' evolving since the 1970s. Most authors of design recommendations or guidelines, are at pains to state that their contributions are

consistent with, or in support of, the dominant direction (Corsellis and Vitale 2005:13, Norwegian Refugee Council 2004:11), even when closer inspection reveals that parts of their work do not necessarily conform with the others (Kennedy 2004a:49). Generally speaking, there has been an effort amongst those writing on best practice in the field, to demonstrate a united front, and to co-operate wherever possible. The few notable exceptions, and in particular the divide since the late 1990s between certain anglophone organisations and certain francophone ones over the issue of minimum standards, will be covered in Chapter 4 of this thesis, but in general it remains the assertion of this thesis (to be supported through the investigation in Chapter 4), that despite the composite origins of the design for a refugee camp, it does remain essentially one single umbrella design on a systemic basis. Therefore, reference below to gaps in the design type, shall treat that type as being singular, with no clear credible alternatives yet produced.

Beyond the fact that the literature giving recommendations on how to improve the physical environment of refugee camps is small, it positively dwarfs the literature which is actually descriptive and analytical of specific camps in terms of the interaction of the physical environment with security, promotion of livelihoods or similar issues pertaining to the quality of existence within a camp. The amount of attention which humanitarian organisations have given to monitoring and evaluation is small, as evinced by the number of published documents focused upon such matters[18], meaning that those who design and construct refugee camps are at best basing their work on a series of intuitive, heuristic design decisions, or on a series of justifications which might have varying claims to being self-evident, or at worst are merely following available templates because there is no alternative, or in essence, working blind. Those who implement programming or support in the camps for the most part do keep basic data on issues like reported crimes or levels of child malnutrition, but in practice little of this is analysed in terms of spatial relations or the topography of the camp[19].

Whilst this lack of either reports from monitoring and evaluation, or guidelines for doing the monitoring, means that there can be no confident way yet of declaring a camp to be a good one (on whatever grounds), neither can there be a confident manner of declaring the design of a camp to be a bad one. However, it is the hypotheses of this thesis, that in terms of design type, the overarching failures of performance which can be ascribed to almost all camps with few exceptions, are:

[18] For instance, a recent review of documents in the UNHCR public archive reveals less than ten such documents. The public archive of the International Federation of the Red Cross reveals no such documents, whilst university-based research centres, such as those in York University, Katholieke Universiteit Leuven, or Cambridge University's Shelter Centre, may have small numbers of documents, in the form of unpublished masters theses. UNHCR's mapping department in Geneva is currently instigating a pilot project to map some camps, in terms of whether they meet certain minimum standards in terms of water supply, access to sanitation, and density of population, but as of autumn 2006, this covered less than 10% of all the camps populated by UNHCR persons of concern, in two or three selected countries in sub-Saharan Africa.

[19] For example, during the period of the case study in Dadaab complex, weekly inter-agency security meetings relayed reports of crimes submitted to the police stations in the camps, but did not make any mapping of the locations of such incidents. In terms of other 'quality of life' issues, such as economics and livelihoods supports, no humanitarian organisation working in Dadaab had firm figures for the number or location of all the market stalls within the camp, a situation which the author of this thesis has also observed in Sierra Leone in 2004, and in camps in post-disaster situations in Sri Lanka and Pakistan in 2005.

1. The design of the camp, however it is arrived at, is created in isolation from any considerations for the long-term strategy for the camp as an entity, and for the refugee inhabitants of that camp. Whilst much has been made in public statements by UNHCR (UNHCR 2000a:xii, UNHCR 2007a:xi,44) over the last two decades that all refugee-related programming should support 'durable solutions', there has never been published statement as to how the design of a camp is to be seen as a positive element contributing to a strategy of one or more durable solution, beyond merely keeping the refugees healthy and alive. The elements which have been added to the overall design in an ad hoc manner, address either issues of efficiency of delivery of goods and services, (e.g. the grouping of non-residential buildings in a central area, close to the camp entrance), or a reduction of internal security threat (e.g. the clustering of shelters into small groups, or the minimisation of distances between shelters and latrines), but still can not be said to be aimed at more than a minimal baseline of response, nor integrated positively into any long-term strategy. In short, the designs of the camps are done without any articulate ultimate goal.

2. Consistent with point 1 directly above, the design of refugee camps, whether as a universal type contained in printed guidelines, or as physical manifestations of that type observable in reality, contains little to acknowledge the influence of the dimension of time upon the design. Where there is an acknowledgement that camps may develop or change over time, there is little attempt to rationalise or quantify such developments as a prescription for likely ongoing scenarios and responses: assumptions are made in the creation of graphic templates, for instance those of the Norwegian Refugee Council's *Camp Management Toolkit*, that there might be 'some' expansion of the population in the future, and therefore there is 'some' space set aside as initially empty space, as a contingency for such expansion (Norwegian Refugee Council 2004:42-44). Alternatively, there are suggestions that the camp may be extended beyond its initial borders, in phases, as a tiling technique, to cope with new arrivals (Corsellis and Vitale 2005:349). But in neither case does the design explicitly take into account what the likely levels of that 'some' expansion might be, despite statements elsewhere that otherwise stable (i.e. without additional new influxes) refugee camp populations may rise by 3-4% per year through the discrepancy of live births over deaths (UNHCR 2000a:138, Kennedy 2004a:86-87), and upon closer inspection the areas set aside in the *Camp Management Toolkit* would be insufficient to cope with significant population increases for all but the most short-lived of camps. Furthermore, the fact that even those guidelines which do make some provision for population increase do so by resorting to infill or expansion through simple 'tiling' of residential sections, betrays the fact that little thought has been given to the development of camps over time as being evolutionary, whereby the set of functions held in certain spaces of the camp, may change over time, and where changes might not be uniform over the entire camp. The currently most prevalently referred to set of guidelines, the Sphere Project's *Humanitarian Charter and Minimum Standards in Disaster Response* (Sphere Project 2004) (to be discussed at length in subsequent chapters of this thesis, and referred to as the "Sphere *Standards*"), pointedly does not mention durable solutions at all (the word 'sustainability' in a different context,

appears just once within the entire text), and previous research (Kennedy 2004a:20, 46-49, Kennedy 2005:46-47) shows that of all the major guidelines which influence camp design, it is the Sphere *Standards* which are the most constrictive in terms of the expansion and development of camps over time.

In part, this lack of consideration for the dimension of time is due to limits of mandate self-imposed upon the humanitarian organisations in anticipation of resistance to any hint of permanency to refugee camps on the part of most host governments: if the publicly-stated goal is always to support the earliest possible voluntary repatriation of refugees, then planning for anything long-term might be seen as an act of bad faith. However, there is a case to be made that the lack of consideration for the dimension of time can also be at least in part ascribed to the historical mandates of some of the humanitarian organisations themselves, which remain defined in terms of 'emergency' response[20]. It is also a point of concern, that in practical terms, the UN-led global forums for co-ordination of humanitarian response assign questions of how a camp is built to one sectoral 'Cluster'[21] (Emergency Shelter Cluster), and questions of how people actually live in a camp, to another cluster (Camp Co-ordination and Camp Management Cluster) (http://www.humanitarianreform.org). This relationship will also be referred to in subsequent chapters of this thesis.

3. The few graphics tools which have been generally adopted or developed in the field of refugee camp design, are inadequate, inasmuch as they are in the main prescriptive rather than descriptive, intended generally as instructions or guides for those amongst the humanitarian agencies who will be constructing the camps. Beyond a mono-functionality ascribed to delineated spaces represented by each graphic symbol on a camp map (e.g. "shelter block", "health post", "firewood distribution centre", etc) there are few tools which can indicate how any part of a camp may be lived in or adapted by the inhabitants, or whether there are any assumptions of change once the initial set of buildings and infrastructure have been installed. With the previously noted lack of focus on monitoring and evaluation, and the assumption noted above, that the first physical intervention in a camp should ideally also be the last, perhaps the shortage of graphics tools to describe the physical environment of a camp should not be all that surprising. However, the reason for the prescriptiveness and the paucity of the graphics tools can also be ascribed in part to the drive to universal solutions which has occupied much of the attention of the humanitarian organisations since 1980, but in particular since 1995: if each solution to a refugee situation is to be standardised worldwide, then the only practical set of graphics tools to describe that standardisation, becomes the set of graphics which describe only the limited elements which occur in all cases.

[20] In this regard, it is instructive to note that the UN's embryonic forum for addressing co-ordination globally in the sector, is called the *Emergency* Shelter Cluster [italics added], in contrast to equivalent forums for other sectors, which are not prefixed with the word 'emergency'. (http://www.humanitarianreform.org)

[21] In order to avoid confusion where possible, the word 'Cluster' with a capitalised first letter, shall be used in this thesis to refer to the forums for co-ordination and capacity-building instituted and led by the UN since 2005. The word 'cluster' with a small-case first letter, shall be used in the previously commonly-held sense, to refer to groupings of individual shelters, or the designs thereof.

4. As referred to immediately above, there has been a marked tendency towards universalist solutions to refugee camp design (and to much else in the various sectors of humanitarian response) over the last quarter century. This in turn has led to an increasing tendency to assert standardised guidelines in a top-down manner, and directed to increasingly micro-levels of scale. An increasing awareness on the part of humanitarian organisations, of the limitations or lack of resources (IFRC 2006) in the face of the exponential rise in the numbers of persons of concern[22] has given rise to a form of de facto functionalism, driven by the exigencies of the economies of scale, and a rejection on the ground of all that is beyond minimum standards or in any way unnecessary or ornamental. As this 'functionalism' dictates absolute control over a complete environment in order to ensure the maximum level of economic efficiency at the initial installation phase, it also aims towards an eradication of all limits of control, in terms of how far down towards the micro-scales of the physical environment it reaches. As an example of this phenomenon, in the first publication of the UNHCR *Handbook for Emergencies*, in 1982, the schemata for the example of a camp layout was essentially a series of circles gathered around a centre, each circle representing a community grouping or 'cluster', the layout of which would be left to the refugees to negotiate amongst themselves (UNHCR 1982:62): as has been noted elsewhere (Kennedy 2004a:19, Kennedy 2007:106), by the 2000 edition of the *Handbook for Emergencies*, there were precise guidelines for exactly how many footballs or pieces of chalk there should be (UNHCR 2000a:116-117), and in the recent 2007 edition, there is a schemata for a cluster of shelters which gives the exact distance between each shelter in precise metres (UNHCR 2007a:214). The tendency has been for this 'functionalism' to be purified as a process through the application of scientific or numeric guidelines, which are supposedly 'universal', and which do not need to be re-examined on a case-by-case basis. As well as the example above, the 1981 draft of the *Handbook for Emergencies* contains only six numeric guidelines in its chapter on "Site selection, planning and shelter" (UNHCR 1981:21:1-12), two of which are attributed as deriving from World Health Organisation guidelines, whilst the equivalent chapter of the 2007 edition, which is twice as many pages long, contains no less than 15 numeric guidelines in the main text, another 13 in two special text boxes, and a further 9 in a special section on reception and transit camps (UNHCR 2007a:204-226).

   However, the smaller the scale at which the guidelines are insisted upon, and the closer the guidelines get to the micro-level of the individual shelter plot, the less likely they are to being locally applicable or acceptable upon the part of the refugees, and the greater the desire of the refugees, and the greater the level of control the refugees are likely to have, in adapting, changing or subverting those guidelines to suit their own wishes and needs. Whilst it may be unexceptional to insist that guidelines for the built environment which seek to be one-size-fits-all and at the same time universally applicable, are inherently self-defeating, the question of scales, and the negotiations for which levels are appropriate for design in a broadly top-down methodology, and which levels are more appropriate for a broadly bottom-up design

[22] For a more detailed description of the rise in the numbers of refugees, see Chapter 3 of this thesis.

methodology, does differ from similar questions directed at the construction of non-refugee settlements. Whilst either the sites-and-services planning of John Turner, or the site-and-infill projects of John Habraken emphasise the element of inhabitant-participation, and a degree of control at a relatively higher scale, the realities of refugee camp construction, in terms of the lack of ownership of land on the part of the refugees, the degree to which they are forced to contribute 'sweat-equity' to the shelter-construction process (usually having to construct entire shelters on their own), as well as the skeletal nature of what would pass as planning ordinances or enforcement, means that questions of scales of control in the design become much more acute.

5. It has already been alluded to, in point no. 1 above, that many of the standardised guidelines or elements used in the current design of refugee camps, have been borrowed or adapted on an ad hoc basis from other fields, but it is also worthwhile noting the general manner in which this borrowing has been done, and the range of sources from which this borrowing has been made. It has only been since 2002 that there has been any movement towards creating any part of a distinct, tailor-made text-vocabulary for the shelter sector (Corsellis and Vitale 2005:9). Otherwise, the majority of numeric guidelines originate from public health or sanitation sectors, and the elements and vocabulary of the designs of the templates themselves are often borrowed from urban planning theories of previous decades: the designs for refugee camp layouts are likely to provide atavistic parallels to theories which have since been superceded in other forms of planning or construction. In the available literature, there appears to be neither a full awareness of what such borrowings were made, or the original theories (or subsequent critiques of those theories) which provided the precursors for the camp designs, or the possible implications for such specific borrowings: again, the sector relies upon a kind of justification through inheritance, backed up in practice by heuristic judgments of what works well enough, on the part of field practitioners. At base, there is still no comprehensive and agreed-upon vocabulary, textural or graphic, which is distinct to the sector and which could be used reliably to further understanding of the ongoing problems facing camp design.

6. As has been alluded to in the final sentences concerning what makes a good camp in the previous section of this chapter, above, the attention to locating camps within their specific surroundings have always been inadequate. This is more than just a matter of, 'the urgency of humanitarian concerns during refugee and IDP movements means environmental considerations are not always taken into account." (UNEP 2006:1) – it may be in part due to the tendency towards guidelines and graphics tools which have been simplified for easy understanding, and towards universalist solutions which would question or discard local specifics. But the net result is that although texts like the *Handbook for Emergencies*, the Sphere *Standards* or *Transitional Settlements: Displaced Populations* all state that both environmental impact and relations with the host communities must be taken into consideration when planning a camp, none of them are free from accusations of not adequately describing how all these elements could be treated in a holistic manner. *Transitional Settlements: Displaced Populations* does the best, as the relevant sections on "livelihoods:

> profiling local and displaced populations" and "resources: local environmental carrying capacities" are on adjacent pages of the section on "transit and camps" (Corsellis and Vitale 2005:351, 353). But the relevant chapter (Chapter 12, "Site selection, planning and shelter") of the *Handbook for Emergencies* does not have a separate section on the economic impact of a camp upon the host community (although it does counsel for the negotiation of land and resources between the camp and host community (UNHCR 2007a:211)), and the section on "Environmental considerations" comes as paragraph 55 in the chapter (out of a total of 92 paragraphs), and can hardly claim to be foremost in the considerations. More tellingly, there is not one set of guidelines or template for camp design, which contains a single graphic which shows the relationship between a camp, and its geographical surroundings. In the case of the extension to Ifo camp at Ifo II, the fact that geographical features were not included in the first designs of the camp forced the design to undergo unanticipated adaptive changes on the ground on the part of those who were implementing the site plan. Furthermore, although all of the major guidelines state that there should be a consideration for post-use of the camp, there are no guidelines which describe scenarios for the cycle of increasing engagement between a camp and its host communities, and the disengagement during and after the closure of the camp, as part of a systematic and holistic goal of durable solutions for all affected. However, without considering the camp in its context, there is no way to create a true examination of the entire range of the costs (and benefits) of the camp and its design.

Whilst a reliance upon these six points may entail an initial negative definition of what constitutes a good design of a camp, and do so only in terms of removing or rectifying these gaps, this still has clear value as a baseline. This will be augmented by an emerging definition over Chapters 5 and 6, of what constitutes a good design specifically for the camp of Ifo.

* * * *

Delineation of a methodology of research

This thesis will examine the development of the design of refugee camps, taking into account the institutional and other constraints which have operated upon the design, and the specific ways in which the design has altered in response to various influences. A comparison will then be made between the stresses identified from an examination of the formal global design type, and a case study of a refugee camp as an implementation of that design, as a means of investigating the stresses generally delineated in the section above. The assumption throughout the thesis will be that the critical issue with the design of refugee camps is not the bare physical performance (although in live-and-death emergency situations this obviously retains its primacy) but the social performance. The narrative of the following chapters will be focused by a framework based upon analysis of the relationships between the Morphology of refugee camps, the Operations associated with the camp, and the Performance of the camp, and in doing so then propose answers to the improvement of the condition described through the gaps enumerated above.

The majority of the gaps in refugee camp design described in this chapter in the section above, become manifest in the way in the relationships between the Morphology, the Operations, and the Performance of the camp. In short, the design, or the Morphology of any given camp, should only be judged by the influence it may have upon the ways in which the inhabitants move through and use the variety of spaces, that is the user Operations within and surrounding the camp, and how that results in an assessable Performance in social terms. However, because the issue at hand is precisely the failure of the current design type to take these performative issues into account, this thesis will attempt to create a framework for adapting the Morphology-Operations-Performance methodology to the context of research into the design of refugee camps.

How can Morphology be defined for refugee camps?

In the majority of refugee camps, including Ifo, the refugee camp which will be used as the case study for this thesis, a large proportion of the changes in the physical environment are a result of incremental actions undertaken on a quotidian basis by the refugees themselves. In comparison with 'normal' cities, there are few if any refugee camps which have had streets with hardened surfaces for instance, or where engineering has been deployed in order to create different grades or heights of streetscape, with pavements or set-backs. This is not to say that the morphology of refugee camps is not complex, nor that the streets are not at different grades – they often may be, but those differences in grade may well have been created by the daily foot-traffic, and the rains, or initiated by digging small holes in the ground to provide mud to build a shelter. The design created by the humanitarian organisations has a minimal vocabulary to describe the camp morphology, and is missing in particular a vocabulary which can adequately describe that large portion of the morphology which is created through the inhabitation by the refugees.

In Chapter 4, this thesis will examine the development of the morphology of the refugee camp as a global design type, and will examine the development of the various elements which make up the morphology, and give some explanations as to the influences upon this design process, and the gaps in the results. Chapter 1 of this thesis already describes a morphology of Ifo camp which is more complex than can be adequately depicted by the vocabulary of the global design type, and it is this complexity of morphological elements which will form part of the case study of Ifo in Chapter 5. In particular, Chapter 5 will include an examination of the ways in which inhabitation of the camp contributes to a cycle of relationships, whereby the performance stresses of the camp influence the operations of the refugees within the camp, which in turn incrementally alter the morphology. The description of these relationships will then be extended through an exercise in scenario-building for the future of Ifo, in Chapter 6.

How can Operations be defined for refugee camps?

Chapter 4 will describe in more detail the extent to which the various guidelines for refugee camp design take into account the operations of a camp, in terms of how the inhabitants of a camp move through and use the various spaces in and around a camp, and the interactions of

those activities, and their results. Where the guidelines have been concerned with these issues it has typically been in terms of matters of fundamental life-and-death: enabling sufficient access to water points, or ensuring personal security around latrine areas. More recently, there have been statements of general principle in some guidelines, that the morphology of the camp should in some way support actions connected to the development of livelihoods for the refugees. However, apart from the continued partition of camps into residential and non-residential areas, there is little indication of *how* exactly these general principles of operations (ensuring of security, support of livelihoods opportunities) are supposed to be achieved in reality.

A number of directions of further investigation in Chapter 5 will enhance this understanding. Firstly, there will be an investigation into whether there are fundamental differences in how the spaces are used by different categories of population: women, men, children, those from minority groups. Secondly, there will be an investigation into whether the operations in one type of space can be said to have an influence upon the operations or performance of another, connected space, with regards to limiting access to certain types of space, or of connections which do not necessarily entail physical movement, such as sightlines between spaces. Thirdly, there will be an attempt to enhance the categories of uses of spaces, with regards to the more 'directed' uses named in the design guidelines, and with regards to any categories of 'undirected' activities. Attention will also be paid to those sets of activities which then influence the morphology of the camp itself, including the incremental defining of road directions through daily foot traffic, the creation of small-scale social centres through the setting up of informal market stalls, or the planting of live-fencing and other vegetation within the individual shelter plots.

How can Performance be defined for refugee camps?

A summarisation of a collective institutional definition of what constitutes a good camp, was given in this chapter, in the section above, as well as an explication of six major gaps in the current design of camps, with a particular concern for the influence which the camp might have upon the social existence of the refugees, the host communities, the environment, and at a further remove, the societies to which the refugees may one day return. However, in a settlement as large and as complex as a refugee camp, there may need to be created a number of smaller-scale performance categories by which to assess the camp, the complete set of which would indicate the performance of the camp as whole. The list of six gaps given in the section above will be used as the initial sets of benchmarks, but Chapter 5 will include an exploration of whether these six gaps have different values for different parts of the refugee population. Attention will also be paid to the performance of the camp with regards to the host communities and to the communities to which all or a portion of the camp may return, in their country of origin, in order to give proposals for some substantiation to the general principles of being a good camp provided by humanitarian organisations' guidelines.

Within this analytic framework, the crux of the research lies in exploring the ways in which a global design is implemented on the ground, in specific instances, and interacts with the cultural and environmental context over a period of time. Given the fact that the construction of camps in reality comes as an interaction between a design type (albeit with the major gaps

and flaws outlined in the section above) imposed at a larger scale from above, and the adaptation or appropriation of that design from the bottom up on the part of the refugees, the methodology for investigating the relationship between those two forces will have to make an account of both of them, and of the historical and proximate influences which shape them. As those who exercise the bottom-up half of the equation leave few documents to indicate their own assessments or intentions (another large gap in any study of refugee camp design), then the built environment which they themselves have created by imposition upon the larger framework, must stand as its testimony, as well as the manifestation of those intentions. Furthermore, in the specific case of refugee camps, it would appear that the variables being researched, are often enmeshed, rather than independent, and must be observed as a whole. This then leaves a hybrid approach to the descriptive element of the thesis, integrating a case-study approach.

On the one hand, there will be an investigation in Chapter 4 of this thesis, of the development of the theories of design of camps, and to what degree they may be seen to be systematic, and with what resultant gaps, and whilst the theories themselves have been *partially* tested through observation in the field, the sections of the thesis which investigates these developments will nevertheless concentrate upon their coherence as systems, and the implicit normative values contained within the revisions of those systems. Once this has been undertaken, then an example of the current version of camp design will be examined as an applied system, using the case study of Ifo in Chapter 5, to investigate their effects upon a specific location and population, and whether the design system in question can be realised in reality (or what adaptations it goes through in one instance, in order to be realised), beyond any internal or formal systemic flaws which may have been discovered in the previous part. Thus, through the two parts of the thesis, the design as a whole shall be tested in terms of its strengths and formal coherence, and its practical application: the series of questions which began this chapter, shall form in some part, the bridge between the two.

There are various reasons for choosing one single case study, rather than a plurality of case studies, to support the argument of this thesis, and for choosing Ifo and Dadaab in particular. As a matter of expediency (and leniency upon the reader of this thesis), it must first be asked what might be the minimum set of refugee camps the study of which could provide adequate testing of the initial hypothesis – no small question, given the 657 camps currently in existence in the UNHCR-based *catalogue raisonée,* the considerable number of IDP camps which fall outside this list, and the far greater number of camps which have existed in the past, and which might offer some evidence of their existence. However, the main focus of the investigation is to examine the design system for refugee camps through the relationship between (i) the construction of camps on the ground, and (ii) an institutional prescriptive design type which remains remarkably singular and consistent across the world. As the design is to a very great extent globally unified, and as the specific situations into which such a template can be placed are in theory infinite, it would suffice for the investigation to juxtapose the universal design system with only one camp, in order to indicate the stresses generally, at the point when the design crosses over from the ideal to the actual. It is the contention of this thesis, that continued comparisons with a plurality of camps, whilst potentially illuminating in terms of describing the lives of those camps, would not *necessarily* offer significant further insights into the value of the prevalent design system

where the hypothesis is that the design system's central failings are in the lack of consideration of performance vis-à-vis various forms of extension (extension over time, extension beyond the formal geographical borders of the camp, extension of scale towards the micro-level), and that the primary limit on those extensions, is the point at which the design system plan meets any differentiated influence whilst being actualised on the ground. Although the repetition of such investigations with other camps may be of interest on other grounds, in order to test the hypotheses of this thesis, once the example of any one camp has been used to indicate the condition and effects of the design system as it is interpreted in reality, then the repetition through further permeations of real camps is unnecessary.

The selection of Ifo specifically as a case study, can not be justified in terms of it occupying a mathematically-determined position as the 'typical' refugee camp. There are in any case far too many possible quantifier categories to be able to claim that any one camp fulfills the exact average score on all categories at once. Whichever camp or camps could be chosen, the choice would have to be justified in terms of being adequate, rather than being the single perfect example of a genus. Nevertheless, once it has been ascertained in the *Catalogue Raisonée*, that Ifo does not occupy any extreme position in terms of either population or longevity, and that its representativeness is not questioned in this regard, then there is just as much reason to justify the selection of Ifo on the basis of those areas where it can instead claim some degree of exceptionality. In short, Ifo is adequately exceptional to a degree whereby its investigation can heighten the contrasts between the camp as a design and the camp as a reality, but it is not so extremely exceptional as to prevent the investigation in practical terms, or to render the investigation formally irrelevant, or to threaten the actual existence of the camp. In terms of the major external influences upon the camp for instance, the personal security threat is significant enough that it can be investigated as part of the thesis, but it is not so extreme as to make observational access to the camp difficult; there are grave issues with the relationship between Ifo and its surrounding environment, and sufficient enough to highlight those issues as part of the investigation, but not sufficient enough to propel a closure or movement of the camp which would render the entire issue moot. Within the camp, the issues of cumulative overcrowding is sufficient to force the humanitarian organisations to create new extensions of the camp, but not sufficient (yet) to result in a catastrophe so great as to irreparably damage the built and social fabrics to the degree to which Ifo could not longer stand as a suitable case study for the thesis. In the historical context, the camp is sufficiently old so that there are a series of layers of artifacts readable in the built environment, but the camp is not so old as to have the majority of them erased or subsumed under the newest layers. It is this combination of general positioning within the mass of refugee camps in terms of quantitative aspects, whilst containing key areas of sufficiently significant exceptionality in qualitative areas, which finally justifies Ifo as being appropriate as a case study subject for this thesis.

* * * *

The final question which was posed at the start of this chapter concerned the degree to which it might be appropriate for this thesis to then expand beyond the descriptive, and take on a second, normative or prescriptive aspect. Whether there should be a prescriptive element or not in the first place is easier to answer, on two counts. Firstly, there is the humanitarian

imperative, or the subjective imperative to ensure that the work of this thesis does contribute to the support of a large and extremely vulnerable population. But secondly, as the design systems which have been created through the extant literature thus far are themselves overwhelmingly prescriptive in intent, then by attempting a prescriptive element to this thesis, a further test of the evolved system as a collection of prescriptions, can be made.

The question then concerns the level and the extent to which prescriptive elements might be appropriate, and what shape they might take. As should be obvious by now, it is one of the contentions of this thesis, that universal solutions and universal templates, are doomed to failure, and so any effort to prescribe somehow better universally-applicable tools would also suffer the same fate. Instead, this thesis shall contain the development of a design tool which is essentially adaptive, and which takes as its starting point the inclusion of performance analysis as part of a cycle of intervention. The final test of the tool will not be the width of scope of its immediate applicability, but the degree to which it can be adapted to other situations, whilst still retaining its utility.

* * * *

This chapter as described the scope of research for this thesis, in terms of the use of a general methodology for investigating the morphology, operation and performance of refugee camps, and for developing a design tool with which to address some of the stresses which had become apparent in the description of Ifo camp in Chapter 1.

Chapter Three following, describes the development of the institutional and legal frameworks which give the formal limits to the design of refugee camps, in terms of refugee laws and conventions. This is followed by Chapter Four which then provides a history of the development of the design of the camps in terms of the critical literature, guidelines, emerging design types and other texts, as a history of ideas which have been partially tested by observational experiment, but which have always had external influences, including both the brute political and the cross-pollination of ideas from other disciplines. This will then be followed by the case study of Ifo, in Chapter Five, which will be divided into two sub-sections, dealing with the history from 1991 to 2006, and then from 2006 to 2007, respectively. Chapter Six then offers the prescriptive element of the thesis, again divided into two main sub-sections. The first section will concentrate upon developing frameworks for mapping, and evaluation of a camp. The second section will make some suggestions for the further development of a specific set of text and graphic vocabulary designed specifically for reference to refugee camps, with examples, although cognisant of the fact that these have been extrapolated from a limited set of information. There will then follow the annexes, including the *Catalogue Raisonée* of the camps extant at the time of the thesis, and a full bibliography.

* * * *

Chapter 3. Institutional Constraints: Refugee Law and Planned Settlements

In the previous chapter, a scope of research was delineated, in terms of the definition of the main terms to be employed, the Morphology-Operations-Performance methodology of analysis to be used, the main issues to be explored in terms of gaps in the current design of camps, and the method for developing a design tool for refugee camps as a response to the research. Chapter 3 will explore the institutional constraints upon the design as it currently exists, and upon any attempt to develop a design tool for refugee camps. A second section will then explore how these frameworks of institutional constraints apply specifically to the case of Ifo. In doing so, it will also contain the start of the rationale for definition of the time-frame for the investigation of this thesis, making an argument for limiting the investigations of this thesis to points following 1948.

* * * *

Refugee law as a constraint

This chapter examines the ways in which refugee law frameworks act as the overarching constraint on the design of refugee camps, by ultimately defining who will inhabit any camp, what the constraints might be on the location of the camp, what would be the conditions within the camp, what is the nature of 'ownership' of the camp, and what sort of lives the inhabitants of the camp might be expected to lead.

There is a stereotypical image of refugee camps often being somehow beyond the law – isolated in remote desert areas, allocated to 'extra-judicial' islands or enclaves, controlled by non-civil martial regulation, or lying in a vacuum created by a failed state. However, although there have been many instances which have reached the international media, of regimes of control of refugees in camps, either by host governments or by armed militias operating within the camps, which have seriously abrogated the human rights of the refugee inhabitants, it would be a rare case where there has been absolutely no regime of control whatsoever. And whilst none of the elements of what is now known as refugee law pose the same detail of regulation on the physical structure of a camp or settlement which would be present in a normal town's planning and zoning ordinances, nevertheless, there are a significant proportion of elements of refugee law which can impinge upon the existence and nature of refugee camps. The general purpose of this section, is not to concentrate upon weighing in judgment the different theories of refugee law, but to demonstrate the connections which have existed between prevailing international and national refugee law policies, and which are likely to exist in the foreseeable future. However, the various pros and cons, and the quality and degree of rights afforded to refugees under various different policies will be indicated as the discussion progresses. This will then be followed by a brief examination of how those legal frameworks can formally shape the physical environment of refugee camps as depicted in type given by the major texts of guidelines, and then a list of how the different levels of legal frameworks are present in Ifo, although a fuller discussion of their effects upon the design of Ifo will be contained within Chapter 5.

A framework of levels of refugee law

Despite the statements at the start of the preceding paragraph, it also fair to say that there is no unified body of international refugee law as such. However, there is a complex, overlapping hierarchy of conventions and policies which have been developed over the last 60 years, and which often govern the movements of refugees, and indeed govern the definition of who qualifies as a refugee itself. Da Costa, in the only published attempt to create such a categorisation, has noted a list of nine such possible frameworks (da Costa 2006:15-20): (1) international law and regional instruments, (2) country domestic laws and regulations, (3) refugee camp by-laws, (4) refugee's customary or traditional rules, (5) gender roles and expectations, (6) laws and regulations developed by government or political parties in exile, (7) religious laws, (8) internal committee rules, and (9) codes of conduct. However, this list of nine frameworks has been created in consideration of positive rights of refugees, and in consideration of a set of processes concerned for the most part with dispute resolution (da Costa 2006:1), and frameworks for guiding decisions made by courts or other adjudicating bodies. Whilst da Costa's list of frameworks is adequate for such instances in general, and is capable of covering all instances of adjudication or dispute resolution in Ifo, it does not cover all frameworks for binding decisions made concerning site planning. This is because for the most part, decisions on site planning are not subject to open dispute, and remain within the realm of *legislative* rather than *judicial* frameworks. Therefore, in order to complete the list of all frameworks in which binding decisions of one sort or another are made concerning site planning in Dadaab, three more must be added. These are briefly as follows, but will be explicated in more detail in the final section of this chapter: (10) meetings attended jointly by representatives of humanitarian agencies, host community leaders, and representatives of the Kenyan civil service (host community-humanitarian agency meetings), (11) meetings either at the camp-level or sub-camp-level, attended jointly by representatives of humanitarian agencies, elected refugee leaders, members of the Kenyan police, and representatives of the Kenyan civil service (refugee leaders-humanitarian agency meetings), and (12) inter-agency meetings, usually in Dadaab, but also possibly convened in Nairobi, hosted by UNHCR, and attended by other humanitarian agencies.

Of the frameworks listed by da Costa, the first two would govern the existence of the planned camp itself, by dictating any constraints on the Humean concept of existence as defined by temporal duration, location, and physical dimension. The other seven possible frameworks, as well as the three added above for the purposes of this thesis, might not have the same force, and may not exist as codified written documents, but depending upon the situation, may certainly need to be accommodated in terms of preferred layout within the camp, along its boundaries, and in its physical relationship with surrounding host communities. For the remainder of the thesis, these frameworks will continue to be referred to collectively as "refugee law", although different frameworks or subsets of frameworks will be considered and referred to separately, as required.

In conducting an analysis of the relationship between refugee law and the physical state of camps, certain of the tensions which have had greater impact upon camp design can be most clearly illuminated if they are approached roughly in an order from macro to micro, starting with those emerging from international conventions, and the international or supranational

organisations which have or continue to play a role in influencing the direction of refugee law. There are a number of reasons for approaching the different possible frameworks in this manner. Firstly, even though the various conventions are based upon precepts of national sovereignty (see below), some of them pre-date the existence of many of the nations which have suffered the greatest refugee crises of the last fifty years. Second, these sets of instruments and implementing organisations have gone furthest in formulating the core definitions without which refugee law would be amorphous at best and empty at worst. Thirdly, being concerned mainly with the international scope of refugee crises, their stipulations are more likely to have universal, or at least regional scopes, and therefore will have already been implemented or referred to in any number of different situations. In contrast, the latter levels of laws listed above may only have specific applications, so that while the concept of making legal 'space' or legitimacy available for these levels to exist may be germane to a discussion of internationally-based frameworks, considerations of the details of specific examples of customary and traditional rules, may be better included as part of the specific case study of Ifo.

The history of the development of refugee law, 1948-2007

The main international conventions which govern refugee law, are the *Universal Declaration of Human Rights* of 1948, the United Nations *Convention Relating to the Status of Refugee* of 1951 (which marked the creation of the United Nations High Commissioner for Refugees, UNHCR), and its *Protocol* of 1967, and then the most important regional instrument to emerge thus far, the Organisation for African Unity's (OAU[23]) 1969 *Convention Governing the Specific Aspects of Refugee Problems in Africa*. It goes without saying that there had been cases of large-scale refugee movements prior to 1948 (for instance those of Greek refugees moving from Asia Minor in the early 1920s) and offices for refugees under the League of Nations, but it is the universality of the post-1948 instruments which mark them as a watershed. The limitations of all of these instruments are defined by questions of (i) what constitutes an international convention, (ii) what are the powers and responsibilities retained by the sovereign states which are the direct parties to the conventions (for it should be noted that refugees themselves are not party to any of the conventions concerning them), (iii) what are the definitions of 'refugee', specifically in relation to the refugee's country of origin, host country/ies, and the rights which might be contained within the legal person of the refugee, and (iv) what are the practical methods for the direction of the international organisation and agencies (for instance UNHCR) which are tasked with implementing parts of refugee law.

All of the conventions mentioned above, are between sovereign state parties, and like the United Nations and the Organisation for African Unity themselves, are based upon concepts of inviolable national integrity contained within discrete sovereign states. States are expected to uphold the international conventions to which they have become signatory, but there is a long history of states choosing not to do so, when an alternative course is seen as being in its own best interests, and whilst appeals can be lodged and diplomatic pressure exerted by other states, ultimately any state in abrogation of any aspect of an international convention, can hide behind the principle of non-intervention from other states. Therefore, with tenuous connections between the breaking of conventions and any possible sanctions, international

[23] Note that the OAU was formally dissolved in 2002, to be replaced by the African Union (AU).

conventions are non-binding in practicality. Furthermore, there are a number of states which have refused to become parties to these conventions, and against whom even the sanction of public censure is diminished.

Having said that, states usually do not want to be seen to be consistently acting in bad faith by entering into international conventions too lightly, and therefore international conventions are usually the product of an extreme caution on all sides, and of the specific history and projections into the future of national policies which states bring with them to the negotiating table. The 1951 *Convention*, in relation to which all other considerations on refugee law have had to subsequently define themselves, was one such a product of its era. The creation of the *Convention*, and of the office of the High Commissioner for Refugees who would oversee the implementation of the *Convention*, was done in an almost entirely European context (the majority of African nations, for instance, would not gain their independence for at least another decade, and the only African country which had a delegate at the conference for the *Convention* was Egypt). Indeed, until the revisions of the 1967 *Protocol* made the provisions temporarily and geographically universal, the Convention and the UNHCR were formally hobbled to having their mandates limited to situations arising from events leading back prior to 1951, and whereby governments could restrict the definition of 'refugee' to one from a European country (UNHCR 1951:1:B(1)(a) and (b), Skran 1992:14). The *Convention* was promulgated in response to the refugee flows happening in Europe as a result of the ending of World War II, and the start of the Cold War.

Although three possible solutions came to be listed by UNHCR as being lasting solutions to refugee situations, namely repatriation, resettlement in a third country, and integration into the country of asylum, during the 1950s, and indeed up to some point in the late 1970s, because of the Eastern Block's (whose countries were not signatories) insistence upon repatriation of its nationals, those countries from the Western Block (most of whom were signatories) publicly favoured resettlement or integration. The central pillar of refugee rights, as defined in the *Convention*, was the right not to be forcibly returned (*refoulement*), and as noted by Takahashi, there is no mention in the *Convention* of voluntary repatriation (the acceptable alternative to refoulement) (Takahashi 1997:597), and indeed Article 34 of the *Convention* states that, "The Contracting States shall as far as possible facilitate the assimilation and naturalization of refugees." Thus, under this description, although the then High Commissioner, Auguste Lindt, campaigned during the 1950s to close refugee camps in Europe (Read 1962:27), and although the last camps for post-WWII refugees did not close until 1965 (UNHCR 1971:37), the *Convention* and the offices of the UNHCR were seen as primarily concerned with the facilitating of asylum, protection and long-term integration of refugees in Europe: there might be some need of transit camps, but importantly, these were seen as way stations towards integration, so that the emphasis amongst host countries could remain on the building of permanent housing, inseparable from most other post-war construction programmes, and where all other forms of social, educational and legal integration were on paper at least, geared towards creating lasting solutions grafted into the physicality of the host country. Even at the relatively late point of 1971, the office of the High Commissioner would be writing that, "present-day aid is designed to promote a rapid integration of the refugees as active members into new communities." (UNHCR 1971:37).

Thus at its inception, the general thrust of refugee law, as practically applied, would be seen as having little contemporary impact on the existence or construction of camps.

However, merely because there was, in western Europe at least, a general consensus towards the application of the *Convention* and the works of the UNHCR during the late 1950s and early 1960s, did not mean that the written articles of the *Convention* were legally clear, consistent or watertight, or would not be vulnerable to reinterpretation, once political realities had changed. In fact, there are a number of provisos in the *Convention*, written in 1950, which have acted somewhat as legal time-bombs, inert during the first years of the *Convention*'s existence, but increasingly central to all arguments on refugee rights, wider refugee policy, and also on the nature of refugee camps as well.

The first of these crucial components, comes not from the *Convention* itself, but from its close predecessor, the 1948 *United Nations Declaration of Human Rights*, on a subject which the *Convention* itself neglects to consider, and that is the right to asylum. Whilst the *Convention*, primarily concerned with the role of the states, does state in its preamble that it is under consideration of the *Declaration of Human Rights*, it merely encourages states to proceed with assimilation for refugees (Article 34) without using any stronger language. The *Declaration of Human Rights* however, states that, "everyone has the right to seek and enjoy in other countries asylum from persecution." (United Nations 1948:14(1)) Crucially, as observed by Skran and others (Skran 1992:16), this falls short though, of guaranteeing that those seeking asylum will be granted it, and merely that they have the right to petition for it.

The second lies in the definition itself of who is a refugee. According to the *Convention*, as well as the initial (up until 1967) geographical and temporal limitations noted above, a refugee was also defined as someone who was,

> Owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, member of a particular social group or political opinion, is outside the country of his nationality, and is unable, or owing to such fear, unwilling to avail himself of the protection of that country… (UNHCR 1951:1:A(2))

The third such component, concerns the duration of status of refugees, and is companion to the second one, in its limitation of the person as refugee, and that is the definition of the duration that a refugee may claim his or her status. Article 1:C gives six different possibilities for the ceasing of refugee status in application to any one person. The first four of these broadly concern those who have returned to their country of origin, or who have found full naturalisation in a different country. But the last two concern those whose status as refugees is not longer applicable because the causes of their well-founded fear as mentioned in Article 1:A (2) have ceased to exist.

The fourth, is less explicit in the *Convention*, and may need to be understood through subsequent practical interpretations, and that is the classification of refugees according to group, whether ethnic, social, political or other. During the large-scale movements of displaced people immediately following WWII, refugee reception centres found it hard to assess each asylum claimant on his or her own merits, and therefore, if the person was able to

offer proof of membership of an identified persecuted group, then this was usually deemed sufficient. The continued reliance, in the vast majority of cases, throughout the following decades, upon identification and asylum through group membership, may well have contributed in some quarters, to seeing shelter and settlement solutions for refugees as mass group solutions as well.

The last major component in this list of points of contention, may seem initially trivial in its bureaucratic concerns, in comparison with the rights-oriented clauses above, but which has in its own way generated the same magnitude of debate in following years, and that is the mandate, scope and funding of the UNHCR itself. As an extension of the general caution to which states have approached international conventions, and which was evident in the wording of the parts of Article 1 of the *Convention* above, there were a number of states in 1951, who preferred the UNHCR to have relatively little independence, and therefore moved against the UNHCR having large standing funds, forcing it to continually fund-raise in response to specific emergencies (Loescher 2001:7-8, 43-45). With these limitations, the UNHCR has had to act in a manner which not only attempts to hold true to its humanitarian principles, but which needs to have a large component of pragmatism in order to ensure its very existence.

Therefore, although the points above might have had little effect during a seemingly intractable stand-off across Europe during the early stages of the Cold War, together they combined to ensure that as the crux of the definition of refugee status, the refugee would always have hanging over him or her, the lack of guarantee of permanency of status, and the lack of guarantee of a progress of status towards one of permanence – and that refugee camps, and the forms of their existence, would necessarily have to incorporate that threat of impermanence or of cessation of legal status. Those who claimed asylum and protection and those who would limit those claims would stand off over specific and shifting definitions of "fear of persecution" versus the "well-foundedness" of such fears, with the state holding the trump card in reserving the right to decide whether the question was rendered moot in any case, by the cessation of the causes behind the claim for asylum. The refugee was protected by the 'negative' (Nicholson and Twomey 1999:3) right not to be returned against his wishes, but which could only be claimed as a right upon proof that his or her fear was "well-founded" and only on sufferance for as long as the host country judged the causes for such fear to continue to exist in the country of origin. At the same time, apart from the possibility of donor countries being able to direct the UNHCR's programmes towards or away from certain situations depending upon the donors' own political interests, the UNHCR's mandate was also formally limited by the rights of sovereignty, from acting or intervening to assist or protect those who may be victims of persecution, but who remain within their own national borders, or those whose plight does not meet the definition of refugee status in the *Convention* (e.g. where their movement has also been caused in part by natural disaster).

However, for the most part, during the period from 1951, until at least the movements of the Vietnamese Boat People (1978-81), integration and resettlement away from the country of origin, was given priority, and repatriation was kept as more of a formal option, but considered as having few practical applications. As mentioned above, the Cold War meant that repatriation was politically unpalatable in western Europe, and to a degree in north

America, whilst many sub-Saharan African nations conceived of resettlement policies (whilst not perhaps full integration policies) as a way of (a) drawing attention to the ongoing conflicts during that era against remaining colonialist regimes or South Africa, and (b) boosting domestic economies by providing agricultural communities to under-populated rural areas. The Organisation of African Unity (OAU) *Convention Governing the Specific Aspects of Refugee Problems in Africa* (1969), the most significant of all of the subsequent regional treaties concerning refugees, underscored the emphasis on resettlement rather than repatriation, by adding a second definition of refugee status to that borrowed from the UN *Convention*:

> The term "refugee" shall also apply to everyone who, owing to external aggression, occupation, foreign domination, or events seriously disturbing public order in either part or whole of his country of origin or nationality, is compelled to leave his place of habitual residence in order to seek refuge in another place outside his country of origin or nationality. (OAU 1969:1.2)

Although the OAU *Convention* greatly expands on the provisions which must be made for refugees who wish to voluntarily repatriate (OAU 1969:5), it also states that,

> Member States of the OAU shall use their best endeavours consistent with their respective legislations to receive refugees and to secure the settlement of those refugees who, for well-founded reasons, are unable or unwilling to return to their country of origin or nationality. (OAU 1969:2.1)

Therefore, with these widened definitions of whom might be eligible, and emphasis seemingly reconfirmed upon resettlement, major regional conventions during that era in the same way did not alter the relationship between refugee law and the design of camps. Nevertheless, during the 1970s, and increasingly in the 1980s, a number of factors emerged which put pressure on this status quo, and as a result of which many of the major actors started to re-evaluate and redirect their refugee policies, and reinterpret refugee law.

The first of these factors was the sheer increase in numbers of refugees over the years. There are differing sets of numbers as to how many refugees there have been from year to year since the 1960s, in part because actors like the UNHCR have changed the definition of whom they hold as their 'populations of concern', but whichever set of numbers is used, the difference in totals from one decade to the next is striking. During the late 1950s, the then UNHCR High Commissioner, August Lindt, campaigned to reduce the total number of European refugees still in camps, from 69 000 people in 1957, to 15 200 people in 1960 (Read 1962:27). In contrast, the number of officially recognised refugees in Africa only, according to UNRISD, rose from 100 000 in 1961, to 1 million in 1971, to 3.5 million in 1981 (Christensen 1985:23). A continuation of that graph now has, in 2006, 15 million refugees worldwide[24], and an approximate further 20 million people which the UNHCR lists as 'of concern' (including Internally Displaced Persons, and returnees) (UNHCR 2006). By the mid-1980s, the numbers of refugees in camps on the Thai-Cambodia border might

[24] Refer back to the opening paragraphs of Chapter 2, for a discussion on the differing estimates of world-wide refugee totals.

fluctuate between 200 000 and 400 000 (Heininger 1997:118); a decade later, approximately 500 000 would pour across the Rwandan borders in just two or three weeks.

Secondly, there was a growing awareness of the lengthening of 'protracted refugee situations'. Despite the fact that during the 1970s, in some parts of Africa, notably Tanzania, "practically no long-term relief camps had been established; and of the majority [of refugees] accommodated in the rural areas, only about one third were being settled in organised settlements," (Christensen 1985:33) by the 1990s and the 2000s, the situation had been reversed, with Kaiser noting that,

> Infamous examples [of protracted refugee situations] include the 540 000 Burundi refugees in Tanzania, 300 000 Somali refugees in Djibouti, Ethiopia, Kenya [the larger part being those in Dadaab] and Yemen, and 460 000 Sudanese refugees in Central African Republic (CAR), Chad, DRC, Ethiopia, Kenya and Uganda. (Kaiser 2005:351)

Meanwhile, the UNHCR had signalled its concern by publishing specific documents on protracted refugee situations (mentioned previously in Chapter 2), in which they admit that the average duration of major refugee situations, "has increased from nine years in 1993 to 17 years at the end of 2003." (UNHCR 2004b:2)

Thirdly, there has been a marked increase in the numbers of refugees who travel longer distances, often to economically developed countries in other continents, in order to make their claims for asylum. According to Loescher, "the number of asylum applications in the West rose from 95 000 in 1983, to about 548 000 in 1990." (Loescher 1992:3) These totals swamped the numbers of places which had been assigned for refugee resettlement in third countries during previous years. As noted by Troeller, "in 1990, the UNHCR Resettlement Service forecast annual resettlement needs [i.e. places offered in host countries] of nearly 150 000… The 150 000 places required for resettlement represented 1% of the then 15 million global refugee population under UNHCR's protection." (Troeller 2002:88) Particularly after the early 1980s, this coincided with cycles of rising unemployment and economic insecurity within many of the traditional resettlement host countries in the West, and a tightening of restrictions upon immigration in general (Skran 1992:13).

In acknowledgement that the prevailing policies of integration and resettlement were not coping with the refugee situations at hand, in 1985, the UNHCR High Commissioner at that point, Jean-Pierre Hocke, received the backing of the UNHCR executive committee for considering repatriation as the 'only viable alternative' to then current situations (UNHCR 1985, Loescher 2001:12, 251). Although this is the first point that the change in UNHCR policy was publicly declared, other unpublished documents from a year or more previous, already clearly state that voluntary repatriation is the "most desirable" durable solution (UNHCR 1984:3.2:2). Hocke's successor, Sadako Ogata, continued that change of course, to declare in 1991, that the 1990s would be the "decade of voluntary repatriation" (Loescher 2001:280).

Since that point, the pressures towards implementing voluntary repatriation as *the* preferred 'durable solution', have only increased; Western countries, particularly since September 11th, 2001, have cited national security for ever more restrictive assessment policies of asylum applications, and have been ever more inclined to see asylum claimants from developing countries as those with one eye towards non-forced, economic migration. At the same time, even some African countries which have traditionally been more open to refugees, have at one point or another closed their borders, in abrogation of their responsibilities under both the UNHCR and more explicitly the OAU *Conventions* (Okoth-Obbo 2000:7). As explicated below, this includes the case of the government of Kenya, with regards to the Somali refugees in Dadaab. The change in policy has had some success under its own terms, with Loescher noting that, "according to UNHCR, from 1991 to the beginning of 1996, more than 9 million refugees repatriated, a substantial increase over the period from 1985 to 1990 when about 1.2 million refugees repatriated," (Loescher 2001:321) and Black stating that, "It is estimated that up to 12 million refugees have returned to their countries of origin during the 1990s, either independently or under organised programmes." (Black 1999:3)

Concurrently with this, the UNHCR has also refashioned its mandate in another direction, to expand its areas of concern and it missions, to include those not specified in its charter, or in the *Convention*; those who have been displaced within their own country, those who have recently repatriated but who are still deemed unsettled, or those whose homes and livelihoods have been hit by major natural disasters. In all these cases, the UNHCR and the donor governments who back it, have attempted to proactively address what they see as the root causes of population displacements, or to try to contain them in their country of origin, with attempts to place greater responsibility upon the country of origin rather than the country of asylum, partially in pragmatic acknowledgement of the worries of many African states, of the ethnic imbalances, population movements, environmental destruction and the militarisation of camps which have contributed so much to their own instability in recent years.

Since Ogata's declaration of the 'decade of voluntary repatriation', there has been much debate about the human-rights ramifications of these changes in policy and in interpretation of the law. Depending upon the author's institutional and political standpoint, these changes are either the products of an uncaring world, and the cause of mass violations of human rights, or else the best way possible to involve countries of origin, countries of asylum, donor countries and international agencies in attacking the root causes of mass forced migration, and in recognition of the fact that the majority of refugees who are interviewed on the subject, express a desire to return to their original lands, once it is safe to do so.

In practice, the truth may well lie somewhere in between the above extremes of the debate. As testified by the increased numbers of people seeking asylum in Western countries, refugees may prefer to stay in host countries, if there are greater economic opportunities to be had, whilst on the other hand, there is much testimony to the fact that numbers of refugees return to their homelands even before the fighting has fully ceased, or before the situation has been declared safe enough for international agencies to sponsor organised group repatriation. However, as long as the debate continues, and as long as so many of the international organisations emphasise voluntary repatriation at the first safe opportunity, and feel in many instances that they have moved beyond the 'why' of repatriation, to the 'how to', with the

publication of texts like UNHCR's *Handbook on Voluntary Repatriation: International Protection*, then there will remain a figurative sword of randomised impermanency which will hang over every camp, and over their inhabitants.

It is this impermanence without prediction which is the single most defining characteristic of camps, and the single most important consideration when considering the design of such camps. For whatever one's feelings about the rights, needs, wishes or duties of refugees to return to their homelands if and when it is safe to do so, there can hardly be a design of a camp which can ensure that there be no waste or hobbling of investment before or at the moment of closure. However well-integrated the planning for repatriation is with the planning for the camp, there will inevitably be greater or smaller amounts of wastage of resources, energy and human willpower.

On the one hand, following such guidelines as UNHCR's *Environmental Guidelines* (UNHCR 2005b), and conventional good practice of building infrastructure so that it may be turned over to the host communities upon decommissioning of the camp, the camp is expected to have as light a 'footprint' as possible. On the other hand, the camp will also be expected to have space to facilitate livelihoods, so that the refugees have capital and skills to take back home with them, and educational facilities, so that the children's education is interrupted as little as possible. Looming over all these requirements is the all too real concern that in the end the refugee camp may last for twenty years or a lifetime, with its placement and design geared towards impermanence and decommissionability, and instead blocking off avenues of development which would have been predicated upon an assumption of greater development *in situ*.

Despite the attention given to the publication of such texts as the *Handbook on Voluntary Repatriation* (UNHCR 1996) and the UN-sponsored *Pinheiro Principles* (COHRE 2006) on restitution of property, it is not the case that all guidelines on camp management have been forsaken in the effort to formalise voluntary repatriation solutions. According to one recent article on the Norwegian Refugee Council's web-site, 25% of the world's refugees and IDPs remain in camps (Elverland 2006:1), whilst UNHCR's list of refugees in camps, comes to 43% of the (more selective) global list of refugees of concern to that agency[25], and in recognition of this, UNHCR, the International Organisation for Migration, and NGOs such as the Norwegian Refugee Council (NRC), have published guidelines on camp management (NRC 2004).

If reference is made back to the nine levels of refugee law posited by da Costa at the start of this section, it will be obvious that only the first level, that of international law and regional instruments, is truly of a macro or universal level. All the others to a great degree, will remain specific to the host countries, the countries of origin, and in many case to the individual camp itself. As ways of describing how elements of refugee law may affect the general field of refugee camp design, these micro frameworks may be too narrowly focused or too specific: application of such frameworks from one camp or one refugee situation risks being inappropriate to anywhere else. However, despite these pitfalls, the agencies' fledgling

[25] See this thesis, Chapter 2, p.2.

camp management guidelines are being promulgated, and perhaps should be seen as an introductory catch-all for the lower levels of refugee law.

Because it is so cross-sectoral in scope, and because of the centrality of the organisation, the UNHCR *Handbook for Emergencies* should be included in this section, although its provisos on different levels of refugee law are for the most part very generalised. The *Handbook for Emergencies* does stipulate early on, that there should be participation in camp construction and in all administration of camp and refugee community affairs to the degree possible (UNHCR 2007:6-8). This is reiterated in the specific section on Site Selection, Planning and Shelter, where amongst the general principles are ones to, "Involve refugees in all phases of settlement and shelter planning and reconstruction" and "Use a bottom up planning approach, beginning with the smallest social units, preserving traditional social arrangements and structures as far as possible." (UNHCR 2007:213) The implementation of these principles can (and probably should) involve specific considerations for the design of the layout of the camp, the relationship between shelters, the number of shelters in a cluster, the relationship between shelters and non-residential areas, etc, but apart from generally staking a claim for community participation, does not offer further guidance on the structures of such participation, or on the principles upon which potentially conflicting elements of community participation might be resolved.

The much more comprehensive instrument which has been developed to encompass all of the micro levels of refugee law, and which has garnered the support of UNHCR during the writing and distribution, is NRC's *Camp Management Toolkit*. Over eighteen different chapters, it offers guidelines and sample documents for all aspects of camp management, from food distribution to child protection. Although there is a specific chapter on Camp Setup and Care and Maintenance of Camps, this for the most part borrows numerical guidelines from the UNHCR *Handbook*, and together with warnings in the previous Negotiations Prior to Camp Setup chapter (NRC 2004:19), posits refugee involvement as commencing after the location and design of the camp has been decided. It is the following chapter, Chapter 3, entitled Community Participation and Camp Committees, whose propositions have the greater unique potential impact. Firstly, there is a structure of sub-committees which follows the physical structure of a camp, that is, representatives from each cluster or block of shelters. There is some dodging of the chicken-and-egg question of whether the size of shelter clusters should adapt to the numbers to be represented by one committee or vice versa, but an occasion could be envisaged where the clusters or other sub-units of shelters would be adapted to the size of group reasonably represented by one person, according to observed norms in the communities of origin of the refugees.

Secondly, this chapter gives an example of an attempt to balance universalist norms of human rights, with respect for customary or traditional rules, with a narrative of the committee structure in Sierra Leone camps insisting on the one hand, upon exact parity of representation of men and women, and on the other hand adapting to the inclusion of a council of tribal elders. Again, the question of how to decide which structure would take precedence is ultimately avoided. In terms of how this might impact camp design, there is the rather trivial question of ensuring that there are the built structures necessary for all committees to meet, and the possible need for separate buildings for parallel administrative

structures. There may also be in theory, needs for the built environment, or the structure of shelter clusters, to run as a warp to the weft of the political structures, in order to support a balance of the different powers.

Lastly, in a chapter whose main body (without appendices) is only six pages long, two of the pages are devoted to community and committee participation in voluntary repatriation. Crucially, there are no similar sections devoted to the other original durable solutions from the 1951 *Convention*, integration or resettlement, or to such areas as camp economic development, or livelihoods promotion, or long-term land resources management, other than general principles of environmental protection.

Because the *Camp Management Toolkit* is ultimately a set of principles and exhortations, rather than anything which could carry the force and sanction of law, its place within any 'canon' of refugee law is somewhat anomalous. However, it does represent the interface between the universal principles which guide the UN and other international bodies, and on the other hand the specific cultural and other influences which do guide the administration of the camps, and which should guide the physical design choices for the camp as well. Nevertheless, without specific examples from case studies, any author is likely to be left in much the same position as those of the UNHCR *Handbook* or the *Camp Management Toolkit*, insisting upon the presence of such frameworks, without being able to make descriptions which would be of significance beyond a specific instance.

What remains missing, and could be rectified at the macro level, however, is a realisation not only that local practices will play a part in camp laws and management (and by extension, for this part of the discussion, in camp design as well), but a provision of tools to say (a) how this connection should be conceptualised, and (b) how evaluations should be conducted to arrive at the appropriate height to which local practices should reach along the macro-micro spectrum.

* * * *

In terms of the performance of camps, the influences deriving directly from the above frameworks are most obvious in three areas, all deriving from the first or second degrees of those frameworks, i.e. international instruments, or their corresponding national laws or regulations:

1. The lack of clear assurance of the right to permanent settlement on the part of the refugees. An overview of this impact has been given in Chapter 2, and indeed forms one of the main strands for much of this thesis. The general design type, and its development, will be given more detailed analysis in Chapter 4, but it bears stressing here once more, that this is the most fundamental of all the influences upon not just the actual designs as realised in the field, but upon the conventional template for universal use as well.

2. Despite the fact that refugees can now in some instances be granted asylum or refugee status as a class or group of people, the language of most of the relevant documents

refer to the refugee as an individual, and base whatever rights which are accorded to the refugee, on an individual-human-rights basis. As a development of that particular human-rights outlook, that bundle of rights now refers also to the right to dignity, a concept which has been taken up by organisational codes of conduct which are not specific to the shelter sector (ICRC 1994:10), as well as being declared as one of the over-arching principles in many of the sets of shelter guidelines (e.g. Corsellis and Vitale 2005:iii, 8). In many cases, this elides into a right to privacy, which expresses itself as a design layout predicated upon separated single-family shelters. The decision to base the overall layout on such shelter types is also influenced by considerations for public health, the construction materials available, and the cultural background of the refugees, but nevertheless, the interpretations of claims to legal rights to dignity are in this instance contributory rather than counter to the other influences on the choice of shelter type. This is not to say that such claims are misplaced, but to point out that they do have influences upon the design as a hole, to which later design decisions must adapt.

3. Following the lead of the original definition of the term refugee in the 1951 Convention, the rights of the refugee are often described in negative terms, to be defined as the rights to have an absence of, or distance from pain and fear. There is no document which explicitly asserts that the creators of shelter guidelines were consciously aware of this rather Hobbsean formulation of rights, or held any such interpretation foremost in their minds when they were selecting or creating their texts. However, at the very least, such a formulation coincidentally does nothing to impede the development of shelter guidelines which are in many instances also justified on the basis of negatively framed rationales, and which take as their foundations measures derived from public-health or security concerns, to remove, or avoid pain and fear as well. The origins of the minimum-standards approach to shelter guidelines, and the large-scale borrowings from the avoidive rationales of public-health fields, will be discussed in much greater detail in Chapter 4.

The application of the framework of refugee law to the case of Ifo

As well as the ways that refugee law frameworks influence the conventionally used type for camp design on a conceptual basis, as outlined directly above, there are also a number of ways in which the different frameworks of the law are present in Ifo and Dadaab in practical terms. Unlike the case of the universal template for a camp, where the first of the levels of law cited by da Costa above (international law and regional instruments) is by far the most important, in the case of Ifo specifically, most of the other eight levels have some impact upon the camp to some degree, as do the other three added by this thesis, which were named briefly in the second paragraph of this chapter. These can be described according to the numbering of da Costa list, followed by the three frameworks added for this thesis, below. With regards to the Morphology-Operations-Performance analytical framework, it should be said that the explicit concerns of most of the levels of refugee law as applied in Ifo, have a greater concern with the Morphology and then the Operations of the camp: concerns about the Performance of the camp often remain more implicit:

1. *International law and regional instruments*: Kenya is signatory to the 1951 *Convention* and the 1967 *Protocol*[26], as well as the OAU *Convention* (OAU 1969:15). However, the government of Kenya has interpreted the articles of these instruments in ways which has had a significant impact upon the size and location of the camp, if not on the internal design itself. The chief of these impacts, has been the decisions by the government of Kenya to restrict the lives of the refugees in terms of: entry into the country; movement or travel; employment; and access to land.

   Generally speaking, the wording of the 1951 *Convention* and the 1967 *Protocol* deliberately permit a degree of subjective interpretation of many of the principles, which allows national governments to opt out, based on their own judgments of their overriding interests. Typically, these are couched in phrases which are positive, but non-binding and non-imperative, and ambiguous or non-universal in the standards to which they are to be judged. As an example, Article 13 ("Movable and Immovable Property") states, "The Contracting States shall accord to a refugee treatment as favourable as possible and, in any event, not less favourable than that accorded to aliens generally in the same circumstances, as regards the acquisition of moveable and immovable property and other rights pertaining thereto…" (UNHCR 1951:13:20) Similarly, Article 17 ("Wage-Earning Employment") states, "The Contracting States shall accord to refugees lawfully staying in their territory the most favourable treatment accorded to nationals of a foreign country in the same circumstances, as regards the right to engage in wage-earning employment." (UNHCR 1951:17:24) The only article of the 1951 *Convention* which the government of Kenya would seem to contravene without being able to have recourse to flexible or exculpatory language within the article itself, is Article 26 ("Freedom of Movement"), which states that, "Each Contracting State shall accord to refugees lawfully in its territory the right to choose their place of residence to move freely within its territory, subject to any regulations applicable generally to aliens in the same circumstance." (UNHCR 1951:26:29) However, even the contravention of this article is permitted, under recourse to the limitations of responsibilities in general contained within Article 9 ("Provisional Measures"), which states that in any case, "Nothing in this Convention shall prevent a Contracting State, in time of war or other grave and exceptional circumstances, from taking provisionally measures which it considers to be essential to the national security in the case of a particular person, pending a determination by the Contracting State that that person is in fact a refugee and that the continuance of such measures is necessary in his case in the interests of national security." (UNHCR 1951:9:20) This article can in effect provide a description of catch-all circumstances which could allow any national government to justify the annulment of most of the other articles in the *Convention*.

   The relationship between the OAU *Convention* and the way in which the government of Kenya has chosen to take responsibility for the refugees in Dadaab, is rather more problematic. Unlike the 1951 Convention, the OAU *Convention* makes no provision in its articles for *how* a refugee may exist in a country of asylum, in terms of right to employment, travel, etc., except inasmuch as to recognise that, "the United Nations

[26] State party to the 1951 *Convention* in 1966, and to the 1967 *Protocol* in 1981

Convention of 28 July 1951, as modified by the Protocol of 31 January 1967, constitutes the basic and universal instrument relating to the status of refugees…" (OAU 1969:i:9) On the other hand, at first glance, the language concerning state responsibilities in the OAU *Convention* in terms of how an individual should be granted asylum or refugee status, and who should be granted such status, is much more emphatic than that used by UNHCR, or at least the areas of flexibility, whereby a contracting state might legitimately choose to opt out of some responsibilities on the grounds of overwhelming reasons of national security, are significantly more understated, and sometimes accompanied by assertions of substitute responsibilities, if the primary responsibilities are not to be undertaken. Therefore, as an example, Article 2.3 states in its entirety, that, "No person shall be subjected by a member state to measures such as rejection at the frontier, return or expulsion, which would compel him to return to or remain in a territory where his life, physical integrity or liberty would be threatened for the reasons set out in Article I, paragraphs 1 and 2 [giving the definition of a refugee which expands upon that of the 1951 *Convention*, as described earlier in this chapter, above]." The corresponding substitute responsibilities (Articles 2.4 and 2.5), still do not absolve the Contracting State from all its responsibilities as a host: "Where a Member State finds difficulty in continuing to grant asylum to refugees, such Member State may appeal directly to other Member States and through the OAU, and such other Member States shall in the spirit of African solidarity and international co-operation take appropriate measures to lighten the burden of the Member State granting asylum"; "Where a refugee has not received the right to reside in any country of asylum, he may be granted temporary residence in any country of asylum where he first presented himself as a refugee pending arrangement for resettlement in accordance with the preceding paragraph [Article 2.3]." The only 'escape' clauses available could conceivably be held obliquely, for instance in the admission that the presence of refugees can be problematic (OAU 1969:i:3,4,5), the counter-responsibility to be undertaken by all refugees, to follow not just the laws of the host country, but also, "measures taken for the maintenance of public order," (OAU 1969:3:1) or the fall-back on the authority (and therefore the wider degree of interpretative flexibility) of the 1951 *Convention* and 1967 *Protocol* as ultimate authorities (OAU 1969:i:9). In any case, as described further immediately below, at the very least the closing of the border with Somalia by the government of Kenya on 2 January 2007, is very much counter to the spirit of the OAU *Convention*, and has indeed had an impact upon the population size and the design of Dadaab.

The ways in which the government of Kenya has selected the articles which it chooses to conform to, and the ones which it has chosen not to conform to, has had an impact upon the Morphology in terms of the existence and the placement of Dadaab in several ways:

a. First and foremost, the government of Kenya has chosen to insist if not emphasise the fact that the status accorded to the refugees in Dadaab is non-permanent, and that once the basis for their well-founded fear of persecution has been removed, then their status will be revoked. Meanwhile, this expresses itself in an insistence that none of the shelters for the refugees be

built of ‘permanent’ materials, and that even the construction of non-residential buildings using masonry, needs to be justified in terms of plans to hand over such buildings to the host community once the refugee camp is closed down. The prohibition on the use of permanent materials for housing, has meant that available funds for shelter materials must be budgeted on the assumption that materials will need to be renewed or replaced at regular intervals: longer-term capital investments in construction cannot be contemplated. It has also had an impact upon the speed of environmental degradation within and surrounding the camp, as natural (but in the eyes of the government of Kenya, ‘non-permanent’) materials such as wood, grass and earth are taken by the refugees. Practically speaking, the limitations of these materials also prohibits any attempts to move away from separate, single-unit shelters, or to use multi-family structures as a way to address issues of spatial use and population densification.

b. The location of Dadaab is in compliance with the stipulation in the OAU *Convention* (OAU 1969:2.6), stating that for reasons of security, refugees should be settled a reasonable distance (in the case of Dadaab, 80km), away from the frontier of their country of origin. It should be noted though, that this stipulation was then adopted at a later date, as a general guideline by UNHCR in the *Handbook for Emergencies* (UNHCR 2007a:211).
c. Since January 2, 2007, in response to population displacements caused in Somalia by the defeat of the Islamic Courts Union by the armed forces of Ethiopia and the USA, the government of Kenya has formally closed its border with Somalia, and has had a formal policy of refusing entry to any new claimants for asylum. The rationale which the government of Kenya gave for doing so, is that national security interests superceded humanitarian concerns in this instance, and that there were overriding fears that large population influxes could destabilise the province and the country at large, particularly given the likelihood that those crossing the border would include members of the defeated Islamic Courts Union militias. The border is in any case porous, and during the period of January to April 2007, more than 2000 refugees initiated registration in Dadaab, having ‘spontaneously’ [i.e. without the aid of any humanitarian agency or government office] arrived since the border closure. On the one hand, the closure of the border, and the reduction in the rate of population influx into Dadaab, has meant that the growth rate of the camp, in terms of population, has not had an overwhelming effect upon the physical limits of the camp. On the other hand, there was an awareness amongst the humanitarian agencies in Dadaab and at the national level in Nairobi, that the closure of the border, combined with increases in displacements outside of Mogadishu during the same period, could increase pressure on the Somali side of the border, until a spontaneous mass population influx would be triggered, despite the formal border closure. For Dadaab as a whole, the response in terms of site planning, had been to create designs and earmark land in the two other camps (Hagadera and Dagahaley) for potential camp expansions. With regards to Ifo specifically, there was during the time of the case study, inconclusive discussions amongst members of the

humanitarian agencies, as to whether the site planning for Ifo would also need to be adapted in the case of a large-scale emergency population influx, as well as an informal acknowledgement that some proportion of the spontaneous arrivals (identified and unidentified), had settled in Ifo, perhaps hosted by other more long-standing refugee households, and that this was having an effect upon the population densities in the older parts of Ifo, and upon the calculations for the movement of numbers into the Ifo II extension. These issues, like many of the issues identified in this section, will be returned to in greater detail in Chapters 5, 6 and 7.

d. The restrictions imposed upon the refugees in terms of owning land, or working land for commercial agricultural purposes, means that there is no chance of zoning the land within and exterior to the camp, with different types of land use involved, in order to mitigate environmental impact, or as a tool in the negotiations of land-use between the refugees and the host communities. The manufactured topographies in and around the camp are then limited, with a by-product being a concentration of environmental degradation. The issues of land-use, zoning, the sustainability of the camp, and environmental strategies, will be returned to much more extensively in Chapter 5, and then again in Chapters 6 and 7.
e. The restrictions upon employment for refugees also have an impact upon the physical structure of the camp, although one which is conjectural, and difficult to quantify. However, if employment was permitted amongst the refugees, then the economy of the camp would have grown (although not to the point where every adult refugee could be in full employment, given the remoteness of the location, the smallness in size of the corresponding host communities, and the lack of local natural resources), with the possibility of exacerbating some existing stresses, or creating others anew. On the one hand, the restrictions on employment meant that those involved in camp site planning, construction and management for Ifo, did not have to exercise great concern over large-scale expansions of the markets in the camps, nor over large-scale use of residential plots for commercial workshops or home-based enterprises. On the other hand, for better or for worse, the prevalent form of environmental degradation in Ifo and in Dadaab in general, is the defoliation caused by over-intensive livestock grazing (the ownership of livestock, primarily goats, being the one form of livelihoods generally permitted, and the which in any case has been prevalent amongst the pastoralist refugees), rather than caused by industrial or commercial waste, which would conceivably have been the case if the economy of Dadaab had been allowed to develop in different directions.
f. The least quantifiable impact of all the government of Kenya's interpretations of responsibilities according to international instruments, has been that which limits movement on the part of the refugees. In order to leave the general environs of the camp, any refugee must have a permit given to them by the Kenyan authorities. This does not restrict movement near the camp, but does prevent the refugees, with few exceptions, from travelling further afield, to the provincial seat of Garissa, or to Nairobi or other major cities in Kenya. As

there are no fences or other barriers surrounding the camps, the main physical expression of that control of movement, is in the existence of police road blocks. At the time of the case study, five road blocks were installed at further distances from Dadaab, but there was one south of the village of Dadaab itself, opposite the UN compound, and another on the road to Garissa, approximately 2km to the west of Hagadera sub-camp. It is recognised amongst staff of the humanitarian agencies, that without the restrictions on movement, a large but unknown proportion of the refugees in Dadaab would move to Nairobi or Mombasa or elsewhere in Kenya, and any resulting decrease in the normal population of Dadaab might have an impact upon the size and design. However, given the continued 'pull factors' of free education, free food and free health care offered to the refugees in Dadaab, it would be equally likely, that the phenomenon observed elsewhere in the world (Kennedy 2004a:81), of families splitting up, leaving some members in the camp whilst others migrated to seasonal or permanent employment elsewhere, with fluctuations rather than decreases in camp population, and potentially socially destabilising fluctuations in the cash supply within the camp. Otherwise, the police road block within Dadaab village has had one or two small market stalls set up next to it, but this is not in any parts of the camp proper, and no other effect of the presence of the road blocks seem observable.

2. *Country domestic laws and regulations*: Some of the domestic laws which impact the design of Dadaab, are merely the obverse of the government of Kenya's declining to accept some of the elements of the international instruments, as described above: there are regulations explicitly prohibiting the refugees in Dadaab from travelling without permit, from having employment, and from owning or leasing land, and there is a general refusal to grant permanent residency to any of the refugees. The major influence upon how these laws are interpreted, comes from the office of the District Commissioner, the responsible civil service post, situated in the provincial seat of Garissa. Decisions of the District Commissioner concerning life in Dadaab, and therefore with the potential to concern the design of the camp, come through three channels: regular meetings with representatives of UNHCR Dadaab, some of which are also attended by the representatives of other humanitarian agencies; communications to and through the two District Officers (the local civil service positions for Dadaab); and with some influence through various channels, upon the actions of the Dadaab police force. As an example, through direct negotiations with UNHCR, there has been a refusal to give permission for building permanent housing structures within the camp, although this is a regulation, rather than a publicly promulgated law. There are some other instances, where the local laws offer more precise directions for how to implement the general interpretations of the more general interpretations of the international instruments by the national government, and which have had an impact upon the design of Dadaab. An example of this would be the local police restrictions upon private passenger transportation operating between the sub-camps (as part of the restrictions upon movement of the refugees). As a result, the *matatus*, or mini-vans carrying passengers between the sub-camps

changed their routes, to back-trails through the bush, where they were less likely to be detected by police patrols. The location of these back routes then had an impact upon general foot traffic routes through the sub-camps, perceptions of personal security close to those routes, as well upon the placement of individual market stalls close to those routes. At the same time, those routes were likely to have as 'anchors' or stopping-off points, some of the long-term, fixed features of the camp, such as the major markets, or the smaller plazas created around some of the public water points. This interaction of different networks, and the impact upon the camp design, will be examined at greater length in Chapters 5, 6 and 7.

3. *Refugee camp by-laws*: There is no constitution for Dadaab refugee camp as such, or written and codified body of by-laws specific to the camp. This was in large part because in the years preceding 2007, there had been no humanitarian agency which had had responsibility for overall camp management at Dadaab. There was during the time of the case study, a general move amongst the humanitarian agencies operating in Dadaab, to come to some consensus over the roles of camp managers, and from there appoint one agency to undertake those roles, but those moves had remained inconclusive. In their place remained a series of regulations for different sectors within the camp which had been developed over the years on an ad hoc basis, sometimes just by the single agency involved in a particular sector, and cumulatively detailing everything from procedures for receiving medical attention at the health posts, to schedules of attendance at the schools. Some of these do have connections with camp design, and the way that the Morphology is adapted by the operations of the refugees, although on a rather micro-level, such as the regulations concerning the depositing and collection of household waste, or schedules for water collection. This will be discussed at greater length in Chapters 5, 6 and 7.
4. *Refugee's customary or traditional rules*: Of all of the levels of refugee law proposed by da Costa, it is this one which is the most amorphous, and around which the boundaries can be least confidently drawn. At its widest definition, it could refer to almost all aspects of Somali culture, although in terms of da Costa's own usage, the implied definition is closer to one which refers to fora for dispute resolution, and which might include the rules which provide for and govern tribal courts or gatherings of elders. In the context of Dadaab, as mentioned in Chapter 1, much of this is determined by clan allegiances. As noted by Crisp (Crisp 1999:6) and others, the method of dispute resolution between elders in Somali culture in the first instance often involves provision of compensation for transgression, in terms of goods, money, livestock or even brides. Inasmuch as it provides no proactive policing mechanism, and undermines policing attempts by the Kenyan police force and the humanitarian agencies, through failure to report either the infringements or the settlements, this framework can be said to contribute to the general lack of sustainable and dependable personal security in the camp, and therefore can have claims to be one of the contributory causes of the
5. *Gender roles and expectations*: According to the expectations of Somali culture, and in particular the Somali interpretation of Islam on the matter, the roles of women and girls are in many ways circumscribed. A mixture of religious pronouncements and unwritten codes and expectations combine, to define the limits of a woman's social interactions, financial independence, access to information and personal security,

amongst other facets of daily life. In reaction to these restrictions, any further site planning for Ifo or Dadaab, should take into consideration issues such as security for women in public spaces, and girls' access to schools in terms of distance and security. Any further site planning may also need to take into consideration such manifestations of gender roles which entail that there are relatively few women to be seen in the main markets in any of the three sub-camps at Dadaab, but that the vast majority of small market stalls located away from the main markets and inside the residential blocks, are run by women.

6. *Laws and regulations developed by government or political parties in exile*: The capacity is not available to either the humanitarian agencies, nor to the government of Kenya, to assess the influence, if any, of governments or parties in exile, present in Dadaab. In any case, during 2006, the nominally ascendant national government in Somalia was the Islamic Courts Union (ICU) – in reality a loosely affiliated groups, whilst the UN-backed and internationally-recognised Transitional Federal Government (TFG) was forced to relocate its headquarters to the provincial town of Baidoa. After the invasion of the Ethiopian army into Somalia in late December 2006, the position was somewhat reversed, with the TFG re-occupying the capital of Mogadishu, and supporters of the ICU scattered throughout the country. However, in neither case was the exiled administration in a position to create or impose a coherent set of laws into Dadaab, of a sort which would differ from the general religious laws, or codes of clan affiliation outlined above and below. There is a growing concern amongst some of the donors involved in programmes in Dadaab, that so-called 'idle youth' in the camp may be susceptible to overtures from Islamicist or other militias, but such affiliations would still not indicate the presence of a set of laws of a government or party in exile as a distinct and separate framework of laws existing in the camp.
7. *Religious laws*: The influence of interpretations of Islamic law on the general quality of life has been mentioned briefly with regards to customary or traditional rules, and gender roles and expectations, immediately above. The one other point to indicate briefly here, before the issue is returned to in Chapter 5, is that the built manifestations of religious belief play an important role in the design of Ifo. As well as the main 'Friday' mosques indicated on the official maps of Ifo, there are also numerous small 'daily' mosques, as well as *madrassas* or religious schools in almost every block. These structures are set in small clearings, and often have small market stalls close by, and therefore act as one form of primary anchor for localised but complex social spaces.
8. *Internal committee rules*: There are regular meetings within each sub-camp, and then at the Dadaab camp level, of block leaders and sub-camp leaders ("chairmen"), elected amongst the refugees. The elections are authorised, structured and overseen by the government of Kenya, and administered by UNHCR. The meetings of those groups are guided by UNHCR and CARE staff. In theory, these meetings are supposed to provide a forum for the exchange of ideas, and constructive proposals for how to improve life in the camp. In practice though, the meetings were observed to be often divisive, and dominated by demands from the refugee leaders to the humanitarian agencies. Nevertheless, they have the potential to act as a forum for

input from the refugee leaders on decisions pertaining to site planning, however reactive that input might be.

9. *Codes of conduct*: The refugees are not required to sign any code of conduct, unless they are working directly for one of the humanitarian agencies as an 'incentive worker', in which case at least some of the agencies have codes of conduct specific to their agencies, and also specific to the types of job which the refugees occupy. But such codes do govern more strongly and more generally the activities of the humanitarian agencies working in Dadaab, whether these are the agencies' own internal codes of conduct, or umbrella codes, like that of the ICRC. The codes, when signed to on an individual basis, may act as a reminder of the general principles which also govern camp design at the global level, in terms of compliance of global written guidelines, but were not otherwise observed to have any direct practical effect upon site planning in Dadaab.
10. *Host community-humanitarian agency meetings*: This is the first of the three levels of 'refugee law' which are added to the list provided by da Costa, for the purposes of this thesis. This level, and the two subsequent ones, bear some resemblance to that of Level 8 ("Internal committee rules", above), but differ from Level 8 on two major points. Firstly, strictly speaking, the three additional levels are not 'internal', in that the participants include those who do not live or work inside the camp. Secondly, and more centrally, these three levels, as manifested in Dadaab, were observed to act as de facto legislative fora, where in terms of site planning as well as other issues, plans could and were not only judged, but were proposed and amended as well. The host community-humanitarian agency meetings were chaired by the local civil servant, the district officer, who could also contribute to the discussions. The host community leaders were not openly elected as such, but no challengers or alternative leadership came forth. The humanitarian agencies were aware that these, largely self-appointed leaders were all from the dominant clan in Dadaab, and that therefore minority interests may not be represented at such meetings, but at the same time, none of the humanitarian agencies had the mandate to organise elections for such positions, or indeed to have any formal control over whom might attend such meetings from the host community side. In terms of site planning, the host community leaders were more likely to be active in issues concerning land-rights, particularly when there were plans to expand the borders of the three sub-camps in order to provide areas for expansion, including Ifo II (but also including the areas earmarked for expansion in the contingency plan, in Hagadera and Dagahaley sub-camps). The host community leaders were also very active in voicing opinions on other issues which would have an impact on site-planning, whilst not being part of the formal drawn plans themselves, such as environmental impact, water resource management and the like. In many ways, these meetings were the only ones which per force had to consider the environment as a continuum, existing both inside and outside the boundaries of the camp.
11. *Refugee leader-humanitarian agency meetings*: Although there were meetings as described above, for 'Level 8' ('Internal committee rules'), which involved all members of the formal elected hierarchy of refugee leaders, there were other sets of meetings in support of the construction of the Ifo II extension which on the one hand only included the elected refugee leaders at the block level, without including the

refugee chairman and chairwoman of Ifo, but on the other hand had a wider participation in as much as it included members of the local police force as invited participants. It was at this level where decisions were effectively taken, for instance, on the placement of all the structures which had not been featured or had not been decisively placed on the drawn design provided by UNHCR Geneva, including the mosques for Ifo II, and the waste disposal pit. It was also the forum for taking or explaining decisions on more micro-level site-construction issues, often ones which had emerged spontaneously from the refugees' own early adaptation to their physical circumstances in Ifo II, including perimeter drainage around the residential blocks, or the placement of small vegetable plots or market gardens in some of the public areas.

12. *Inter-agency meetings*: Although the inter-agency meetings were for the most part conducted inside the UN compound in Dadaab, amongst representatives of the humanitarian agencies working in Dadaab, they too could not strictly be called entirely 'internal', as a number of them were attended regularly by the district officer. Furthermore, there were instances where they were paralleled by meetings amongst the same agencies on the same topics, but held at the higher Nairobi level. In general, the meetings which UNHCR Dadaab called and chaired on a regular basis, were the weekly security meeting, and then a regular meeting for heads of agencies. There were also less frequent meetings, often of an almost bi-lateral nature, for specific sectors, e.g. education or water distribution. Of greater interest for this thesis, was the establishment in December 2006, of specific regular meetings labelled the 'Ifo II Task Force', which were dedicated to the co-ordination of the construction and then refugee population movement into the Ifo II extension. Whilst not dealing with quite the micro-level of construction interventions which were dealt with in the Ifo II refugee leader-humanitarian agency meetings described above, nevertheless the Ifo II Task Force meetings did take decisions on the placement (or adjustment of placement) and implementation of construction of some of the non-residential buildings (differing from the refugee leader-humanitarian agency meetings, where the refugee leaders on occasion actually proposed entirely new buildings for construction, which did not feature on the original plan at all).

* * * *

This chapter has outlined the development of the institutional constraints which govern the existence of refugee camps. It has then adapted da Costa's list of different levels of refugee law, to demonstrate the ways in which those different levels have a practical impact upon the Morphology, Operations and Performance of Ifo camp specifically. The next chapter will demonstrate how the design of refugee camps itself has developed over the previous 35 years, in partial recognition of the implications of the institutional constraints delineated in this chapter.

Chapter 4. The Development of Guidelines for Refugee Camp Planning

In Chapter 2 of this thesis, there was a claim made, that there existed a general, global design type for refugee camps, in terms of both numeric guidelines and graphic plans, and that part of the problem of the design of refugee camps at least, lay in the difficulties in evaluating such a type, and then ensuring that any such general type could be applied appropriately in practice. Chapter 3 then contained a description of the outline of the legal frameworks of refugee law under which the existence, location, dimensions and contents of both camp design types, and the specific camp of Dadaab, must be defined. Following on from Chapter 3, this chapter will argue for a history of the development of the global design type for refugee camp design as a composite ideal set of instructions or guidelines, as well as examining to what degree the composite set is actually comprehensive, what gaps there might be in the design instructions, and what stresses might be inherently present in the design, regardless of the conditions in which it might be implemented. Whilst there are many possible strands to follow in a more comprehensive history of the development of multi-sectoral humanitarian response and the development of humanitarian organisations in the post-World War Two era, this chapter, and the thesis in general, will concentrate only upon those part of the history which deal with the development of camp planning, and will touch upon other parts of the history only inasmuch as they are shown to have had an affect upon camp planning.

* * * *

Delineation of the investigation

In describing the development of the guidelines for refugee camps, this chapter will put the stresses described in Chapters 1 and 2 into a context of design development, and enlarge the enumeration of constraints of that design, beyond the institutional constraints described in Chapter 3. This chapter will show that other sets of constraints on the design are not absolute, but continue to exist rather through lack of challenge. The process by which the camp design type has arisen has been dominated by borrowing from other fields, or adapting one-off designs specific to single events and then applying them as a universal standard. Whilst many of the guidelines and authors show an awareness of the need to take into account the ways in which camps operate and the ways in which they perform, it is ultimately the inability to demonstrate how this should be achieved, which leads to the failures in the camp design type as developed. Therefore, this chapter will finish with an investigation of the degree to which the operations and performance of any camps in the field can be adduced from an examination of the morphology, as described in the global design type.

There are two sets of questions which will need to be provisionally answered in this chapter. In order to define the parameters of the narrative of the development of the design type, the first set of questions revolves around the method for creating such a narrative of the development of the camp design guidelines, and the limits of the data which would support such a narrative construction. The second set of questions concerns the nature of the design type itself, as the current state-of-the-art, and the appropriate criteria for the assessment of such a type. It will be the argument of this thesis that the current institutional criteria contain

gaps, either in the framework or in the application, and with particular reference to the assessment of the performative rather than the morphological aspects of a camp.

The first set of questions, which effectively examines the possible 'building blocks' for the historical narrative, centre on two main themes: (i) what information can be admitted, and what sort of information is actually available; (ii) and when gaps emerge, what then are the implications for the comprehensiveness or the rigour of veracity of the resulting narrative, and what are the implications for the relative assuredness or tentativeness with which any conclusions can be drawn, particularly in relation to the central hypothesis, that there is essentially one global type for camp design, which then informs the vast majority of actually constructed camps.

The questions about what information, or groups of information, should be included, or obversely, what information should be disregarded as insufficiently relevant, that is, what should be the formal limits for the potential gathering of information, can be broken down along the following dimensions:

1. Given that it is contended in this thesis that the development of the design type has been influenced as much by ideas from other design fields as by ideas generated through texts dedicated directly to the fields of emergency shelter and of refugee camp design, what are the limits of relevancy to each of those fields (internal and external), what are the observable levels of continuity (or lack of continuity) in the influence from each of those fields, what are the means by which those ideas have been transmitted, and what weight should be given to the influence from each of those fields?

2. What should be the temporal limits of the investigation? What is the cut-off point for relevancy of influence retreating backwards in time from the significant points already mentioned in previous chapters, e.g. the dates of the case study (2007), the initial construction of the refugee camp which forms the subject of the case study (1992), or the dates of the landmark international refugee law instruments mentioned in Chapter 3 (1948 onwards)?

Within the potential limits described by answering these two questions, what emerges, is a narrative composed of actually available information, accompanied by indicators of what other information is missing, and would be needed to create an ideal, more comprehensive picture.

The second set of questions, concerning the assessment of the design type, is more problematic. In Chapter 2, a series of six issues concerning the performance of refugee camps were identified as being contained in the design of refugee camps in general: (1) isolation from any long-term strategy, (2) a lack of acknowledgement of the dimension of time, (3) inadequate and prescriptive graphics tools, (4) a tendency towards universalist solutions, (5) a lack of field-specific vocabulary, and (6) a lack of awareness of the relationships between a camp and its surroundings. The examination of the state of the art of the design type will include an assessment of the degree to which the type can be said to indeed contain these

gaps, but will also look for the wider implications of the extent of any such gaps. Normative values may be adduced from the levels to which the template is seen to contain or not contain these gaps, and such an analysis may then be deepened by an examination of the manner and extent to which the template interprets the frameworks of refugee law which have been outlined in Chapter 3.

* * * *

Categories of documentation

With regards to defining the limits of the relevant areas, fields or disciplines which have had significant influence upon the development of the design of refugee camps, a series of metaphoric concentric circles can be provisionally drawn, to account generally for those texts which were written with the intention of furthering the state of the art of refugee camp design, and those which were not intended by the original authors or publishers to have any influence upon refugee camp design but from which certain ideas or concepts have nevertheless been borrowed or adapted. It should also account for both those ideas which have been deliberately and explicitly engaged with, adapted or built upon by those who have written about refugee camp design, as well as those other sets of ideas which have not been acknowledged at subsequent points, but where they are nevertheless apparent to an observer as influencing subsequent texts in some significant manner. In this way, a general and provisional categorisation of influences can be made:

1. The influence comes from prior texts written by authors who were working directly *within* the fields of refugee camp design or emergency shelter design; and, subsequent authors of texts on refugee camp design *have been* aware of the influence and explicitly engage with it in some way.

2. The influence comes from prior texts directly *within* the fields of refugee camp design or emergency shelter design; and, subsequent authors of texts on refugee camp design are *not* aware of the influence or do not explicitly engage with it in some way, although influences can be identified by the reader.

3. The influence comes from prior texts *external* to the fields of refugee camp design or emergency shelter design; and, subsequent authors of texts on refugee camp design *are* aware of the influence and explicitly engage with it in some way.

4. The influence comes from prior texts *external* to the fields of refugee camp design or emergency shelter design; and, subsequent authors of texts on refugee camp design *are not* aware of the influence or do not explicitly engage with it in some way, although influences can be identified by the reader.

The schema of categories can thus be graphically represented by a matrix, thus:

	Created within the field of refugee camp design	Created outside the field of refugee camp design
Explicitly engaged with by subsequent authors	Category 1	Category 3
Not explicitly engaged with by subsequent authors	Category 2	Category 4

Within these four general categories, an expanded list of narrower subsidiary categories of texts can then be given.

The first general category (texts from within the specific field, and where subsequent authors acknowledge their awareness of those texts), include the following:

1. Published books devoted solely to the topic of refugee camp design. (This is more a theoretical category than anything else, and for practical purposes is virtually empty of examples. At the time of writing this thesis, Médecins Sans Frontières (MSF) and Shelter Centre have written the incomplete draft of one booklet on camp planning (Médecins Sans Frontières and Shelter Centre 2006) distributed only at one specialist conference in 2006, and otherwise undergoing revision before full publication. No other such book exists.)
2. Specific chapters or sections on camp planning, from texts which deal more generally with a larger range of issues concerning emergency response.
3. Articles published in journals, papers or presentations delivered at conferences, and which are easily accessible, on-line or otherwise.
4. Booklets or pamphlets or other short texts which were written as internal guidelines for specific organisations, and which were not originally intended for wider dissemination, but which have nevertheless one way or another found a wider readership.

The second category (texts from within the specific field, but whose subsequent influence has not been explicitly acknowledged) is shorter, and the actual examples are also extremely limited in number:

1. Articles published in journals, papers or presentations delivered at conferences, and which were perhaps originally accessible, and had an influence on other texts during a specific era, which (perhaps in part because they were written before the invention of the internet) have since fallen into obscurity, but whose ideas nevertheless can be seen to have influence on later texts, without the authors of the later texts being aware of the original source.
2. Booklets or pamphlets or other short texts which were written as internal guidelines for specific organisations, which were not originally intended for wider dissemination, and which in some way have been superceded, and are no longer current, and which are not circulated. This category includes, and in large part is practically constituted by, work commissioned by humanitarian organisations from

outside consultants, whereby the original documents now lie in the consultant's own archives, but do not exist any more in the archives of the commissioning organisation.

The third category (texts external to the field of refugee camp planning, but explicitly acknowledged by writers then writing about camp design) contains a number of sub-categories, starting with those from fields which are closely related, and then moving to those fields which have less close or less obvious relations:

1. Texts of any type which concentrate upon other types of emergency shelter response. In particular, those texts which deal with emergency shelter after natural disaster.
2. Texts which concentrate upon emergency response, whether for natural disaster or conflict-related situations, with a focus upon closely related fields or sectors, or those sectors which most commonly have programmes implemented in close conjunction with emergency shelter programmes. These include, but are not limited to, certain texts on water and sanitation, environmental impact, health, and security.
3. Texts which are not disaster-focused per se, but which concentrate upon topics from which there are strong correspondences with some aspects of refugee camp design. These can include texts on mass-housing, low-income housing, upgrading of informal settlements and housing and development issues, all within the context of developing countries.
4. Texts which do not specifically deal with housing or settlement issues in developing countries, but which generally discuss issues of urban planning (particularly, but not limited to mass-housing and low-income housing) in developed countries.

The fourth category (texts external to the field of refugee camp design, and which have an observable influence upon texts within the field, but where that influence has not been explicitly acknowledged) proves the most problematic to define, because a theoretical argument could be made to insist that the category could be expanded to include the entire history of architecture. However, the purpose of this chapter is to discuss what are the *significant* influences and contributions to the development of the design of refugee camps, and so therefore the descriptions of the texts which follow later in this chapter, will show that this category should be limited to the following (as a way of giving a rule-of-thumb definition of 'significance' in this case):

1. Those texts which come from the same fields as the type of category three, above (texts concerning urban planning issues in developed countries) which have had an observable influence upon refugee camp design texts (for instance, observable through the adoption of key terminology or graphics tools), but where there has not been any explicit acknowledgement of their influence.
2. Texts from the field of public health, whereby an acknowledgement has not been made, or if it was initially made, has since been forgotten.
3. Certain types of military manuals, from the sectors of military camp construction, logistics, and public health.

Of course, the above lists of categories are in many ways *potential* lists. There is neither an ideal nor a practical manner in which to ascertain which texts have been discarded, what

discussions or informal notes have gone unrecorded, or what texts have been hidden, and are for some reason unavailable. With regards to these problems, it is worthwhile noting that few if any humanitarian organisations keep comprehensive archives, and that those which do, often do not admit unpublished or internal-communications documents into such archives: other organisations have recently discarded all or part of their archives, or, like UNHCR, have recently closed their archives to the public[27].

* * * *

Precursors to refugee camp planning, 1906-1971

In describing the limits of the timeline over which a template for refugee camp designs has developed, the goal of this chapter is not to mark the point whereby the process could be said to have been initiated *ex nihilo*, but to identify the point before which any precedents were insufficiently relevant, where any precedents could be taken as given for the general argument, or where there was a fundamental and clear change in concept which led to the current paradigm, and superceded what had existed beforehand. Through doing this, some clearer indication will also be given as to what may constitute a legitimate precedent.

In terms of the frameworks of refugee law which govern the existence of camps, the decisive changes can be said to have occurred with the adoption of the United Nations *Universal Declaration of Human Rights* in 1948, and then the United Nations *Convention Relating to the Status of Refugees* in 1951. Whilst a number of nations may have had national laws pertaining to the protection of refugees prior to this point, these two instruments marked the first time that there was an assertion of positive and universal rights for refugees, and which has expanded in adoption, to cover the majority of the sovereign nations on the planet. As noted in Chapter 3, it is true that the *Convention* as originally written, covered only those who had fulfilled the definition of refugee through cross-border movements undertaken in Europe, as a results of events occurring before 1951, but the revising *Protocol* of 1967 means that it is substantially the same instrument which continues to act at the present day, as the umbrella for all other refugee law frameworks. Therefore, whilst the concept of international conferences may be said to have many precedents, reaching back at least to the post-Napoleonic Concert of Europe, and whilst the concept of positive human rights encapsulated in articles of a written constitution may be said to have precedents which go back beyond the national constitutions of the USA and France, it is sufficient for this thesis to mention them in passing as proof that precedents of some sort do exist, at least in terms of concept, but also to underscore the point made in the 1996 introduction to the UN *Convention* by the high commissioner for refugees, that, “The Convention consolidates previous international instruments relating to refugees and provides the most comprehensive codification of the rights of refugees yet attempted on the international level.” (UNHCR 1951 (1996):5)

However, the adoption of the UNHCR *Convention* did not occasion any immediate publications on the design of refugee camps, and therefore, with regards to the design as a set of instruction in terms of either graphics or written guidelines, the limit of the timeline of concern for this thesis can be brought forward. In the main, this is due to factors mentioned

[27] Personal e-mail from UNHCR senior archivist, 2006.

in Chapter 3: (1) during the immediate post-WWII era, those who had their status defined as refugees were for the most part accommodated in collective centres, or else rental or other accommodation within the main fabric of host communities, (2) until the 1960s, both the smaller number of independent sovereign states, and the smaller magnitude of forced migrations, meant that the issue of shelter and settlements for refugees outside Europe was also less compelling, and (3) it was widely assumed, until at least the early 1970s, that refugees within Africa would for the most part resettle permanently in the host country. In short, until a certain point in the 1970s, refugee camps were simply not seen as a significant problem by those who were working in, or writing about, refugee issues. The nature and the limits of the evidence to support this contention will be examined in more detail below, but there is a strong case to be made, that relevant to this thesis, no significant discussion on the design of refugee camps was made until a point in the early 1970s, and that this chapter will be limited in discussion, to events falling after that point.

In the same way that there are conceptual precedents in refugee law existing prior to the start of the relevant time-period, some examples of direct precedents can be given for actual designs and guidelines. However, these are listed here again to show that although the first designs did not spring entirely out of nothing, at the same time there is a demonstrable and paradigmatic change commencing from the proposed start of the time-line, in the early 1970s. At this point, these examples are drawn specifically and only from records of camp or shelter designs, and merely to delineate the limits of the time-period under examination. It is one of the major contentions of this chapter, that the field of refugee camp design has been influenced to a large degree by theories from other fields (notably urban planning and public health), which had currency before and during the relevant time-period, but whose own paradigmatic shifts do not have temporal correspondence with the changes in thinking about refugee camp design. These wider, external influences will be given accordingly a much more sustained examination below. What is described immediately here are merely examples of full or partial precedents with much closer correlations.

Whilst plans or maps dating from that event do not exist, the first documentation of a major settlement for those who have been forcibly displaced into what would now be called transitional shelter, is in the photos of such settlements taken in the aftermath of the San Francisco Earthquake of 1906[28]. This records not the design as a graphic blueprint or plan, but rather the design as it was in implementation, and each photo shows only a section of the settlement in question. Whilst the post-earthquake settlements in San Francisco were built for those who had lost their homes due to a natural disaster, and who did not fit the definition of refugee as it has since come to be known, nevertheless these settlements have often been cited by those who also work in refugee camp situations (Setchell 2002:1, Davis 1978:80-81, Sinclair 2006:32-33), and as will be shown later in this chapter, there is a large cross-over between those who work (and do research) in refugee situations and those who work in

[28] Five such photos are reproduced in Davis 1978:80-81. [N.B. There are two versions of *Shelter After* Disaster, by Davis, one from 1978 (though according to the author largely written in 1976, (Davis 1978:xiii)) published by Oxford Polytechnic Press, and a later, adapted version, *Shelter After Disaster: Guidelines for Assistance* from 1982, published by UNDRO. There is currently in 2007 an unpublished draft version of a revision of the UNDRO guidelines being undertaken by Shelter Centre. All references in this thesis are made to the 1978 version, unless otherwise indicated.] One of the five photographs is then reproduced in Sinclair 2006:32, and noted in Setchell 2002:1.

natural disaster situations, and so in this sense the settlements for those displaced by the San Francisco earthquake can be seen as a direct precedent in large degree.

Fig. 4.1. 'Military style' tent camps after the San Francisco earthquake of 1906. (Davis 1978).

However, the reason why these settlements are significant beyond their purely historical value, and the reason why they are referred to in a number of more recent books or articles, is that the authors of those books or articles written in the last thirty years often set their own ideas in conscious opposition to the ideas which they see contained in the San Francisco designs. Both Davis (Davis 1978:80-81) and Setchell (Setchell 2002:1), as examples, cite the San Francisco settlements not to give historical legitimacy to their own efforts, but in order to draw a line between what they have been doing, and what had gone on before. That is, in their version of events (and a version of events for which no documents in support of a refutation exist), the San Francisco settlements, whilst certainly providing shelter, did so in spaces where there was little consideration for community, or for privacy, or 'ownership' of the settlements by the families living there: the tents and then huts were laid out on an equidistant and undifferentiated grid, based at least in part upon designs for army camps. In the texts which have been written on emergency shelter since the early 1970s, there is a recurrent refrain when it comes to the topic of camp planning, that all considerations should be given to designs which are more considerate of both the communities living in such camps, and for the local context and environment. In effect, the San Francisco earthquake settlements are not held up as a precedent so much as a type of 'anti-precedent' in contrast to which those who have written on the design of camps describe their own central guidelines, and describe their own canon of texts.

Whilst the period between 1906 and World War II undoubtedly did see some large-scale movements of refugees, whether as results of World War I, the collapse of the Ottoman Empire, the Russian revolution, or as the result of the Japanese invasion of China, in all those cases, any camps were too transitory, or were self-settled and not 'designed' as such, or simply no written or drawn records were made (the one significant exception perhaps being that of the settlements created by Morgenthau for Greek refugees coming from Smyrna in the early 1920s. But in that case the opposite is true – that they do not qualify as camps as they were always intended as being the starting points of permanent relocation). In any case, the next record which has been preserved and circulated of a design for shelter for displaced populations, is the drawing of a prototype for a multi-family shelter designed by Alvar Aalto for those displaced by the London Blitz in the early 1940s (cited in Davis 1978:87, Sinclair

2006:38, 39). Whilst the prototype, as observed from the present day, has a number of points in its favour in terms of possible performance (considerations of privacy and dignity of the occupants in having the front entrances not facing each other, an economy of resources through shared heating, flexibility of deployment through coming in small modules), its limits in being a design for a single set of shelters, rather than for a complex settlement, and its lack of production and adoption by any government or organisation, means that it too can not be seen as a full or significant precedent of a camp design.

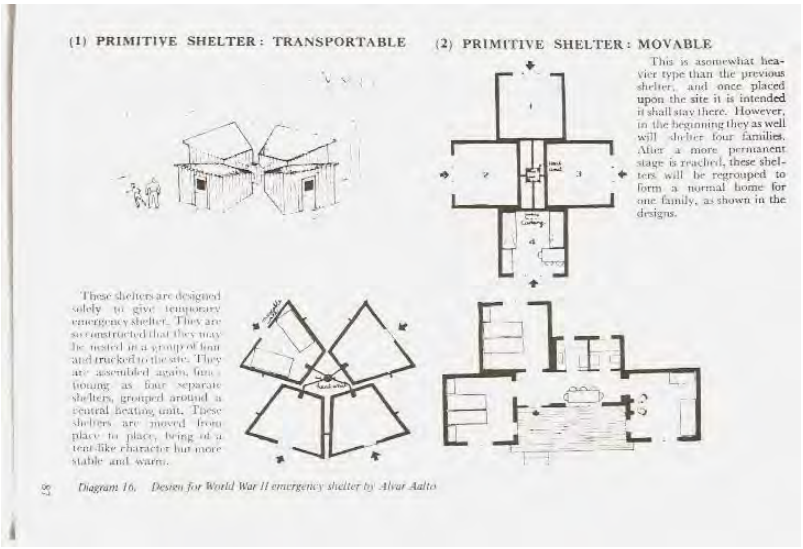

Fig. 4.2. Alvar Aalto emergency shelter prototype (Davis 1978:87)

Ian Davis, writing in 1978, stated, "Our knowledge of post-disaster housing is still in its infancy. It appears to date from 1970 following the Gediz earthquake in Turkey, and various Bangladesh disasters of the same period. (Davis 1978:12)[29] Beyond the era of World War II, the first significant extant documents relating to refugee camp design date from the early 1970s, and in particular two projects led by Fred Cuny, in response to natural disasters, one for earthquake response in Nicaragua in late 1972, and one used for flood response in Bangladesh, developed in 1973-74. The documents originating from these two projects, and from other projects conducted by Fred Cuny and his associates during the remainder of the 1970s and 1980s have had by far the greatest impact upon the subsequent design of refugee camps to the present day. As corollaries to the claims which can be made for the importance of these two specific projects, a number of other issues can be highlighted, which first emerge with, or are first coincident with these two projects, and which have had significant impacts upon the development of the design of refugee camps until the present day. It is therefore this point in the early 1970s which can be described as being the significant starting point for the research for this thesis. The significant issues emerging from that period can be summarised as follows:

[29] This does not mean that at some point there were not in existence documents on shelter, or refugee camps prior to Cuny's work in Nicaragua. Davis tantalizingly states that in 1975 he had found 46 studies covering 12 disasters between 1960 and 1975, of which "only" 14 studies had any "precise data on shelter provision", (Davis 1976:23) but Davis does not go on to clarify definitively whether any of those studies date from prior to 1972, or whether any of them contain any data related to camps rather than just on shelter.

1. Despite the increasing number of refugees and refugee camps since the early 1970s, a significant proportion of the developments in the design of refugee camps were occasioned as part of responses to natural disasters, (where legally speaking, the inhabitants have been 'displaced people' rather than 'refugees'), rather than as responses to armed conflict. As a result, there are certain visible but unremarked influences which have been transmitted from the development of best-practice for response to natural disaster into the planned-camp response for refugees, and which have had a notable impact upon some of the concepts and assumptions which have since underpinned the development of the design of refugee camps. There have been a number of major texts which have cautioned against the possible dangers of basing natural-disaster response upon concepts derived from camp planning (Davis 1975, Davis 1978, Corsellis and Vitale 2005), but to this date there has not been a single document written which cautions against the unwitting adoption of assumptions in the opposite direction, i.e. from the field of natural-disaster response to the field of refugee camp planning.

2. Those ideas on camp planning which are presented in the plans for response for the two projects in the early 1970s, are largely finished products even in their first inception. (There are extant only two documents which pre-date the plans made during the work in Nicaragua and Bangladesh. The first two are related rough draft documents produced by Fred Cuny and his associates during the 18-month period prior to the Nicaragua work in 1971-1972, both titled "Refugee Camps and Camp Planning" (Cuny 1971a, 1971b). Furthermore, since the plans for the Nicaragua and Bangladesh projects, there have been no major paradigm shifts in the design of camps: smaller improvements notwithstanding, it is still the general concepts from these two projects which are promoted to the present day, (despite the fact that there have been significant changes in refugee law and in the policies of humanitarian agencies). Therefore, some effort may need to be made in order to draw inferences concerning possible influences from external fields upon these first concepts, and subsequently on other significant texts in the field as well.

3. A pattern emerges which is observable though not predictable, that significant developments in the design of refugee camps, along with significant development in the broader sector of emergency shelter, occur in leaps. The pattern is often one whereby various authors may have been promoting certain changes or developments for a period of time, but then a major disaster or refugee situation acts as a catalyst which speeds up the development of those ideas, clarifies them, and then leads to a rapid acceptance of those ideas by a larger proportion of the humanitarian community. However, as each of these leaps in development has been in reaction to a specific situation, there has been a tendency to then draw wider conclusions from the observations of just a small set of circumstances, and to then advocate more universal solutions based upon specific and limited evidence.

4. For the plans created for both the Nicaragua and Bangladesh projects, and for much of the subsequent texts which will be of concern to this chapter, the authors were independent consultants, rather than long-term employees of any specific

organisation. This has then often relegated the humanitarian organisation to a role of review and implementation. This in turn has often led to a lack of awareness of authorship or the origins of certain ideas contained within designs or policies which the humanitarian organisations have adopted.

5. For the purposes of elucidating the texts which act as evidence for the narrative of this chapter, the value of the archives of independent shelter consultants, in particular those associated with Fred Cuny, cannot be underestimated. With the exception of one or two later examples, the Cuny Centre papers (along with smaller collections of papers held by a number of his former colleagues), the current repository of Fred Cuny's work, as well as a substantial archive of papers of those who worked with him, is the one archive in the world through which the development of the designs, or the development of certain crucial concepts can be traced through paper trails leading up to finished published articles or books: the archives of humanitarian organisations in contrast, for the most part only contain the finished products, without any direct evidence of the processes by which those finished products were created. The documents currently held in the Cuny Center archives or held by Cuny's former colleagues are not sorted in the order in which they were acquired, and there is little formal indication of the dates at which each document was read by Cuny or any of his associates, apart from occasional explicit cross-referencing between documents. However, for the most part, documents actually produced by Cuny or Intertect have the exact dates of production on them. For those texts written by others, in the form of papers, booklets or books, and which may be seen to have had some influence upon the work of Cuny and Intertect, for the most part were only printed once, and in small quantity and with immediate and limited distribution. Therefore, a tentative assumption can be made in those cases, that the documents were acquired by Cuny and his associates at a point shortly after each one's publication, and therefore an initial assumption can be made about the timing of any possible effect on Cuny's work. In the few cases where this assumption cannot be made, that ambiguity is duly noted in this chapter.

* * * *

Fred Cuny and the development of the 'community module' camp design type, 1971-1982

The wider background to the designs for camps created by Cuny and others in the early 1970s, lie in both Fred Cuny's own biography, and in certain changes in humanitarian response leading up to those years. In the most general terms, the years leading up to the early 1970s through the 1960s, saw an acceleration of three distinct processes which whilst not providing all of the impeti for the work which Fred Cuny and various associates would produce, nevertheless created the conditions which permitted such type of work.

Firstly, by the early 1970s, many of the larger international NGOs which had their roots in WWII-era humanitarian response to conflict-generated disasters (e.g. Oxfam or CARE[30]) had also become heavily involved in providing assistance to those who were victims of natural disasters, or had positioned themselves more generally as providers of 'disaster response', taking on tasks which had previously conducted by local armies or by the Red Cross. This spreading of the humanitarian organisations' spheres of operation, the increase in the absolute numbers of humanitarian organisations or the creation of new, inexperienced organisations, the increase in the scale of needs in major disasters, and the availability of new technologies for large-scale response, had led some INGOs, and in particular Oxfam, to build upon earlier manuals created by the Red Cross (League of Red Cross Societies 1959), and to start developing brochures or other short documents, for internal use and for distribution, which would standardise knowledge about best-practice and materials standards for a number of technical issues. Perhaps the best-remembered internally produced document from roughly the same time-frame as Fred Cuny's first work, would be the booklet "Oxfam Technical Guide Plastic Sheeting: Its Use for Emergency Housing and Other Purposes" (Howard and Spice 1973), although others followed in its wake. Whilst there is no documentary evidence at this stage to suggest that Fred Cuny was explicitly requested by anyone at Oxfam to document his work for them for research purposes, or to consider his work for them as some form of experiment, nevertheless, the fact that Cuny's employer during the Nicaragua project was Oxfam, and the fact that at least one person doing research for Oxfam in 1972, (Taylor 1971) would subsequently also write for Cuny's company Intertect (Taylor 1978a, 1978b), would imply the possibility of a receptive and supportive professional atmosphere for any attempts to adopt a 'best-practice' exploratory approach, and to document the outcomes.

Secondly, throughout the 1960s, there had been growing numbers of young people in the West who had become involved in active volunteering, as exemplified by the Peace Corps movement, or equivalent European or Australian organisations. One such outlet for those who wished to engage in such volunteer activities, was the increasing number of NGOs which were being established, and which were looking to expand both their activities and their staffing levels. As the method of entry into such organisations was less formalised than it has become 40 years later, the possibilities of being taken on by just turning up in the middle of an emergency were greater, particularly if, like Fred Cuny, the applicant had previous experience in matters of logistics or transportation. As the major influx was of staff who carried what would today be called 'transferable skills' from other professional fields, and this new influx also had the potential to be a major carrier of new ideas into the NGOs. According to the various biographical sources on Fred Cuny, by the time he engaged in the Nicaragua and Bangladesh projects, he had managed to combine logistics and flying skills learned during military training (Anderson 1999:7-53), an entrepreneurial attitude of offering to bring added value in terms of expertise and elite knowledge to his work, as well as experience in urban planning, and in particular urban-planning projects which centred upon community-based projects, and ones which were low-cost, for low-income groups (Anderson 1999:59-67).

[30] Oxfam, originally the Oxford Committee for Famine Relief, set up in 1942 to assist famine victims in Greece, and CARE, set up as a consortium of smaller charities in 1945, to provide assistance to those in need in war-torn Europe, are two of the more well-known examples of this trend.

Thirdly, although more amorphous and less easily quantifiable, during the same era of the late 1960s and early 1970s, there was a rise in awareness about, and activities in support of grass-roots empowerment and bottom-up methods of community mobilisation, which also had its champions in the fields of architecture and urban planning. Amongst the Fred Cuny papers, is Cuny's own copy of the iconic text on the community-based approach from that era, John Turner's *Housing By People* (Turner 1976), as well as at least one other book co-edited by Turner (Turner and Fichter 1972). The paperback versions of the book held with the Fred Cuny papers are not first editions, and therefore it is impossible to ascertain the date of purchase, let alone the date of reading of the book by Cuny, and one of the works by Turner in any case post-dates Cuny's Nicaragua and Bangladesh projects. Nevertheless, the fact remains that Turner and indeed a variety of others had been advocating the same approaches for a number of years before the 1972 work in Nicaragua (Caminos, Turner and Steffian 1969). The fact also remains that prior to 1972 Cuny had been working with Spanish-speaking communities (Anderson 1999:59-67, Buchanan 1995:1-2, Shawcross 1995:2), as had Turner, and had by the 1972-3 period also become involved in the small circle of US universities which were funding research projects in the physical construction aspects of disaster response (Caminos, Turner and Steffian 1969, and Intertect/CMU 1973a). Lastly, writing in 1976, Cuny's sometime collaborator, Ian Davis, makes a point of singling out the influence of Turner's two books *Freedom to Build* and *Housing by People* as a significant external influence upon shelter and settlements thinking in those years, and in his acknowledgement of that influence also goes on to give evidence that Turner and Cuny would have met personally at a conference on Shelter After Disaster by 1976, if not before (Davis 1978:13).

Fred Cuny was in many ways an exemplar of all of the tendencies listed here above – technically minded and an activist. However, he would never describe himself as being only a shelter specialist, but instead sought to create definitive work in methodology and technique across many different sectors of humanitarian response. Nevertheless, the company which he founded in 1971 was called Intertect Relief and Reconstruction Corporation (hereafter referred to as "Intertect"), which gave some indication that much of Fred Cuny's research would be in the technical sectors of humanitarian work: shelter, water and sanitation, and logistics: Cuny's work in the field of shelter and site planning for camps remains the most influential of any writer or organisation to this day, both in what he explicitly advocated, and in some of the assumptions which he implicitly carried forwards in his work, which other have since adopted, often without question.

However, there is no good answer as to why if the *zeitgeist* produced one Fred Cuny, it didn't produce any others. Given the limitation of available data described at the start of this chapter, it is impossible to definitively state that there wasn't another such character somewhere in the world – but it can be stated that no such second Fred Cuny ever left any documents, ever worked for the UN, NGOs or government donors, or in short, never left any trace upon any of the discourses on shelter or camp design issues. As has already been stated earlier in this chapter, it is two of the contentions of this thesis that there has only ever been the development of one composite type of refugee camp, and that this is in part because of the culture of hiring external technical consultants which exists in the majority of humanitarian organisations, for which Fred Cuny's biography is powerful testimony.

There is little documentation of Fred Cuny's thinking in the area of shelter, or even in the area of humanitarian aid, prior to his field work in Nigeria during the Biafran war of 1969-1970: the Cuny Centre archives are based on the documents collected by Cuny's company, Intertect, which was only founded upon his return to the United States in 1971, and most of the documents in the archives which pre-date Intertect are a small number of US army technical manuals, presumably collected by Cuny during college ROTC courses (Shawcross 1995:1) or through using other personal connections with military personnel during the late 1960s (Anderson 1999:48-58). The only references to Cuny's thought processes on the matter are from interviews with Cuny and some family and colleagues, most of which date not from the 1970s, but from the early-1990s (Anderson 1999, Shawcross 1995), at a point when Intertect was more established but when Cuny's public reflections on the earlier period may well have been coloured by advocacy issues which were more current at the time. However, through the corroboration of interviews with friends and family, as well as other evidence collected by biographers, it can be stated that Cuny spent part of the late 1960s during his college years involved in local community politics, and in advocacy actions for the rights of the Chicano migrant communities in his native Texas (Shawcross 1995:1, Buchanan 1995:1). He received a degree in urban planning, and this was then followed later by professional work as an urban planner in rural south Texas, which was where, according to the biography, he first developed his signature method of combining community activism with practical sanitation measures to improve the lives of the people there (Buchanan 1995:2). But it was only once he arrived to offer help in the humanitarian response to the Biafran war in 1969 (a move prompted, according to his biography, in part by his community activism work, and in part by having also studied African politics in college) that he first took on international humanitarian work, where his initial work on logistics and transportation led him to also become involved in projects for food aid, livelihoods support, and crucially water and sanitation and site planning (Shawcross 1995:3).

Biafra has been described as the "first large-scale humanitarian efforts of the post-colonial period" (Shawcross 1993:2), and Cuny later referred to the Biafra experience as a defining moment, by saying, "[w]e still use the yardstick of Biafra to measure our performance in other disasters." (quoted in Shawcross 1995:2) The Biafran experience can be seen as somewhat of a catalyst for Cuny, (although the point should not be dismissed that as stated above, for a number of the larger humanitarian agencies, their own development of more formalised methods of working, and the guidelines, manuals and research to support that move, is coincident with the years immediately after the Biafran war). Cuny later described himself as bringing a number of lessons learned from that experience in terms of humanitarian response, which would be germane to his later thinking on camp planning. The first lesson was the need to think of holistic, cross-sectoral approaches, and the second was the need to take into account the affected community's own aims and own capacity for self-support. Both of these lessons are ones which are routinely advocated by those writing on site planning in the present day (UNHCR 2007a:216, Shelter Centre 2007, Corsellis and Vitale 2005). The third and fourth lessons, adopted with all the best will in the world, have been remarked upon to a lesser degree, and receive much less insistent explicit advocacy in current texts, but nevertheless have still form some of the basic assumptions of every organisation subsequently involved in refugee camp-related projects, and these two lessons are no less

important for all that they are both the less discussed, but also the ones which it can be argued have imposed the greater limits upon the design of refugee camps since. The two last lessons are: that refugees or displaced people must be given the strongest encouragement to move back to their pre-disaster or pre-conflict locations as soon as safely possible (Shawcross 1995:3); and that although the rationales for general humanitarian interventions may include concerns for livelihoods, community development and the like, the primary governing factor when deciding on a camp-related intervention, should be public health concerns. In terms of lessons learned in Biafra, Shawcross places a quote from Cuny thus: 'The other huge problem was public health. [Cuny said,] "I kept thinking if we could just get people to start building better drains and to focus on planning, far fewer people would be sick. In one of the camps, the water was 20 inches high—simply because it was built on very low ground. But there were few engineers in the relief agencies in those days…"' (Shawcross 1995:3) Again, this quote is taken from a discussion many years after the events described. But the claims made in this quote are supported by the fact that the community action schemes which Cuny had supported in southern Texas were also ones which used planning and infrastructure development to create improvements in public health, and the fact that two of the earliest acquisitions for what would become the Cuny Center archives, are 1971 copies of the World Health Organisation's "International Standards for Drinking Water", and "Guide to Sanitation in Natural Disasters" (WHO 1971; Assar 1971). As will be seen further in this chapter, the second of these two documents can be seen as containing the kernel of the concept for the predominant refugee camp design tool which exists to this day, namely through the use of numeric minimum standards for the morphology of camps and shelters.

After returning to the USA from Biafra in 1970, Cuny set up Intertect as a company, with the plan to make the company the leading source of expertise in humanitarian response. At first commissions from NGOs were sometimes slow in coming, and so Cuny and his first associates at Intertect decided to spend the time in between commissions strengthening their attractiveness to potential hirers, by undertaking to draft systematic handbooks on what they saw as best practice across a number of different sectors of humanitarian response, the one which is relevant to this thesis being the already mentioned "Refugee Camps and Camp Planning I-IV" from the "Refugee camps and city planning notebook" of 1971, and "Refugee Camps and Camp Planning" from the "Base studies, Reports 1, 2 and 3", of 1971 (Cuny 1971a, 1971b).

At the same time, according to the account given in Davis' *Shelter After Disaster*, various universities and research institutes were becoming involved in what he terms 'action oriented' or field-based research into various aspects of disaster response. Davis, writing in retrospect, states that of this form of research, that conducted by Intertect was of "decisive impact" (Davis 1978:12), but at the time, the research being done through university departments which had the higher profile at the time, and in many cases, and in particular that of the Bangladesh project, Intertect worked under the umbrella of university-administered competitions or university-funded research projects.

It was under the aegis of one of these university-administered research projects, sponsored by University College London's Development Planning Unit, that Ian Davis first met and collaborated with Cuny, on what would become the prototype for all subsequent camp

prevalently designs seen as 'best practice' until the present day, that of the camps created as a response to the earthquake in Managua, Nicaragua, on December 23rd, 1972. In *Shelter After Disaster*, Davis goes to considerable length to play down what he terms his "modest contribution" (Davis 1978:12) to the development of post-disaster shelter and settlements, and to highlight the contribution and impact of the work of Cuny and Intertect (Davis 1978:12, 13, 54-56), but there are documents written by Davis and Cuny, held in the Cuny Centre archives, dating from the period immediately following the response, which demonstrate the degree to which Davis himself was involved, and how Davis' contribution also helped form the vocabulary and the foci of what would be subsequently advocated and adopted by a wider humanitarian response community. In various texts in subsequent years, Davis would repeat the assertion that the camp designs which Cuny had developed in Nicaragua, should be seen specifically in opposition to military-style camps:

"…with one notable exception [that of Cuny], they [the tents] were laid out by the military on military lines with regimental control of cooking, sanitation and little recognition of family needs [in Managua]." (Davis 1975:43)

"The layout that Cuny worked out for El Coyotepe camp in Nicaragua produced a humane environment in sharp contrast to the regimented military camps. This resulted in far higher occupancy figures. The basic principles were the use of family clusters, localised cooking, and sanitation units." (Davis 1978:55)

Fig. 4.3. Davis' example of the opposite and inferior approach to that taken by Cuny in Managua (Davis 1978:55)

But this phrasing, from two or three years after the project, echoes the language used by Davis already in a draft "Chart of Sequence of Events of Managua Earthquake, 1972" (Davis 1973) written by Davis shortly after March 1973, and held in the Cuny Centre archives, presumably as the writing had been done in collaboration with Cuny. In that chart, there is already reference to 16-tent 'units' in the camp being designed by Cuny, and that it had been built by refugees. But the narrative on the chart also goes on to make the point, "…the camps at Tipitapa were militaristic in layout in contrast to the camp in Masaya [the camps which Cuny had designed]." (Davis 1973) Thus, while Cuny should still be seen as responsible for the new design, it is the texts by Davis which create the first and enduring definition of what camps should not be, or what the camp designs should be opposed to. As Cuny provides from Managua the basic design prototype, it is Davis' documents which first contain the embryonic vocabulary selected to describe the necessary elements of a camp, in terms of 'clusters' versus 'military-style'.

Shelter After Disaster contains an aerial photograph of the El Coyotepe camp which Cuny designed at Masaya, outside Managua. The photo is the only visual-graphics document of the camp design to have been uncovered: like the earlier photos of the 1906 San Francisco earthquake camps, the photo record of the implementation becomes the design. It is unclear whether the photo shows the entire camp – the photo crops one of the clusters at the top border, but the number of shelters shown is 145, which would correspond with being the vast majority of the shelters needed for the initial projected camp population of 880 people documented in Davis' chart (Davis 1973). The design of the camp does indeed contrast with images of military-style camps which Davis includes elsewhere in his texts (Davis 1978:55).

Fig. 4.4. Coyotepe camp, outside Managua, 1973. Designed by Fred Cuny. (Davis 1978:55)

There are a number of distinctive features of the camp, as observable from the photo, and with support from Davis' own descriptions. Many of these features would then be turned into explicit elements in subsequent plans or written guidelines, whilst others would be lost. Some of the features also give clear demonstration as how far camp design would go in achieving

Davis' claims to producing a 'humane environment'. The main features of the El Coyotepe camp which have been later adopted as elements in generally accepted camp design, are the following:

1. The shelters do not line the main roads external to the camp, but are located a distance within the camp area: there is a single access road which enters the camp.
2. The access road leads to one single central plaza, in which is placed all of the non-residential or administrative buildings.
3. The shelters are with one main exception, grouped together in 'clusters' although these clusters themselves are drawn as hollow squares of 13 to 20 shelters.
4. The clusters are for the most part laid out or 'tiled' in a rationalised, linear manner, with uniform pathways between each cluster.
5. The clusters lead away from the central plaza area in the four directions of a compass axis. On the one hand, this minimises distance from the central plaza facilities for all the families, but on the other hand it also means that seven out of the eleven clusters are situated in open space, without any tree cover for the shelters (and this in an area where Davis would later make alerts concerning the effects of windswept sites on occupancy rates of camps (Davis 1973)).
6. There are essentially only two types of space in the camp: residential clusters (including the pathways in between individual clusters), and then a central non-residential area containing all of the administrative facilities. With the exception of ten shelters which have been placed on either side of the access road, and are not in closed clusters, there is no creation of intermediary or semi-public space, or to create different types of residential spaces within the same camp.
7. Within each cluster, each tent is equidistant from the other, indicating that space has been apportioned equally between all families.
8. Both the spaces external to the shelter clusters and the spaces inside the clusters are 'open-plan' with no walls or other boundaries indicating individual claims to outside space.
9. Whilst not visible in the photo, there was a localisation or decentralisation of sanitation, and of cooking services (Davis 1978:55).

Once back in the USA, Cuny created a map of the schemata of the Coyotepe camp which would be included in Intertect's internal guidelines after 1975 (Intertect 1975:Fig. 9-4).

Fig. 4.5. (Intertect 1975).

The design, as described in the list of significant morphological elements directly above, does not differ substantially from the composite of drawn types of camp designs which were being promoted by associates of Intertect 12 years later in 1985 (Hardin 1985), designs for camp upgrades in Thailand conducted by UNHCR Engineering and Environmental Services Section 27 years later in 1999 (Sarem-Kalili 1999:21-24, 27), or layouts of actual camps built by UNHCR implementing partners, and observed in Sierra Leone 31 years later, in 2004 (Kennedy 2004a:88-105).

There is one significant features of the El Coyotepe camp which has not remained as an element in subsequent camp design guidelines to such degree until the present day: whilst at first glance, the square shelter clusters seem to be of uniform area, closer inspection reveals that each cluster square has a different number of shelters contained within it. There is no documentation explaining why this is the case, but it does describe a certain flexibility in shaping the clusters. This is also seen in the one cluster which is actually triangular in shape. This flexibility is built into the schemata for camp layout designs which Cuny included in his 1981 draft of the first edition of the UNHCR *Handbook for Emergencies* (UNHCR 1981:21:9-10), but is not included to such a degree in any subsequent set of guidelines.

The grouping of the shelters into clusters at El Coyotepe camp, and the fact that there would appear to be some flexibility in the number of shelters per cluster, and even in the shape or boundaries of each cluster, would indicate that some consideration for community had been made, in the breaking up of the undifferentiated lines of a military-style camp. Later claims have been made, although difficult to substantiate, that such a layout was in large part responsible for various benefits ("[it] exhibited a greater sense of community, had far fewer

social problems (as indicated by crime, vandalism, etc)") and "cost 37% less to operate than other camps in the same area at the same time." (Hardin 1985:6) (As has been previously noted by this author (Kennedy 2004a:29), this figure of "37%" has also been echoed forwards in subsequent texts (Setchell 2002:2), despite the lack of substantiation.) However, whilst offering at least a basic spatial division between areas which would be nominally 'public' or 'outer' and nominally 'private' or 'inner', the layout does not go much beyond that level, and there is no hierarchy of spaces, or indication at that point that spaces might have different uses other than accommodation on the one hand and administration on the other, or that needs for space on the part of the inhabitants might change over time.

In terms of the prototype camp designed at El Coyotepe by Cuny, the justifications for the limits of the design (in terms of adaptation to the inhabitant community), can be given by saying that (i) the camp was after all a first prototype and even within its limits represented a radical break with military-style camps, (ii) the prototype was built during an emergency, when there was little time for prolonged thinking or planning, and (iii) after all, the camp design is somewhat a product of its age, when much of urban planning orthodoxy, even that of the 'bottom-up' sites-and-services programmes, made assumptions about the mono-functionality of spaces, and of the strict partition of functions between spaces. However, these justifications can not hold the same weight for the design concept carried forwards from the El Coyotepe camp and adopted to such a great degree by so many organisations in the following thirty years, particularly as Cuny's next project was one which provided intelligent answers to many of the issues raised here about the limits of the El Coyotepe camp design.

Whilst also embarking upon other humanitarian projects with less direct connections with shelter or camp planning, during the period following on from the Nicaragua project, in 1973-74, Cuny and Intertect teamed up with Cuny's alma mater, the University of Texas, and Carnegie-Mellon University, to develop both a prototype shelter and a settlement design, which was eventually designed for implementation in Bangladesh in 1975. This was during a period when, according to Davis, a number of universities or research units were becoming involved in projects concerning emergency shelter (Davis 1978:12-13). The resulting A-frame stand-alone shelter may have been developed in relative isolation by Cuny and Carnegie-Mellon engineering students (Cuny, Goodspeed and Hartkopf 1975), and may only have been justified as being specifically built to adapt to the cultural context of Bangladesh after the fact (Hartkopf and Goodspeed 1975:2) (the A-frame prototype had been previously field tested in Guatemala in 1974 (Hartkopf and Goodspeed 1975:1)), but the camp design itself was one which demonstrated great improvements over that done for Nicaragua, and in many ways constitutes one of the high points of camp design up until the present day, even if the lessons from that project have not been as widely disseminated as elements from the Nicaragua project.

The drawings for the plan, as contained in Hartkopf and Goodspeed's "Space Enclosures for Emergencies in Developing Countries" (Hartkopf and Goodspeed 1975:2-3), the last extant iteration of the plan, contain one page which gives the rationales behind all of the spatial decisions in the layout, using simplified cartoons to demonstrate the different concepts, whilst the second page is a formal, scale-version of the actual plan for a camp in Khulua

District in Bangladesh. The actual design shows a series of clusters which unlike those clusters in the Nicaragua photo, are now of uniform area and uniform number of shelters. Each cluster is U-shaped, with the closed end of the 'U' facing towards closed ends of other U-shaped clusters, across a central pathway spine.

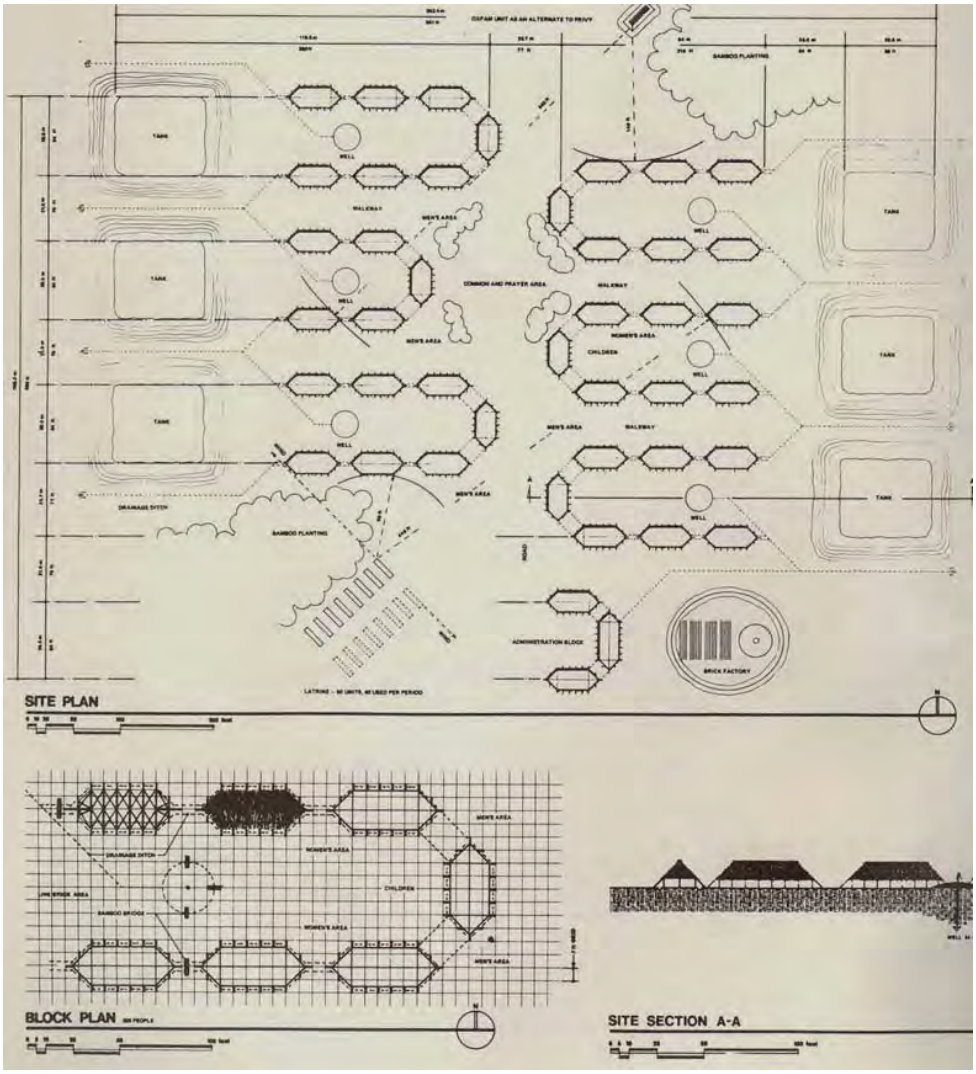

Fig. 4.6. (Hartkopf and Goodspeed 1975).

At first glance, the design shares much conceptually with the design of the El Coyotepe camp. The basic building blocks of the design are 'cluster' modules, which are repeated or tiled, apart from one area which is set aside for the single administrative block. However, it is in the rationales given for the design by Cuny and his team in the accompanying cartoons where the obvious improvements in the design in relation to El Coyotepe are revealed:

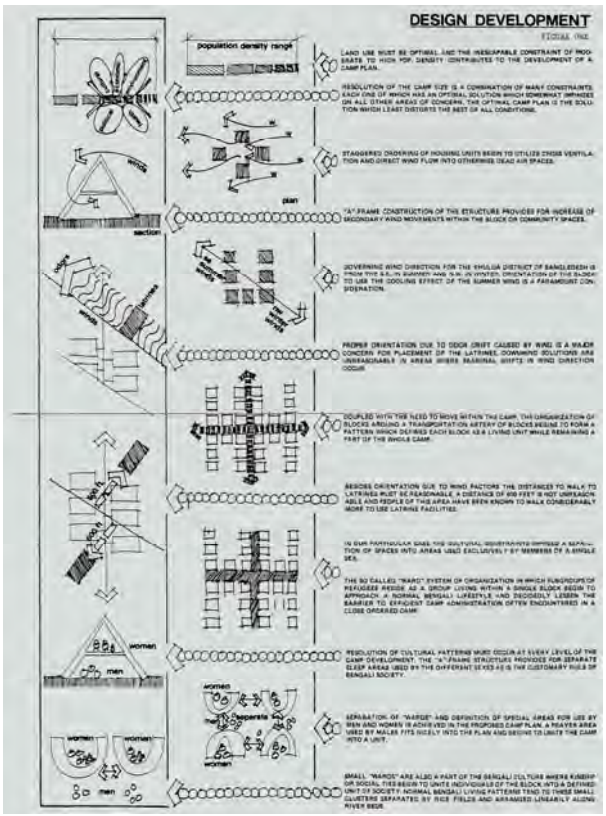

Fig. 4.7. (Hartkopf and Goodspeed 1975).

Over the space of 12 twelve drawings and 13 comments, the cartoons set about the following:

1. The camp is located within its surroundings, in this case in terms of assessment of population density, and in terms of the relative sizes of the camp population and the size of the host community.
2. The climate and micro-climate is taken into consideration at three separate scales, in terms of the wind-resistance for each individual shelter, the potential for cross-ventilation at the cluster level, and the use of prevailing winds to minimise nuisance from the latrines for the camp as a whole.
3. There is an organisation of the camp through its design, on three scales, all of which are claimed to mimic in some way the hierarchy of organisation of local Bengali communities. There are the axes of the access routes through the camp, which divide the camp into ‘blocks’. These blocks are then subdivided into what Cuny calls ‘wards’, i.e. clusters, and the wards are then separated, using the lines of shelters as U-shaped barriers, into male and female spaces. Informally, this layout is also supposed to support kinship ties and social interaction between each ward, by insisting that the ‘men’s’ spaces or walkways between wards are also a positive spaces, facilitating both communication and livelihoods, rather than just being seen as an empty, negative spaces as is often the case with other camp designs.
4. Despite the more ‘hard-lined’ or greater uniformity of the ‘ward’ or cluster designs, there is still sufficient flexibility that the area of a ward and the number shelters in one ward can be changed or reduced in order to create sufficient space for a

communal and prayer area, as an intermediate-scale semi-public space outside of the individual wards.

5. There is consideration for the social structures of the beneficiary community, on the scale of the ward-level (the mens' and womens' spaces mentioned directly above) and at the shelter-level, where the shelters can also be divided to provide that separation.
6. The layout of the camp is designed to positively support the livelihoods, not just in the potential for workshop areas located in the mens' spaces, but also in the livestock areas indicated inside each of the U-shaped wards.
7. In the commentary by Hartkopf and Goodspeed, much is made of the support that the layout gives to the families' sense of security, and therefore also the support of "normalisation of life in the camp." (Hartkopf and Goodspeed 1975:4)
8. Not evident in the cartoons, but also described in the Hartkopf and Goodspeed paper, is that fact that the camp is built by the beneficiaries themselves, with the support of a technical training programme, to give the beneficiaries skills in making bricks, roof shingles, etc. On the same page of the paper, the shelters themselves are described as being adaptable by the inhabitants themselves (Hartkopf and Goodspeed 1975:4).

The design is also significant, because it is the first extant instance of a numeric minimum standard being used to justify a layout decision: that of the distance from shelter to latrine of 600ft (180m) (Hartkopf and Goodspeed 1975:4). Whilst this is not given much attention in the Bangladesh documents, it is an element of camp planning which will attract increasing levels of importance in both Cuny's work and in the work of the wider humanitarian aid community, in the three decades following 1975.

Whilst the design for the camp in Khulua District in Bangladesh fulfills many of the essentials of best practice in refugee camp design (and indeed does so to a much greater extent than the vast majority of camp designs which would come after it), there are two limitations to the design, which will then be found in all future designs for refugee camps from that point onwards. Significantly, both refer back to the issues of the performance of the camp, and particularly the performance of the camp over an undeterminable life-span.

Firstly, apart from the capacity to support the families' livelihoods in general, there is no indication as to what is intended to happen to the camp over time, or what the ultimate strategy for the camp should be. There is no indication in the plans to show whether this camp was planned as the start of a permanent settlement, or as something which would be less than permanent. As far as reading the plan itself is concerned, the fact that the shelter buildings are actually multi-family dwellings could be interpreted as being the start of a permanent settlement based upon urban models, or else as being an essentially emergency response, which would in the long term be socially unsustainable – and there is no indication in the notes to demonstrate which interpretation might be closer to the designer's intention. Whilst some notes to draft documents for the Bangladesh project made by Cuny (Cuny, Goodspeed and Hartkopf 1975), corroborated by a newspaper interview given by Cuny in 1973 (Israel 1973), indicate that he thought that the camp in Bangladesh might end up being a permanent settlement, this is not transmitted in any way onto the plans for the camp, or the descriptions of the camp given by Hartkopf and Goodspeed. On the one hand, apart from the initial assessment of the comparative sizes and densities of the host and camp communities,

there is no further indication of how the relationship between the camp and its surroundings might develop over time. On the other hand, despite Hartkopf and Goodspeed's contention that the shelters themselves were adaptable, there is in the camp plans also no indication of how the 'wards' or the spaces between the wards might evolve in their uses or in their physical shape over time, or whether indeed the designers thought that there was adequate space for the basic shelters to be turned into permanent dwellings (there is also no indication in the various supporting papers to the plans, of how the shelters would compare in size or quality to either the houses from which the refugees had been displaced, or the typical houses of the surrounding host community).

Secondly, despite the attention paid to ensuring that the design of the camp provides security to the inhabitants, and demonstrates this concern specifically by providing enclosures of privacy for women within the wards, and even provides separate water well and a tank within each ward (Hartkopf and Goodspeed 1975:4), nevertheless, the design undermines this effort, by placing all the latrines in a single group, to the exterior of all the residential wards. Much is made in more recent sets of guidelines (e.g. UNHCR 2007a:218), about the importance of keeping latrines closer to individual shelters, or within the boundaries of single cluster, and having communal latrines only as a measure of last resort, and even Cuny, by the time of writing the draft for the first UNHCR *Handbook for Emergencies* in 1980, stated that communal latrines placed outside the clusters should only be used if otherwise unavoidable (UNHCR 1981:21.4.10:7), and within the last five years, there have been instances of the design of entire camps being re-arranged in order to re-insert latrines back into interior cluster spaces (Kennedy 2004a:115). The reason given for this close location, is one of security, particularly for women, although in some sets of guidelines this is sometimes couched in terms of "privacy" and "sensitivity" (NRC 2004:32). Other evidence indicates that keeping latrines within small family or community areas also increases the likelihood that the latrines will be well maintained (Davis J. and Lambert 2000:158). However, in the case of the design for the camp in Khulua District, these considerations have been subordinated to public health concerns, in placing the latrines a sufficient distance from the shelters that they are neither a health hazard nor a nuisance. Whilst other sets of guidelines written in later years might claim different impetus for their publications, such as security and protection (e.g. NRC 2004:9), closer inspection reveals that for their sections on camp site planning, the foundations of their standards are all derived from public health standards, often unknowingly, and all derived from the public-health-based standards which Cuny would introduce into the discourse on camp planning as shelter standards, over the following years. Whilst many camp planners give lip-service to acknowledging the trade-offs between different types of needs in a camp setting, the fact remains that up until the present day, it is largely public health needs which underpin design structures, couched in terms of universally-applicable numeric standards.

Intertect guidelines for internal use developed during the 1975 period contain two other idealised designs for camps, one of which bears a partial schematic reference to designs for English garden cities of the 19th century, but neither or these are grounded in any particular context, neither were ever implemented, and there is no evidence that they were widely shown to any Intertect clients.

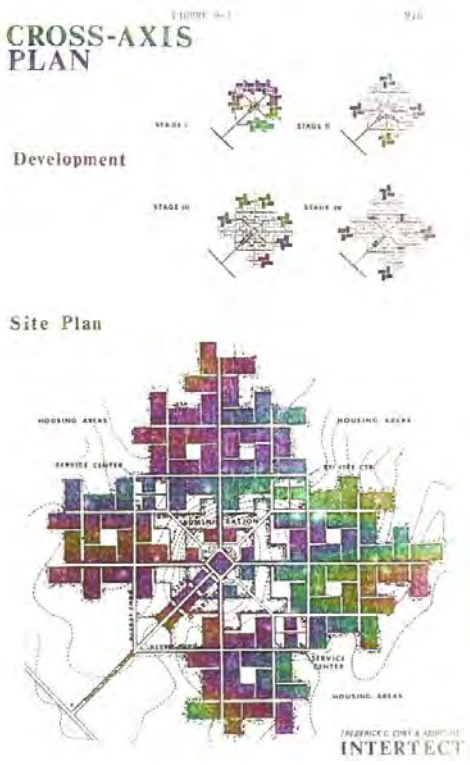

Fig. 4.8. The first of two designs for model camps (with no reference to any specific geographical context) produced internally by Intertect in 1975. (Intertect 1975).

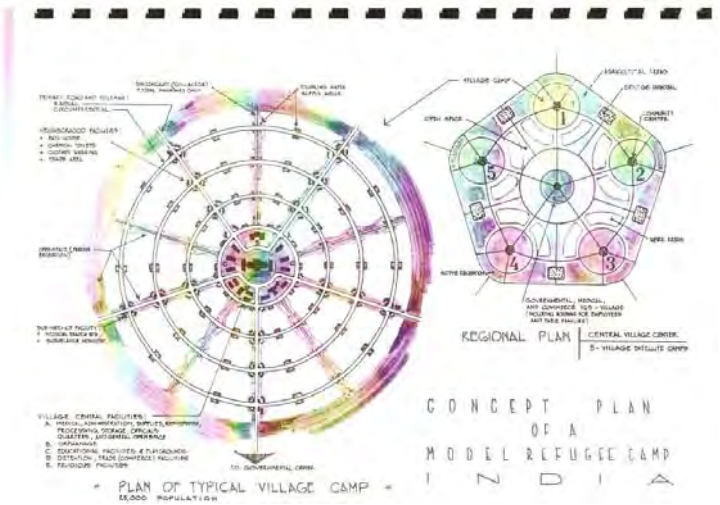

Fig. 4.9. The second of the two model camp designs produced by Intertect in 1975, this one with a wheel-spoke scheme resembling that for a 19th-century garden town. (Intertect 1975).

For the years immediately following 1975, until 1980, there were no further camp designs of any significance implemented on the ground, and in fact, apart from the two idealized, literally u-topian designs directly above, there are no examples of camp designs from the period 1975-1980 which survive to the present day (although the usual caveats apply, that an unknown quantity of documentation has been lost or destroyed since that time). The Hartkopf

and Goodspeed paper testifies to the fact that the designs created by Cuny with the Intertect and Carnegie-Mellon were entered into an international competition for a UNESCO prize in conjunction with the XII World Congress of the International Union of Architects (Hartkopf and Goodspeed 1975:1), and an unattributed photocopy of a newspaper clipping from 1975 found in the documentation centre of the Katholieke Universiteit Leuven Post-Graduate Centre for Human Settlements (anon. 1975), contains reduced-scale copies of entries by three other teams, one of which can be seen to have some concern with community and with the layout of multiple shelters, but there are no other available recorded copies of those entries, and their ideas were not carried forwards. Hartkopf and Goodspeed dedicate the main focus of their paper not on the layout of the camp, but on the design of the single shelter itself, devoting four times as many words to the shelter than to the camp (Hartkopf and Goodspeed 1975:1). Davis, in *Shelter After Disaster*, and other papers from the same period (Davis 1975:43), amplifies a point that he first made in his chart of the response to the Managua earthquake (Davis 1973), that the delivery of materials to construct planned camps always occurs far too late in any disaster response, and that the survivors of natural disasters should not be housed in camps located at a distance from their original homes, but should be supported in their original locations wherever possible (Davis 1978:26, 57). As Davis points out in his introduction to *Shelter After Disaster*, he was writing at the end of, "the worst year since 1927 for earthquakes, with fifteen major disasters of over 7.5 on the Richter scale…" (Davis 1978:xiii): much of the attention of humanitarian organisations and their donors turned towards response to natural disaster rather than response to conflict-based disaster, and following Davis' logic, there was little need for thinking of further camps in those situations. There are a number of documents in the Cuny Center archives which show that during the period of 1975-1977, Intertect continued to write reports on the feasibility of the shelter prototype (Cuny 1975a, 1975b, 1975c), some for its principal donor, the United States Agency for International Development (USAID) (Goodspeed, Hartkopf and Cuny 1975). A later version of this, submitted as a paper to a USAID-sponsored International Disaster Preparedness Seminar does make some argument for the needs to consider the overall layout of the camp or settlement (Goodspeed, Hartkopf and Cuny 1977), but otherwise the attention is back to the single shelter prototype. There are documents in the Cuny Centre comprising drafts and final versions of requests for grants to implement the shelters in Bangladesh, not for the originally intended camp, but as part of a planned camp upgrade for another location in Bangladesh, Mirpur (Cuny 1975d, Cuny, Hartkopf, Goodspeed, Singh 1977) with a very much simplified, and conceptually weaker camp layout design. However, there are no documents to show that either of the camp designs at Khulua or Mirpur were ever implemented, or whether the shelter was ever implemented, except as a series of prototypes. In *Shelter After Disaster*, Davis, whilst giving fulsome praise to Cuny's work elsewhere in the book, gives cautious approval for the approach which Cuny and the Carnegie-Mellon University team adopted to design the shelter prototype, but does not mention the proposed camp layout design for Khulua (or Mirpur) at all, and beyond 1977, the Bangladesh camp layouts are not reproduced in any other document, or promoted further by Intertect or any other organisation, and fall out of the mainstream discourse on camp design from that point onwards.

During the period leading up to 1980, Intertect continued to undertake humanitarian work in various countries, some of this pre-dating the end of the Bangladesh project with Carnegie-

Mellon, and to write reports on their work (e.g. Cuny, Perez and Parker 1975), and to write other more general papers on their philosophy towards disaster relief (Cuny 1977, 1978, 1981, Cuny, Krimgold and Davis 1977, Taylor 1978a, 1978b, 1978c). However, none of these contained new designs for refugee camps. Nevertheless, there were during this period, two trends which can be indicated, which would have not inconsiderable influences upon the next major step in the development of camp design, which would occur at the next major international humanitarian crisis, in 1979-1980. One of these trends is easier to pinpoint, whilst the other can only be more tentatively indicated for that time period, even though claims can be made as to the pervasiveness of that second trend.

The first such trend was contained within the work of Cuny and Intertect, and that was the goal of producing comprehensive guidelines or a comprehensive handbook, which would give clear guidance for what to do in any emergency situation. This book would go much further than the Intertect "Base Studies" first developed back in 1971. Intertect certainly did continue to develop their handbooks for internal use across a number of sectors during the period leading up to 1980 (Cuny 1975e), but even by 1973, there is a piece of personal correspondence to Cuny from an acquaintance named John Seaman, who had previously worked for Save The Children in Bangladesh, which would indicate that by that point Cuny had already been talking to other people about writing a handbook of some sort even whilst still involved in the Nicaragua project (Seaman 1973). But by 1976, some sort of prototype had been developed by Cuny and Intertect, as stated in a newspaper article of the time: "For relief workers caught suddenly in a disaster situation, Cuny has devised a 'decision tree'—a hand-operated computer-like device that lays out the options to determine what kind of housing is best suited for a particular area." (Anderson G., 1976:12)

The second trend originated from various sources exterior to Intertect, and therefore is more difficult to quantify in terms of its effects upon the thinking of Cuny and his associates, but arguments can be made for that trend being pervasive and highly influential—and that is the trend towards the rationalisation of response in terms of minimum standards. The influences are sometimes nebulous to trace, but can be summarised as follows:

1. By the late 1970s, the sites-and-services school of urban development in developing countries, was gaining wider recognition. As exemplified for a north American readership in texts like Caminos and Goethert's *Urbanisation Primer* Caminos and Goethert 1978), the main goal in terms of site planning at least, is to distribute scarce resources as efficiently as possible, through a rationalisation of design including a mathematical calculation for the shortest possible lines of infrastructure or utilities delivery, based upon another set of calculations for the minimum acceptable standards of delivery per person or per household. There is indeed a copy of *Urbanisation Primer* in the Cuny Center archives, and there are also some indicators of an indirect connection between Cuny and Caminos, via collaborations and communications with John Turner (Caminos, Turner and Steffian. 1969, Davis 1978). What does remain as evidence are the books in the Cuny Center archives dated to this period, which refer to sites-and-services related programmes (State 1974, Ghai 1977, UNHabitat 1976), and the beginnings of an adoption of such phraseology in Intertect's own documents (Goodspeed, Hartkopf and Cuny. 1977).

2. This is augmented by the books in the Cuny Center archives dating from that time or beforehand previously mentioned in this chapter, not directly related to issues of shelter or camps, but which specifically advocate the concept of standards of minimum achievement as a means to ensure across-the-board safety of all beneficiaries, and across-the-board response by implementing organisations. All of those documents present in the Cuny Center archives are specifically from the sector of public health, in which cases can be rightfully made to claim that if certain minimum standards are not met, then it becomes a matter of life and death.

The next definitive developments in camp design were catalysed by two large-scale conflict-related humanitarian crises, during the 1979-1980 period, and through the humanitarian response to these crises, and in part through Cuny's own work, the major elements for the design of camps up until the present day, would be formally put in place. There would be little development in the actual graphic templates for the camp designs, but there would be significant developments in the written guidelines which would do much to determine the forms of camp designs from that point forwards. As a result of the work done between 1979 and 1981, the guidelines for camp design would become widely disseminated and widely adopted, and formal rationales for the hierarchy of design decisions would be put in place.

The two humanitarian crises in question, were triggered by the Vietnamese invasion of Cambodia in late 1978 and the Vietnamese occupation of Phnom Penh in January 1979, and the war between Ethiopia and Somalia from August 1979. Both crises resulted in large-scale refugee camps being built, often of varying or low quality and both crises, but in particular the one in Cambodia, received a large amount of international attention. According to one informal source who had extensive experience in the United States Bureau for Population, Migration and Refugees (BPRM) and who had collaborated with Cuny over a number of projects, by the late 1970s, there was an increasing push from within UNHCR to develop a manual for training in anticipation of future events, in awareness that its field operations were not always of acceptable standards, and that at the same time there was increased pressure from the US government on the then UNHCR high commissioner, Poul Hartling, to address the same issue[31]. At the same time, at least one other UN agency, UNDP, had commissioned another consultancy to prepare a draft handbook for at least one specific type of emergency and which in its contents directs some issues concerning shelter, a copy of which was acquired by Intertect (PADCO, 1979), and prior to December 1980 (albeit with no information available on the date of first commissioning of the project), Intertect itself had produced for the USAID Office of Foreign Disaster Assistance (USAID/OFDA) a draft of a Contingency Planning Manual, which had an entire volume on shelter, which contained some general directions for setting up camps (Intertect 1980). Meanwhile, UNHCR itself had commissioned a booklet under the closely related topic of "Planning Rural Settlements for Refugees: Some Considerations and Ideas" (UNHCR 1979). Cuny and other Intertect associates were involved in projects in both Somalia and Thailand during the 1979-1981 period, and in both places the programming involved participation in projects concerning the design and construction of refugee camps (Shields and Cuny 1980, Cuny 1980a, 1980b, Shields 1980, Biellik and Cuny 1980).

[31] Interview, D. Krumm, 04/01/07.

The work on camp planning for UNHCR in Somalia clearly shows the influence of Cuny's ideas with regards to a hierarchy of elements based upon community cluster modules:

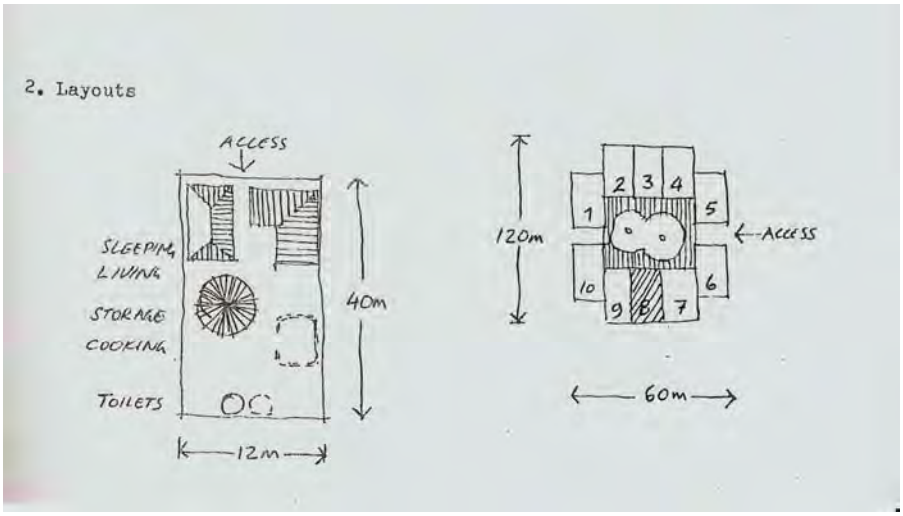

Fig. 4.10. Somalia camp design, single community grouping. 1980 (Mumtaz 1980)

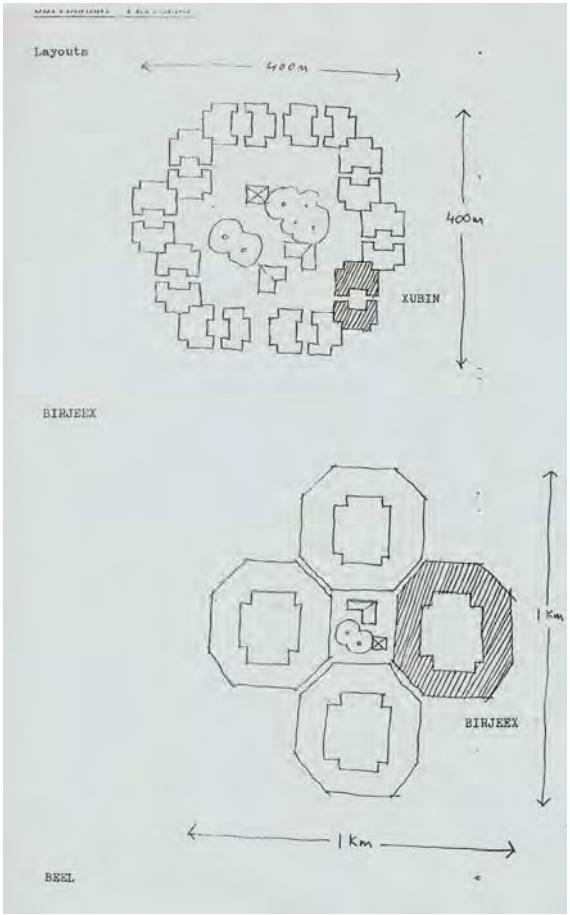

Fig. 4.11. Somalia camp design 1980 tiling of community modules to create a camp (Mumtaz 1980).

However, more important was Intertect's own reporting on both locations, which included advocacy for the development of an operations handbook, and not just one for continuing operations in either location, but as a global tool which would fill an obvious gap in operational capacity (Biellik and Cuny 1980). UNHCR had provided Intertect with a number of their own reports on the two crises (UNHCR 1980?, Mumtaz 1980, UNHCR 1980a, 1980b), (and reports by other organisations acquired by Intertect at the time (Simmonds 1979, Hansen, 1980), as well as other documents present in the Cuny Center archives which show that for the Thailand situation at least, UNHCR was attempting to develop tools to monitor the situation inside the camps (UNHCR 1980c), and was also actively showing concern for issues of security within the camps (anon. 1980), and were also developing designs for shelters or camps for Thailand through commissioning other companies (K Engineering 1980).

During March of 1980, UNHCR hosted a seminar in Bangkok, entitled "Seminar on Improving UNHCR Responses to Emergencies", after which emerged three sets of documents: an internal report to the UN High Commissioner for Refugees by the UNHCR Co-ordinator for South-East Asia and the UNHCR Deputy-Chief of the Programming and Co-ordination Section (Rizivi and Beyer 1980), and two reports by Intertect, which were also for internal delivery to UNHCR and were not publicly released. The first of the Intertect reports was not directly derived from the seminar, and was nominally focused upon UNHCR's efforts limited specifically to Thailand (Cuny 1980c), but which nevertheless in terms of camp planning contained many of the same recommendations (going beyond the scope of the Thailand programming) as the second report, dealing with the much wider issue of improving UNHCR's preparedness and response, with one of the key recommendations being the creation of a global emergency operations handbook, and the adoption of minimum standards in response (Intertect 1980b, Cuny 1980d), which would then lead to Cuny's writing the draft of what would then become UNHCR's first edition of its *Handbook for Emergencies.*

Although the internal reports from the UNHCR managers, the reports from Intertect, and the draft of the *Handbook for Emergencies* deal with many different sectors of emergency response, there are significant recommendations contained in all those documents with reference to camp design. Of the different documents, the UNHCR internal report is the briefest, and with reference to the issues which will from that point onwards become influential in the design of camps, the only recommendation of note is for not only having a ' general handbook on emergency procedures…' (Rizivi and Beyer 1980:3) but to specifically also '[p]repare handbooks on minimum and optimum standards for (a) site selection (b) potable water (c) Hospital admissions procedures'. These recommendations reflect goals which, according to handwritten minutes of the seminar meetings held in the Cuny Center archives (Saunders 1980:6), would appear to have been already decided by the end of the seminar, if not (more likely) before the seminar began. The handwritten notes also demonstrate the continued assumption by the meeting participants (including Cuny and possibly other members of Intertect) of the relevant standards being health-related, by seeing the antecedents of the handbook as also lying with medical textbooks (Saunders 1980:6). In the same note, the handwritten meeting notes also give some explanation as to why the

subsequent UNHCR internal recommendations at that point talk of both ‘minimum’ and ‘optimum’ standards, with a question which has never been satisfactorily answered since, and which in some regards could be the question which defines much of this thesis, twenty-seven years later, and that is the question of how to square the circle of ensuring that guidelines are both specific, and yet locally relevant: “since when do e.g. med textbooks not give specifics and yet when are two cases just alike? Yet as a guideline isn’t the text necessary?” (Saunders 1980:6)

The documents which Intertect prepared for submission to UNHCR on the technical role of UNHCR in Thailand goes beyond the geographical scope of its remit, in order to further illuminate the reasoning behind the advocacy for a handbook, minimum standards, and through the two a strengthened and expanded role for UNHCR in terms of its co-ordination role at the apex of a pyramid of organisations in emergency response. The document is quire clear in its shelter- and camp-related advocacy goals: to ensure that UNHCR would be appointed as overall co-ordinator for all relief activities, and that it would take on a more active technical role (Cuny 1980c:A), and secondly, to ensure, “[t]he development of uniform standards to regulate the provision of each of the services offered to the refugees is one of the most important functions of the UNHCR. Standards must reflect both the basic minimum quantity as well as the minimum acceptable quality of the services or items being delivered.” (Cuny 1980c:B) The report does then go on to offer the following caveat though, cognisant of the questions concerning the same issue raised in the seminar on improving UNHCR’s response: “(This is not to say that the standards should be restrictive nor flexible enough to be adapted to the specific situation in each of the camps.)” (Cuny 1980c:B) The report then goes on to give what it sees as being the overwhelming reason for the need for both the co-ordination role and for the standards:

> A further problem, is that many of the agencies working as operational partners of the UNHCR have had little prior experience either with refugees or with the particular services that they are offering. It was particularly discouraging to note many of the programmes being set up in the field of feeding and supplementary feeding are exact copies of the types of programmes which have proven to be inadequate in other relief operations. (Cuny 1980c:B)

The issue of lack of knowledge and lack of experience amongst newcomer agencies or newcomer staff had of course been present in high-profile emergencies since at least the time of Biafra, but by the early 1980s, the exponential increases in the numbers of people in need, of the numbers of agencies operating, and the size of the UNHCR budget, all served to magnify these problems.

The Intertect report on the technical role of UNHCR in Thailand does not actually go any further in listing any potential specific standards that it would like to see applied. But another report made by Intertect in 1980 with reference to the camps in Thailand does go one step further, and mentions two numeric guidelines, one specific to camp planning, and one with an indirect relationship, and states that both guidelines are now part of a policy for camp construction. The two guidelines in question, are one of 40m² overall per person in a camp,

and then 15 litres of drinking water per person per day (Shield 1980:1-2). Both standards are attributed in origin to the World Health Organisation.

The first Intertect draft documents and notes collected from the seminar on improving UNHCR's response don't include reference to any numeric standards (although there is a basic drawing of a 'community unit' with 16 shelters in a circle and with communal food preparation facilities, garbage, and washing all allocated to each community unit (Intertect 1980c:IV). The emphasis at this point is upon the other part of the equation in balancing standards with local applicability: "The determining factor should not be size, nor even density, but rather whether the systems of the camp can adequately meet the needs of the residents. A camp must be planned as though it were a town, with considerations of the same factors." (Intertect 1980c:IV:4)

The finished product of Intertect's work for UNHCR on emergency preparedness, was circulated within UNHCR in 1981 in draft form, as the first draft of the *Handbook for Emergencies*, with the intention that the published version would be a global guide for response, for UNHCR, and by extension for the many other agencies with which UNHCR was signing memoranda of understanding to become implementing partners. In terms of Chapter 21 of the draft, titled 'Site selection, planning and shelter', many of the emphases are familiar from earlier documents written by Cuny. First and foremost, there is the insistence that the design of any camps reflect the community structures of the refugees themselves (UNHCR 1981:21) (with the warning that a refugee camp is at the same time not an expression of a natural community). Although there is no explicit repetition of Cuny's previously made statements that a refugee camp should be seen as a town, there are a number of places in the chapter where the reader is reminded that camps do often exist longer than expected, sometimes over a long period of time, and that the camp designer must take this into account, and one point where the need to reserve space for expansion over time is recommended, and some brief indication that structures within the camp may change their function over the lifespan of the camp (UNHCR 1981:21).

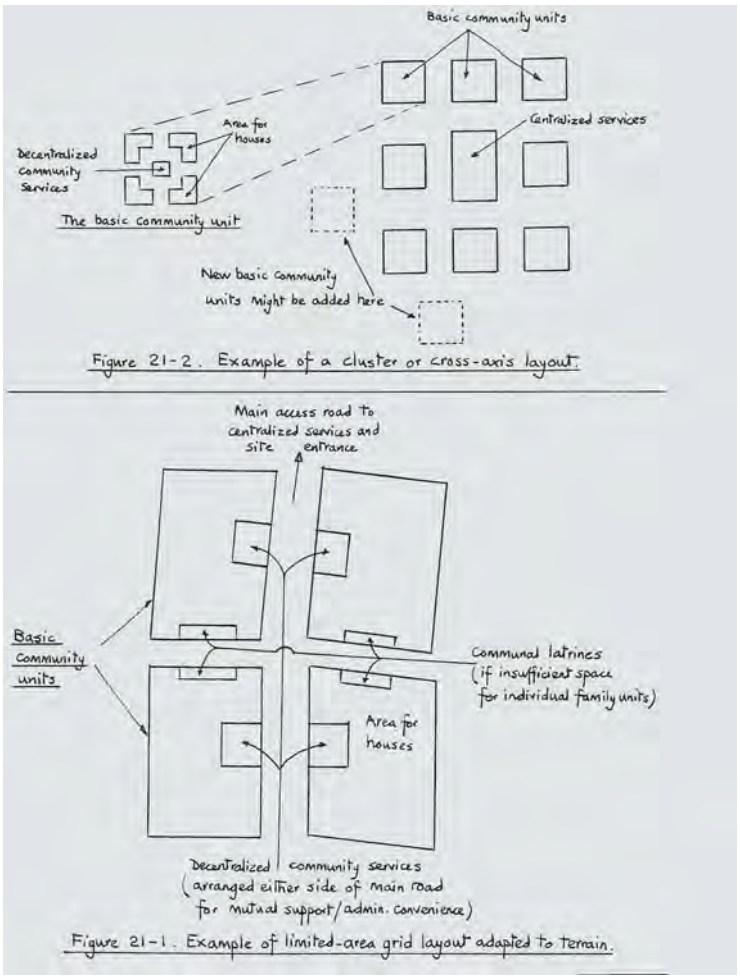

Fig. 4.12. First two layout designs by Intertect for UNHCR 1981 draft of the Handbook for Emergencies (UNHCR 1981:21)

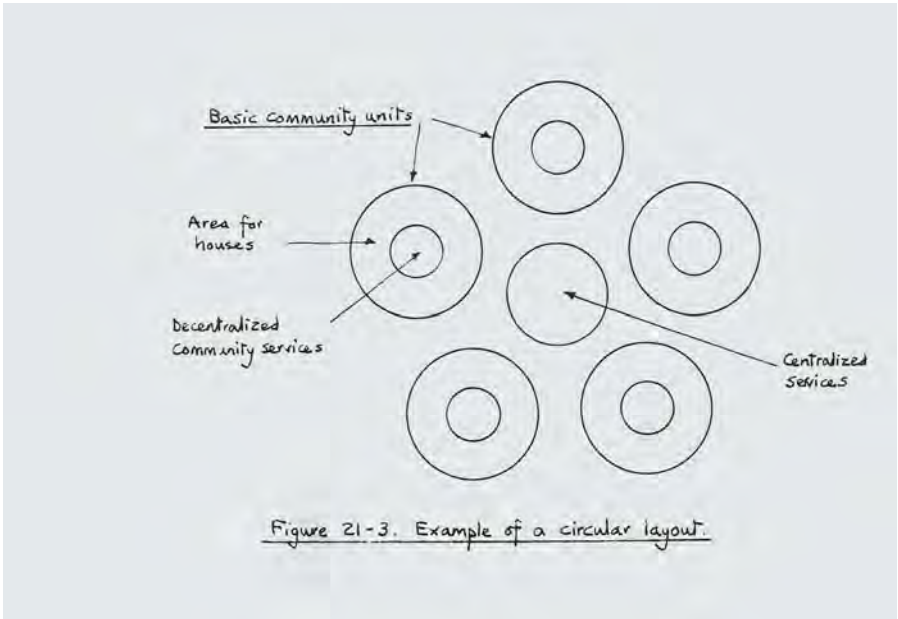

Fig. 4.13. Third of the layout designs by Intertect for UNHCR (UNHCR 1981:21)

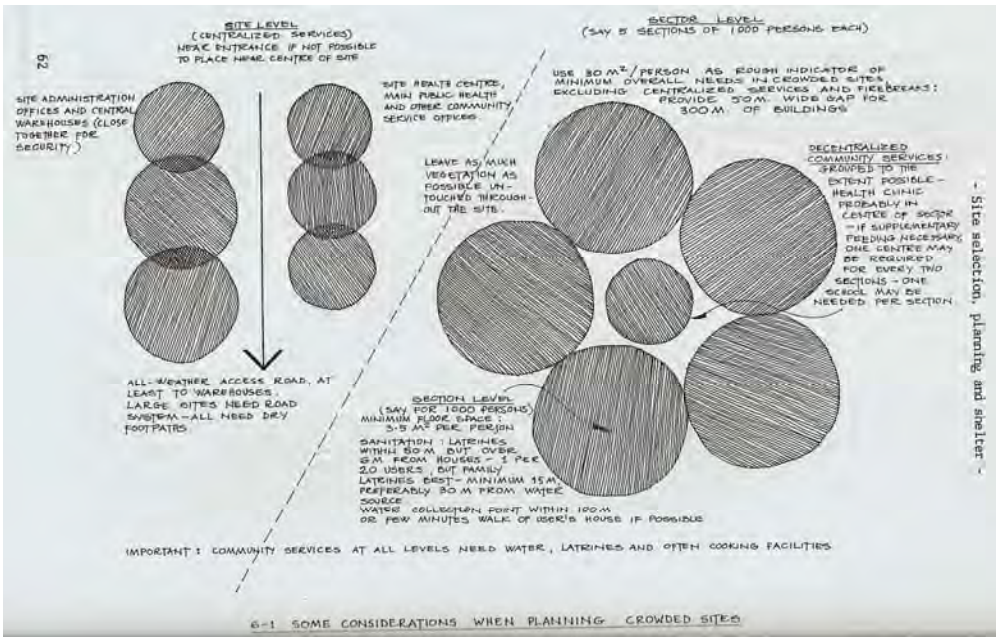

Fig.4.14. Final rendition of the layout design for the first published draft of the UNHCR Handbook for Emergencies (UNHCR 1982:62)

There are three graphic sketches of possible alternative layouts for the community modules all three of which give some indication as to how the module would fit into the camp as a whole, and therefore what the entire camp might look like. These sketches, combined with the explanatory texts, build a composite image of a general camp design which on the one hand builds upon the Cuny design for the Bangladesh project, but on the other hand simplifies that design at the same time: the text justifications for the design are fuller and more nuanced, but the designs themselves lose some aspect of their functionality. The main points of the design which emerge from the chapter, are as follows:

1. The camp is to be built up of residential modules, with spaces external to the modules, placed either at the centre of the camp or at the entrance, for the facilities for some centralised functions, such as administration, co-ordination, registration, warehousing, and the hospital. The modules are described as being part of a "decentralised, small community approach", stating that the "basic principle should be to organize by small, semi-autonomous community units or villages…" The only reference for the chapter which is mentioned by name in the body of the chapter (as opposed to being part of a short separate list at the end of the chapter, is the UNHCR "Planning rural settlements for refugees. The chapter also states that "[d]eveloping the small community layout in this way, and then considering the larger issues of overall site layout, is likely to yield much better results than beginning with a complete site layout concept and breaking this down into smaller communities." (UNHCR 1981:21)

2. Within the boundaries of each module or community, there is no indication in any of the three sketches, as to the exact position of the shelters. Elsewhere in the chapter, there is an insistence that '[a] fundamental consideration in site planning is the layout preferred by the refugees' and that '[s]ite planning should therefore be a locally-

controlled exercise to the extent possible.' Elsewhere, the possibility of 'flexibility in the layout of houses within the community unit' is mentioned. (UNHCR 1981:21)

3. The chapter emphasises the 'importance of maximum decentralisation', and sets apart a specific list of facilities that a likely to be decentralised. However, unlike the design for the project in Bangladesh, in the draft UNHCR *Handbook* version, each of these decentralised facilities would still be contained within each semi-autonomous community unit, and not in the spaces in between community units. (UNHCR 1981:21)

4. There is a warning that 'under-estimation of space required for communal services is a common problem', and a brief mention of the potential for using fire-breaks to grow vegetables in, but otherwise there is no mention of the set of spaces in the camp of intermediary scale, comprised by the spaces in between the community units which are not at the same time spaces set aside for the central administrative facilities. In the three sketches, there is no indication of any active function for those spaces at all. (UNHCR 1981:21)

5. The guidance given in the chapter is done in terms of what would now in 2007 be defined following the Sphere *Standards* terminology as 'standards' (Sphere 2004:22) in as much as they are largely qualitative in nature. However, the chapter does contain six specific points, where numeric guidelines, which are specific and quantitative, are given, a greater number than any other document prepared by Intertect previously. Firstly, it should be noted that in comparison to its successor editions, the 1981 draft has relatively few numeric guidelines, even when the topics are the same across the different editions. As one example, the 1981 draft mentions the advisability of placing the camp on a 'gently sloping area' (UNHCR 1981:21), whilst the latest 2007 edition is much more specific in the numbers involved: '…preferably on gentle (2 to 4%) slopes. Sites on slopes steeper than 10% gradient are difficult to use…' (UNHCR 2007a:212) The second point of note, is that all six numeric guidelines, covering issues of space per person, intervals of firebreaks, distance from latrines, latrines per person and distance from water supply, are justified in terms of public health concerns, and the World Health Organisation is referred to as the source of two of those guidelines (UNHCR 1981:21), and as such is the only other organisation apart from UNHCR which is cited by name in the body of the text of the chapter.

Because both the written text and the three layout sketches are no longer referent to a single specific situation, and instead attempt to describe responses to a general potential situation with potential choices of layout, the results are somewhat limited in their ability to describe the relationships between the different elements of the camp (and between the camp and the exterior to the camp), or the relationship between the initial status and design of the camp, and any future goal for the camp and its residents, given the fact that the future of an ideal, potential camp could be infinitely open-ended.

There are general recommendations to take into account the social structures of the refugees, the climate, the topography, the host communities, and the possible scenarios for relocation

of the camp residents, and above all the need to be flexible to circumstances when considering all these issues, but neither the text nor the sketches give any demonstration of how these considerations might be implemented in a concrete fashion, and to a certain degree it is difficult to consider how such a demonstration might be achieved in the 13 pages allocated to the chapter. However, the composite design contained within the chapter can also be seen in retrospect to bear the marks of influence of Cuny's own previous experience, and to be in some regards an extrapolation of these specific experiences. In particular, there is an argument to be made that the adoption of the concept of minimum standards as building blocks to the design brief can be traced back through various of Cuny's projects to his concerns for public health, the field from which the concept of minimum standards originated, and there is another argument to be made that the conceiving of camps as a series of villages (despite Cuny's statement that they should be thought of as towns or cities) derives from the fact that so many of Cuny's work, including that in Thailand and Somalia, had been in rural or non-metropolitan settings, working with rural populations.

Because there is no direct statement of justification to explain why these two assumptions form so much of the basis for the first 1981 draft of *Handbook for Emergencies*, as further revisions have occurred, and the direct involvement of Cuny and Intertect has receded into the past, many of the advantages and limitations of the basic camp design structure have been accepted as *a priori* givens, without any documented awareness that there may be the potential for further examination or discussion of those submerged assumptions. In the meantime, the basic concept described in the 1981 draft has been carried forwards, and although various of the more recent guidelines have contained examples for alternative designs for the modules themselves[32], the general concept of what constitutes a camp design remains generally constant—a potential design for a camp based largely upon the tiling of open-plan shelter cluster modules around a central administrative block, with space for 'community activities' designated as happening within each cluster and with the spaces between the clusters relegated in the design to essentially negative or empty spaces, and with little or no reference in the graphics to any relationship between the camp and its surroundings, or any demonstration of an awareness of how a camp (or even an individual cluster module) might evolve over time.

* * * *

Adaptations of the community module type, 1982-1995

Whilst the period following 1981 remained generally active for Cuny and Intertect, and indeed for UNHCR and the growing number of humanitarian organisations in the field, there is no documentation of any further significant discussion on the topic of camp design, or any significant developments in the topic, until more than a decade later, in the mid-1990s, again occasioned by another set of major, high-profile humanitarian crises. There is documentation of Intertect being engaged to create manuals for other organisations which also included sections on shelter, although few of these go into the same detail as the UNHCR *Handbook for Emergencies* in terms of camp planning, or focus their details on other aspects, in line

[32] The major of these, including those in UNHCR 2007a, Corsellis and Vitale 2005, NRC 2004 and Davis, J. and Lambert, 1995 will be discussed later in this chapter.

with the interests of the commissioning organisation. An early example of this is a late 1980 production of the draft of a "Contingency Planning Manual" for USAID/OFDA, (mentioned in the previous section o this chapter) which does not contain any of the numeric guidelines for camp design, but does contain an exact cost per person instead ($225) (Intertect 1980a:II). There is also evidence in the Cuny Center archives, of Intertect conducting camp design and construction programmes in Lebanon in 1982 (Cuny 1982), in Sudan in 1985 (Community Aid Abroad 1985, Woodrow 1986, Swiss Disaster Relief Fund 1985, McDonald 1985, Smith 1985), Zimbabwe in 1987 (Cuny 1987), and then other evidence of his work in the first Gulf War in 1991, as well as the chronology of other projects provided in Anderson's biography, *The Man Who Tried to Save the World* (Anderson 1999) but according to informal sources none of the designs used in those locations went beyond a general schema of a series of circles of shelters[33].

Announcements were made by the UNHCR High Commissioner in 1981, concerning the completion of the *Handbook for Emergencies* (Hartling 1981), and the book was printed and circulated in revised form 1982. By the 1984-85 period, UNHCR was undergoing the major review of policy which would result in an advocacy of voluntary repatriation as being the primary choice of 'durable solutions' for refugees (UNHCR 1984:3.2, 1985), which for UNHCR would remove from camp planning any elements which might be seen as leading towards turning a camp into a permanent settlement, (a process which amongst other things would in years to come see the removal of all vocabulary references to 'permanent' settlement features, such as 'villages', 'streets' and 'housing' (replaced by 'shelters') from subsequent revisions of the *Handbook for Emergencies* (UNHCR 1998:135-146)), even though UNHCR during the same period of the first half of the 1980s was still at least occasionally engaged in activities concerning the design and provision of (rural) permanent settlements for refugees as well (Bakhet 1981, UNHCR 1984b, 1987).The conceptual work concerning the design of camps by Intertect and its associates during the 1980s seems to have simultaneously taken two quite different paths.

On the one hand, there are a number of statements made by Cuny throughout the 1980s, which echo his beliefs from the early 1970s, that camps should be seen as types of cities, and that the potential for some of them to become permanent should not necessarily be closed off (Intertect 1985b, Cuny and Stein 1990:293-5), accompanied by continued work by Cuny on reconstruction and permanent settlements (Cuny 1981, 1983). At the same time, other work by Intertect associates with which Cuny was involved (Cuny 1986a 1986b), created a more complex and at times contradictory approach. Kent Hardin, who worked with Intertect during the mid-1980s, created a number of drawings of basic camp designs in 1985 Hardin 1985:12-13), which would then be incorporated into "Physical Planning" (Hardin 1987), as part of the 1987 UNHCR Emergency Managers Training Workshop at the Disaster Management Centre at the University of Wisconsin, which was at least in part led by Intertect in co-operation with the Center (Shelterproject 2003:15, Cuny 1986b). The basis of the contents of this workshop were then used subsequently over a period of at least ten years for training of managers for UNHCR and others, although after the murder of Cuny in 1995 and the end of Intertect, the training would be done by the Disaster Management Center in conjunction with Interworks Madison, a company set up by one of Cuny's associates from Intertect, Paul

[33] Interview with Don Krumm, 4/1/07.

Thompson. The text of the workshop content continues to insist that, ‘practitioners now routinely advocate that refugee camps be treated as permanent settlements. This does not reflect a desire to relocate populations permanently, but rather the political reality of refugee-causing situations which may take years if not decades to resolve.’ (DMC/Interworks 1996:5) However, this statement diverges from the values contained in the drawings provided by Hardin (DMC/Interworks 1996:47-51).

Although Hardin goes some way to insist that high-density military-style grid layouts are problematic, nevertheless, the layouts proposed by Hardin himself are of relatively high-density camps, albeit created through a tiling of residential modules (‘communities’ of 12 shelters each), with spaces for administrative areas determined by geometry and ideal visual ratios rather than by any social or geographical considerations. Hardin’s drawings are unique for all designs created until the early 2000s, in that they take into consideration a time-scale of events during the early stages of the camp, and demonstrate how the camp could expand and be upgraded during the early influxes, but crucially that timeline, and those considerations do not continue once the camp is ‘full’.

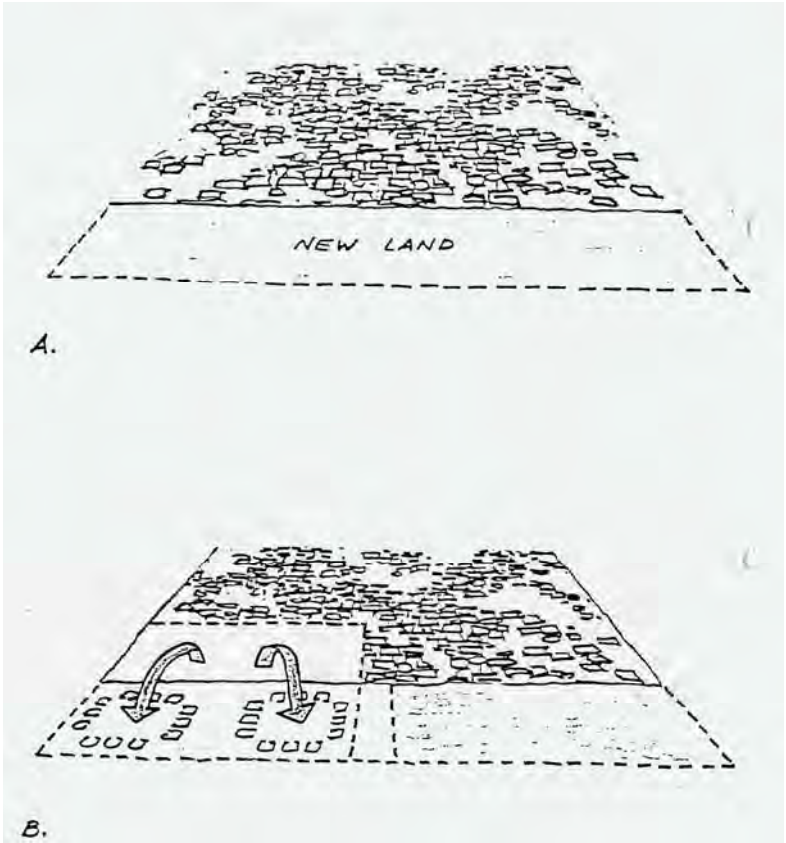

Fig. 4.15. Hardin’s schemata for camp upgrading, first phase (Hardin, 1987).

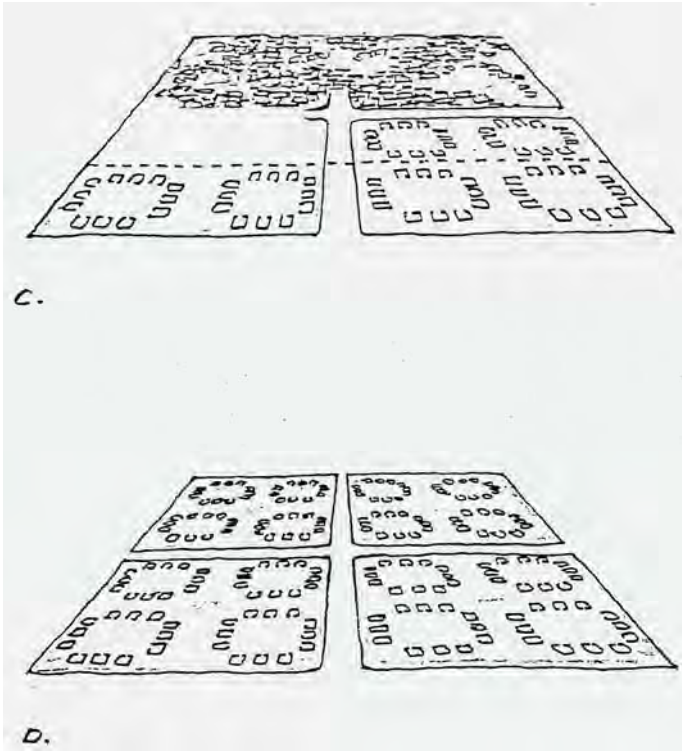

Fig. 4. 16. Hardin's schemata for camp upgrading, second phase (Hardin, 1987).

In terms of the end design, on the one hand, the exact positions of each shelter (and the exact number of shelters per cluster or community) have been completely determined, and on the other hand the spaces inbetween the shelters and inbetween the clusters have been both reduced physically and have been abandoned in the design as empty, 'negative' spaces. The rationalisation of the layout of the camp has been achieved largely by sacrificing any flexibility towards the refugees' own social structures and own preferred physical arrangement of shelters, though a method of pre-determining every aspect of the layout to the lowest micro-level possible. The idea that each cluster could be a semi-autonomous 'village' has now disappeared, as has any space for any sort of increase of population, change of land use, or expansion of the camp, except through further tiling of residential clusters from the camp periphery outwards.

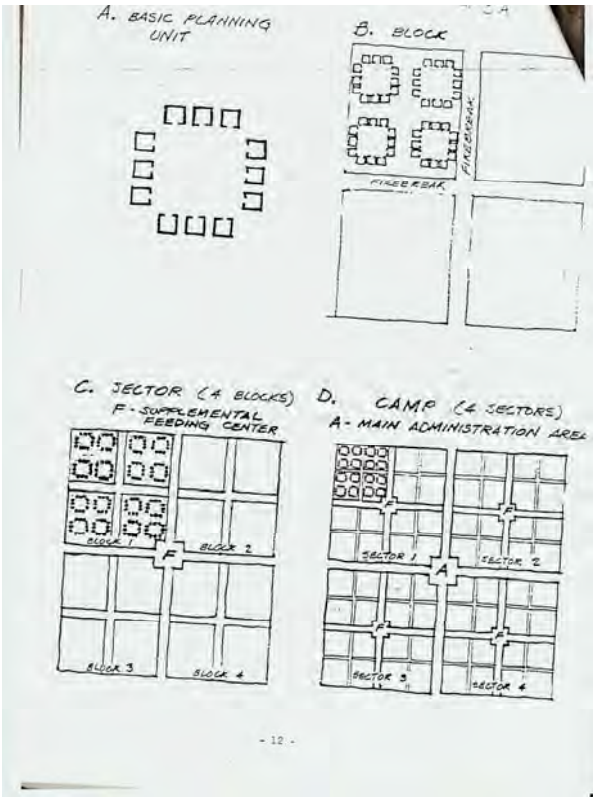

Fig. 4.17. Hardin's first layout alternative. (Hardin 1987).

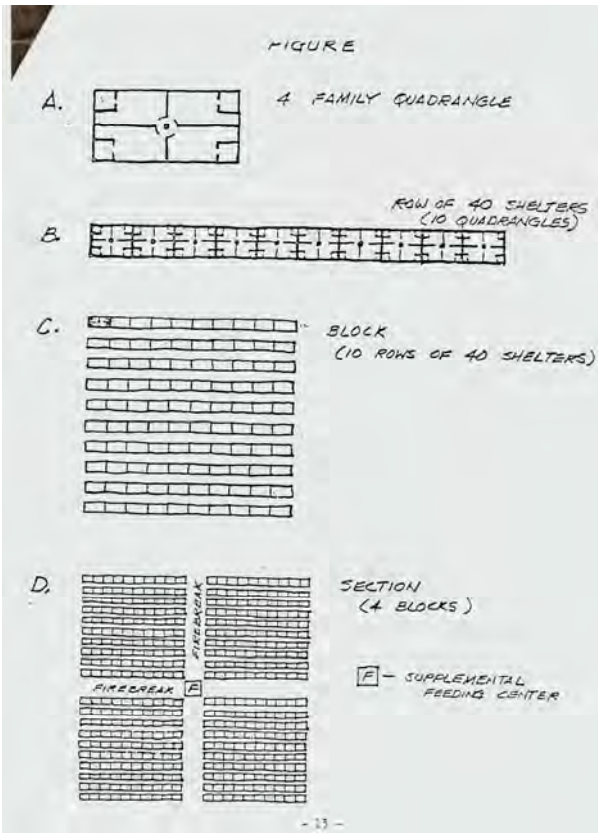

Fig. 4.18. Hardin's second layout alternative (Hardin, 1987).

In defense of the Hardin layout design, it must be said that the scale of the camp here, is exponentially larger than those depicted in the designs created previously by Cuny or Intertect, in awareness of the fact that the size of real camps had also grown between the early 1970s and the mid-1980s: the camp here would house more than sixteen times as many people as those in the El Coyotepe camp in 1973. But if the camp is now one for 3072 families, or 15 000-18 000 people, then presumably there should be even more need to both look at the camp as a city, in terms of the physical elements within the camp, and in terms of the now much weightier impact which the camp might have upon surrounding host communities. However, these drawings, or adaptations of these drawings, would remain those which were used for some amount of UNHCR management training until at least the mid-1990s, and until the early 2000s, there would be no further published attempt to use visual-graphic language to describe any camp layout template. The few available designs for actual camps from the same period, show a close fidelity to the same design (Swiss Disaster Relief Unit, 1985)

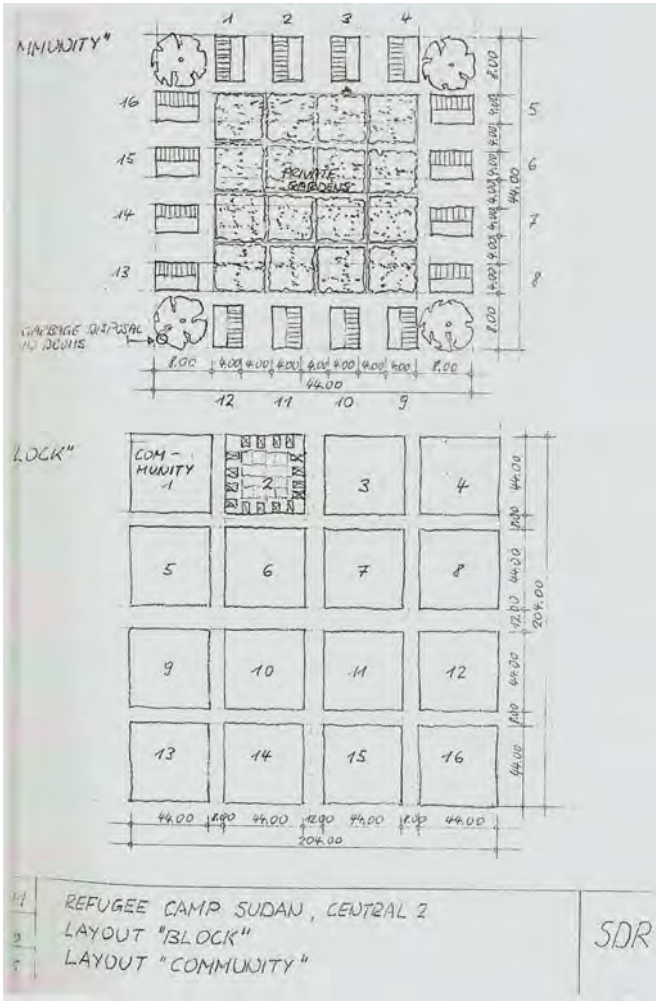

Fig. 4.19. Swiss Disaster Relief Unit design for UNHCR Fau 5 camp, Sudan 1985 (Swiss Disaster Relief Unit, 1985)

UNHCR did however, commission two further draft primers during the same period, one entitled "Refugee Camps, a Primer for Rapid Site Planning" (Goethert and Hamdi 1988a), and the other entitled "Refugee Settlements, a Primer for Development" (Goethert and Hamdi 1988b), both from Reinhard Goethert and Nabeel Hamdi. Neither of these drafts were published by UNHCR, and both remain only in draft forms as 'grey literature' in some documentation collections. The "Refugee Camps, a Primer for Rapid Site Planning" focuses on the advocacy of rapid assessment tools, and then the harnessing of the refugees' own organisation and labour in camp construction, but apart from repeating Cuny's emphasis upon refugee participation in the layout of the communities, the primer does not actually contain any graphic designs of camp layouts or layout templates, nor any ideas on camp layout which had not been written elsewhere earlier. Nevertheless, in describing the development of camp designs, the two primer texts are also significant in that they demonstrate the degree to which rationalised sites-and-services ideas had become influential on the field of camp design[34], and also because they signal the degree to which UNHCR had by that time insisted that camps as entities would be closed off from considerations of permanency, through insistence of clarification of terminology and labelling, specifically outlined in the "Refugee Camps, a Primer for Rapid Site Planning", where camps are "planned to address basic survival needs, regional integration is a low priority," and "[t]hey assume that refugees are short-term and temporary." (Goethert and Hamdi 1988a:17-18) It is 'settlements' on the other hand, which, "are planned to be durable, self-sufficient and an integral part of the region, spatially and economically." (Goethert and Hamdi 1988a:17) Although it is true that camps must be planned to *initially* address basic survival needs, the assumption that camps will be short-term and temporary is one which Cuny and others had been warning against for more than a decade. Furthermore, there is no logical contradiction between a camp being something which is not permanent, and nevertheless being something which needs to have as great a degree of self-sufficiency as possible, and which should, for its undetermined but non-permanent lifespan still be seen as deeply connected with its surroundings, spatially and economically. Nevertheless, this juxtaposition as asserted by Goethert and Hamdi, and seen by more contemporary commentators (with some justification) as being somewhat of a crystalisation of the positions at the time of UNHCR, and at least some donors and NGOs (Shelterproject 2003:16), not only isolates the existence of a camp from the dimension of time, but uses that temporal limitation in order to also assert an isolation of any camp from its physical surroundings as well.

The definition of camps as provided for UNHCR by Goethert and Hamdi, do to a certain extent also reflect the changing political realities amongst refugee host countries by the late 1980s. As Goethert and Hamdi also note, camps "may require less political support, because of their temporary nature" (Goethert and Hamdi 1988a:18). As noted in Chapter 3 of this thesis, by the mid-1980s, many host governments (and their populations) were developing what would become known as 'host fatigue' in the face of both increasing numbers of refugees and the often protracted nature of their situations, and were ever less willing to accept the refugees as permanent resettlers, and more insistent that the camps and their inhabitants be kept quarantined from the local host communities. However, given the fact that the solution to most refugee situations lay not with the refugees themselves but with

[34] Goethert was the co-author of the *Urbanisation Primer*, and Hamdi also came from a development and urban-upgrade background.

political or military concerns elsewhere, the act of isolating camps was more likely in the long run to exacerbate any issues which could realistically be attributed to the presence of the camps, without having any appreciable effect upon the length of the camp's own lifespan.

However, the protracted nature of many of the camps, and the increasing awareness of the social issues which were emerging in the older camps, also gave rise from the late 1980s onwards, to an increasing number of articles in academic forums, which coalesced into an increasingly influential school of thought which essentially questioned the value of camps as a type of response, and which became highly critical of the existence of refugee camps, and the reasons which those writers attributed to both governments and humanitarian organisations for putting refugees in camps.

Many criticisms of the possible ill-effects of living in camps contained within those articles or books are legitimate, and were not unknown to those working in camps or writing about camp design otherwise, and as a series of criticisms might have otherwise served to keep the issue of improving life in camps for the refugees, through an examination of the functioning of the structures of the camps, of the different elements in those structures. However, for the main part, the standpoint taken by those authors was one which tended to consider any one camp as a single entity, rather than as a composite of elements, and rather than examining the effects of those elements, authors tended to ascribe blame to the camp as a whole, whether it was for increasing health risks, lack of privacy and dignity through overcrowding, the creation of a culture of dependency, the curtailment of the right to free movement, the curtailment of income-generating opportunities and even the prolonging of the refugee situation itself.

One of the earliest such critiques is contained in Barbara Harrell-Bond's *Imposing Aid* of 1986 (Harrell-Bond 1986), but by 1998, when Harrell-Bond was writing as one of the more established and high-profile proponents of this school of thought[35], in a bibliographical overview which also served to summarise those arguments, she could count no less than 27 different texts which had made some contribution to the argument against the use of camps. (Harrell-Bond 1998) Zetter, writing two years earlier, lists (with some overlap of Harell-Bond's list) ten such texts (Zetter 1995:47). (By way of comparison, this thesis is able to refer to only eleven different texts which contain graphic representations of refugee camp layout templates, created over a 37-year period.) Two of the texts to which the Harrell-Bond article refer to are from 1979, a number are from the early to mid-1980s, but, as with the list given by Zetter, the majority of the texts, and those with the highest profile, date from the late 1980s to the mid-1990s. Although others continued to make the argument that camps were not inherently to blame, and that the impact of camps for good or bad depended more upon each camp's circumstances and design, (Crisp and Jacobsen 1998) UNHCR changed the wording of the 1982 full edition of the *Handbook for Emergencies*, to state at the introduction to the relevant chapter, that refugee camps, "should normally be considered as a last resort" (UNHCR 1982:134). By the time of the publication of the full Second Edition of the *Handbook for Emergencies* in 1998, the relevant chapter, whilst still being titled "Site Selection, Planning and Shelter", had been adapted to give space to new sections on

[35] Writing at that point as the founder of the Refugee Studies Programme at Oxford, and a research lecturer at Oxford University.

alternative types of shelter – the number of pages in the chapter are roughly equal, but the graphics and layout templates from the 1981 edition are gone, and camps are only the third type of shelter described in the chapter, after "Dispersed Settlements, and "Mass Shelter: Public Buildings and Community Facilities" " (UNHCR 1998:135) (the same chapter in the 1981 edition refers fleetingly to rural self-settlement options (UNHCR 1981:21), but otherwise only discusses camps). This change of emphasis does in fact reflect the fact that approximately two-thirds of the world's refugees live outside camps (UNHCR 2006b), and in fact fills in a significant gap in the First Edition, but in any case, it is less easy to see the construction of a refugee camp as having the potential for being a positive step in such light, and it is significant that although in the 1981 draft edition, mention is made in the first page of the introduction of refugee self-reliance and durable solutions in general (UNHCR 1981:21), neither of these terms are used in conjunction with camps in the 1998 edition – "Fosters self help and reliance" is an advantage only associated with Dispersed Settlements (UNHCR 1998:135) according to that edition, and the only durable solution mentioned in the chapter, is voluntary repatriation, where camps are seen to be advantageous in the organisation of the repatriation (UNHCR 1998:136).

* * * *

Minimum standards for camp design, 1995-2007

The other major change between the 1981 and 1998 editions of the *Handbook for Emergencies*, is the exponential increase in the number and type of numerical minimum standards, covering all areas of site planning (and all other sectors covered in the book as well), and the corresponding removal of decision-making from those in the field, and from the refugees, at an ever lower or micro-level of the design. This change, the distant roots of which can be seen in Cuny's use of public-health-based minimum standards, gain greater prominence after the Rwandan crisis of 1994-95, and the cross-organisational Sphere Project, which took much of its impetus from the Rwandan crisis. The standards put forth by Sphere, and the numeric 'indicators' for those standards, would soon occupy a more central space in camp design discussions.

In the years since, there have been published various documents which offer differing accounts for the degree to which the crisis in Rwanda was responsible for creating the Sphere Project, and the resulting *Humanitarian Charter and Minimum Standards for Disaster Response* (Buchanan-Smith 2003:vi, Walker and Purdin 2004:104). As a synthesis of the various accounts, following most closely the rendition given by Buchanan-Smith (Buchanan-Smith 2003:vi-vii), it would seem reasonable to state that during the early 1990s, for various reasons to do with the again increasing size of humanitarian aid programmes (in terms of budgets, actors, and beneficiary populations), there was a contemporaneous growing awareness that there needed to be greater accountability for the implementation of humanitarian projects. These voices, from both inside and outside humanitarian organisations, arose for a number of reasons, attributable to some high-profile crises at the start of the 1990s, the growing number of new organisations becoming involved, and the increasing proportion of donors' humanitarian budgets which were being channeled directly to NGOs. During the years prior to the Rwanda crisis in fact, a number of major

organisations or consortia of organisations had begun programmes to evaluate field performance, with aims to either improve mechanisms of response (UNHCR 1993), whilst others were seeking to address the issues through the creation of standards through which accountability could be assessed (Walker and Purdin 2004:101-2). In the aftermath of the Rwanda crisis, and in particular the very troubled humanitarian response, a 'Joint Evaluation of the Emergency Assistance to Rwanda' ('JEEARA') was commissioned in 1995 by the Danish government's national development agency, Danida, and depending upon the account, the participation of key individuals from various humanitarian organisations in the joint-evaluation process (Walker and Purdin 2004:104), or the production of the synthesis report of the evaluation itself (Buchanan-Smith 2003:vi), acted as impetus to create a larger project, which would be multi-sectoral, comprehensive, and which would have as its creators and signatories, a larger representation of humanitarian organisations.

The story of how representatives from some of the largest humanitarian organisations and humanitarian consortia actually achieved the publication of the first edition of the Sphere *Humanitarian Charter and Minimum Standards in Disaster Response*, now colloquially known as 'Sphere', in 2000, has been told in great (if slightly differing) detail by a number of writers elsewhere (Disasters 2004), but of that story what remains pertinent to the development of camp design specifically, can be summarised as follows:

1. Through the importance given to Sphere subsequently by major donors, the number and importance of the organisations which were involved in the creation of Sphere, the awareness and training initiatives which followed the publication of the Sphere book, and the great number of humanitarian organisations who have since become signatory to Sphere, the contents of Sphere have become much better known than any other set of guidelines before or since, and share with the UNHCR *Handbook in Emergencies* the best claim to constitute the building blocks through which any camp design is currently created.

2. Although the 'standards' themselves are for the majority 'qualitative' (e.g. "Site standard 2: site planning. Site planning ensures sufficient space for household areas and supports people's security and well-being. It provides for effective and efficient provision of services and internal access." (Sphere 2000:4:25)[36]), the 'key indicators', described as 'signals' (Sphere 2000:4:5) to show whether a standard has been attained or not and which accompany each standard are often numeric, and the numeric guidelines are written in a language which is for the most part implicitly imperative, and with no accompanying admission of any flexibility or awareness of the possibility of localised differences (e.g. the first accompanying 'key indicator' for 'Site standard 2, above, which reads in its entirety: "The site provides 45m² space for each person. This includes infrastructure (e.g. roads, sanitation, schools, offices, water systems, security/fire breaks, markets, storage facilities, shelter locations), but excludes land for agriculture (crops and livestock)." (Sphere 2000:4:25)

[36] There are now two editions of Sphere, 2000 and 2004. This thesis will indicate which edition is being referred to at each point.

3. Many of the numeric 'indicators' are familiar from previous texts which take public health guidelines as their sources, or are not significantly different from those earlier public health-based guidelines – a state of affairs which the Sphere book indirectly asserts by having some of the indicators which affect site planning (e.g. "The maximum distance from any shelter to the nearest water point is 500m" (Sphere 2000:1:15)) contained in an earlier chapter on 'Water Supply and Sanitation'. Whilst the history of how those public-health-derived numeric minimums entered into the discourse of camp design has been described earlier in this chapter, it is also worth drawing attention at this point to the fact that the crisis in Rwanda which lay as the immediate background to the creation of Sphere, was shortly followed by mass camps where overcrowding and lack of access to clean water specifically contributed to more than 30 000 cholera- and other disease-related deaths within two weeks in 1994 (Buchanan-Smith 2003:8).

The Sphere *Humanitarian Charter and Minimum Standards in Disaster Response*, is not just concerned with shelter or camp design issues (the 2000 edition states minimum standards in five sectors: water and sanitation, food, nutrition, shelter, health care), and even within Chapter 4 on 'Minimum Standards in Shelter and Site Planning', camps are listed as the third option for shelter, and the only option for which there are explicit warnings as to the possible negative consequences of such a choice (Sphere 2000:4:4). But although Sphere is not devoted in the main to questions of camp design, because of its comprehensive nature and because of its wide-ranging acceptance, it is now seen as the text against which all shelter programmes, including camp programmes, must be compared, for better or for worse. As has been indicated in other texts, because Sphere is a composite of sectoral guidelines, compiled by different groups of people for different chapters, and with the relevant 'indicators' scattered over at least two different chapters, the result is that it is actually very difficult, if not impossible in reality to ensure that the numeric guidelines as a whole are actually self-consistent (Kennedy 2004a:46-49, 2005:46-47). However, above and beyond any comments on the mechanics of the numbers, lie the larger questions of the way in which that composite, and the language which is used to conjure up the composite, also ascribe normative aspects to camps, or describe limits to the functions of a camp.

As far as they go, it is hard to find argument with the principles contained in the Humanitarian Charter, or in the separate shelter standards. The principles are often very general, and couched in subjective phrases ("People have *sufficient* [italics added] covered space to provide protection" (Sphere 2000:4:14); "The site is *suitable* [italics added] to host the number of people involved" (Sphere 2000:4:20)). Whilst this gives the Sphere standards a better chance of gaining a wide consensus of support (and indeed this generality of language may itself have been the product of the consultative and consensus-building writing process), it also means that when readers or implementers have referred to Sphere for practical guidance, there is a tendency to move quickly beyond the standards, and to start to use the numeric indicators as a form of short-hand instead. However, there is a value in examining the standards before assuming that they are so broad as to be practically void of ideology.

Firstly, there is the question on insisting that all responses should be governed by a system of minimum standards in the first place. The argument for taking such an approach was

assumed rather than articulated by Cuny and other subsequent writers, with any discussion going no further than the assertion that to do so was necessary on health grounds. This assertion may well be the case in terms of treating certain of the individual minimums as a series of independent statements (that is, there is no getting around the fact that if a human being does not have a minimum volume intake of water per day, then that person will quickly die). But the truth value of individual minimums does not entail the necessity of addressing all responses in such a manner, and giving such a methodology a blanket normative value.

The editors of Sphere do not make any explicit statement as to why minimum standards was the methodology chosen *per se*, but in their introduction, they go to great lengths in the introduction to state that the overall rationale behind the text is a human-rights based approach to humanitarian response (Sphere 2005:5), and indeed all of the references which the Sphere editors cite in that introduction are either United Nations declarations, starting with the Universal Declaration of Human Rights of 1948, or else are international rights conventions, including the various Geneva conventions (Sphere 2000:1:5). From this starting point, there is a logical progression, to some degree unassailable, towards the use of minimum standards to ensure that there is complete coverage for *every one* of the individuals covered by those rights, and Sphere then becomes a declaration of universal egalitarianism, ensuring the survival of the most vulnerable through the provision to all.

However, Sphere makes another leap from the rights-based underpinnings of the minimum standards, to the way in which it interprets them. The way in which Sphere interpreted the response to those rights, is in essence one of restitution on a one-off basis, followed by a state of guarantee of those rights enabled by the act of restitution: those who have lost their shelter, shall have that right restituted to them through the positive provision of a minimally adequate shelter. For both shelter and other sectors covered by Sphere, this restitution, and the ongoing protection of that state of restitution, becomes the goal itself, rather than the means to anything else.

In terms of shelter and camp planning, Sphere adopts the morphology of camp design already seen in other texts (a hierarchy of components from single shelter to residential cluster to block, the overriding need to think of public health and security, the effective isolation of the camp from its surroundings, and the division of each component within the camp into discrete functions) (Sphere 2000:4:20-28), and therefore there might be no question of controversy. But, those same tools are harnessed in the first edition of Sphere, to insist upon emphasising the short-term at expense of the long-term, in contravention of the received wisdom of those documents written in the 1970s and 1980s, which emphasised the need to take into full consideration the long-term consequences of short-term actions. In both the standards themselves, and in the general language and vocabulary of the text, this emphasis upon the short-term at the expense of the long-term becomes apparent in what is missing, as much as in what is positively stated. The four site standards included in the section on shelter and site planning refer to having a suitable location, sufficient space, sufficient security, and with the least possible environmental damage (Sphere 2000:4), but do not go much further. This becomes even more evident in the language used to elucidate the standards, through the indicators and guidance notes. There are short references to shelter as a process, in terms of warnings about the need to have space for expansion, or the need to include tools for

livelihoods in a distribution of non-food items (NFIs) or workshops included as one of the types of 'social facilities' in the camp (Sphere 2000:4), and the section on NFIs does state that, "opportunities for self-reliance: as soon as feasible, women and men should be given the opportunity to develop current and future self-reliance by means of food production, training or other activities," and ties this to considerations of household space planning, but only once in the shelter chapter in Sphere are solutions, durable or otherwise, mentioned, and there only in terms of the need for adequate assessments to generally plan for eventual addressing of issues of return and repatriation. (Sphere 2000:4) Nowhere in Sphere is there mention that the actual shelter activities beyond the assessment might also be an integral part of those solutions: instead, the achievement of the various standards becomes the goal unto itself. This becomes even more clear when numeric guidelines are examined in relation to each other. Of the different sets of numeric shelter guidelines created by humanitarian organisations, those of the Sphere 2000 edition prove to be the ones which when combined to describe a camp as a totality, are the least sustainable in the long-term, and the ones which have the least capacity for actually providing any space to provide opportunities for self-sufficiency or livelihoods, and are to a large degree only viable in the short-term (Jamal 2000:3-4, Kennedy 2005:46-7).

On the one hand, the creation of Sphere has provided the international humanitarian organisations with a clear and powerful advocacy tool for across-the-board programmes, and there have been notable cases in recent years where the ability of shelter co-ordinators to produce the Sphere standards has had a marked and positive effect upon the host government policy during an emergency (UNHCR 2005a, Kennedy et al. 2007), and in one significant case (India), the national government has actually officially adopted the Sphere standards as an ongoing reference, prior to and irrespective of any specific emergency (Saunders 2004:170). In the face of growing hostility towards displaced persons by host communities and host governments, the Sphere standards offer a clear and non-negotiable line in the sand, which had never existed before, particularly for those organisations working in natural disaster contexts, or working outside the UN umbrella-funding system. It should also be noted that for all the 'minimal' nature of the indicators, four years after the publication of the first edition of Sphere it was noted nevertheless "that the current Sphere indicators across all sectors are currently not being met in over 60 per cent of the locations in which national Red Cross societies are active in disaster relief." (Saunders 2004:169) However, the line in the sand which Sphere represents, marks its significant advance from other previous rights-centred declarations, by its inclusion of the largely numeric indicators, and as such always risks having the indicators become the standards, or at least the short-hand version of the standards. Furthermore, not only did that specific assembly of numeric indicators dictate a composite which had reduced likelihoods of sustainability under Sphere's own description of response, but there was also the insistence that by logical extension, these comprehensive indicators should, with very few exceptions (the most notable in the Shelter chapter being the increase in covered shelter space per person in cold weather climates from 3.5m² to 4.5m² per person (Sphere 2000:4:14) be universal, as a logical accompaniment of their status of minimality. In terms of the questions raised 17 years previously, in the 1980 meetings on the first set of UNHCR guidelines, about the balance between applicability and adaptability, the first edition of Sphere points decisively in the direction of universal applicability.

With regards to camp design, those tendencies towards explicit universality and implicit (and to a certain degree self-contradictory) short-term horizons of response, were then paralleled by the full revised second edition of the UNHCR *Handbook for Emergencies,* the writing of which was roughly concurrent with that of Sphere, with publication in 1998 and 1999, even though UNHCR has never become signatory to Sphere itself, and has at times given relatively little acknowledgement of Sphere in its shelter-related documents. In this full second edition, not only can there be observed the same greater reliance upon similar numeric indicators previously mentioned in this chapter, but the graphic illustrations of camp layout templates from the 1981 edition had been completely removed, and not otherwise replaced, thus losing one tool for indicating exactly how the camp might relate to its surroundings, and what the spatial relationships within any camp might be as well.

Of the two main areas of concern arising from the creation and publication of Sphere, it was the issues of universality and perceptions of lack of adaptability, which became the main (although not exclusive) focus of the first critiques of Sphere, as well as for those working within Sphere who would turn their attention to the first revision of Sphere between 2000 and 2004. However, it has been issues of the connections between short and long-term impacts which have received the greater attention from a variety of authors writing since the inception of the Sphere process, and whose efforts, with varying degrees of independence from each other, represent the final adaptation of camp designs to date.

Although the direction represented by Sphere became increasingly dominant amongst major humanitarian organisations during its development process and then after its publication, that is not to say that those involved with Sphere, and the published version of Sphere itself enjoyed absolute hegemony over the discourse such as it was on the design of refugee camps. Even during the period through which Sphere was being developed, there were already a number of voices offering criticism of Sphere, led in institutional terms, by a group of francophone agencies, of whom MSF perhaps enjoy the highest international profile. The critiques of Sphere presented by MSF and others from 1998 onwards, refer in the main to the entire panoply of standards, and are not particularly focused upon shelter. However, because these critiques have been presented by organisations or groups of organisations, and because they have been stated in manner which is to a large degree self-consciously and declaredly oppositional or antagonistic to Sphere, it is that set of criticisms which has been most openly remarked upon by those working with Sphere (Walker and Purdin 2004:7, Darcy 2005:112), and it is perhaps that set of criticisms which did most to then encourage Sphere to create a reappraisal to such a wide degree when it was approaching the first revision of the standards in 2004.

As the criticisms are by and large aimed at Sphere as an entire process, none of the texts of criticism offer any positive alternatives for how to go about designing a camp, apart from the general insistence that it should be done according to each situation and specific context. Nevertheless, the value of mentioning these critiques within the context of this chapter, is that there is a certain degree of overlap of concerns with those who continued to present alternative objectives and rationales for shelter and camp-centred interventions, even if those other alternatives were themselves not presented as being oppositional, but as being complimentary to or developmental from Sphere.

* * * *

The last grouping of texts to be considered in this chapter which concern in some way the design of refugee camps, have been created by a number of different authors or groups of authors, but share between them a number of major characteristics, and as such can be seen to belong to one degree or another to a loosely-connected movement, even though there has been no declaration of membership of such a movement, or manifesto which would cover all the texts produced, and even though as will be seen, the objectives to which they attempt to harness camp design have had somewhat different foci. The main characteristics which these last texts share can be summarised as follows:

1. The texts have been written by single, smaller agencies, or by independent consultants, but often with a wide-ranging peer-review process, with the authors increasingly seeing the need for the creation of wider platforms and buy-in to the writing and publication process as an integral part of producing the texts.

2. Although the issues concerning camp design are not the main focus of any of the texts, there is a significant attention paid to camp design issues. The design and construction of camps, as a process and as a product, are seen as being very much integrated part of the means towards larger, strategic objectives. The camp designs are seen as being there to solve problems, rather than as ends unto themselves, and the strategic objectives may be described in ways which are more complex and more nuanced than the standard three ‘durable solutions’ proposed in previous texts.

3. All of the texts in this grouping, in different ways, re-assert a long-term view policy towards the design and construction of refugee camps, even when there are credible guarantees that the lifespans of the camps themselves may be determinable and relatively short.

4. For those texts which include graphics (and the majority do), there is an emphasis upon using examples of camp designs taken from real life, preferably multiple ones, in order to illustrate the general principles described. However, whilst this approach has many advantages to recommend it, in terms of being able to demonstrate how a camp can be situated in its context, but this approach also constitutes a fairly significant design constraint inasmuch as it precludes the use of graphics which show camp designs which might develop upon or improve upon the norm, and practically speaking limit the set of designs to those which have been implemented under UNHCR auspices, and therefore under the restrictions as described in the UNHCR *Handbook for Emergencies*.

5. Even though these texts emphasise the need to consider all actions in terms of the long-term consequences, nevertheless, apart from the earliest texts, they are all obliged to operate to state that they are in accordance with Sphere, and take the Sphere numeric indicators as their ‘building blocks’ for the construction of their camp layout designs. Whilst under closer inspection it may be observed that not all of the

texts observe all of the Sphere indicators all of the time, nevertheless this also constitutes a significant design constraint.

6. Within the constraints described here immediately above, the different texts offer a growing range of alternative designs for the residential clusters modules, but show a more limited awareness of the possibilities of offering alternatives for the design of camps as a whole, although this is to a certain degree due to the constraints attributable to the Sphere and UNHCR standards as described here above in point no. 4.

The discussion which follows immediately below, does not necessarily refer to every set of guidelines or technical manuals which mention to any degree camp construction or camp design, and which have proliferated in number since the late 1990s. The majority of these have been created as internal guidelines or manuals specific to a single organization (Saunders 2005:167), and importantly, with the exception of the texts which do fall into this discussion, most of the internal manuals are content to merely repeat the numeric indicators taken from UNHCR or Sphere (increasingly, both), and for the few which do have graphic templates (and many of them do not), these are often also borrowed from other sources. The texts which are discussed at greater length immediately below, are those which amongst a greater number, do in some way contribute significantly to the development of refugee camp design, and in some way go beyond the baseline presented by Sphere or UNHCR.

The first of these texts were published in1995, concurrent with the first phases of the process which would lead to the publication of Sphere, and the drafting of these texts commenced at points shortly prior to the start of Sphere, and shortly prior to the Rwanda crisis which would act as the catalyst for Sphere. However, because the philosophies embedded in these two texts are in places divergent from those of Sphere in so many respects, the influence of these texts could be said to only have come to the fore over a later period of time, in the influence which they have had upon those later texts offering alternative bases of assumptions of the roles of shelter and refugee camps from those presented through Sphere and UNHCR.

The earliest text, that of Roger Zetter, entitled “Shelter Provision and Settlement Policies for Refugees: A state of the art review” (Zetter 1995) was created in draft form in 1993, commissioned by UNHCR for its First International Workshop on Improved Shelter Response and Environment for Refugees, but then not published in its final form until 1995[37]. This text is also the only one covered in this section of this chapter which does not contain any graphic examples of camp layout plans, concentrating instead upon policy and strategy. However, it is included here as it in many ways encapsulates the issues which were to concern the authors of the other texts discussed here, and was referred to explicitly within the preparatory documents for what may be considered the foremost of those later texts (Shelterproject 2003:17).

In terms of general principles, the review by Zetter offers the best recap of the philosophy described by Cuny and Davis, two decades earlier, but does so from the vantage point of

[37] A reprint was released with a new introduction in 2003, but unless otherwise indicated, the edition referred to in this thesis will be the 1995 version.

writing almost exclusively about shelter and settlements for those who would fit the international legal definition of the term of 'refugee' (unlike Cuny and Davis's earlier texts, which used the term 'refugee' as a blanket term to describe all those who had lost housing in large-scale cataclysm, but who were writing in the main about responses to natural disaster, rather than forced displacement due to conflict or threat of violence). And whilst Zetter's review is adamant about the need for localised solutions to the point of being hostile to any attempt to prescribe guidelines or examples from afar (Zetter 1995:48, 50), its contribution to the development of the design of refugee camps nevertheless remains significant, on three points:

1. Not only does it re-highlight the need to consider camps (and other shelter solutions) as a means to something, rather than ends unto themselves, but positively states what that end should be, by clearly insisting upon links between relief programmes and long-term development. In this manner, Zetter gives meaning to the hitherto dimensionless term 'durable solutions' by insisting that relief connect into not an end-point, but a further continuum of long-term development and regional planning (Zetter 1995:30, 34, 84). As part of this assertion, Zetter highlights the lack of engagement between those working on issues of relief programming and those who have worked and produced in areas of "shelter and settlement provision under conditions of rapid urbanisation in the developing world." (Zetter 1995:33)

2. The review re-asserts the need to ground all best practice in concrete local contexts, both by insisting upon the primacy of local knowledge and skills (Zetter 1995:53-4), and by consisting in itself of a practical demonstration of the possible range of case studies and other documentation which exist (Zetter 1995:103-111)

3. As part of the insistence that shelter and camp programming be part of a connected effort towards long-term development goals, the review re-discovers, or re-highlights a separate embryonic terminology for that process, in his repeated and emphatic use of the phrase 'transitional' throughout the review (Zetter 1995:33, 34, 48), which is then explicitly used to state a necessary connection between "transition from emergency aid to developmental planning" (Zetter 1995:71, 102). This term would become increasingly important for those who in the following years would in their own work seek to synthesise the needs which Zetter highlighted, with the constraints implicit in the Sphere and UNHCR frameworks.

Although the review was produced through a high-profile UNHCR workshop, and despite the fact that Roger Zetter himself continues to be a prolific and well-respected author, the review itself was not taken forwards into any inter-agency peer-review process or 'buy-in' process which would characterise the creation of Sphere, and so the influence of the review can be seen to have remained rather outside the mainstream of policy development for UNHCR and for the editors of Sphere. However, many of the same concerns became adapted by those who would present other alternative methodologies in the following years. Furthermore, the principles set out by Zetter in the review provide in summary a starting point for many of the issues to be discussed in the subsequent design tool chapter of this thesis.

The second text published at roughly the same time with a claim to developing ideas on camp design, is *Engineering in Emergencies* by Jan Davis and Bobby Lambert (Davis, J. and Lambert 1995)[38]. This book was first published in 1995, although there are no textural indicators of direct influence in either direction between *Engineering in Emergencies*, and Zetter's text. At first glance indeed, *Engineering in Emergencies*, might be seen to be an antithesis of the policy-centred Zetter review, or an example of what the critics of Sphere would term a technically-based approach to humanitarian emergencies, or what might be otherwise dismissed as a text with little relevance to the larger issues of camp design (or other sectors of humanitarian response) on par with the booklets of technical specifications of materials already produced by the Red Cross, MSF or Oxfam. The title itself indicates a technical orientation, and indeed in the introduction to the 2002 revised edition, the authors are clear to point out that, "the book provides practical information relevant to the field worker, with a minimum of supporting theoretical background.¶ The book does not aim to set out specific policy guidelines relating to humanitarian assistance…" (Davis, J. and Lambert 2002:xv) However, whilst there is no question that this book was the product of two authors (albeit with consultation with others), and has never had any organisation become 'signatory' to its principles or guidelines, the fact that it offers a compendium of pragmatic advice (from the standard technical specifications for blankets to detailed diagrams on how to construct a defecation field) across all technical sectors means that it continues to have a much wider readership than any of the similar manuals which have been produced by humanitarian agencies primarily for internal use, and which have often been limited to only one particular sector, and that therefore arguably it continues to enjoy a greater influence in the field than other manuals (and in fact it was the only book apart from various codes of conduct or humanitarian conventions which was directly quoted in the 2000 edition of Sphere (Sphere 2000:9, 4)).

To a large degree, *Engineering in Emergencies* does not explicitly position itself in opposition to any of the principles which were being coming to the fore at the same time, and includes the full lists of numeric minimum standards for shelter and site planning from UNHCR (the 2002 edition also includes the list of numeric indicators from Sphere (Davis, J. and Lambert 2002:608)), but at the same time the content of the book belies the claim in the introduction that *Engineering in Emergencies*, does not deal with policies. Of course the disclaimer in the 2002 edition introduction is in large part true – the book is not centrally concerned with policies, but there is still significant value to be seen in those areas which touch on camp planning, and which contain what the introduction alludes to as, 'a minimum of supporting theoretical background'. The first chapter starts with the truism that, "Most emergencies have complex causes and require complex responses if a durable solution is to be found," (Davis, J. and Lambert 1995:1), which may be seen as no more than a re-wording of the introduction to the chapter on shelter of the UNHCR *Handbook for Emergencies*. But *Engineering in Emergencies* then goes further, in phrases which closely echo those of the Zetter review: "Humanitarian relief programmes, therefore, need to plan for both immediate relief and the promotion of peaceful, sustainable development… They are not distinct

[38] As with other major titles cited in this chapter, *Engineering in Emergencies* has undergone a revision of content for its second edition, printed in 2002. This chapter will refer in the main to the 1995 edition, unless otherwise indicated.

activities as one clearly has an influence on another… Effective disaster relief should lay the foundations for long-term development." (Davis, J. and Lambert 1995:3) This clearly goes beyond a mere difference of focus or emphasis with the other guidelines, which is reinforced in the relevant chapters on 'Shelter and built infrastructure' and 'Temporary settlements'. There, the book states that, "[i]t is recommended to plan for the long term. Experience has shown that many 'temporary camps' can become permanent settlements," (Davis, J. and Lambert 1995:547) which is stronger in its insistence on the potential for permanency than Zetter's review, even though it does not follow through those assumptions with the same consistency and depth. *Engineering in Emergencies*, also declines to state that camps are the 'settlement of last resort', but instead merely state that their chapter on temporary settlements, "is not intended as an endorsement of camps as the only solution to the problems faced by people who have been displaced…" (Davis, J. and Lambert 1995:593)

The other content in *Engineering in Emergencies* which gives it significant value in the development of camp design, is that it is the first set of guidelines which contains specific camp layouts from specific and attributed real locations, and is also the first text since Hardin's' "Summary Sheet to Physical Planning" of 1987 to offer a choice of more than one possible design, with the implication that there is indeed not one layout which fits all situations.

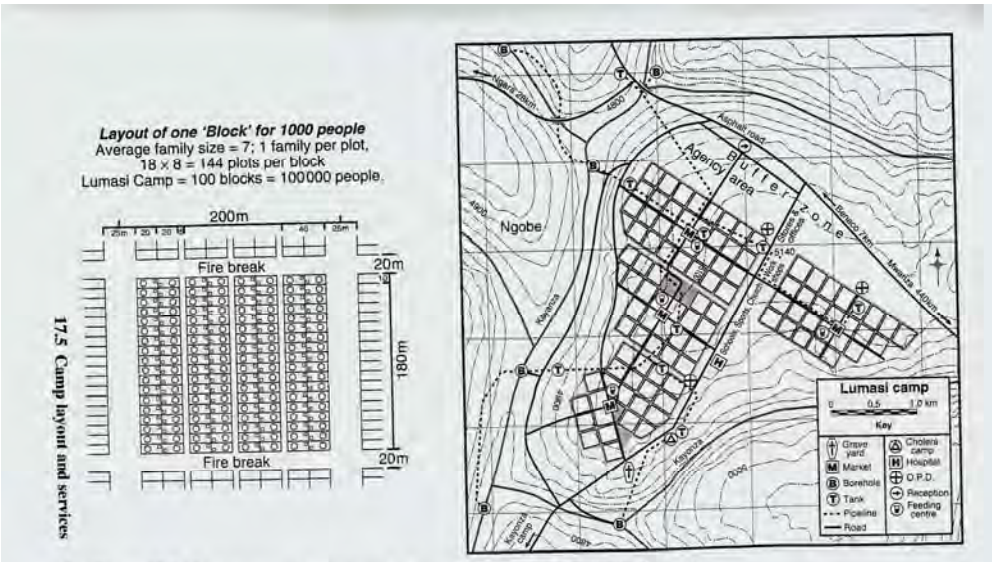

Fig. 4. 20. Lumasi Camp design. (Davis J. and Lambert, 1995:569)

The first choice of layout, that taken from Lumasi Camp in Tanzania in 1994 (Davis, J. and Lambert 1995:606:), is perhaps not a good one: the layout of blocks does not take into account the contours of the site, and whilst the authors say that if possible should not be built for more than 50 000 people, Lumasi Camp was one for 100 000 people, and is densely populated, to approximately 25 000 people per 1km², and with little space for inwards expansion (despite instructions to the contrary on the following pages (Davis, J. and Lambert 1995:609)). There is no direct explanation why the layout within the blocks, essentially double rows back to back, was chosen, although the authors hint that lack of space may have

been one consideration (Davis, J. and Lambert 1995:605). The layout maps of Lumasi camp are immediately followed by a plan for an alternative 'community cluster' layout, with blocks of 16 shelter plots along the edges of a square with communal space in the middle of each square, with the suggestion that this layout would be able to accommodate community services, such as laundry slabs or children's play areas, but that the trade-off would be smaller individual spaces for each family plot.

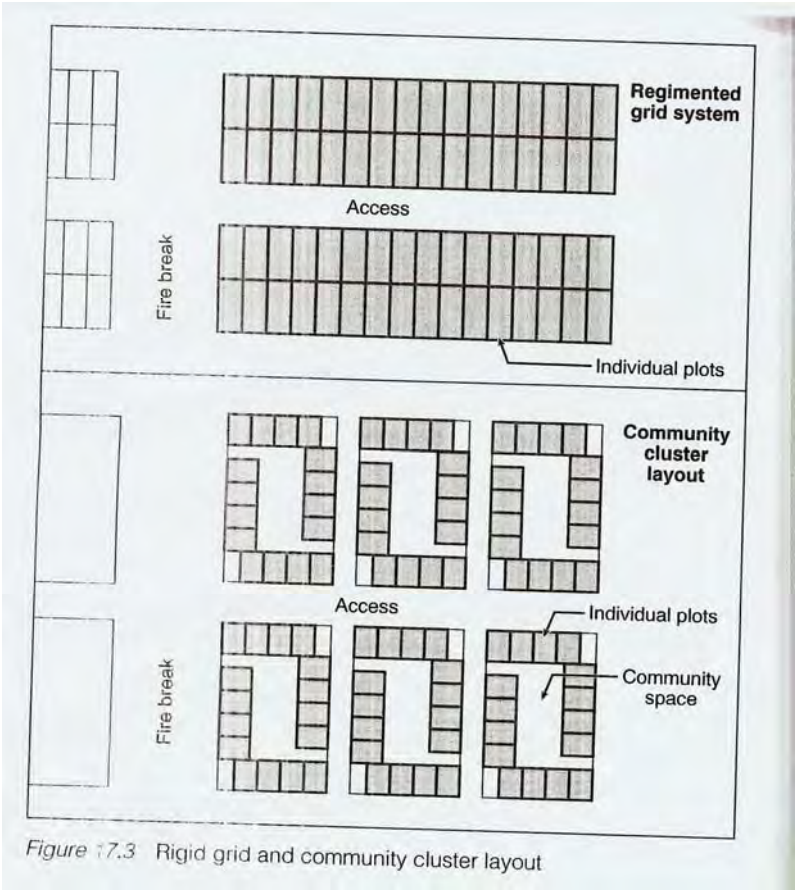

Fig. 4. 21. Grid and community cluster designs (Davis J. and Lambert, 1995:570).

In other regards, the designs offered in *Engineering in Emergencies* follow the accepted hierarchy of elements for constructing a camp, of single shelter plot, community block, a 'sector' of blocks, and then the camp as a whole. The use of the camp of Lumasi camp immediately highlights the advantages and disadvantages of using a 'real' camp as an example of a layout within a set of guidelines. On the one hand, the lessons to be drawn from seeing how a design interplays (or in the case of Lumasi, is overlaid) with its site, are numerous, and the lesson that camp layouts have infinite possibilities of variations is also an important one to repeat. On the other hand, no camp as it is constructed, is equal to the 'ideal' of a camp, of whatever model or template, and there is always the danger that by offering up only existing layouts, the authors and the readers (who themselves may become the next generation of camp designers) are condemning themselves to repeat the same mistakes. *Engineering in Emergencies* attempts to address this issue by offering the potentially 'improved' second design for the community cluster shelter block (and by doing so is the only extant text which takes a real camp layout and shows how that camp's layout

specifically could be improved), but does not go as far as to consider such options for the camp as a whole.

In other regards, *Engineering in Emergencies*, like the Zetter review, might merely have been noted as demonstrations that there were during the mid- and late-1990s alternatives to the policies propounded through Sphere and through the revisions of the UNHCR *Handbook for Emergencies*, but that nothing more of significance could be taken from that text with regards to camp design at least. However, it's significance is seen both the continued wide readership, and the fact that the philosophy for tackling issues of camp design in *Engineering in Emergencies* are then re-adapted in further texts which have had an arguably much stronger impact upon the policies and philosophy of camp design, published in the early 2000's.

In 1997, shortly after the publications of Zetter's review and of *Engineering in Emergencies*, and roughly coincident with the latter stages of the review for publication of the first draft of Sphere, a small group of researchers with field experience based out of Cambridge University, set up an ongoing project to engage in policy development and research into best practice in shelter and settlements, provisionally called Shelterproject. Whilst various research projects have been undertaken by Shelterproject, the one for which they are to date most well known, is the set of guidelines called *Transitional Settlement: Displaced Populations*, which was published in it's final form in 2005 (Corsellis and Vitale 2005), but which had been undergoing various preparatory reports, drafts and peer-review processes since 2000[39]. To date, *Transitional Settlement: Displaced Populations* represents perhaps the best attempt in a widely-circulated text, to adopt many of the concerns described in the Zetter review and in *Engineering in Emergencies* above, whilst still declaring itself to be operating within the principles and parameters of the Sphere standards, and UNHCR's guidelines. The main author, Tom Corsellis, having worked as a contributor to Sphere during at least the early phases of the development of *Transitional Settlement: Displaced Populations* (Sphere 2000:Annex1-3:10), ensured that the text's development included as wide a buy-in as possible from other agencies and donors, including Sphere itself (Shelterproject 2003:1), to ensure that the text has received wide attention, and support through distribution.

Firstly, and most importantly, *Transitional Settlement: Displaced Populations* sidesteps most of the issues concerning immediate versus long-term, or concerning the *a priori* preferences for one type of settlement over another, by grouping everything under the terminology of 'transitional', and bringing that concept forwards from the repeatedly emphasised objective of Zetter's review, to becoming the actual title and central rationale of the Shelterproject text. According to the Shelterproject definition, 'transitional settlement' means:

> *settlement and shelter resulting from conflict and natural disasters, ranging from emergency response to durable solutions…* The new approach considers the wider impact of settlement, emphasising the need for transition to durable settlement solutions and local development. (Corsellis and Vitale 2005:7)

[39] Reference will be made to the final (2005) published edition, unless otherwise indicated.

The new terminology, of 'transition' for 'displaced populations', puts the emphasis on the effected populations rather than on the actions of the humanitarian organisations (which is described instead as 'support' for the displaced populations (Corsellis and Vitale 2005:7): 'camps' meanwhile, are defined elsewhere in the text as replicating "an entire support system" (Corsellis and Vitale 2005:124)), and puts the emphasis upon the fact that the displaced populations are undergoing a process rather than occupying a static status.

As has been noted previously (Kennedy 2004a:21), the true focus of *Transitional Settlement: Displaced Populations* in terms of policy, is on the development end of the spectrum rather than the immediate relief end, (although the numerous instructions for creating shelters and building structures in settlements would be valuable during all phases of an emergency). Indeed, in one of the preparatory documents for the development of *Transitional Settlement: Displaced Populations*, Ian Davis was invited to contribute a set of principles for transitional aid, the first two of which are encapsulated in their titles as "resources of disaster survivors" and "sheltering: an active process rather than a static product" (Shelterproject 2003:Annex A:56), which became imbedded in the main body of that text, and in the final version of *Transitional Settlement: Displaced Populations*, as the "sustainable livelihoods approach" (Corsellis and Vitale 2005:x), introducing this term into a text with relevance to camp design, and again emphasising a connection from initial emergency response not to a static 'solution' but into an ongoing continuum of support for development.

With regards to other issues which had proved to be contentious for previous texts, *Transitional Settlement: Displaced Populations* manages to simultaneously stand on both sides of the fence of the argument concerning universality of standards, whilst still avoiding any self-contradiction to the claim that the text is in accordance with Sphere and UNHCR: "Standards and guidelines provide benchmarks by which humanitarian response can be monitored and evaluated. The inappropriate use of standards and guidelines may result in the underprovision or overprovision of support…" (Corsellis and Vitale 2005:15) Similarly, rather than stigmatising camps or having to specifically defend the use of camps, instead *Transitional Settlement: Displaced Populations* spends ten pages (as compared with the twelve pages for the entire chapter on settlements and shelter in the UNHCR *Handbook for Emergencies*) weighing the various advantages and disadvantages of all of the six different settlement types for displaced populations which it has identified (Corsellis and Vitale 2005:67-76), depending upon the situation, of which planned camps are only one type (all six being: host families; rural self-settlement; urban self-settlement; collective centres; self-settled camps; and planned camps).

With regards to the layout models which are contained within the text, *Transitional Settlement: Displaced Populations*, along with all of the other sets of guidelines published since the early 1990s, is careful to list all of the relevant numeric indicators and guidelines from Sphere and UNHCR (Corsellis and Vitale 2005:373, 377-9), but whilst doing so the text has already insisted that guidelines must be appropriate to the situation, but then goes further in changing the discourse from one of delivery of end-results to one of process, by concentrating a further 37 pages on a step-by-step explication of a strategy process, and how one might be constructed in the field. Not only does the strategy include the 'contingency phase', the 'transit phase', the 'emergency phase' and the 'care and maintenance phase'

which would be familiar from other texts, and containable within the remits of Sphere or UNHCR. But these are followed by a ‘durable solutions phase’, which is decidedly a ‘phase’ rather than an end-point, which is then followed by an ‘exit strategies phase’, through which, amongst other things, there can be the development of, “possible development objectives for the period after the TS [transitional settlement] programme is completed.” (Corsellis and Vitale 2005:46) In a later document by the same authors (Sheltercentre 2007:11), they point out that these different phases may not always be sequential, and may in some cases run parallel, or repeat themselves, but nevertheless, the emphasis is still upon a process.

In terms of designing the camps themselves, *Transitional Settlement: Displaced Populations* returns to principles first espoused by Cuny and Davis, almost twenty years earlier: first, support the affected population in their return to sustainable livelihoods (Corsellis and Vitale 2005:23); secondly, that “[t]here is no optimum size for camps… circumstances specific to each displacement will determine actual processes.” (Corsellis and Vitale 2005:370) The text then also uses the method employed in *Engineering for Emergencies*, in using a plan of a real camp to demonstrate the layout of a camp as a whole (Corsellis and Vitale 2005:380), followed by a number of “fictitious” designs to illustrate various options for the design of the community clusters which will form the camp. (Corsellis and Vitale 2005:389-91)

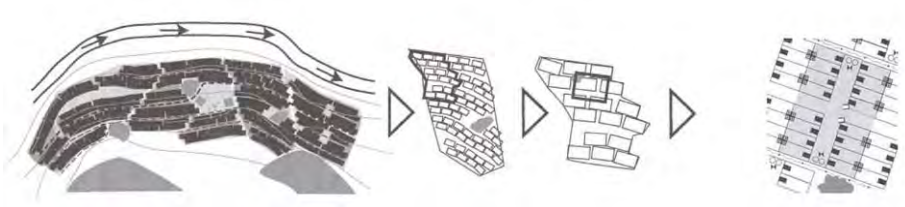

Fig. 4.22. (Corsellis and Vitale 2005:380).

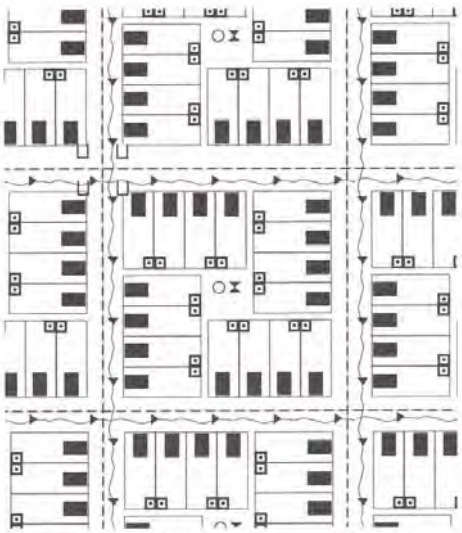

Fig. 4.23. (Corsellis and Vitale 2005:389).

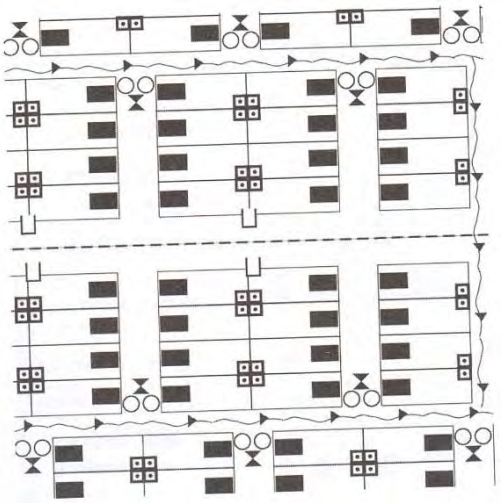

Fig. 4.24. (Corsellis and Vitale 2005:390).

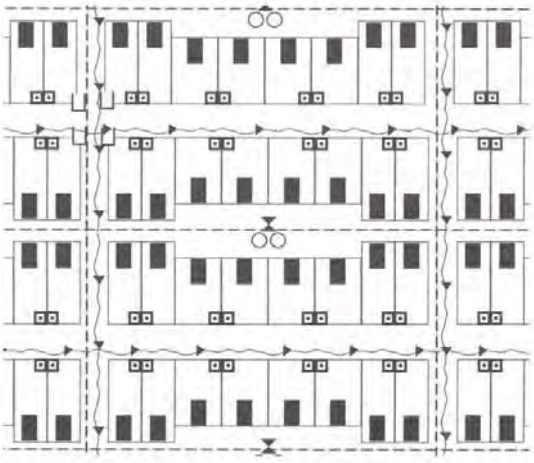

Fig. 4.25. (Corsellis and Vitale 2005:391).

These designs are accompanied by explanations for each one, of the advantages and disadvantages. These have been previously analysed elsewhere (Kennedy 2004a:71-4), but here in summary it is sufficient to say that the aim of all of the different designs is to support, or promote 'community' in some way, in conscious opposition to undifferentiated lines of shelters (the 'military-style' camp as labelled by Davis), and to provide space for community interaction, and for community facilities, including space for vegetable gardens. The trade-offs between the different examples of community clusters, as described in *Transitional Settlement: Displaced Populations*, revolve mainly around issues of privacy and security on the one hand, and connections and livelihoods on the other, with a greater awareness than in previous texts, of the spatial relationships between shelters and between clusters, in both the potential to shift community clusters off the general axis, and the potential for employing a full three-dimensional space in order to define the physical boundaries of a community, through the deployment of drainage ditches as well as the positioning of the shelters and

streets per se. As noted previously (Kennedy 2004a:73), the last of the designs is the first one since Cuny's designs for Bangladesh, which admits the possibility of moving away from the principle of absolute equity in land allocation for every family, in order to achieve wider goals of community support or livelihoods support.

The layout of the camp as a whole is also presented in such a way that a phasing of constructing the camp is intended, in order to cope with later influxes of refugees (this process is made clearer in a later text by the same authors, using the same camp layout (Médecins Sans Frontières and Shelter Centre 2006:47)), although this is limited to demonstrating an outwards expansion from the periphery of the camp, with no explicit indication for how increases of population within the existing sectors of the camp could be coped with, or how an 'infill' strategy within each sector could be deployed. The camp itself is a 'better' example of a real camp than the one used in *Engineering in Emergencies*, in that the layout not only takes into consideration an evolution of space use over time, but also exhibits a much greater awareness of the specific location (and indeed the authors are at pains to indicate that the chosen camp layout illustrates some of the advantages of having the camp layout adapt to and follow the contours and natural features of the site). The designs for each community cluster module, in presenting a number of choices, in being accompanied by detailed text analysis, and in having specific objectives which go into greater depth than the amorphous phrase, 'support community structures', present a greater potential for, "providing a secure, healthy living environment with privacy and dignity for those within it." (Corsellis and Vitale 2005:11) However, even with these developments, the designs shown in *Transitional Settlement: Displaced Populations*, as an exemplar of those various later texts which attempt to categorise camps as a means to a process, still operate under the following design constraints:

1. Whilst there is adequate demonstration that the community cluster module designs, adaptations of those designs, or if necessary new designs derived from the same principles, could give adequate support to the 'emergency' and the 'care and maintenance' phases of the camp's life-cycle, there is no explanation of how those designs specifically contain specific design features which will support the connections to long-term development, apart from to state that the plot sizes for all of the different designs are deemed sufficient in size in order to maintain vegetation (Corsellis and Vitale 2005:57), to support environmental recovery after the camp has been closed down.

2. Similarly, there is no assessment of how, if at all, any of the design features in the real camp layout adapted for the template for the whole camp, may have contributed to the connections with long-term development, particularly of those who were the refugee inhabitants of the camp. There are separate statements that non-residential structures in a camp should be planned in such a way that they can be handed over to host communities when the camp is closed down (Corsellis and Vitale 2005:47), but this is an activity which would not necessarily centre upon the refugees themselves, and therefore a gap is evident between the intentions in the text, and the camp design itself.

3. As *Transitional Settlement: Displaced Populations*, declares itself to be in compliance with both Sphere and the UNHCR *Handbook for Emergencies*, it can not at any point endorse an arc of development which would include a cycle to permanency upon the same site as the refugee camp, and the authors are at pains early on in the text to declare that the text does not address itself to such possibilities (Corsellis and Vitale 2005:3). Nevertheless, apart from the points mentioned directly above in points 1 and 2, there is no indication as to how the design of the camp may be adapted if needed in its later stages, towards specifically supporting one or more of the durable solutions outlined by UNHCR.

4. The text claims to operate in compliance with the numerical standards of Sphere and UNHCR (whilst at the same time containing alerts about the inappropriate use of standards, and neglecting the fact that the two sets of standards are not completely in accordance in all areas), which imposes a double constraint, of having to construct the camp out of standardised component 'building blocks' and of having the dimensions of those building blocks already imposed as well. Furthermore, even though the designs of the community clusters would appear to have been taken from camps in different continents, and even though the positioning of the shelters is observably different in each design, nevertheless, all of the designs are essentially of the same typology in as much as they are clustered together, and yet still essentially open-plan with physical gaps in between a set of separate individual family shelters.

5. Like *Engineering in Emergencies*, *Transitional Settlement: Displaced Populations* takes examples of camp layouts from real life, which has a number of advantages previously stated in the analysis earlier in this chapter of *Engineering in Emergencies*. But, like *Engineering in Emergencies*, the disadvantages in terms of design constraints, are the unacknowledged one of inheriting a hierarchy of structures (family plot, community cluster, block, etc) without question, or apparent awareness of the origins and reasons for the original creation of such a hierarchy. There is an assumption that whichever design of community cluster is made, that will be the single choice for the entire camp, to be replicated through all residential areas in a tiling effect. There is no hierarchy of open or public spaces which would correspond to the different scales of residential spaces, and all non-residential facilities in the layout example remain in one central area. With each example of a community cluster given, there are considerations for the way in which that cluster would juxtapose with the adjacent clusters, across the intervening pathways or streets, which goes one scale higher in its analysis than any other texts since Cuny's work in Bangladesh. But the conclusion is nevertheless that essentially, much of the innovation and development of aspects of camp design contained within *Transitional Settlement: Displaced Populations*, has been achieved at the level of the design of the individual community cluster, rather than at the level of the camp as a whole.

The last text to have been produced during the last decade by one individual organisation (albeit again with significant consultation and buy-in processes) and which explicitly regards refugee camps as a means to a process, is the *Camp Management Toolkit*, produced by the Norwegian Refugee Council (NRC 2004). This set of guidelines was started at a point later

than *Transitional Settlement: Displaced Populations*, (2002) but was published in its final form earlier than the finished version of the Corsellis and Vitale text (2004). Whilst neither sets of editors or authors are credited with similar work on the other text, both texts in their final versions (2004 and 2005, respectively) make direct reference to each other at various points. (Corsellis and Vitale 2005:382, 405, NRC 2004:38) Whilst its considerations of the functions of refugee camps is considerably narrower than that of *Transitional Settlement: Displaced Populations*, and is somewhat hampered by the fact that the text never defines what a camp is, nevertheless the text has some significance for the development of the design of refugee camps, on the following points:

1. It is one of the few texts which is devoted entirely to issues concerning planned camps, even if it is not entirely devoted to the physical design and construction aspects of planned camps.

2. It posits a different, if limited set of objectives for the camp.

3. There are a number of ways in which the designs for both camps and community modules contained in the *Camp Management Toolkit* differ significantly from those in previous texts, and which offer developments or advantages in comparison with the examples from those in previous texts, even though they are operating under many of the same design constraints.

Like a number of the other major texts analysed in this chapter, the *Camp Management Toolkit* was written at least in part as a reaction to a specific humanitarian crisis. In the case of the *Camp Management Toolkit*, the crisis was largely of the humanitarian organisations' own making, in this case the scandals arising out of the exploitation of refugees by some humanitarian aid workers in camps in west Africa in the period leading up to 2001 (NRC 2004:9). Thus, whilst the *Camp Management Toolkit* aims to provide comprehensive guidance on all responsibilities of a camp management team, it does so often with a particular focus on protection and security issues. As an example, all six of the "key responsibilities of camp management team" with regards to shelter listed in the text, are concerned with protection, and in particular protection for women, children, and female-headed households (NRC 2004:32-3). Because of this narrower focus, and the lack of overall explicitly-stated definition of what a camp is, the degree to which the text places camps in a continuum from emergency relief to development is also more limited than that of *Transitional Settlement: Displaced Populations*, but nevertheless it still insists upon camps (and shelter provision in general) as being means to objectives, and does so by creating a progression through its various chapters (much as *Transitional Settlement: Displaced Populations* was able to do through its proposed strategic framework) which not only conceives of the lifespan of the camp as a process, but makes a point of including in those chapters Chapter 12, "Enhancing Livelihoods Strategies for Self-Reliance", Chapter 16, "Peace-building and Reconciliation" (a topic hitherto not explored in any other text, but equally vital for long-term development goals), as well as at the end Chapter 18, "Camp Closure".

Fig. 4. 26. Camp Management Toolkit camp layout design. (NRC 2004:42)

Fig. 4.27. Two Camp Management Toolkit designs for community clusters (NRC 2004:42)

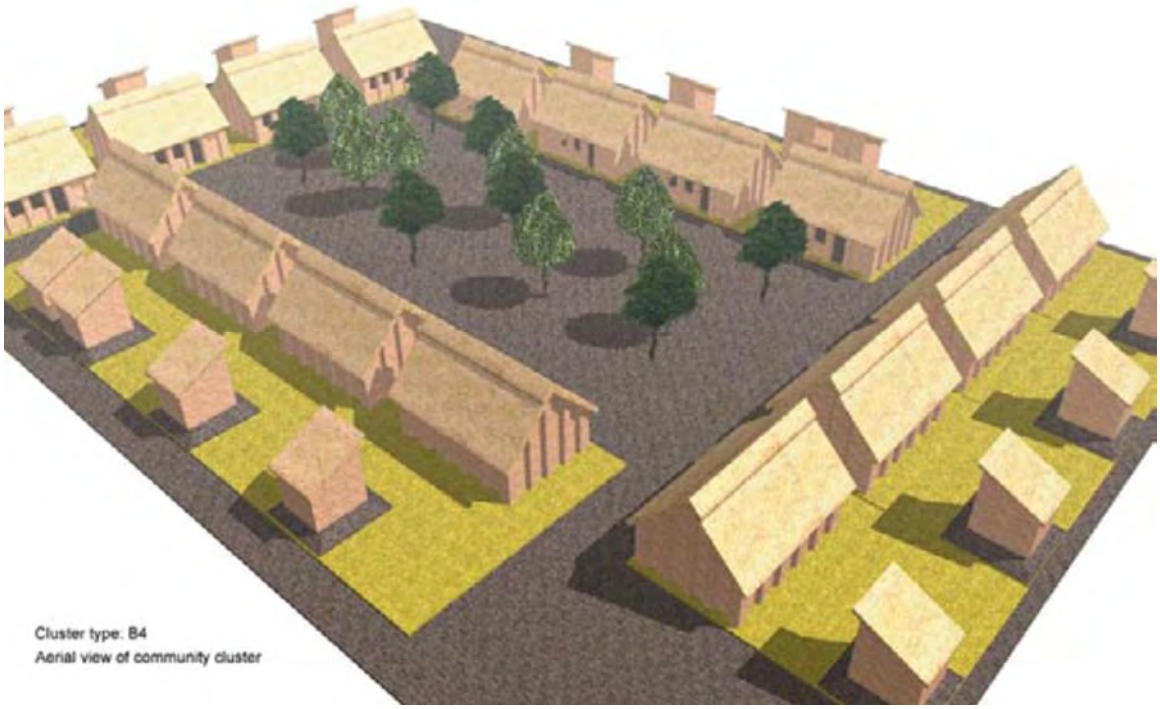

Fig. 4.28. Camp Management Toolkit aerial rendition of community cluster design (NRC, 2004:44)

With regards to the parts of the text which refer directly to the design of the camps, the *Camp Management Toolkit* has claims to significance in the following regards:

1. The text attempts to 'normalise' the structures of the camp, and re-assert the fact that a camp is really akin to a city, through use of terminology: the hierarchy of structures in the *Camp Management Toolkit*, are labelled after 'civilian' urban equivalents—neighbourhood, township, camp town, camp city. (NRC 2004:37, 40)

2. The layout plan for the overall camp, although one which is not real, and which should only be considered as a "programming or model illustration" (NRC 2004:37) (and therefore without reference to the specific site or context of the camp) takes advantage of being an illustration of a model, to show how a camp in its earlier stages could have sections set aside for internal incremental expansion within the existing sectors of the camp, without having to create full new sectors at the periphery of the camp.

3. The text gives graphic examples of four different community clusters, which upon closer inspection all follow the same essential typology of being sixteen individual shelters set around a square, with different configurations with regards to the central axes. These are accompanied by text notes giving brief explanations of the possible advantages and disadvantages of each design. However, the graphics for each design go beyond those offered in other texts, by ensuring that each model includes representations of trees within each community cluster, and therefore insists that

> environmental issues are given some consideration. Further, the text takes advantage of advances in digital graphics, in order to give 'aerial views' or elevations of one of the community layouts. (NRC 2004:44)

However, despite the harnessing of the camp design to different (in this case, protection-focused) objectives, and despite the use of improved graphics technology, the design proposed in the *Camp Management Toolkit*, fall under much the same design constraints as *Engineering in Emergencies*, *Transitional Settlement: Displaced Populations*, and the vast majority of the other designs previous:

1. As the Norwegian Refugee Council is signatory to Sphere, and is also a major implementing partner of UNHCR, it must adhere to the standards and guidelines, including the numeric ones, set forth by those two organisations.

2. The description of the design is reactive to a certain situation, from which there could be claimed an over-reach of 'lessons' have been extrapolated.

3. There is a lack of connection between the design of the camp, and the objectives of the camp. Even in the case of the *Camp Management Toolkit*, where the stated objectives are more limited than in *Transitional Settlement: Displaced Populations*, the process of designing the camp and the community clusters within the camp was one of finding or adopting the designs first (from the Norwegian Refugee Council's pre-existing internal-use shelter handbook (NRC 2004:33)), and then describing the ways in which they might support the overall objectives, rather than starting with the objectives and then creating an optimum design based those objectives.

4. There is an unacknowledged, or unquestioned inheritance of a typology of camp which is created through the repetition of certain modules, and a rough scale of sets of modules, even though these have been renamed, and of a division of functions broadly between residential and non-residential.

As well as the reinforcement of the claims of the community cluster approach through repetition in the ongoing series of guidelines and other texts, there is evidence through technical report drawings that from the mid-1990s onwards, the community cluster approach was being increasingly adopted by site planners from UNHCR and their implementing partners (UNHCR 1994:Annex H, 1999:27, Kennedy 2004a:88, 113). However, there is also adequate photographic evidence that a number of camps continued to be constructed with long, undifferentiated lines of shelters, and without any clustering (See the *catalogue raisonée* of this thesis). As previously cited in this chapter, the statistics point to a majority of camps where conditions do not even meet the minimum Sphere standards. (Saunders 2005)

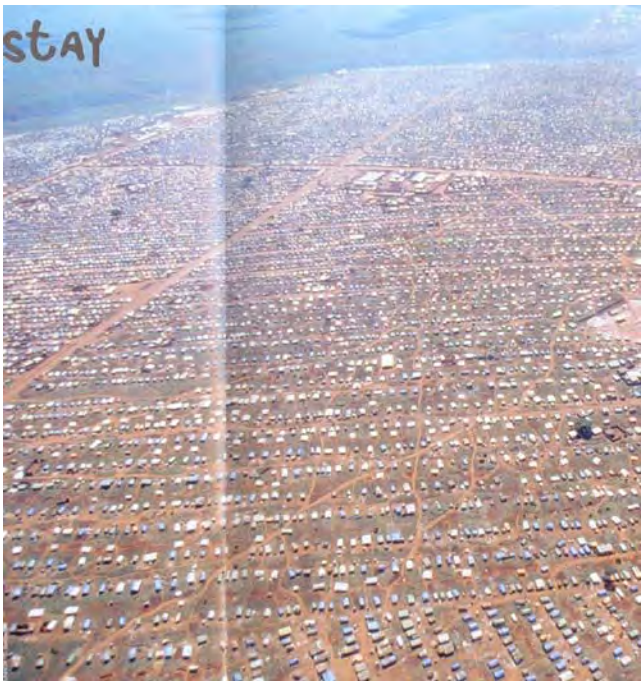

Fig. 4.29. Mid-1990s camp laid out along 'military-style' design. (UNHCR 2003b).

At the same time, in the three to five years since the publication of the latest versions of texts like *Engineering in Emergencies*, the *Camp Management Toolkit* and *Transitional Settlement: Displaced Population*, there has also been some adaptation of the latest revised editions of both Sphere (2004) and the UNHCR *Handbook for Emergencies* (2007). In his paper reflecting on the Sphere revision process and the shelter sector, Graham Saunders, the 'Shelter, Settlement and Non-Food Items technical chapter focal point for the Sphere revision, refers at length to two areas which did not feature heavily in the first edition of Sphere: "From relief to development – short-term versus durable solutions" (Saunders 2005:164) and "Shelter 'plus': lives and livelihoods" (Saunders 2005:172). This is only to a certain degree reflected in the actual revision of Sphere, both generally and with specific regard to shelter and camp planning. However, both in the new introduction, and in the chapter on Shelter, Settlement and Non-Food Items there have been changes which do go some way to reflect some of the concerns carried in other recent texts.

Firstly, there is the admission that the standards and indicators may not be achieved immediately and in one move (Sphere 2004:7), or that in some cases they would ever be achievable (Sphere 2004:8), or that in certain local contexts the achievement of the standards would be advisable in any case, as they might exacerbate resentment amongst surrounding communities whose existence has never reached those standards (Sphere 2004:9): in short, the revision of Sphere makes concessions to localised, non-universal values which were not articulated in the first edition. With regards to shelter specifically, the standards have become more qualitative, and some of the numeric indicators (for example those governing the minimum distances between shelters or community clusters) have disappeared entirely. Others, such as that concerning minimum covered shelter space, may have on the one hand needs which exceed the minimum, but where at the same time there may be situations where the minimum can not be achieved immediately, but where instead there should be plans for

upgrading (Sphere 2004:219-20). In fact, a greater emphasis in the revised edition upon response to natural disaster allows Sphere to side-step, or remove many of the references to planned camps which were present in the first edition. It also gives space for a declaration that, "Shelter responses should enable households to incrementally upgrade *from emergency to durable shelter solutions*" (Sphere 2004:209) [italics added]. In the final part of the shelter section, there is even a small section within that part concerned with the environment, added for "handover" (Sphere 2004:229). Having said all this, those numeric indicators which do remain are individually unchanged, and there is still no mention other than those mentioned here, about how the standards are intended to connect to anything beyond their own attainment.

The most recent of these revisions has been the 2007 edition of the UNHCR *Handbook for Emergencies*. The revised chapter on "Site selection, planning and shelter" retains in its introduction its stated principles of response including the need to think of the long-term impact of initial responses (UNHCR 2007a:206). Although the *Handbook for Emergencies* still states that "refugee camps should normally be considered as the last option" (UNHCR 2007a:206), it follows this with a page listing various advantages and disadvantages of all the types of settlement possible, (with an attached warning that it is actually "spontaneous" (i.e. unplanned) camps which "should be avoided to the extent possible" (UNHCR 2007a:208)). The full array of numeric guidelines are still in place, as is the hierarchy of spaces in a camp, and neither handover strategies nor connections with development are mentioned (although there is a separate chapter on the logistics of "voluntary repatriation" (UNHCR 2007a:405). However, there is reinstated a graphic template of a design for one community cluster. (UNHCR 2007a:214) Not only does this design show images of trees in the middle of the community cluster, but it is actually based upon a design co-authored by UNHCR staff in 2000, which unwittingly replicated the U-shaped clusters of Cuny's 1970s Bangladesh designs, with much the same aims of adapting spaces to meet both the living and the security needs of the affected community (Fardanesh and Walker 2000:24), but without Cuny's attention to the spaces in between the communities, or the relations between the camp and the outside.

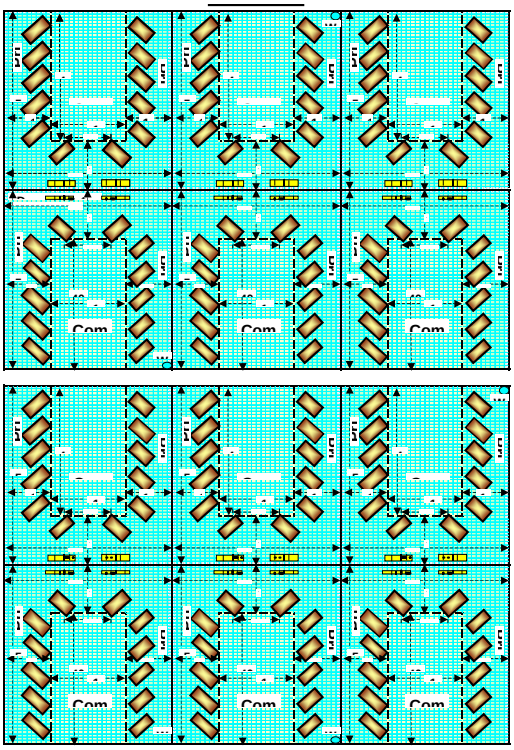

Fig. 4.30. U-shaped Community cluster layout, Fardanesh and Walker, 2001)

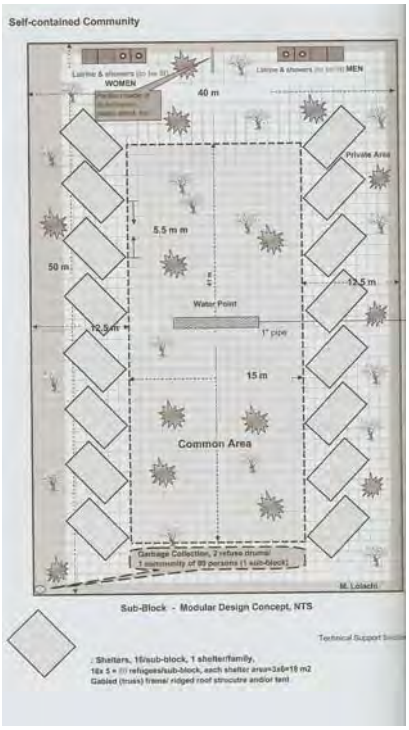

Fig. 4.31. U-shaped community cluster (UNHCR 2007a:214)

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In summary, the development of the global design type for refugee camps has produced a design type intended for global use, created through a mixture of numeric standards for physical dimensions and distances, and a vocabulary which describes a hierarchy of elements within a camp, based largely upon community-cluster modules, and the separation of functions between residential and non-residential spaces.

Because the camp is intended, for the political reasons described in Chapter 3, to remain physically separate from the host communities, the overall morphology remains one where the camp does not lead to anywhere, and does not have any lines of traffic or communication which run through it, but which is connected through a single access road, which passes by the humanitarian and other administrative offices before reaching the residential blocks.

Beyond the end of the main access road, the overall morphology of the global camp design continues to resemble a grid more than anything else, despite the best intents of Cuny, Davis and others: the one difference between the current camp global camp design and the 'military style' version being that in the humanitarian organisations' version, the grid system is defined by the edges of the tiled community cluster blocks, even when, as with Corsellis and Vitale, the tiling is adapted to the contours of the site.

However, although all of the designs which have been examined in this chapter contain basically the same hierarchy of built elements (shelter—cluster—block—sector—camp), the U-shaped clusters from Fardanesh and Walker, and some of the open-ended cluster designs from Corsellis and Vitale acknowledge the possibility of a transition from private spaces to public spaces, through a series of semi-public spaces with a hierarchy of sizes and openings. In these cases, there is the potential for the morphology of outdoor spaces to formally break away from the grid structure, so that there is contained some elements of a branching design.

In all the documents examined in this chapter, there is little which is explicitly stated about the intended Operations, in terms of how the refugees will use the different spaces in the camp. There are a small number of outdoor spaces which are defined in a monofunctional manner according to their labels (vegetable garden, water point, market, recreation area), but these assume a set of discrete operations, contained within each space. The only indication that the global design takes into consideration operations which traverse different spatial elements, is in the set of numeric minimum standards which govern the distances between elements. All of these are described in terms of minimum (or maximum) distances between the shelter and the other particular location – that is, a description of the maximum distance between a shelter and the nearest water point, or the minimum and maximum distances between a shelter and the nearest latrine. This bilateral set of connections is also reflected in the standards which allocate non-residential facilities (schools, health posts) in relationship to the number of shelters in the camp or camp block. Embedded in these standards is an assumption that the refugees would be making direct movements from their shelter to one or another non-residential facilities. There is little awareness in the existing guidelines of any journeys within the camp which might go through a number of different locations before returning to the shelter, and apart from the open-ended community blocks of Corsellis and

Vitale (Fig. 4.24 in this chapter, above), little awareness that there might be ‘undirected’ journeys for other purposes than securing a basic existence.

Judging the performance of the global design is problematic, in that it remains an ideal, with the *potential* to perform, once it is implemented as a real camp somewhere in the world. There is no doubt that the various authors who have contributed to the development of the global design since the early 1970s have had every intention that the camp design should perform well, and should somehow support community structures and livelihoods development. However, it is safe to say that the focus of this intention for good performance has so far been concentrated upon the individual refugee (in terms of security measures, or access to water and sanitation) or upon the small ‘communities’ which would be contained within each cluster of 12 or 16 shelters. Beyond this, there is little expressed awareness of how the camp design might be judged to perform for the entire camp population as a whole, or for the host communities. This level of questions remain to be addressed through case studies, such as the one which will be conducted in the next chapter, Chapter 5 of this thesis.

* * * *

This chapter has contained an overview of the development of the design of refugee camps, arguing that there is essentially one design type, but with many variants. The discussion of those variants has revealed that they often share a lack of attention to the performance of camps, beyond their bare life-saving potential. Although many of the texts discussed in this chapter refer to ‘durable solutions’ and long-term planning, few if any give examples of how elements of the design might connect with those goals. This is equally often accompanied by a lack of awareness of the relationships between camps and their specific geographic contexts, and their development over the long-term. Chapter 5 will follow, with a case-study of Ifo camp, which will contain a comparison between the gaps in camp design which have become evident from the investigation in Chapter 4, and the gaps which become evident in the case study.

Chapter 5. History and Design Analysis of Dadaab Camp, Ifo Sub-camp, and Ifo II Extension

Chapters 3 and 4 of this thesis have outlined both the institutional constraints within which the designs of refugee camps must operate, and the general attributes of the composite design which has developed over the last thirty-five years, and which has to date brought some degree of influence to bear on many of the camps which have been built over that period. Chapter 5 is divided into two parts. The first part will reconstruct, to the extent possible in light of the gaps in data, the history of the design and construction of Dadaab Camp as a whole, Ifo sub-camp, and then the Ifo II extension to Ifo sub-camp, which was commenced in January 2007. The second part will then re-visit the stresses evident in the camp which were described in Chapter 1, and analyse them in greater depth in relation to the apparent design constraints which have become manifest in the previous chapters. This analysis shall be carried out in two parts. The first will follow the Morphology-Operations-Performance framework, as adapted for the specific case of refugee camp design, and the second part will examine the Performance of Ifo camp with specific reference to the six major gaps in design which were identified in Chapter 2 of this thesis.

* * * *

The reason for preceding the case study with a more detailed history of Dadaab and its sub-sections, serves a two-fold purpose. Firstly, it highlights the fact that many of the issues which have been addressed in this thesis thus far, and which will be further examined in the case study, are issues of performance, which can only be adequately observable as the camp develops over a period of time. Indeed, it is one of the hypotheses of this thesis, that the element of time has a primacy in exposing some of the stresses inherent in conventional refugee camp designs, through associated changes in population number, environmental degradation, and evolving economic development on behalf of both the refugee and the host populations. Secondly, the historical narrative may go some way towards revealing some of the stresses which have existed previously in the camp, against which adaptations in camp design might be expected to respond, but which are not necessarily in full evidence in the present day: the historical narrative also reveals the process by which the physical fabric of the camp has become a series of intermingling layers of artifacts, created by an interplay of stakeholders in attempts to ameliorate the most acute of those historical stresses, as well as revealing some of the consequences of those actions. Therefore, the historical narrative becomes necessary in presenting the full range of stresses which have become evident in Dadaab.

The historical narrative will be effectively divided into two eras of unequal length. Firstly, there will be the narrative of the progressive construction of the camp and the events which influenced that construction, between the founding of the camp in 1992, and the major population influxes and concurrent flooding of the camp during the last four months of 2006, which became the impetus to establish the major extension to Ifo camp, referred to here as “Ifo II”. The second part of the historical narrative will take account of those events from the second half of 2006 until the period of the start of the case study, in January 2007. The historical narrative will not attempt to provide a comprehensive biography of Dadaab, but

will be confined to the history of the development of the design of the camp, although it should be obvious from the previous chapters that the social, economic and political history of the camp interact heavily with the history of the camp's design and construction.

Overview of the available documentation

The other major constraint upon presenting the history of the design of Dadaab and Ifo, mirrors the issues encountered in Chapter 4, regarding the presentation of the history of the development of camp design as a global composite, in terms of the availability of data. Despite the longevity, and in some cases the notoriety (Crisp 1999) of Dadaab, there is no archive to its own history actually in the camp or in the UN compound at Dadaab, and in some cases senior UNHCR staff working in Dadaab were unaware of the range of documents which had been produced elsewhere referring to the camp[40]. Whilst presumably there would be some collection of programme-related communications regarding Dadaab contained in the offices of UNHCR Kenya in Nairobi, or in the offices of the principal implementing partner for programmes in Dadaab (CARE International), these documents are not normally available, and there is no indication that they form a distinct archive or catalogue. Beyond those potential sources, there has never been any published document which focuses chiefly on the camp design at Dadaab, although issues relating to the camp design are touched upon to greater or lesser degrees in other documents which concentrate upon other topics. As such, the different categories of data pertinent to the history of the design of Dadaab, are as follows:

1. The series of reports and media statements regarding Dadaab, released over the last 16 years by UNHCR, and now available on the official UNHCR web-site (www.unhcr.org). These documents are periodic rather than comprehensive, and with some notable exceptions often occasioned by specific crises or emergencies in the region. On the one hand this type of document acts to identify, or confirm the historical presence of, some of the issues related to the camp design. On the other hand, the special and reactive nature of most of these documents may reveal less about some aspects of the quotidian lifestyles of the refugees, host communities and humanitarian workers in and around Dadaab. Nevertheless, these documents represent the best available collective 'vertical' narrative of the history of Dadaab, punctuating the entire period of the camp's existence since 1992.

2. A small number of longer, thematic, and generally more nuanced documents which tackle single issues concerning life in Dadaab, whether it be issues of violence and insecurity (Crisp 1999), or the economic role of support for refugees from relatives living outside the Horn of Africa (Horst 2007). These documents are often focused upon chronic rather than emergency issues, and often provide more detail about the ways in which the camp has performed at a given period, although seen from the viewpoint of each document's own main topic. These documents also include reports on certain pilot projects for security or income generation conducted at various points in Dadaab. (UNHCR 2001) Of these, Jeff Crisp's paper, "A state of insecurity: the political economy of violence in refugee-populated areas of Kenya" (Crisp 1999)

[40] Personal communication with UNHCR staff, February 2007.

stands out for being based extensively upon reports and other documents produced by UNHCR Dadaab offices in the late 1990s, but which are now otherwise unavailable.

3. A single, but wide-ranging, detailed and comprehensive survey of Dadaab camp conducted in 1998 by the French research organisation Institute of Research for Development (IRD), mentioned in Chapter 1, whose three-volumed report's title is self-explanatory of its foci: "Environmental, cartography, demography and geographical information system in the refugee camps Dadaab, Kakuma – Kenya" (Beaudou, Cambrézy, and Souris 1999). Whilst the information compiled in this documents is already almost ten years old, nevertheless it represents an excellent 'horizontal snapshot' of the physical and social structures in Dadaab, and is the only document which could be said to act in any way as a baseline for comparison with later data, and is in many ways an exemplar of what should be aimed for in the documentation and information management support for all major camps. The information represented in the IRD document is shown as a series of aerial photographs and overlaid maps, and therefore makes less claim to represent the physical vertical dimensions of the camp, as seen from the ground level, but nevertheless is detailed enough in its images to indicate the location of every shelter and built structure, much of the vegetation, as well as population information disaggregated by age, gender, clan or ethnic affiliation, and specific place of origin within Somalia.

4. Satellite images taken from Google Earth, dated to 2006 (GoogleEarth 2007), which give details of the accumulated physical tissue of the camp and its surroundings, with the same level of image resolution as those images contained in the IRD report of eight years earlier, but with the same limitations in terms of only showing the layout of the camp in flat two dimensions.

5. Brief references made to Dadaab, as illustrations of certain problems, contained within a small number of UNHCR or other general guidelines or documents. Whilst going some way towards confirming some of the priorities for UNHCR in dealing with issues present in Dadaab, the information actually contained in these documents are for the most part essentially repeating information already present elsewhere.

6. Press-releases and media reports of the conditions in Dadaab during the period of September 2006-January 2007. Although these are far greater in number than similar types of documents available for the period 1992-2006, the information contained within them is often repetitious from one document to the next, and often lacking much in the way of greater historical perspective. On the other hand, they can provide, through the perspective of 'human interest stories', details of daily life, or personal coping mechanisms amongst the refugees which would not otherwise have been documented. The high degree of repetition of information across these documents remains as one of the main justifications for the claim for a shortage of historical data on Dadaab, despite the fact that a search under "Dadaab" on www.google.com reveals a total of 78, 800 responses[41].

[41] Search undertaken on 15/05/07 at http://www.google.com.

7. Photos, or other graphical representations of Dadaab, contained incidentally in other documents, or in the personal collections of those who have previously worked in Dadaab, and which have become available in part later in documents with small circulation, such as university master's theses. (Barben-Vargas and Kempf 2003:47, 57, 58, 75,78) These photos go some way towards providing a compliment of images for the IRD document listed here in point no. 3, by representing parts of the camp from a closer, more horizontal viewpoint. However, these photos are often limited in the data they represent, in terms of impreciseness of date, lack of precise location indicated, or lack of indication of the original aim for taking such photos. There is no set of such photos which could claim to be comprehensive in showing every location within the camp. Furthermore, there is less likelihood that any of the photos were deliberately taken of areas which were at the time open space, but into which later camp extensions would be built. Because the photos are taken from a closer perspective, they are for the most part better at recording the smaller groupings of shelters or community blocks, rather than recording the camp as a whole.

8. Certain artifacts of the camp tissue which were observable during the course of the case study, but which pertain also to the historical narrative. These include, but are not limited to, visual evidence of the dating of various built structures, shelter areas, or infrastructure, within and without the camp.

9. Personal histories, or other oral statements received during the course of the case study from refugees, members of the host community, or humanitarian workers, and which had reference to the history of the camp, as well as to the contemporary period covered by the case study.

* * * *

Rationale for the choice of Ifo as a case-study location

The reasons for expanding the analysis of the design of refugee camps through a single case study, the reasons for choosing Dadaab and Ifo in particular, and the parameters for such a case study, were discussed briefly in Chapter 2 of this thesis, but are described again below in greater detail. As will be expanded upon in the eighth section of this chapter, entitled *Activities and constraints in the use of the case-study approach with regards to refugee camps*, the approach to the case-study is adapted from Gans' *The Levittowners* (Gans 1967). The reasons for adopting a case-study approach *per se* for the terms of this thesis, and with reference to research on the design of refugee camps in general, can be enumerated as follows:

1. This thesis has made claims that there is such a thing as a commonly-accepted global design type for refugee camps, and that this type exists as a de facto "state-of-the-art" composite of all the elements which have been added or adapted during its multi-author development. Nevertheless, what remains to be seen is the validity for such claims, by examining to what degree the composite design contained within the

various texts referred to in Chapter 4, do actually act as a type, (that is, as something which is replicated through the use of construction materials), by being seen to have an influence upon the design and construction of a real camp. Whilst there have been brief references made in Chapter 4 to a number of designs for specific camps in specific real locations, as well as references made to photographs of specific camps which could be said to document a design-as-implementation, these have been limited in the scope of geographic area which they represent, and in the types of information which they can convey, and can not be seen as being comprehensive, and indeed there is a claim to be made that only a case study might give an indication as to the full range of data types needed in order to say whether the text composite camp design actually functions as a template in reality. It has already been indicated in Chapter 4 that not every camp in the world is of that design (many for instance are still constructed according to what Davis would refer to as the rigid military-style layout), but what is necessary, is to demonstrate that the composite type conveyed through overwhelmingly adopted texts, and regarded as the end-product of all previous discussions on the design of refugee camps, actually does have the possibility of then functioning as a design for the construction of a camp in reality.

2. The central hypothesis for this thesis is that there is current, a prescriptive global camp type, and that this design type fails most centrally because it lacks consideration of how the camp actually performs with regards to various forms of extension (extension over time, extension beyond the formal geographical borders of the camp, extension of scale towards the micro-level), and that whilst some of those gaps may be surmised from a logical or linguistic analysis of the texts which propose that template, the primary limit on those extensions is the point at which the design system plan meets the influence of any local context on the ground. Therefore, in order to create a test of the hypothesis, a comparison must be made which somehow bridges across from the formal and ideal prescriptive template, into an observed case of such a design being implemented in reality.

3. Whilst there are some gaps which have been identified in the camp design through an analysis of its historic development in Chapter 4, and which can be tested against a case-study of the design and construction of a real refugee camp, it is entirely possible that there are other gaps or stresses in the design of refugee camps, which are not obvious from an analysis of the written guidelines alone, and which might only become evident from a case study. The case study of Dadaab would not make any claims to produce the entire possible set of any such gaps which were not evident from an examination of the global design itself: as the number of different camps is theoretically infinite, so is the possibility that the set of such gaps would be infinite too. But the case study would be expected to test the subsidiary hypothesis that there is the possibility for gaps in current refugee camp designs to exist, which are not obvious from just an examination of the texts which contain the general composite for camp design. More generally speaking, there needs to be an expansion so that there is an element of the research which is exploratory, and open-ended, given the inability to predict closed sets of data in terms of the possible typologies, but also the possible manifestations of those typologies.

4. One part of the hypothesis raised through the previous chapters of this thesis, is that the gaps in design of refugee camps, and the resultant stresses, are manifested through a mixture of quantitative and qualitative elements: lack of sufficient room for population expansion might cause a reduction in water supply per person which can be measured numerically, but at the same time the same reduction in space or resulting reduction in personal privacy, might result in rising social tensions which are more difficult to quantify, and may be said to be qualitative in nature, for all that they share in some respects an equal if not greater importance. This qualitative information is not easily gatherable through other methods, and so a case-study approach presents a preferred way for this type of investigation.

As stated in Chapter 2, the opportunities for initiating any case study on a refugee camp in 2006 (the latest officially released data point prior to the writing of this thesis) theoretically extended to at least 657 different locations around the world. However, for the purposes of this thesis, a single-case-study approach is sufficient. This is not to say that further case studies would not be of interest, and indeed it is part of the aim of this thesis to encourage further such case studies in other locations. But the overarching aim of this chapter of the thesis is to test the hypotheses concerning the formal elements of a global composite design template for camps in the dimension of reality, and for this one case study provides a minimum sufficiency, provided that the case in question satisfies certain criteria of validity, elaborated below. If the central hypothesis is that the current design type lacks consideration of various forms of extension, and that the primary limit on those extensions is the point at which the design system plan meets a specific context, then all that is necessary to test such a hypothesis, is the observation of an implementation of the template in one specific context.

In terms of the choice of Ifo as the specific case study, it should be said that, as stated in Chapter 2, *there is no 'perfectly typical' camp to choose as a test case*—if there was, it would diminish arguments which stressed the role which specific context has to play. However, Ifo does have a number of features which would indicate that it is a camp which is 'adequate' as a subject for the case study:

1. It does not occupy extreme positions in terms of either population or longevity.

2. It is old enough that there is a complex layering of artifacts in the physical fabric of the camp, and that there has been sufficient time for various stresses to become obvious, and for there to be manifestations of the interplay of influences upon the camp by all of the different stakeholders.

3. Ifo is also sufficiently old, and sufficiently problematic as a camp, that there has been built up over its lifetime a body of documentation on its history, with which to reconstruct the historical narrative, and through which to judge the present condition of the camp.

4. As described in Chapter 1, there would appear to be a number of different issues manifest in Ifo, but at the same time none of these problems are so acute as to prevent the case study taking place at all.

In short, to repeat the assertion made in Chapter 2, it is this combination of general positioning within the mass of refugee camps in terms of quantitative aspects, whilst containing key areas of sufficiently significant exceptionality in qualitative areas, which finally justifies Ifo as being appropriate as a case study subject for this thesis

* * * *

North-eastern Kenya and southern Somalia, climate and history

Following the civil war caused by the fall of the Siad-Barre regime in Somalia in 1991, large-scale forced displacement of population was experienced both within Somalia, and across its national borders (Perouse de Montclos and Kagwanja 2000:205), contributing to a rise of refugee numbers inside Kenya from less than 15 000 in the 1980s, to approximately 420 000, the vast majority of them Somalis, by 1992 (Crisp 1999:17). Initially, those crossing the international border into Kenya were held in a number of camps close to the border, including one at the main border-crossing at Liboi (which remains to this day the location of the initial registration and transit centre for refugees coming from Somalia into Kenya). However, in part because of concerns about destabilisation of the border area on the part of the Kenyan government, and concerns for the security and safety of the refugees on the part of UNHCR, a decision was taken to move the refugees away from the border, and to consolidate support for the refugees into one camp complex located near the village of Dadaab (Cambrézy 2006:2) (from which the camp complex would subsequently take its name), 80km away from the border on the main road to the provincial capital of Garissa. During the remainder of the 1990s, other smaller camps for Somali refugees in Kenya, many scattered closer to the coast, were also closed down, and the inhabitants transferred to Dadaab as well (Kagwanja, cited in Crisp 1999:18, UNHCR 1996b). By the late 1990s, the camps in Kenya had been consolidated into only four camps: Kakuma, near the Sudan and Uganda borders, which by that point housed mainly south Sudanese refugees, and then the complex of three camps at Dadaab (although a considerable but unknowable number of Somali refugees also live, without permit, in towns and cities in other parts of the country, and in particular around Nairobi and Mombasa (Crisp 1999:4)). The first of the three camps, at Ifo, was opened in 1991, followed by the other two camps, Hagadera and Dagahaley in 1992 (UNHCR 1999b:13).

The province in which Dadaab is located, Kenya's Northeastern Province, is rendered remote and comparatively under-developed economically, by its political history, and by its harsh, 'semi-arid' climate (Boudeau and Cambrézy 1999:14). The Northeastern province remains sparsely populated apart from Dadaab, and the population has been overwhelmingly ethnic Somalis, many of whom retain a pastoralist and nomadic or semi-nomadic lifestyle. In the 1960s, the Northeastern province was offered a referendum on nationality by the Kenyan government, in which the majority of the population voted against remaining part of Kenya. The subsequent lack of support or funding for development for the Northeastern Province has

been seen as a form of retribution by the Kenyan government on those who voted for separation. The area was also for long periods of time prone to banditry and poor levels of security before the civil war in Somalia in 1991, although texts point to the war, the US-led Restore Hope operations of 1992-1993, and the influxes of refugees as all having exacerbating effects upon the state of security (Crisp 1999:20), some of whose consequences will be discussed further, below.

As viewed from an aeroplane, the countryside in the Northeastern Province is crossed by local pathways or tracks used for movement of livestock. But the roads for motorised vehicles are few, and remain of very poor quality to this day, and in the area surrounding Dadaab they are subject to damage, destruction and closure through periodic flooding. Prior to 1991, the levels of population for the environs of Dadaab was a mere 0.05 inhabitants per hectare (Perouse de Montclos and Kagwanja 2000:207), and the relatively settled population of Dadaab village itself was only approximately 5000 inhabitants (Perouse de Montclos and Kagwanja 2000:209), although by 2007 the estimated population of Dadaab was closer to 25 000, as the camps have acted as an economic magnet and settling force for sections of the local population[42].

The climate is described as 'harsh' and 'hostile' in humanitarian organisation reports and media articles, and is officially 'semi-arid'. Before the environmental degradation caused by the presence of the camps, the area around Dadaab was covered by a mixture of short trees and dispersed scrub bushes, with seasonal growth of grasses. The highest temperature recorded during the period of the case study was 47^{o} centigrade, although during the rainy seasons nighttime temperatures can fall to the point where the refugees wear warmer clothes. There are generally speaking, two rainy seasons in Dadaab, the 'long' rains from April until July, and the 'short' rains from November until January. However, even during the 'rainy' seasons, it is not always the case that much rain falls, and there are documented periods of up to 18 months when there has not been sufficient rainfall to support any agricultural cultivation (SCF 1999:17). At the same time, the ecology of the area is largely dependent upon periodic flood inundations, with the water being held at the surface by soils with a high-clay content across a wide and shallow *wadi* basin, some 20km at the widest point in the Dadaab area (Boudeau and Cambrézy 1999:21-22). The location of two of the Dadaab camps, Ifo and Dagahaley, directly within flood-prone areas has caused wide-spread damage on at least five occasions since the opening of the camps, in 1995, 1997, 1998, 2001 and 2006. And even the third sub-camp of Hagadera, situated on higher ground and sandier soil (Boudeau and Cambrézy 1999:21-22), does not escape the negative consequences of any flooding, as most of the major floods have also rendered impassable the road between Dadaab and Garissa which forms the logistics supply lifeline to the camps. Most humanitarian organisation-led efforts to ameliorate life in the camps, have been in response to the perceived effects of the chronic and constant state of personal insecurity within and surrounding the camps, or in response to the emergency situations caused by the occasional flooding, or sometimes both.

[42] Personal communication, CARE staff, January 2007.

The development of Ifo, 1991-2006

The earliest documents concerning Dadaab currently available on the UNHCR web-site date from 1994, and document a situation where a need for projects for women victims of violence have already been identified (UNHCR 1994b, 1995b). This state of affairs is then confirmed in other, later reports referring to the same time period, including one which states that a "UNHCR rape counsellor, recruited in February 1993, documented 192 cases of sexual assault in the first seven months of her assignment." (Crisp 1999:6). At the same time (1993) first moves were made to introduce a 'mobile court' system in Dadaab, to address the increased number of security incidents generally in the area (Crisp 1999:23), in acknowledgement of the acute security problems already being faced there. Other later documents, particularly that of Crisp, point to more endemic security issues, including those of banditry and the sometimes presence in the area of armed militia, which pre-dated the installation of the camps at Dadaab, but certainly carried on after that installation as well (Crisp 1999:19-20). Spurred by worries over security, and encouraged by a relative calming of the situation in certain parts of Somalia (particularly the north and northeastern areas), the Kenyan government had already indicated to UNHCR by December 1992, that it wished to repatriate Somali refugees back across the border (Crisp 1999:17). According to UNHCR reports, more than 59 000 refugees were repatriated to Somalia in 1993, with the same reports forecasting needs for repatriation support for a further 75 000 Somalis in 1995 (UNHCR 1994c:5). (Whilst repatriations (for the most part voluntary) did continue throughout the 1990s (UNHCR 1996b:1), so that by the late 1990s the total number of refugees in Kenya (Somali and otherwise) had been reduced to about 200 000 (Crisp 1999:1), there has never been the sufficient political stability in southern or south-central Somalia for large-scale repatriations for the majority of Somali refugees who come from those areas, and various later UNHCR plans for repatriation out of Kenya have been stymied. (UNHCR 1998b, UNHCR 2000b:149))

In terms of any constraints put upon the existence and nature of the camps at Dadaab by the frameworks of refugee laws described in Chapter 3, the following points may be noted:

1. The camp is situated more than the 50km away from the national border stipulated by the OAU *Convention* (and adopted as a guideline by UNHCR (UNHCR 2007a:216)). Nevertheless, because of the porousness of the border and the relative weakness of the rule of law in the area, some commentators have observed that this distance has not prevented cross-border instability created by bandits, armed militia, or military recruitment within the camp (Crisp 1999).
2. Except for two documented periods (late 1992, and 2007 ongoing), the government of Kenya has for the most part abided by its responsibilities as a signatory to the OAU *Convention*, and has neither refouled nor threatened to refoul the refugees in the camps, nor prevented asylum seekers from crossing the border into Kenya.
3. On the other hand, at a relatively early stage, the government of Kenya had decreed that none of the refugees were to be given permission to travel outside the camps, except under exceptional circumstances (Perouse de Montclos and Kagwanja 2000). This is enforced by a number of police roadblocks between Dadaab and Nairobi, although in reality a significant, though obviously unquantifiable amount of illicit

travelling from the camp is undertaken by some of the refugees (Perouse de Montclos and Kagwanja 2000).

4. At a point prior to 1998, the government of Kenya also decreed that the refugees would not be permitted to undertake legal employment, nor would they be permitted to undertake any agricultural activities (Perouse de Montclos and Kagwanja 2000). In reality, the ban on agricultural activities has never included the keeping of livestock, and the ban on employment has not included the various forms of trade which go on in and through the large markets in all three of the camps at Dadaab. The ban on employment also does not include the large number – more than 1000 refugees – who are currently engaged as paid 'incentive' workers by UNHCR and its implementing partner NGOs (Perouse de Montclos and Kagwanja 2000).
5. The insistence by the government of Kenya that the camps at Dadaab, and the existence of the refugees there, is not permanent, is given expression in physical environment terms, through the ban on construction of shelters using any form of 'permanent' material. Humanitarian compounds, and other non-residential structures such as schools, may be built using permanent materials, under the claim that they will be handed over to the local host community if and when the camps are closed down.
6. With reference to the influence of more localised frameworks, extensions to any of the camps, and improvements in the infrastructure, must be negotiated with various largely self-appointed committees of local clan leaders, mediated by the local civil service District Officer. Any projects for improvement of the camp have become highly politicised, and often contentious, with the result that these projects often have to be accompanied by equivalent gestures towards the host community. As described below, this has been partly responsible for the quick growth, and the changes from nomadic lifestyles, of the host population of Dadaab.

By 1995, the main implementing partner for UNHCR in Dadaab, CARE, had come to the conclusion that the camps in Dadaab were in fact likely to be in existence for the long-term, and had commenced a programme of construction of more permanent housing and offices for its growing staff in the UN and NGO compound in Dadaab (Sheltercentre 1998:160-61, Barben-Vargas and Kempf 2003:47). UNHCR reports indicate a number of implementing partner NGOs at work in the camp, some on projects with long-term horizons It is from this point that the first available records of the actual layout of Ifo are dated. There are photos contained in later documents, which would indicate that at least some of the first parts of Ifo were laid out on a grid system, by or before 1995 (Barben-Vargas and Kempf 2003:75).

Fig. 5.1. Ifo, circa 1995. (Barben-Vargas and Kempf 2003:75)

There is also a photo in the same document, which shows a number of blocks of community clusters (Barben-Vargas and Kempf 2003:57). The layout of the shelters and of the communities in the photo most closely resembles that of Hardin's sectoral plan in the "Summary Sheet to Physical Planning" described in Chapter 4 of this thesis.

Fig. 5.2. Ifo, circa 1995. (Barben-Vargas and Kempf 2003:57)

As well as these photos of the shelter clusters in Ifo, there are also written texts from the same period, which are the first to describe the inception of one of the physical features of the camp which later comes to symbolise the lack of security in the camp more than anything else, and which, although initially intended as a measure to protect against such insecurity, became by 2007 a contributing factor to that insecurity as well: the 'live' thornbush fences which surround each shelter plot in Ifo and in the rest of Dadaab. A UNHCR document from

1996 describes a UNHCR-led programme which has already been in operation (and therefore having started from a point in 1995), for the planting or building of live-fencing as a measure to protect women and children. (UNHCR 1996b:11) However, photos taken at a slightly earlier point (Sheltercentre 1998:161), as well as the personal observations of the author of this thesis later in 2007, would indicate that the placing of live or thorn-bush fences around individual family plots pre-dates the UNHCR project in Ifo in 1995, and in fact was traditional to nomadic pastoral Somali communities on both sides of the Kenya-Somalia border. Photos from the same document, would appear to indicate that the formal or UNHCR-led project might not have been concentrated so much upon support for fencing around individual plots, which already had fencing, albeit of narrower and lower dimensions but rather would have concentrated upon the construction of much more formidable fencing surrounding whole blocks, or surrounding some of the communal facilities like schools (Sheltercentre 1998:159). This photo also gives some indication of the degree to which those live fences would then in turn create narrow, alley-like pathways in between the fences.

Fig. 5.3. "Ifo STS, view from water tower of Somali sector, Dadaab, Kenya, 1995" (Sheltercentre 1998:159)

Fig, 5.4. "Ifo STS, Commiphora fencing between sectors and sector secondary school, Dadaab, Kenya, 1995" (Sheltercentre 1998:159)

The morphological aspects of Ifo from that period, in summary, have the following characteristics:

1. At the larger-scale level, the camps already occupy the positions current to them in 2007, and in that sense are also characterised by the distance from other economic centres in Kenya, and at a local level a distance from the UN/NGO compound in Dadaab. *Per Contra*, there is already evidence that the three camps themselves are becoming an economic centres for the Northeastern Province of Kenya.
2. For the most part, the shelters shown in the various photos closely resemble those traditionally used by nomadic Somali communities: hemispheric shelters made out of flexible tree-branch skeleton frames, covered by a combination of cloth and grass thatch (and in the case of Ifo, by UNHCR plastic sheeting as well).
3. The high level of insecurity in and around the camp, as noted through UNHCR's documented programming initiatives, is reflected in two different levels of the camp demarcation at Ifo. Firstly, there is the ongoing UNHCR-led installation of larger and more dense live-fencing, apparently around the outer boundaries of multi-cluster residential blocks, and around some of the public facilities like schools. The live fences at this level would appear to follow the more or less straight or regular lines of the block boundaries, as decided by the UNHCR site planners. At a more micro-level, there also exists live fencing or thorn bush fencing between individual family plots. These do not appear to conform necessarily to the boundaries of the original individual family plots, and are irregular in shape. Evidence from the photos and from the author's own observations during the case-study fieldwork, would indicate that these irregular boundaries are the results of negotiations between families, and influenced by, amongst other things, (a) the number of family members in the extended families, as each plot would appear to have not one but multiple shelters, (b) the number of any livestock to also be corralled within the family shelter plot, (c) whether originally adjacent plots were in fact taken by different households in an extended family, which have subsequently combined their plots together, and possibly (c) power to physically dominate adjacent neighbours through clan- or social connections.
4. There is a clear intended demarcation of functions between different geographical areas in Ifo, with a large area set aside as the market clearly separate and some distance from the nearest residential blocks.
5. There has already been a separation of different nationalities of refugees by national origin, with Ethiopian and Sudanese sectors (as well as possibly others) in Ifo. Some photographic evidence would also indicate the possibility that the shelters being built by the non-Somali refugees in Ifo, are of different types, although the live fencing remains a constant for all refugee nationalities. There is some written documentation of at least occasional conflict or tension between the different Somali clans living in Ifo, although there is no indication of different sectors set aside for each clan.
6. There is evidence of severe environmental degradation and loss of vegetation in the areas immediately surrounding Ifo, although there is no clear indication of the degree of that degradation from the first photos of the 1995 period. However, in their later document from 1999, IRD note that by 1995, the area of absolute degradation reached

> 3239ha, a combined total of absolute and diffuse degradation came to 5414ha. Those respective totals for Ifo alone were 1499ha. and 2769ha., respectively (Boudeau and Cambrézy 1999:7). The IRD documents claims that for the period of observation, 1991 to 1998, the collection of firewood was not a major contributor to the degradation, as the refugees would only collect fallen deadwood for fuel, which would not have had any major degradation factor. Instead, the IRD report posits the causes as being the use of wood for shelters and infrastructures, and for the building of fencing (Boudeau and Cambrézy 1999:8). They also mention pastoral activities as being one of the cause of degradation, although it is unclear whether the use of wood for livestock fencing is meant, or the clearance of vegetation by the livestock themselves. The observation of this author is that the livestock, in particular goats, were a major cause of the removal of grasses, low-height shrubs, and damage to the lower parts of larger trees or bushes.

At a point prior to 1997, UNHCR appeared to have also come to the conclusion that, despite the continuance of its cross-border programme and support for repatriation, the camps in Dadaab would remain for a longer time period, by engaging a range of different implementing partners to undertake work in different sectors of camp administration and support (SCF 1999:4). As of 1996, UNHCR also undertook programming which attempted to on the one hand shift some of the responsibility for camp management and maintenance over the long-term in the camp, and on the other hand attempted to prepare the refugees for a more independent style of life, both within the camp and after any future repatriation (SCF 1999:4). The SCF (Save The Children Fund) report on the Food Economy of the three camps at Dadaab, published in 1999 but based partly upon research done in 1996 and 1997, pays much attention to the fact that Dadaab, within a refugee population of approximately 117 000 in October 1996, there was a stratification of socio-economic class (SCF 1999:13), which also had correspondences with the different livelihoods strategies of the refugees, reflecting the growing importance of the Dadaab camps as a trade market, as well as reflecting the estimated 30-50% of the camp households which in 1996 owned some number of livestock.

The next grouping of significant documents relating to the physical environment of the camps at Dadaab are published in 1999-2000, referring largely to the period of 1998-99. These highlight issues of security and environmental degradation, but also include one significant paper on the socio-economic integration of the three Dadaab camps with the surrounding communities and beyond (Perouse de Montclos and Kagwanja 2000): all of them offer varied insights into other aspects of life in Dadaab, and into the various stresses being seen in the camps by that point. The document with the greatest amount of data on the camp morphology at that time (though not necessarily the document with the most information on the camp *performance* was the physical survey conducted by IRD, using a variety of aerial photography, geological, environmental and population survey techniques. As such, the reports by the IRD team, and the data collected within, offer not only an exemplar of data mapping for Dadaab, but for refugee camps in general.

By 1998, according to surveys done by IRD in conjunction with CARE, there were 71 blocks of shelters in Ifo (compared with 230 in Dadaab as a whole(Rahmi 1999:3:5)), although the IRD report goes further to point out that a number of the oldest blocks in Ifo are significantly

larger than blocks in Ifo which were constructed later, or blocks in the other camps. On the other hand, there are according to the aerial photographs and the population data, at least three blocks in Ifo situated in new extension areas, which are almost unpopulated. The area within Ifo was 344.8ha. (including the area for internal infrastructure and for the new green-belt areas, but not including wider areas external to the camp which were nevertheless used by the refugees), and according to IRD, the perimeter (presumably including the internal lengths between sectors) was more than 72km long (Rahmi 1999:6). A number of documents point to the difficulties in making and maintaining accurate data about the population (SCF 1999:5), and the period of 1997-98 also came after a five-year period when there had been an alternating series of population influxes and then repatriations at Dadaab, with increases and then decreases in the population of the camp as a whole. Nevertheless, the overall population for Ifo at that time was estimated at approximately 44, 975, out of a total of 123, 251 (SCF 1999:4-5).

Figs. 5.5, 5,6, and 5.7. Aerial photography compositions of Ifo, 1998. (Souris/IRD 1999:51)

The aerial videography photos taken by IRD reveal a number of features:

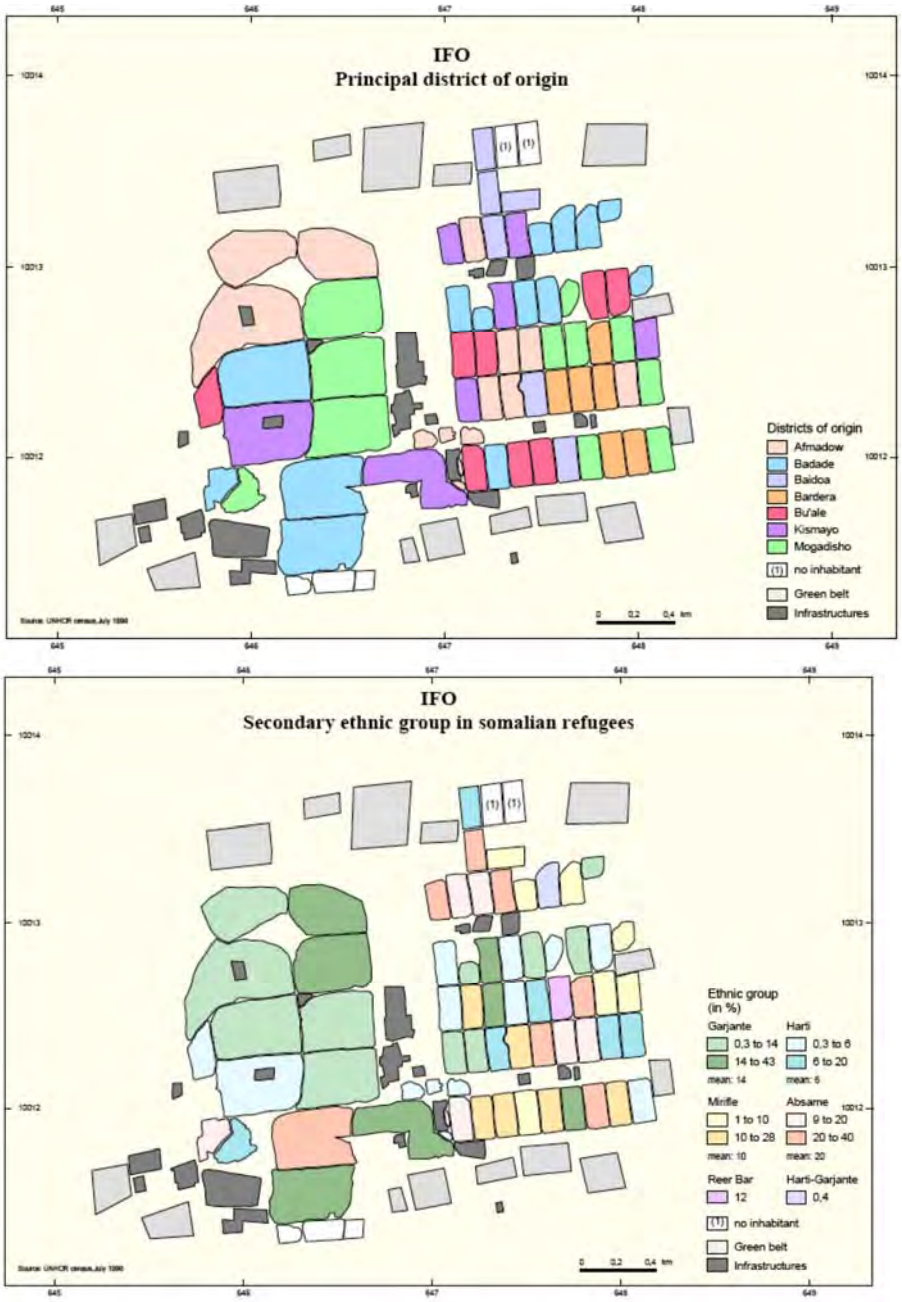
1. There is wider confirmation of various aspects the general physical status indicated by other photos and documents referred to here, above, dating from the 1995 period, including:
    a. Widespread removal of vegetation in the areas surrounding the camp, and in the public areas, areas between shelter blocks, and areas of public circulation and 'infrastructure' within the camp.
    b. Ifo is divided into a small number of larger-scale elements. At the south-west corner of the camp (bottom left in the larger picture, above) is the main collection of non-residential buildings (police station, hospital, NGO compound, etc) surrounded by an open space. To the north and east are a number of larger, irregularly shaped residential blocks, roughly aligned in two rows, on a north-south axis. To the east of those two rows, there is an open corridor of 300-400m, in the southern end of which lies a secondary centre of a number of other non-residential structures. To the east of the open corridor lie 51 smaller, more regularly shaped residential blocks, which would appear to have been built as one or a series of similarly-designed extensions to the older, western half of Ifo. Despite the regular rectangular perimeters to those newer blocks, there is little evidence of any regular division of those blocks into individual shelter plots. Around the western and northern peripheries of the camp, at a distance of 100-400m from the shelter blocks, lie an irregular, unconnected chain of fenced-off and protected green areas which form the then fledgling 'green belt' created by the implementing partner for environmental programming, GTZ.
    c. Ifo camp is not only divided into blocks, but into groupings of blocks, or in the UNHCR terminology, 'sectors'. These sectors have been named alphabetically (so that what would appear to be the oldest blocks are named A1-A4, then a series of blocks starting with B1, C1, E1, and then S1.) There are 11 larger blocks nearest the front of the camp, close to the access road from the main route from Dadaab, A1-4, A10, and D1-6. These are less regular in shape although there is some indication that they are for the most part more densely populated than the other blocks. There is some indication that firstly these were the oldest blocks to be inhabited, and that for these blocks there had been the least consideration given to imposing a hierarchy of physical structures, or that any initial delineation of such hierarchies had by 1998 become to a large degree obliterated by the appropriation of those spaces by the refugees.
    d. Thicker layers of live fence surrounding the larger blocks (which according to the IRD report on sample surveys of the blocks in Ifo, could contain up to 578 shelters in one of the larger blocks (Rahmi 1999:7), and in some cases more than 3000 people per block).
    e. Narrower layers of live fencing also separate family plots. The perimeters of the family plots are irregular, and the area of each plot varies. There is some indication that at least some of the plots are actually combinations of what might have been initial single-household plot allocations. At various but

irregular points within the blocks, there are short and winding pathways or 'alleyways' in between the plots (so that the plots are divided by not one but two sets of live fences, with the pathway in between). It is not obvious that the locations of these pathways may have corresponded to any original divisions between plots, or whether their positions had been negotiated according to some other principles by the refugees. There is evidence in other parts of the IRD report (see below), that there were minority populations (in terms of both ethnicity and location of origin) in each of the different blocks, but the IRD data is not sufficient to indicate whether the internal pathways might correspond for instance to divisions along ethnic or clan lines.

f. Particularly in the older blocks, there is evidence of trees and other larger vegetation having been planted within the blocks, in part as a result of environmental and reforestation programming undertaken by GTZ (Beaudou and Cambrézy 1999:54).
g. Within each plot, there are a number of *tukul* shelters. Other photos as well as later author observations indicate that although one or two of the smaller structures in each plot may be for livestock or poultry, the others are used to house different members or different generations of the same extended family. Despite the level of resolution and detail in the photos, there is little indication of any pattern in the placement of the shelters, except that the shelters would seem to be for the most part placed away from the entrances to each plot, and that there are small levels of concentration of the shelters close to the internal pathways within the blocks.

2. There are also other features which are revealed, which had not been evident from previous photos or documentation:
    a. The dense network of paths, some of which converge to form major roads, which link across the open corridor between the older and the newer blocks, and which then also spread beyond the camp on the three sides not bound by the main road coming from Dadaab, that is, spreading out at various points on the northern, eastern and southern sides. Many of these would be used as routes for taking livestock out to pasture each morning, but later observation by this author shows that a number of the routes had become vehicle routes, acting as back-roads (i.e. roads without regular police patrols) between the three camps, and also as direct roads to some of the older and then newly-establishing host-community villages in the area.
    b. There are some non-residential buildings within sectors (e.g. primary schools) which would appear to have been placed by UNHCR site planners, but there are also other non-residential structures whereby the non-central placement, and irregular shape of the space which they occupy, would imply that the locations for such infrastructures were chosen and built by the refugees (e.g. mosques).

Other parts of the IRD report give disaggregated population information for all three camps, according to density of population, family size, sex-ratio, age, and location of origin as well as location of origins of minority groups within each block (IRD 1999:1-16).



Figs. 5.8 and 5.9. Examples of the population mapping of Ifo done by IRD in 1998 (IRD, 1999)

The larger and more assured conclusions to be drawn are that:

1. Each block has a clear majority of population from one area or another in south-central Somalia, but there is no block which does not have some proportion of minority population according to location of origin, or ethnic background.
2. There are already many families for whom the space per person in terms of square metres, is less than the minimum standards. However, whilst a number of those

families are located in the oldest blocks (the larger block groups A and D), many of the most densely-populated blocks are in the new extension areas, particularly in blocks C1-18, towards the south of Ifo. Although there are exceptions, the general pattern which emerges, is of density of population corresponding not with age of block, but with proximity to markets, non-residential infrastructure, and major roadways.

3. There is a generally observable division of population between the older blocks in the western half of the camp, and the newer extension blocks in the eastern half, in that a number of the older blocks have a much higher proportion of men to women (in some areas up to 85% men), and that the areas with more women also have more children under five, whilst the areas with more men have a correlation of single-person households. There is no explanation given for these tendencies, and none was obvious during the case study undertaken for this thesis later in 2007. Because these tendencies are general rather than absolute, and because the population statistics are just done by block, there is no way of drawing any connections between these population statistics and plot size, or reported security incidents. However, at the very least, this data demonstrates that it is possible for different sectors or different areas of the same camp to develop at different rates, in terms of family ages and compositions, and that needs for educational facilities (or therapeutic feeding centres, or youth training centres) may be different from sector to sector, from year to year.

The other longer documents which date from the same period, of 1998-9, have much less to say in terms of their direct descriptions of the built environment at Ifo. However, with different foci, they augment the overall picture of the development of the camp, and the stresses contained within the camp by that point. Perouse de Montclos and Kagwanja, as well as highlighting the complex and diverse economy already described in the SCF paper mentioned earlier in this chapter, also make a point of the fact that by 1998 there were a number of thousand 'local' Somalis of Kenyan nationality who had taken up residence within the camp, as a sign of the degree of integration of the host community into the refugee setting (Perouse de Montclos and Kagwanja 2000:209). The two authors also claim that the trading activities in the camps have already given them certain "urban features" (Perouse de Montclos and Kagwanja 2000:205), whilst also noting the fact that the camps had by that point become economic magnets within the province, with resulting changes in the lifestyles of members of the host community, from being largely nomadic, to becoming to a greater degree settled and sedentary, and that these moves were to a certain extent accelerated by UNHCR's programmes to mollify tensions between refugee and host communities by providing equitable services in terms of new bore holes water wells for the host communities. (Perouse de Montclos and Kagwanja 2000:209) Perouse de Montclos and Kagwanja hypothesise that by the point of their writing, in 1998, the camps at Dadaab had developed in socio-economic terms to such an extent that despite the cultures of dependence already visible in the camp, if all humanitarian aid was suddenly withdrawn, the camp would still continue its existence in some form, and would not completely collapse or disappear. (Perouse de Montclos and Kagwanja 2000:205)

The other longer documents from the same period dwell less on the potential for positive developments arising from the existence of the camps. As has been noted previously in this chapter, issues of personal security within the camp arose from a very early stage in the camp's existence, however reports of these problems rose to somewhat of a crescendo by 1999. Although UNHCR in its report evaluating the firewood project in Dadaab (itself initiated as a counter-insecurity programme, see immediately below) notes fluctuations over the preceding years in the number of reported cases of rape (UNHCR 1999b:66), as Crisp notes in his overview of those issues, there was no way of fully knowing the total number of incidents (reported and unreported), but there was significant data to indicate a general upwards trend in all types of acts of violence or levels of insecurity (Crisp 1999:3). During the same period of 1998-2000, there was a concurrent escalation in the numbers of documents released by UNHCR which refer to violence or insecurity in Dadaab (UNHCR 1999c:149, 1999d, 1999e), although it is impossible to clarify whether there is any direct correlation between the degree of increase in incidents of violence in Dadaab, and the degree of increase in the number of articles written about the subject. Whilst it is noted in Crisp (Crisp 1999:5), many of the other texts of the time fail to differentiate between the types of violence which are perpetrated by strangers to the victims, and which might occur outside of the victim's neighbourhood, and those types of violence which may well be more prevalent, and which are perpetrated by members of the victim's own family or community, and which may fall under the general categories of 'domestic violence' (including those categories of gender-based violence), which are all the more difficult to track, but which contribute just as acutely to the atmosphere of insecurity within the camp as a whole. Crisp also notes that as well as the actual violence, there had developed amongst many UNHCR and NGO staff members working in Dadaab, an attitude of 'habituation' towards the insecurity, and towards the impingements on their own movements and professional activities which the lack of security had caused (Crisp 1999:14). Nevertheless, as alluded to above, UNHCR and its implementing partners were by that point engaged in a number of different efforts to combat the lack of security in the camp (Crisp 1999:14-16), some of which could be seen to have had the following effects upon the ways in which the camp design for Ifo was being adapted:

1. The insistence upon police patrols to accompany all humanitarian organisation vehicular traffic between the UN/NGO compounds and the three camps, heightened the importance of the one road upon which those vehicles travelled, and as a consequence also heightened the value placed upon locations within the camps close to the access entry points from the 'front' of the camps to that road. This reinforced any tendency for the camps, Ifo included, to have one essential centre, with other residential blocks radiating, or receding, towards a periphery.

2. As will be discussed later below, the continuation of direct support for the construction of live fencing within the camps may have reduced levels of insecurity or perceptions of insecurity, but it also served to channel or perhaps even concentrate remaining insecurity. The channeling of foot traffic (of both humans and livestock) through the narrow pathways created by the live fencing, also created erosion and a lowering of the ground levels of the paths. This then increased the tendency for the live fencing to act as dams during periods of flooding, retarding the speed at which

the flood waters would recede or flow out, and increasing the likelihood of water-borne diseases within the shelter blocks.

3. Whether the UNHCR-led project to provide some of the firewood to all of the families did reduce the number of assaults upon women searching for firewood outside the camp, or whether the project was merely the occasion for acts of violence against women to be relocated to other parts of the camp, remains doubtful (UNHCR 1999b:3), and the degree to which the provision of firewood has slowed the rate of environmental degradation remains under debate (Beaudou and Cambrézy 2000:8, UNHCR 1999b:1), but what has become obvious is that the contracting of the delivery of firewood to the camp from local merchants, gave further impetus to the development of economic ties between the camps and the wider region, and gave further capital for the trade-related economic development of life within the camp as well, with consequent (but unquantifiable) effects upon the geographical dimensions of the markets within the camps, and of the levels of traffic going to and through those markets.

At the same time, texts dating from 1999-2000 onwards, began to document the last major constraint upon the design of the camps at Dadaab (and to a certain extent upon the viable existence of the camps themselves), and that is a series of budget reductions and funding shortfalls. (Crisp 1999:13, Wilkinson 2003:19) These budgetary constraints acted upon the built environment in Ifo in at least four ways: (a) they postponed, or retarded the progress of certain implementation projects, including that of the construction of live fences, (b) they forced the closure of some structures which, apart from their own value, would also have acted as localised social magnets for the communities, such as secondary schools within the camps, (c) they forced a re-emphasis upon the use of shelter solutions which were either locally available (e.g. mud-brick shelters) (CARE 2005), or forced choices of shelter materials which may have had lower initial costs, but which were not sustainable, and which would need periodic replacement, with repeat costs involved (e.g. plastic sheeting), and (d) they reduced the likelihood of rapid maintenance and repair of service infrastructures such as water tap stands, thus increasing the use of those remaining tap stands still in service, which would have increased the foot traffic towards those tap stands, and which may have had some impact upon the emergence of the areas surrounding those tapstands as smaller secondary household-goods markets.

With reference to point (c) in the paragraph directly above, in 2003 the main implementing partner in Dadaab, CARE International, was tasked with starting a project to support the construction of more durable shelters built from mud-bricks and galvanised iron roof-sheets, on an incremental basis across the three camps at Dadaab (originally planned as 1500 units in 2003, 1850 units in 2004, and 2200 units in 2005 CARE 2005:3)). Expressions of gratitude for the shelters from some of the refugees have been recorded in UNHCR documents publicising the project (UNHCR 2004d), and undoubtedly the mud-brick shelters did have the potential to increase personal security and protection from the climate. However, the manner in which the CARE shelter project was implemented also had two effects upon the physical environment of the camp which were not so positive. On the one hand, the refugees were responsible for collecting the mud for the bricks themselves (CARE 2005:4), with the

result that many dug holes in areas of ground close by to their shelter plots, creating in many places loose collections of indentations in the ground, some up to 5m wide, which then act as unintended collection points for rainwater and for refuse, with the associated public health and environmental risks (which have also become focus point for complaints by leaders of the host community in Dadaab). On the other hand, in at least some of the blocks (in the B block sector in Ifo), the positioning of the shelters was made uniform, and on shortened versions of the 'military grid'.

Fig. 5.10. Ifo section B (Kennedy).

This lack of adaptation to the prevailing layout choices made by the refugees in other blocks, may have combined with the lack of space for livestock or for other shelters, and the distance of those blocks from the centre, to contribute to the lack of maintenance and abandonment of those shelters in many instances. As noted by CARE in its own evaluation, because the refugee families also retained their previous shelters, so that the new shelters were used as additions rather than as substitutions to the old shelters, the distribution of the new and bigger shelters also inadvertently contributed to the gradual congestion of space within some areas of the camp. (CARE 2004:5)

Apart from the documentation of the mud-brick shelter project, undertaken with mixed success by CARE, during the following period, from 2000 to 2006 there were no other documents released which would give direct information on any changes in the design of the camp at Ifo, or of the ways in which the design was being appropriated or altered by those who lived and worked in and around the camp. However, there are a number of shorter UNHCR texts, often in the form of press releases, which document a ratcheting up of some of the pressures on the camp which had been evident previously. In particular, documents from this period refer to periodic disastrous flooding causing large-scale damage to the shelter areas in Ifo and Dagahaley and threatening to cut off Dadaab from its main supply routes (UNHCR/UNOSAT 2000, UNHCR 2002a, 2005c), the influxes of new refugee

populations (UNHCR 2001b, 2002b), environmental degradation (UNHCR 2000c), and budgetary shortages (UNHCR 2003) leading in extremis to food shortages. (UNHCR 2000d)

A last document from the period prior to the end of 2006 has emerged, not via UNHCR or via any academic source, but via new, internet-based technology. GoogleEarth, accessed in November 2007, contains high-resolution satellite photos of the entire Dadaab area, including Ifo, taken some time in 2006[43] (although prior to the flooding at the end of that year).

Fig. 5.11.GoogleEarth image of Dadaab from 2006.(GoogleEarth 2006)

[43] GoogleEarth/"dadaab"; accessed 25/01/08.

Fig. 5. 12. GoogleEarth image, detail of D Block, and the main market at Ifo, from 2006.

These images confirm much which has already been stated about Ifo in this chapter, but also indicate a number of significant changes since the IRD photos of 1998:

1. The then latest extension areas (prior to the "Ifo II" project) in the north-east corner of Ifo, constructed as part of the CARE shelter project, have what would appear to be smaller individual plots than those which were self-negotiated by the refugees in other, older blocks in Ifo. Some of those plots do not appear to contain shelters, and the live fences for the majority of those plots are narrower than those surrounding the plots for the older blocks.

2. The new blocks (in the top right-hand corner of the camp in the main photo above) do not follow the grid orientation of the rest of the blocks in Ifo. For the most part, given the irregularities of the edges of the blocks, nevertheless the older blocks are all lined up on the same 90º, N-E-S-W axis. The newest blocks are aligned instead with the 'informal' or customary roads which have been developed organically (that is, through a mixture of foot traffic, livestock movement, and informal vehicular traffic) over the previous 16 years heading out of the camp to the east, and which veer approximately 20º away from the previous grid, in the direction of East-North-East, rather than on an absolute East-West axis.

3. Those blocks in B sector which in 1998 were not completely filled, have never become filled, and instead the blocks have become formalised (as expressed through the perimeter live fences) as blocks of smaller dimensions, or smaller numbers of plots.

4. The live fences in the older blocks have become wider and denser, so that the live fences in between individual shelter plots in 2006, would appear to be of the same dimensions as the official live fencing around entire block perimeters recorded in 1998.

5. The average number of shelters in each plot in the older blocks (particularly the oldest, larger blocks in A and D sectors) have increased significantly, with in many cases up to five structures contained within one shelter plot. In these cases, all space in between shelters has disappeared, both within a plot, and at the boundaries between two plots. This would support the findings of the CARE shelter programme report above, which noted congestion of structures as one of the unintended consequences of the shelter programme.

6. The junctions of the informal pathways within the blocks have in many cases become larger, and their spaces have become more clearly defined, as the live fences between those public junction spaces and the surrounding shelter plots are often the densest points of all the live fences within the blocks.

A small number of tentative conclusions can be drawn from the comparison of the 1998 and 2006 aerial images, which are also supported by observations made in the 2007 case study field work:

1. At the level of official (i.e. UNHCR-led) planning according to block sector, there has been some acknowledgement of the context, in the aligning of the newest blocks along informal roads, rather than along an ideal East-West axis.

2. The appropriation of space by the refugees at the interior of the blocks, has resulted in the clearer definition of another level of localised public spaces, situated at the junctions of informal pathways. However, these points would seem to be the location of higher tensions between public and private areas (and with corresponding impacts upon personal security and perceptions of personal security, as evinced by the building up of the live fences around those junction areas.

3. Over a period of eleven years (1995-2006) a series of construction projects for new shelter blocks at the eastern periphery of the camp, have failed to be fully adopted by the refugee communities, with abandonment of plots, and with some of the demarcated plots never being occupied, despite a rise in the refugee population for the whole of Dadaab over the same period of approximately 45 000 people.

4. At the same time, the period of 1998-2006 has seen extreme densification of the populations in the oldest blocks in Ifo. It is unclear as to what extent this densification can be attributed to any of the following:
    a. Growth of existing population through live births.
    b. Arrivals of new refugee influxes from Somalia who prefer to stay in the same plots as those already living in Ifo with existing family or clan ties, rather than taking their own plots in new blocks.

c. Those who had originally lived in one of the more peripheral plots, but had 'migrated' to the older plots in order to be in more secure and more economically advantageous areas. Here it must be noted that the main market adjacent to the south-east corner of block sector D had become larger and more of an economic attraction, and that the increasing number of smaller markets and stalls located at the pathway junctions within the block sectors had also made those sectors generalised economic magnets as well.
d. Infiltration of the refugee population by ethnic Somalis of Kenyan nationality.

As a last note in this historic overview of the development of the complex of camps at Dadaab, and of Ifo in particular, it should be noted that although there is no reference to the changes in any of the documents publicly released by UNHCR, nevertheless by late 2006, due in part to various of the policing and security measures undertaken in and around Dadaab, the overall levels of insecurity had been reduced, to the point where there was serious debate amongst UNHCR and NGO managers in Dadaab as to whether the mandatory police patrols accompanying humanitarian vehicles to and from the camps, were further necessary.

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The development of Ifo, 2006-2007 and the decision to construct camp extensions

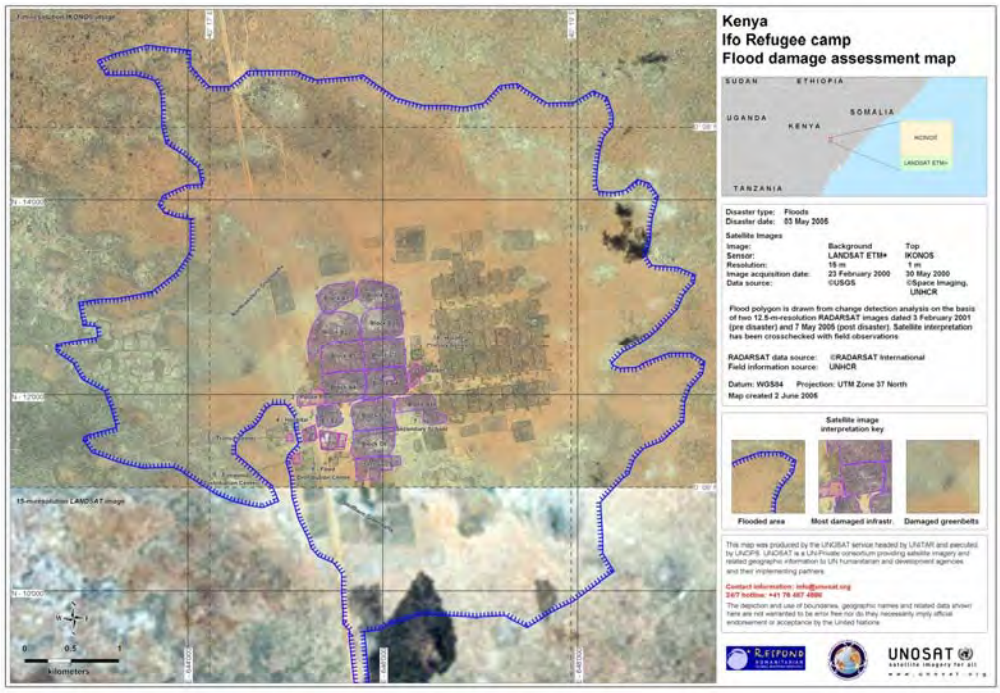

Fig. 5.13. Extent of flood hazard in Ifo (UNHCR/UNOSAT 2005).

By the middle of 2006, those influences which were exacerbating stresses in Ifo, and in particular the large new influxes of refugees from south-central Somalia from September 2006 onwards, brought the management of the camp to a crisis point. When these continued influxes, which were to reach approximately 35 000 new refugees arriving in Dadaab by the

end of the year, coincided with flooding which was heavy even by Dadaab standards in November 2006-January 2007, UNHCR took advantage of the opportunity to plan for a major extension to Ifo, for 15 000 people, directly to the north of the existing blocks, and situated on slightly higher ground, which then became colloquially referred to as “Ifo II”. The coincidence of the population influxes with the flooding, as well as the interest of the US government in events in Mogadishu, meant that UNHCR was able to apply for ‘emergency’ funds to finance the construction of the extension, which would perhaps not have been otherwise available, given the claims to chronic underfunding during the previous seven years.

By the beginning of December 2006, a general plan had coalesced amongst UNHCR site planners, (Lolachi 2006) to undertake the following:

1. Close down all the most densely-populated, congested sectors, that is sectors A and D, as well the smaller sectors E and S (which had been set aside for Ethiopian and Sudanese refugees) and remove the population. Of the approximate 30 000 people in sectors A and D, 15 000 would move to Ifo II (the maximum amount possible given the constraints of land for Ifo II, and the internationally accepted numeric guidelines for space per person), and approximately 15 000 would move to another extension site at Hagadera sub-camp.

2. Remove all buildings from the A, D, E and S blocks, and remove at least part if not all of the vegetation, and dig large drainage channels through the geographical area occupied by those sectors, in order to facilitate the rapid removal of surface water from those areas.

The objectives for undertaking these projects, were:

1. General decompression of the population and of the congested built structures in the oldest parts of Ifo, in order to bring Ifo into line with internationally accepted minimum standards regarding space and facilities, as well as reducing the risk of fire hazard by doing so.
2. Reducing the risk of outbreaks of disease, particularly those diseases associated with poor drainage in overcrowded areas, including malaria and cholera.
3. Reduce the need to re-supply the refugees with shelter materials and non-food items (NFIs), by both relocating shelter areas away from potential for flood damage, and by building more durable shelters in the new locations.

In terms of the relocation of 15 000 people to Ifo II, this was to be done by extending an area which had already been demarcated by June 2006, to take care of a previously projected (but superceded) population of 3000. (Cronin 2006:14, Lolachi 2006:III:1-2). This was to be done in conjunction with other projects, designed simultaneously as responses to the flood (including the new extension site at Hagadera), and as responses to further mass-influxes of refugees from Somalia (including further infill of blocks in Hagadera, and a proposed extension to the third sub-camp at Dadaab, Dagahaley.

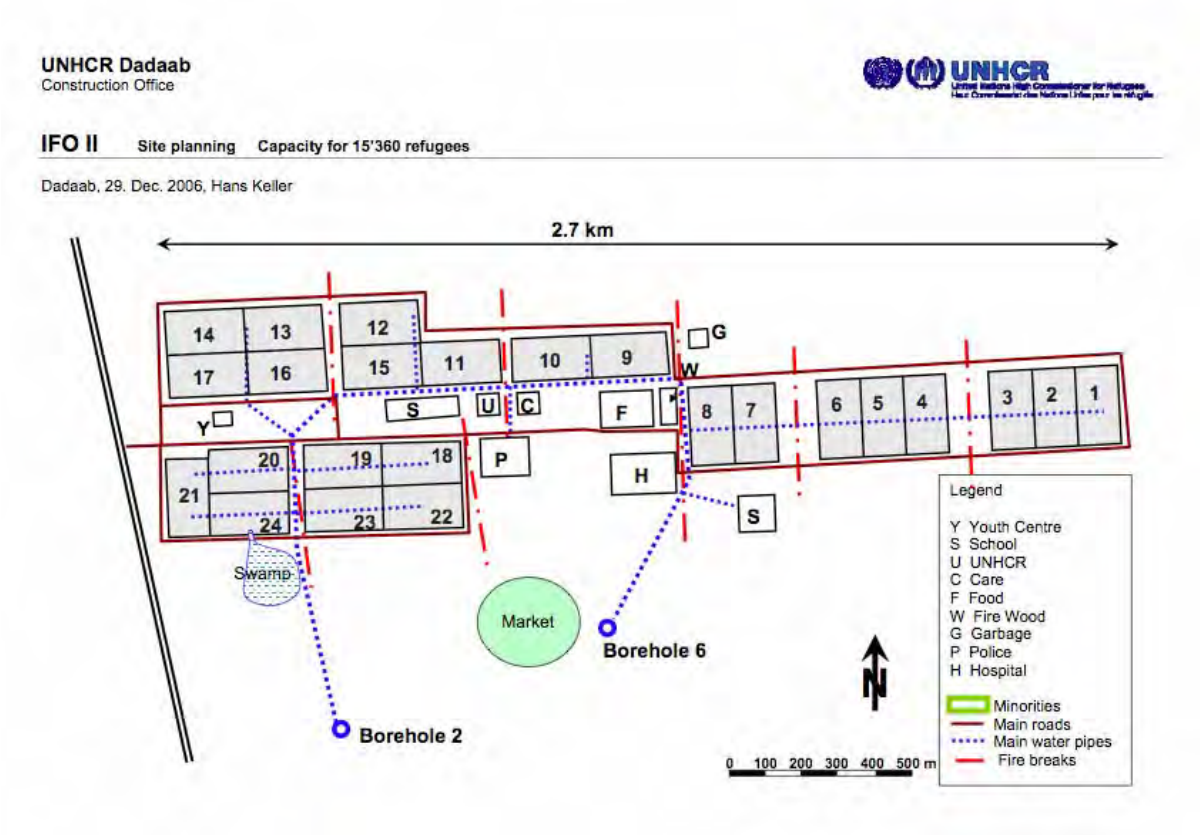

Fig. 5.14. Ifo II layout plan, end of December 2006 (UN HCR Dadaab, 2006)

There were from the outset, a number of constraints on the design of the Ifo II extension. It should be noted that some of these constraints are first described in documents prepared by the various humanitarian organizations at the time, which are duly noted below. However, a number of the constraints were only discussed orally, or were not adequately recorded in the minutes of inter-organisational meetings, and therefore remain only as author observations, and as such are not accompanied by any references below. The major constraints noted were:

1. The necessary space for the shelter blocks and all the support infrastructure, had to be fitted into an irregular area of land, defined by the relative height above sea-level. Whilst it has been noted in Chapter 1 of this thesis that there is little variation of height of land level across the whole of Dadaab, and with a slope of approximately 1m over 2km, nevertheless, the advantage of 50-100cm height in Ifo II was deemed sufficient to protect the area from the worst effects of any future flooding, whilst still acknowledging the fact that the small differences in height would not be sufficient to remove the inhabitants from all danger of flooding entirely. The area with the highest ground, as identified through field observation during the flooding in November and December 2006, and confirmed through an interpretation of satellite images showing the extent of earlier flooding in 2005 (UNHCR/UNOSAT 2005), was a finger of land approximately 2.8km along the East-West axis, and between 300m and 800m wide along the North-South axis (Lolachi 2006:III:1-2), running parallel to the northern edges of the existing parts of Ifo, and connected at the Western end to the main road from Dadaab to Ifo and Dagahaley.

2. The use of the land had to be negotiated with the leaders of the local Dadaab population. This then put further limits upon the boundaries of the extension area, particularly on the northern and eastern boundaries.

3. The construction of the camp would have to take place within a relatively short period of time, because (a) the financing of the project was tied to short-term 'emergency' funds, (b) the construction of the extension was ultimately being justified in terms of amelioration of flood-damage (extensions in Dagahaley and Hagadera having been earmarked for new population influxes), and therefore the construction needed to have taken place before the following rainy season, predicted to start in April 2007, and (c) although some thousands of refugees from Ifo sectors A and D had spontaneously re-located to the area for Ifo II at the height of the floods in November and December 2006, many of them were gradually returning back to their old plots, from which it would become more difficult to persuade them to re-re-locate back to Ifo II.

4. Following on from the last part of Point 3 directly above, it was noted that there was a reluctance amongst the refugees to permanently leave their old plots in older sectors. For the 'minority' Ethiopian and Sudanese refugees in sectors E and S, this was in part due to worries about security, but for all of the affected refugees this was due to an unwillingness to move away from proximity to support facilities, and from the main market. It should be noted that concerns were expressed by some refugees that walking from Ifo II back to centralised facilities would not only take time and effort, but would require them in some cases to walk through hostile territory of blocks inhabited by other clans. In turn, any impetus on the part of the refugees themselves towards abandoning their original plots, was diminished by the fact that many of them had developed a series of coping mechanisms to deal with the flood damage. These included sandbags and soil berms in front of shops and residential plot entrances, the construction of shelters and shops out of branch and stick frames (which could be quickly reconstructed if knocked down by the flooding), and the occasionally successful petitioning for re-supplying of shelter materials and NFIs to UNHCR. Significantly, these coping mechanisms did not however include any way to protect from flooded or destroyed latrines.

5. At the same time, any attempt to 'tempt' or encourage the refugees to leave the older sectors and move to Ifo II through the provision of better services or better shelter support, could not be seen to be 'too good' in comparison with what was being provided to other refugees in Dadaab, in case this exacerbated tensions between communities, or between the refugees and the humanitarian organisations.

6. There was a lack of clarity, between November 2006 and April 2007, about the number and type of non-residential structures to be built in Ifo II. UNHCR site planners had in December 2006 indicated space for schools, a police station, youth centre, health post and hospital, UNHCR/NGO administrative buildings, a food distribution centre (Lolachi 2006:III:2), and then later also a firewood fuel

distribution centre (UNHCR Dadaab 2006c). However, by January 2007, it became clear that UNHCR would expect some funding support for the construction of some of these structures (the schools, police station and hospital) to come from the implementing partners, and that for other structures (in particular the food distribution centre) the implementing partner would be asked to fund all or a substantial amount of the construction. With regards to the proposed food distribution centre, the implementing partner, the World Food Programme (WFP) expressed concerns over the long-term running costs, the efficiency of keeping a food distribution centre in Ifo II as well as the central part of Ifo, and over the assessment of reduced flood hazard for the proposed site in Ifo II, and then finally insisted that the new food distribution centre would not be built.

7. There remained an unpredictability in the longevity of the camp as a whole, and the numbers of refugees who would inhabit the camp, including Ifo and Ifo II. During December 2006, with the intervention of the Ethiopian and US armed forces in Somalia, there were hopes expressed for a quick and sustainable peace in Somalia, which would enable large-scale repatriations of refugees from Dadaab. After February 2007, when it became apparent that there was to be no foreseeable stability in south-central Somalia, and with increased numbers of displaced people moving from Mogadishu and other Somali cities towards the Kenyan border, there were the reverse worries of pent-up numbers of would-be refugees being held back at the border by the Kenyan government, who might then arrive in Dadaab en masse, with UNHCR Dadaab contingency plans current at the time drawing scenarios of influxes totalling more than 100 000 people (UNHCR Dadaab 2007 (UNHCR Dadaab 2007b), in which case the Ifo II extension would possibly be needed to take care of those new arrivals rather than for internal relocation purposes.

8. As the blocks in sectors A and D did not correspond in size of population to the new blocks proposed for Ifo II, and because the move was to be initially at least voluntary, there was a lack of clarity concerning the legitimate structure of the refugee community leadership, both in terms of organising the movement and the work-participation of the refugees, and in terms of the representativeness of any inputs from the refugees in terms of the extension layout.

9. One of the stated rationales for the relocation was so that spaces and services could be brought into line with international standards. Therefore, the standards expressed by UNHCR, and by Sphere (for the implementing partners CARE and then the Norwegian Refugee Council) also became an explicit design constraint.

10. In part because of funding limitations, and also because of a determination upon the parts of the humanitarian organisations to weaken the culture of dependency amongst the refugees, a decision was made that the refugees would be responsible for building their own shelters, and would be asked for work contributions to other parts of the extension construction. Whilst constituting a mass-mobilisation, and certainly with commendable social goals, this methodology also presented potential constraints in terms of transfer of technical skills capacity, and time constraints.

11. As part of the negotiations with the leaders of the host community, it was decided that the police post, the hospital and the two primary schools in Ifo II would be built from permanent materials, to be handed over to the host communities after the camp had been closed down. Whilst in practice this did not affect the final layout, there were some discussions in January and February 2007 about whether the proposed hospital should be relocated closer to the main road, and therefore with easier access for the host community, and in this way also constituted a potential design constraint.

Fig. 5. 15. Primary school under construction, Ifo II (Kennedy).

12. The layout of Ifo II had to essentially respect the ad-hoc placement of the protected greenbelt portions of land, some of which were placed directly between Ifo II and the rest of Ifo.

13. In order to expedite the relocation of those in the E and S blocks, set aside for Ethiopian and Sudanese refugees, it would be necessary to set aside a correspondent number of blocks within Ifo II specifically for refugees of those two nationalities. Furthermore, in order to reassure those refugees in terms of security, their blocks would need to be situated close to the non-residential structures, and in particular close to the police station.

14. Along with the residential blocks and the support infrastructure, the main market was also to be relocated. This could not be relocated within Ifo II, because of space constraints but also because it would then be too far away for refugees from other block, and because it would create an imbalance of power in favour of those merchants from Ifo II. Therefore, the new market would have to be located somewhere in between the older parts of Ifo, and Ifo II.

In response to the above design constraints, the layout design created by the UNHCR site planners incorporated the following design priorities:

1. The tessellation of the physical elements of a camp as defined by the *Handbook for Emergencies* into a narrow space.
2. The uses of 'magnets' to attract the refugees, in terms of schools and other facilities, and the positioning of those so that the maximum number of refugees would feel themselves to be in adequate proximity to at least some of those facilities.
3. Adequate interconnections with the older parts of Ifo, particularly with regards to the placement of the market between the two locations.

The initial design was one which elongated the non-residential 'centre' of the camp, along a central internal road, which came perpendicular to the main Dadaab-Ifo-Dagahaley road. The police station, and the closely surrounding blocks for Ethiopians and Sudanese, were placed at the centre of the extension area, rather than closer to the presumed 'front' access point at the junction with the main road.

Whilst these issues will be discussed at greater length in the case study section below, it is worthwhile indicating at this point that the layout design for Ifo II, as a projection of an ideal, and located historically prior to its actual implementation at the end of January 2007, contained a number of potential advantages and disadvantages, beyond those already identified for camps in general in Chapter 4 of this thesis. The advantages particular to the design of Ifo II can be summarised as follows:

1. The facilities are indeed dispersed, with corresponding potential for reducing centralised congestion of the residential population.
2. The main internal road circulation actually forms a hoop circulation, with greater access between different parts of the camp.
3. There is some degree of space for expansion, both within the main central public space, and within the boundaries of specific non-residential facilities, such as the two schools.

The gaps in the design (as opposed to any gaps which became apparent in the implementation of construction, which will be addressed through the case study below) can be summarised as follows:

1. There is no room for future infill or expansion within the separate residential blocks.
2. As indicated in the earliest site plans dating from December 2006, there is only a limited awareness of significant features already existing in and surrounding the site. The greenbelt is not featured on these maps (an eventual problem, as the proposed location of the hospital on the map actually encroached into one of the greenbelt blocks in reality by about 10m), and neither are all of the back roads or other major forms of traffic (foot and vehicular) circulation in the vicinity. The water towers are marked on the map, but there is no indication of awareness of their roles as navigation aids and road junctions.

3. Although there is a relatively generous amount of undefined public space along the central axis internal road of Ifo II, there is still little awareness of the types of public structures which are commonly built by the refugees themselves in Dadaab. There is no designated space for a central Friday mosque, nor any indication of any space which could be used within the residential blocks, for structures like daily mosques, *madrassas*, or small groups of market stalls.

* * * *

The case-study: overview of a guiding framework

The case study which follows the historical overview above, is divided into three parts, Firstly there is an explication of the methodology used in conducting the case study, the activities involved, the duration of the case study, and the constraints under which the case study operated. Secondly, there will be an examination of the relationships between the Morphology, Operations and Performance of Ifo and Ifo II, as observable through the case study activities. Thirdly, the case study will answer a number of questions which are informed by the overviews of the development of the design of refugee camps on a global level, as documented in Chapters 3 and 4 of this thesis

The first part of the case study, in describing the methodology, will also give indications as to how a case-study approach may be adapted to refugee camp situations. In doing so, this part of the thesis will also propose answers to pertinent issues, regarding the role of the case study observer when that person will never be recognised as a member of the predominant population group, various ethical concerns about using a professional position to gain access to the case study subject matter, and the validity of observations taken in areas where the observer must limit his or her actions for reasons of personal security.

The second part of the case study, will initially supplement the observations on the morphology of Ifo which were made during the discussion of its development between 1991 and early 2007, in the section of this chapter, above. This will be followed by a summary of the operations, in terms of the uses of space within the camp, as an augmentation of the information available from the historic overview, to the degree possible for a complex settlement of the size of Ifo. What will follow will be an examination of the overall performance of the camp, and the degree to which the performance affects changes in morphology over time, through influencing the operations within the camp. The questions which will frame this part of the case study will be:

1. What are the prominent features of the third, vertical dimension of the camp, not otherwise visible from maps or aerial photography? How is the overall morphology perceived from the ground level?

2. What are the categories of operations within the camp, in terms of usage of space by the refugee population? How do these categories differ for different segments of the refugee population: women, minorities, those with special needs, host community members?

3. What is the relationship between the categories of operations, and the elements of the morphology in terms of location of operations? Which categories of operations occur in a variety of locations, and which categories of operations seem to be anchored to a specific location or type of location?

4. Which types of operations actually affect the fabric of the morphology?

5. What are the general categories by which the performance of Ifo can be judged? Do those categories bear different values for different segments of the population?

6. Following an enumeration of the categories of social performance in Ifo, are there any ways in which an evaluation of the performance of Ifo through case study observation differs from an evaluation derived from the documents referred to in the first part of this chapter?

Building upon the answers to these questions, the third and final part of this chapter will refer back to the connections between Ifo and the development of the global design template. This will be done by providing answers to a number of questions, which are informed both by the historical overview, and by the wider discourse on the design of refugee camps which has been documented in Chapters 3 and 4:

1. To what extent did Ifo II (and greater Ifo) conform from the outset to the universal design type as claimed in Chapter 4?

2. To what degree did Ifo II succeed on its own terms, that is in terms of the explicitly held objectives of the global design, and in terms of the specific strategic objectives for Ifo II outlined in the section of this chapter immediately above? Were there any unintended consequences of the design which would nevertheless be seen as conforming to one or more of either the global or specific objectives?

3. To what degree did Ifo II (and greater Ifo, beyond the scope of the historical overview earlier in this chapter) exhibit the gaps and stresses identified as those potential to the global design type?

4. What other gaps and stresses have become evident in Ifo II, which were not enumerated in the discussions on the global design type in Chapter 4?

5. What are the mechanisms which have been employed in order to cope with those gaps or stresses, by individual refugees, the social structures of the refugee communities, the host communities (where relevant), and the humanitarian organisations which are providing their support.

As may be noted, questions 1-3 have expectations of more or less closed sets of enquiries, whilst questions 4-5 are more open-ended and exploratory. Whilst these questions are designed to cover all aspects of the camp design in Ifo II and greater Ifo, the fact that they

organise data along specific topics connected with the hypotheses developed in Chapters 2, 3 and 4 of this thesis, means that the case study, whilst being narrative, is not discursive. Thus, the results of the case study as presented in this chapter, should be seen as complimentary to the more general narrative description contained within Chapter 1, which was used to outline the more readily apparent issues in Ifo.

* * * *

Activities and constraints in the use of the case-study approach with regards to refugee camps

This thesis takes as its starting point for the development of a case-study approach for refugee camps, the approach delineated by Gans in *The Levittowners* (Gans 1967), but does so with the acknowledgement of the significant differences between the subject matters of *The Levittowners*, new arrivals and community-building in a large-scale suburban development in the USA, and this thesis, and with the intention of adapting the methodology taken by Gans to the contexts of refugee camps. The use of Gans' methodology as the foundation of this exploration can be justified on a number of levels. Gans states that his intention was, "to find out how a community comes into being," (Gans 1967:v) which is germane to the part of this thesis' case study which examines the construction of the extension of the camp at Ifo II; there are similar analogies between the Levittown, New Jersey of 1958 and the Ifo of 2007 in as much as both were initially designed from the top down, but where the interest of the researcher was, "to what extent the plans were shaped by Levitt's [the developer's] goals and to what extent by the goals of the expected purchasers." (Gans 1967:xviii) Like Ifo, the Levittown of Gans' study was large enough that Gans had to declare himself more interested in group behaviour than individual personalities (Gans 1967:viii), but with the aims of investigating how the planned environment affected the community (Gans 1967:xx) and er-examining the question of "whose values should shape the new community, the residents' or the planner's?" (Gans 1967:xix) This thesis takes Gans' recommendation for an open-ended participant-observer study methodology (Gans 1967:xxi-xxii), whilst sharing many of Gans' concerns about the objectivity and the ethics of adopting such positions. (Gans 1967:440-442) However, the case-study conducted for this thesis had to adapt to a context where it was impossible to use some of the tools which Gans used, such as mass-mailings of questionnaires, where the author of this thesis, through my concurrent professional duties, was not able to stand back and adopt the neutral stance taken towards community affairs by Gans, and above all where the subjects of the research of this thesis were not at will to enter or depart from the community in question.

The method of fieldwork used to investigate the case study, took advantage of the fact that the author of this thesis was employed as the shelter manager of one of the humanitarian organisations in Dadaab, with specific responsibility for the construction of Ifo II, during a three month period between mid-January and mid-April 2007. This means that the investigative part of the case-study was conducted from the dual perspective of one who was at the same time to some degree a participant and an observer. This dual perspective necessarily contained some specific advantages and disadvantages:

1. As a participant, and specifically one with professional shelter responsibilities, there was greater access to the camp, and to its stakeholders than perhaps would have been enjoyed by a strictly non-active observer.

2. Participating in problem-solving processes integral to the construction of Ifo II also had the potential for observational insights which might not have been otherwise apparent.

3. However, the type of participation, and the formal role occupied by the author, did not contain with it the same commitment of social or financial capital as might be expected from a participant who came from within the community subject to the case study, or one who had decided to live with that community over a long-term and potentially permanent basis.

4. The dual role brought along its own questions of objectivity, with regards to personal involvement and personal pride, and in terms of the close-up but limited range of the viewpoint from which observations could be made.

5. Access to the environs of Dadaab had been granted on the basis of the author fulfilling a certain number of professional responsibilities, and representing himself as a staff member of one of the humanitarian organisations working in Dadaab, rather than merely as an observer. With the exception of discussions with a limited number senior staff members from other humanitarian agencies in Dadaab, there was no advertisement made by the author that I would at the same time be collecting data or observations for a doctoral thesis. The lack of awareness on the part of those present in Dadaab, of the possibility that my interactions with them might be drawn upon for doctoral research certainly could be said to have had an effect upon their own disclosure of information or opinions, in terms of potential for unguardedness on the one hand, but with a lack of directedness on the other. Furthermore, the author was not in a position to conduct extensive and uniform questionnaire-style interviews with any of the refugees, as this would have distracted too severely from professional duties, and would also have risked compromising the humanitarian programming of the organisation for which I was working, by perhaps falsely raising expectations of programme delivery for those refugee interlocutors. Instead, a more varied but less individually sustained range of interactions were drawn upon in order to create the case study.

6. Following on from point 5 immediately above, I was on the other hand able to participate in various group activities (meetings with refugee leaders, access to security meetings, events with host leaders) for which I might not otherwise have had access.

In broad summary, the activities undertaken by the author in Ifo II, between mid-January and mid-April 2007 which inform this case study, can be divided into two categories: explicitly professional activities, including various stages of the construction of Ifo II itself, and various interpersonal interactions with stakeholders in and around Dadaab, which may have been for

either professional or doctoral research reasons, but which remained essentially informal. It must be stressed that neither of these two positions offer an awareness of life within the camp which would be afforded to a refugee, or even a local staff member working for one of the humanitarian organizations.

During the three-month period of the case study, the following professional activities were undertaken which would inform to some degree the case study:

a. Finalisation of the physical positions of certain non-residential structures (the schools, the hospital) within Ifo II.
b. Demarcation and in some minor cases realignment of the internal roads within Ifo II.
c. In collaboration with the UNHCR site planner, and with technical staff from other humanitarian agencies, the design of the schools and the police station.
d. Provisional design of the mud-brick individual family shelter.
e. Construction of the security post within the police station.
f. Demarcation of a number of the residential blocks, using refugee cash-for-work teams taken from those living in Ifo II.
g. Digging of micro-drainage channels within the residential blocks, using refugee cash-for-work teams taken from those living in Ifo II.
h. Digging of large-scale drainage for the major internal roads, using refugee cash-for-work teams taken from those living in Ifo II.
i. Construction of the fencing for the boundaries of the schools, police station, and the humanitarian organisation's own field warehouse depot.
j. With leaders of the local community, identification of local water pans from which mud could be harvested in order to make the mud bricks for the refugee shelters.
k. Various training of refugee teams in humanitarian good practice, and construction technical skills.
l. Reading of various previous iterations of the design for Ifo II, and of all sit-reps and other periodically released reports concerning Dadaab from the various humanitarian agencies.

The more informal interactions included, but were not limited to:

a. Participation in various regular planning meetings between representatives of the humanitarian organisations in Dadaab.
b. Participation in planning and administration meetings with the new block leaders in Ifo II.
c. Observational walks through Ifo II, old Ifo II, and to lesser extents through the other sub-camps of Hagadera and Dagahaley.
d. Informal conversations with some of the refugees in Ifo II, including the community mobilisation team which was being formed in order to administrate the construction work, with the staff of the humanitarian organisations, with the leaders of the local community, with members of the police force, and with the local civil-service district officers.

The time spent by the author in Ifo II varied over the course of the three months, and was limited by the security regulations and the timing of the regular vehicle convoys in and out of the camps, but would normally have been a four hour period each morning Monday to Friday, and then a two-hour period for three to five afternoons a week, apart from the limited number of days during which the author attended other meetings in Nairobi.

Although a variety of activities were used in order to collect data or further observations for the case study for this thesis, there were nevertheless a number of practical limits upon the collection of the full potential of data:

a. *There was reporting of security incidents on a weekly basis by UNHCR and by the local police force, but there was no exercise to map those security incidents onto a plan of the camp.* This meant that, apart from informally reported complaints from members of the refugee community, or hearsay from national and international staff from the other humanitarian organisations in Dadaab, there was no way to confidently analyse whether certain parts of the camp were more prone to security issues than others, nor any way to disaggregate that security information on a geographical basis, nor any way to draw conclusions concerning geographical location and the type of security incident.
b. *Because the author was restricted by the security arrangements in place for all humanitarian workers in Dadaab, there were no direct observations of the camps made after 5pm, or during the weekends.* This effectively limited direct participation and observation to a maximum of 45 hours a week. More importantly, it removed the potential for observing the camp during evening hours, when on the one hand it would be expected that families and communities would be together as a whole, after going their separate ways during the daytime for work, school, water collection and the like, and when on the other hand the majority of alleged security incidents were reported to have taken place.
c. *The language barrier meant that the author was not privy to conversations conducted in Somali, or other refugee languages present in the camp*. This offers a crucial difference with the observational potential reported by Gans, who as able to listen in on conversations not directed to himself. For the purposes of this case study, there could never be removed the suspicion that prior discussion amongst the refugees in their own language was used on occasion as a filtering or consensus-creating device, only the results of which would be reported up to international humanitarian organization staff members including the author.
d. *The vast majority of interactions with the refugees were with a self-selecting portion of the refugee population, i.e. those who had themselves approached the author, or who had shown an interest in working for the refugee community-mobilisation or cash-for-work teams, and who therefore might have some specific personality traits, social positions (unknown the author), or other interests in making those approaches.* There was, therefore, no way for controlling the opinions or actions of that select group of refugees, to ensure that they accurately reflected the opinions and wishes of the entire population of Ifo II. There was the possibility that those who did not speak directly with the author felt assured that their opinions were being adequately represented to the humanitarian organisation staff, but there also remained the

possibility that this was not the case, particularly with regards to those parts of the community (ethnic minority groups, recent arrivals, women) whose needs might not be given full consideration by ore dominant members of the refugee community.

e. *Following on from point d immediately above, the gender roles prevalent amongst the refugees meant that for the most part women and female children were more secluded, and less likely to speak English or approach a foreigner.* Between them, these two groups represented the majority of the refugee population in Dadaab, and so conversely, those who were more likely to approach or speak to a foreigner were from a minority of the population in these terms. In the case of women and girls, not only was direct conversation severely limited, but also observation of a greater proportion of their daily lives than those of men or boys.

However, all of the limitations described immediately above, refer to the more immediately practical aspects of data collection, rather than the qualitative aspects of the analysis of that data. Further, and more profound limitations were placed upon the case study by the fact that to all intents and purposes the author could walk freely through the camp without worrying about clan affiliations, the author had a sufficient personal income and was not reliant to any extent upon distributions of food or NFIs, and the author was above all free to leave the camp and return to his home country at any point.

Some of these activities better informed the narrative account of Ifo presented in Chapter 1 of this thesis, and some of these activities better informed the more focused enquiry contained within this chapter. From the basis of the activities and their limitations described here, provision answers can be given to the questions which will guide the two following parts of the chapter.

* * * *

The Morphology, Operations and Performance of Ifo

The first sections of this chapter, which describe the historical development of Ifo, give a general summary of the morphology of Ifo. In many cases, as seen through the maps or images derived from aerial photography, the layout of Ifo does follow the global design type. The added value which the case-study approach can bring in this instance, is to observe the morphology in three dimensions, and in real time, rather than as a series of instants caught in photographs or drawings. The exploration of the relationship between the morphology, operations and performance of the camp will follow the framework provided by the questions which were first posed in the introduction to this section of the chapter, above.

1) What are the prominent features of the third, vertical dimension of the camp, not otherwise visible from maps or aerial photography? How is the overall morphology perceived from the ground level?

The primary feature in the morphology of Ifo which may be overlooked in the maps or even to a certain extent the aerial photographs, is the dense growth of the living fences which were described and illustrated in Chapter 1 of this thesis. Not only are they contributory to the

state of personal insecurity in the camp, but they, and the winding pathways which they line, can prevent an understanding or awareness of the layout of the camp as a whole by those who live and work there. Although it is often more direct to walk a line which would traverse a series of the blocks' interiors, many of the local staff in Ifo go from place to place by indirect routes which allow them to come out of a residential block, walk along one of the larger open areas at the edges of the blocks, and then re-enter the residential areas at a point close to their intended destination. The reason given, is that otherwise they would risk getting lost. This has meant that the informal arteries which lead out of the residential blocks take on a heavier amount of traffic, but that the arterial pathways have become worn down below the grade of the shelters, and as their physical definition has hardened the frequency of use of other minor paths diminishes, even if the direction of the minor pathways is more direct for some journeys.

Partly as a result of the same processes, the other feature of the morphology of Ifo which is much more evident on the ground, is the network of informal roads which circle around, or bypass the camp. This road system is not referred to from the maps, and although many of them have some visibility from the aerial photographs, it is often difficult to detect the relative importance of a particular bush road, merely from the photographic representation. The creation of this road system has been in part the work of the humanitarian organizations' vehicles, which cannot enter or cross the residential blocks, but which must circle around them. This peripheral system is closely connected with the system of back roads which are used by private vehicles, often *matatu* taxis, and which connect the different camps in Dadaab, and the surrounding villages.

The overall impression of the morphology of Ifo from the ground level, is then not one of a single access road which branches out into a single system of small roads, as much as a series of informally-created access roads which circle and have different entry points into a dense centre of each grouping of residential blocks.

Fig. 5.16. Map of Ifo A and D blocks, highlighting the main roads which encircle the blocks, with entry points at irregular intervals. (GoogleEarth)

2) What are the categories of operations within the camp, in terms of usage of space by the refugee population? How do these categories differ for different segments of the refugee population: women, minorities, those with special needs, host community members?

In Ifo II, because the living fence is still in an early stage, the observation of the various uses of space is made somewhat easier. In the older parts of Ifo, the range of observable uses was restricted to the more public areas. However, it must be stressed that the constraints on the case study activities meant that no observations of usage of space could be conducted for the 14 hours a day between 6pm and 8am. Furthermore, the author was for most of the period of the case study, the largest provider of employment in Ifo II, with different teams of 80 men and 80 women doing work on the construction of the camp every day. Not only was this a temporary state of affairs, but also meant that many of the activities observed were activities dictated by the author, or discussions with the refugees were concerned with those type of activities.

In Ifo II, large parts of the daily activities were still centred upon either setting up the shelter plots, or on other essential duties. As an example, during the period of the case study, some of the water points in Ifo II had not been activated, or were running on reduced hours per day. This forced the women and children of some families to spend time taking water from a

series of different water points, rolling or carrying water containers for hundreds of metres between the points.

Fig. 5.17. Children undertaking the collection of water in Ifo II (Kennedy).

In the older parts of Ifo, the observable operations were more complex, and had greater connections with social or communal networks. It could be said therefore, that there still existed in the older parts of Ifo, the need to conduct the same basic set of operations – the collection of water, or food rations, or the upkeep of the shelter plot. However, there was also another set of operations which concerned the social membership and connections, and to which those still living in the older parts of Ifo may have been able to devote a greater part of their days. Many of the set of these social usages of space were absent from Ifo II during the case study, in part because the built structures to contain or support such activities were not yet constructed Unlike the basic daily tasks undertaken in Ifo II by many members of the family, social activities in Ifo saw family members separating. For many of the children, the social focus became the local block-level madrassa school. For many of the women, movement through the camp was also concentrated within the immediate residential blocks, but could include a complex number of spaces which afforded a location for social interaction, including the water points, small open areas near the shelter plots, or the madrassas. The tendency for market stalls to be set up directly in front of water points or *madrassas* indicated that there was a preference to double up shopping activities with other operations, rather than separating them physically by for instance having the market stalls strung out along the pathway from one location to another.

For the men, the set of usages of space appeared to be heavily influenced by whether they had an ‘incentive’ job with any of the humanitarian organisations. For the small percentage of men who did work for the humanitarian organizations, the use of space within the camp was also influenced by professional activities, and often by the need to travel further afield than most other residents in the camp, in order to commute to the workplace. Outside of work, the men were more apt to travel beyond the residential blocks. Movements of this sort might include attendance at religious or clan-based gatherings or meetings, or interaction between different households of an extended family. However, the one other daily activity

which heavily influenced the movement through and usage of space in the camp for an estimated 90% of the men, was the purchase of the *Qat* or *Meera* drug at the central market, and then the consumption of the drug in the company of small groups of other men, usually on a regular afternoon basis.

There was one further type of operation of significance for the refugees at Ifo, but which largely occurred beyond the formal boundaries of the camp, and that was the activities undertaken by the large minority of refugee families who kept goats or other livestock. This incurred movement further afield than any of the other regular activities described here. Often, extended families would pool resources, and send out a combined herd of livestock, to be looked after by a small group of relatives. Women were seen tending and herding the livestock close to the shelter plots, but in the open bush it was more often male shepherds who were encountered. It was this form of operation which had the most obvious impact upon the environment of the camp, although not so obviously upon the built morphology. Naturally, the daily herding of the livestock also contributed to the erosion and deepening of the major pathways in the residential blocks, but the greater impact was the removal of vegetation and deforestation caused by the livestock grazing around the camp. In the same way, some of the livestock trails leading out from the camp ever further out to the bush became in time new roads for pedestrian and vehicle traffic, and enabled the extension of the environmental impact and refugee/host-community social tensions, even as it was also extending social and economic networks. However, the keeping of livestock was one which symbolized independence, economic and otherwise, for many families in Ifo. Furthermore, both the collecting of smaller herds between families, and the large livestock trading markets at the edges of Ifo and the other camps acted as valuable loci for social networking and information exchange, beyond their bare economic worth.

The observable operations with regards to the minority groups often appeared to be more geographically limited. With regards to those who were from minority ('Bantu') Somali groups, their operations through the camps would appear to resemble more closely the sets of operations which could be contained within the global design type. That is, for the most part, members of those communities, and in particular those who had been new arrivals to the camp in the August-December 2006 period, spent more of their time close to their residential blocks, with direct journeys to and from food distribution points, water points or market stalls. Those minority groups from other nationalities (Ethiopian, Sudanese, Congolese and Burundian) were allocated specific residential blocks in both Ifo and Ifo II. However, for some of the men of some of these communities at least, travel beyond those blocks takes on much more complex routes, in terms of both geography and social navigation, as Sudanese and Ethiopians have in the past been seen by the humanitarian agencies as being more conscientious and better workers, and therefore preferred for some of the previous construction projects (they have also been hired for some building work by some of the Somalis themselves). In all cases though, the general patterns of wider geographical mobility for the men than for the women would seem to be the norm.

With regards to the host community, apart from those who might have had direct relatives within the refugee community, and who therefore would have had reason to travel into the residential blocks, the main operation within the camp would have been contained within the central market area, and the formal access roads leading to the market area, in recognition of

the fact that the markets in all three camps in the Dadaab complex contained goods which were not otherwise available within the entire Northeastern province. Although an estimated 4000 of those living within the camps were estimated to be of local Kenyan origin (albeit of Somali ethnicity), the degree to which the refugee and host communities interacted in ways which could be termed social, rather than strictly commercial, is not known. By the same token, there is no way of estimating the proportion of vehicle traffic on the back roads to the east of Ifo, and going towards the host community villages to the east, which is for commercial travel, and which proportion might be for social travel.

3) What is the relationship between the categories of operations, and the elements of the morphology in terms of location of operations? Which categories of operations occur in a variety of locations, and which categories of operations seem to be anchored to a specific location or type of location?

In general terms, the locations outside the individual shelter plots can be divided into two categories. There are those places where the operations are by and large of a single type, and often defined by the name of the location. In this category would come the *madrassas*, the state-run elementary schools and the official administrative areas. The second category comprises locations where there may be a built structure which provides the physical focus, but where the activities in and around that location are not limited to those for which the built structure has its own primary function. This category would include the water points, where individuals come not just to collect water, but to do shopping and to have various types of informal social interaction. However, group interaction rarely seemed to occur along the pathways ,even those which were wide enough to accommodate moving foot traffic and standing groups at the same time. For the women in particular, it would appear that in the public spaces at least, there needed to be some other concurrent (and usually practical) activity such as shopping or water collection, which would provide the occasional for social gathering in public places. Whilst the presence of men seemed to dominate the major central market, women tended to predominate in the smaller public spaces which had been created incrementally over time. Whilst there is no firm evidence to support the claim, it would appear that the degree to which a smaller, less-central public space attracts people (particularly women) would depend more upon the proximity to their shelter plot, and the frequency with which they would have to visit the location for its functional purposes (collecting water once or twice a day, or shopping for food a number of times a week): there is no way of confidently drawing connections between the popularity of a location, and the number of entry pathways coming into that location, for instance, or the degree to which the location itself is protected or has physical barriers surrounding it.

4) Which types of operations actually affect the fabric of the morphology?

It would appear that the majority of the operations which in turn create changes in the morphology of the camp, are those which are ‘directed’ and often connected with the refugees livelihoods and social structures, when they are not connected with concerns for personal security. Apart from the construction of the living fences, the operations which can be said to have had the largest impact upon the morphology of the camp, have been the cycle of self-reinforcement whereby foot traffic (and the traffic of livestock) wears out of the

ground a wider and clearer path, which in turn attracts even more foot traffic. This is then reinforced at one level up, when the junctions of these wider paths become the sites for small informal market stalls, which in turn further reinforce the popularity of those particular pathways. There are two other types of intervention which have been observed to influence this process. The first is the construction by the humanitarian organizations of extra water points. As each family has a daily need for water, the water points become a new *schwehrpunkt* to attract wider pathways to it, and also become a favoured site for new market stalls. The second is the construction of *madrassas* by the refugees themselves, which then start to take on a similar social role as the water points—the differences being that firstly the *madrassas* are more apt to have a more mixed population (children and some men, as well as women) coming to them, and that whilst the construction of the water points is to a certain degree dictated by overall population distribution, and by engineering constraints such as pipe-length and gradient, the decision-making processes for the location of a madrassa is much more complex, taking into account unintentionally enlarged small-scale public spaces, the location of the shelters of religious leaders or teachers, and the clan divisions on a micro-level. During the period of the case study, there had even been some discussion (though inconclusive) about whether there was a geographical connection between the *madrassas* and the water points caused by the children's needs for water both for ritual cleansing, but also for cleaning the slates which they used to practice handwriting.

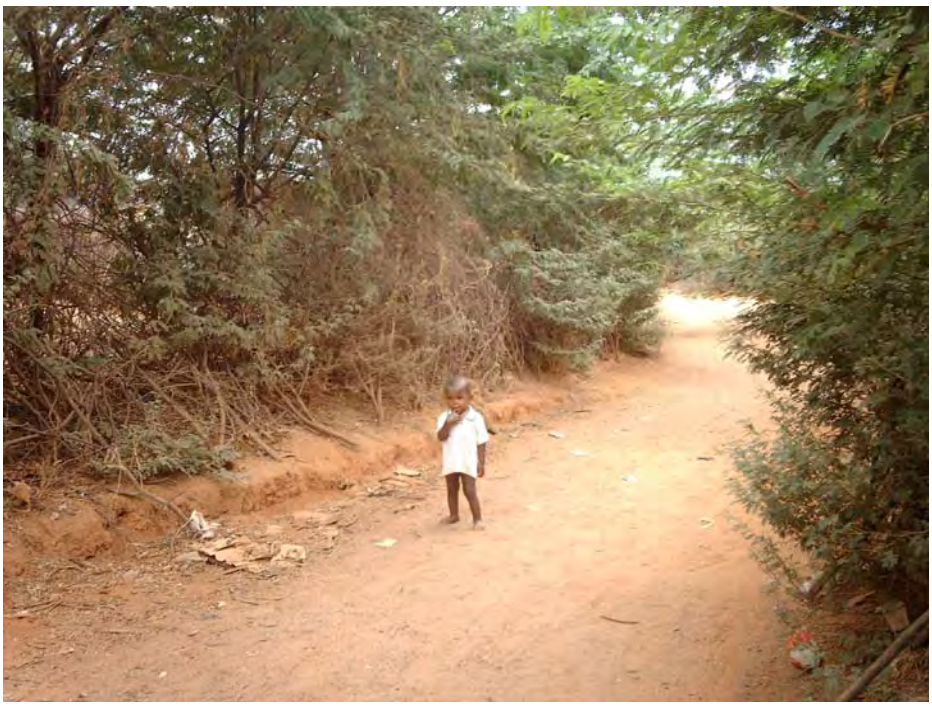

Fig. 5.18. A major pathway through Ifo, showing signs of erosion, and lowering of the pathway grade through foot traffic. (Kennedy)

Fig. 5.19. A further example of an eroded, lowered-grade footpath. (Kennedy)

Fig. 5. 20. An example of market stalls set up in close proximity to a water point in the foreground of the photo. The water containers mark the place in the queue for water, for women visiting the market stalls. (Kennedy)

5) What are the general categories by which the performance of Ifo can be judged? Do those categories bear different values for different segments of the population?

The category of overwhelming first importance by which the performance of Ifo should be judged, is the one detailed in many of the documents concerning Ifo and Dadaab, that of personal security. However, security obviously does have different connotations for adult men of the predominant clans, who travel further from their own shelter plots, than for women or members of minority groups, for whom the geographical limits of daily life would seem more circumscribed. However, there are different ways in which to judge security which may also have some effect upon movement through the camp by different segments of the population. Whilst absolute threat of physical violence would obviously be of paramount concern, for women there would also appear to be concerns for the areas where personal reputation and security overlap, and which might also be part of the reason for remaining closer to their own shelter blocks, even if there were no threat of actual physical violence. Whilst there is an argument for evaluating the performance of the camp in terms of the distances which a woman, or someone from a minority group, or indeed anyone who could be deemed in some way 'vulnerable', could travel from their shelter plot without fear, at the same time such considerations are tied up with cultural expectations to the degree which it would be unreasonable to expect morphological interventions to provide the full solution.

The second category which has already been discussed extensively in the available literature, is that of environmental impact. The fact remains though, that the refugees themselves communicated little or no concerns with general environmental degradation during conversations with the author of this thesis. That is not to say that they did not have concerns, but that the concerns were more likely to be expressed for the ways in which certain specific environmental features performed, in terms of availability of water pans for livestock, or the speed at which trees or live fencing could be built around the shelter plot in order to give shade and security. There was a much greater degree of concern for the environment as a whole expressed by the humanitarian organisations, and more than anyone else by the leaders of the host community, who had prior to 2007 set up a specific Dadaab Environment Committee. However, despite the fact that the host community leaders were able to use the vocabulary of wider environmental discourses, their own concerns were also often based upon regarding environmental features as an economic asset, in terms of access to water pans and grazing lands. O n the other hand, it was the host community leaders who expressed positive interest in projects which would make positive improvements to the environment.

The third category, and one which will be explored further in the following section of this chapter, below, is that which would be referred to in the humanitarian organisation guidelines under the headings of 'support for durable solutions' but making the connection between durable solutions and livelihoods, following the example of Corsellis and Vitale. The category of durable solutions is perhaps the one category of the three general categories listed here which might mean the most different things to different stakeholders in the camp. Senior staff from the humanitarian organisations in Dadaab informally expressed concerns that the 'durable solution' which remained their nominal aim, that is, full voluntary repatriation of the entire camp population, would appear to be diametrically contrary to the 'durable solution' invested in by widening circles of the host community, whose livelihoods are to an

overwhelming extent dependent upon the camp remaining in situ permanently. Whilst staff of humanitarian organisations and donors made reference in strategy documents and discussions to the need to ensure that improved projects in Dadaab did not become a 'pull factor' for either would-be refugees or for the host community, the fact remained that the population of Dadaab village had increased by 600% over 16 years, and that a ring of settled, non-nomadic hamlets had been created in the bush surrounding the camp. The development of Dadaab, as argued by the community leaders, was directly dependent upon either the trade and employment opportunities from the humanitarian organisations, or the stand-alone projects (the building of schools or water pumps) for the host community which the humanitarian agencies took on. The degree to which the refugees would see the camp as supporting durable solutions would appear to be more complex, in part because it would appear that at least a portion of the refugee population would not view a durable solution as their being settled in only one location. In their current state, Ifo and the other camps in Dadaab do in fact give support to those families who maintain economic and social ties on both side of the national border, and whose members continue to cross the national border back and forth, with some risk to losing their refugee status in doing so. Whilst a large number of the refugees would move their entire households back to Somalia if the political situation in Somalia permitted voluntary repatriation, there are undoubtedly others who would attempt to retain a presence in both Kenya and Somalia, and who might feel that the camp has already achieved its performance goal in this regard.

6) Following an enumeration of the main categories of social performance in Ifo, are there any ways in which an evaluation of the performance of Ifo through case study observation differs from an evaluation derived from the documents referred to in the first part of this chapter?

There are two main ways in which an evaluation of the camp's performance derived from the case study would expand upon or differ from that derived merely from the documents referred to in the fist part of this chapter. Firstly, neither the written nor the photographic documents adequately the different types of operations in terms of travel through the camp, or social gatherings, which are affected by the performance of the camp in terms of personal security considerations, real or perceived. Instead, the documents refer more to personal security threats encountered during routine errands or travel with defined tasks, such as firewood gathering. (UNHCR 1999b) Secondly, although the smaller public spaces such as those surrounding water points or *madrassas* are visible on the GoogleEarth satellite photos of the camp, their existence is not referred to in the analytical documents or in humanitarian agency strategy documents. However, it is the irregular but widespread punctuation of the residential blocks by these types of small public spaces which allows many members of the refugee population to engage in social gatherings and to negotiate a series of journeys through the camp which might not be so easily negotiable if there were not such way-stations. Therefore, it is the assessment of the capacity of the camp to support such spaces and the activities which take place in such spaces and connect those spaces, which would be missing from an evaluation of the performance of the camp based solely upon the available documents.

* * * *

Following the investigation into the general relationships between the morphology, operations and performance of Ifo camp given above, the next section of this chapter will reconnect the examination of Ifo, with the conclusions made concerning the global camp design type described in Chapter 4. Through this comparison, the questions of the camp's performance and the criteria by which the camp's performance should be judged, will be expanded upon and re-examined.

1) *To what extent does the layout of Ifo II conform to the global design type for refugee camps?*

There are a number of ways in which the layout of Ifo II can be said to broadly conform to the global design:

a. Ifo II is generally constructed from the same hierarchy of elements described in the guidelines—single-family shelter plots, residential blocks and centralised non-residential structures.
b. There is one single formal access road into the camp.
c. The dimensions of the elements of the camp conform to the numeric standards and guidelines used to create the global template.
d. There was a lack of acknowledgement of the specific location or surroundings of the camp.
e. There was no demonstration of designated areas which would be available for future internal infill of population, or of the spatial needs for future livelihoods or economic development.

There are also a number of ways in which the layout of Ifo II deviates from the template:

a. The 'centre' as defined by the open area containing the grouping of non-residential structures, is elongated away from the entry point of the access road.
b. The percentage of land space within Ifo II which is designated for non-residential areas, is larger than the 30% minimum recommended in the guidelines, and a proportion of this remains as space of currently undefined use.
c. Although the residential areas are organised into blocks, within the blocks there are no 'cluster'-like groupings of 12 or 16 shelters around a communal open space. The groupings of plots according to social lines is otherwise made, giving more control to the refugees, as exercised through the construction of live fences between sub-groups of residential plots.
d. Ifo II is not situated on a slope of minimum 2-4% gradient, and is still to some degree prone to flooding, although this is true of all of Ifo and the surrounding areas, and could not be avoided without relocation to a much further distance.

2) *Does the layout of Ifo II succeed on its own terms?*

With regards to the general global objectives for refugee camps, such as they are, as expounded in the various guidelines examined in Chapter 4, the layout of Ifo II can be assessed in the following ways:

a. It conforms, at the outset at least, to all the minimum numerical guidelines, in order to ensure the minimum acceptable health, safety and dignity of the refugees.
b. With regards to protection (after all one of the central mandates of UNHCR, and of some of the other humanitarian organisations present in Dadaab), the security of the refugees is supported by the presence of the police station. Further measures undertaken as part of the planned layout and implementation, include the allocation of specific blocks for national minorities. However, during the period of the case study, refugee block leaders in Ifo II reported many more security incidents occurring in the blocks furthest away from the non-residential buildings (in particular blocks on the eastern end of Ifo II, blocks N4-N2), giving some indication that protection and security was unevenly distributed within the camp.
c. Tensions between the refugee and host communities were eased by the inclusion of permanent non-residential buildings which would be handed over to the host community in the future, at the closure of the camp. But subsequent tensions arose in discussions over the placement of new water pans for the host community which would provide the 37 250 metric tons of mud estimated necessary for the construction of the shelters in Ifo II, with the host community leaders not wanting the water pans to be accessible to refugee livestock.
d. The immediate area around the residential blocks of Ifo II became completely devoid of any vegetation during the first six weeks of the refugees' self-settlement there (caused by the use of grasses and other vegetation for shelter thatching, fence-building, and for livestock grazing), and there was no apparent plan which took this into account. Furthermore, because the maps for Ifo II did not always make any reference to the pre-existing green-belt areas, the initial locations for the hospitals, the eastern of the two schools, and the residential blocks N18-N24 all were found to encroach upon the green-belt areas. The locations of the school and the hospital were subsequently adjusted in order to move them from the green-belt area, but this was not achieved for the six residential blocks. The digging of new water pans for the mud-brick harvesting risked creating 'magnets' for new host communities and their livestock (although the initial rationale for choosing mud bricks as a primary building material was to reduce the local need for tree branches as shelter materials). Furthermore, the initial design for large irrigation channels and removal of fencing and trees within the cleared parts of old Ifo ran the risk of channeling and removing surface water too quickly from the area, and therefore creating a dustbowl effect. In all of these ways, the layout was unsuccessful in taking into account the environmental guidelines contained within the development of the template.
e. The layout of the individual plots within each block can be said to give a relative amount of control to the refugees over the groupings of extended families, or multiple households.

f. Apart from the larger proportion of undefined space within the elongated centre of Ifo II which might accommodate future livelihoods expansions, there is no apparent demonstration of how the layout is expected to connect with any long-term, transitional or durable-solution goals. There is no apparent demonstration of how the layout might make any contribution to the UNHCR preferred durable solution of voluntary repatriation, except that it provides a spatial organisation by different sub-clans or regions of origin, which might facilitate group repatriation.
g. With regards to principles of equity of support for refugees and prioritisation of those who are most vulnerable, the self-selection of refugees in terms of those who moved first to Ifo II and who had first choice of the residential plots, coupled with the plan to move the second lot of 15 000 refugees from Ifo A and D sectors not to Ifo II but further afield to a less well-supported Hagadera New Site, raised concerns over protection for those who were prevented from moving quickly to Ifo II for reasons connected to categories of vulnerability.

With regards to the specific objectives for the construction of Ifo expounded by the humanitarian organisations working there, and listed earlier in this chapter, the degree of success of the layout of Ifo II may be assessed as follows:

a. Once the relocation of all refugees from Ifo sectors A and D would be completed, then the objective of 'decompression' of that portion of the camp population would have been achieved, in as much as the relocated families would have more space per person, in compliance with international minimum numeric standards and indicators. However, these new, better levels of space-per-person would also erode over time with increases in size in each household. Furthermore, during the period of the case-study, the relocation of refugees from sectors A and D to Ifo II was done on an essentially voluntary, self-selecting basis, thus postponing the point at which any block in the older sectors could be systematically closed down, and turned over to exclusively non-residential functions.
b. UNHCR staff reported conversations with refugees moving to Ifo II, in which the refugees stated that their children were healthier since the move. The relatively low exposure to flood hazard diminished the refugees' exposure to some water-borne dysenteric diseases (although there were still reports of outbreaks of cholera generally in the Dadaab area shortly after the period of the case study (Kenya Broadcasting Corporation 2007)). However, the threat of malaria was not diminished to the same degree, in part due to the constraints of the terrain, but exacerbated by the incomplete understanding on the part of the humanitarian organisations, of the possible radius of mosquito flights, and the micro-habitats types of both mosquitoes and mosquito predators.
c. In terms of reduction of recurrent shelter and shelter-related costs, the relocation to the less-flood-prone area should reduce the occasional damage or destruction of shelters, and the recurrent costs associated with that damage, although the degree of such savings have not yet been evaluated, because there have been no further floodings in the camp since December 2007. The decision was also made to replace a distribution system of one plastic sheet per family (approximately US$9 market value), with one mud-brick and corrugated iron sheeting shelter per family (budgeted

value US$350). As plastic sheets have been distributed to families once every two or three years in Dadaab, it would take 13-19 years (at current prices), which is more than the mud-brick shelters' projected un-maintained lifespan, for the mud-brick shelters to recuperate the materials costs in these terms alone. However, this type of costing does not take into consideration the social and livelihoods cost-benefits from having a more durable form of shelter, not does it take into consideration the precariousness of the funding for programming in Ifo II, which could not guarantee that distribution of plastic sheeting at regular intervals. The other rationale for implementing the mud-brick shelter programme is to reduce the cost of environmental degradation (although as demonstrated by the UNHCR "Evaluation of the Dadaab firewood project" report referred to earlier in this chapter, there is unlikely to be any corresponding reduction in the levels of wood for fuel currently being purchased and delivered by the humanitarian organisations). Having indicated some of the potential cost-balances though, it must be pointed out that there has not been any attempt by the humanitarian organisations to provide a more rigorous analysis of the quantification of such costs, in order to support these assumptions.

There are also a number of what may be referred to as *unintended* benefits observable in the layout of Ifo II, which conform to the general objectives as espoused globally by UNHCR and the other humanitarian organisations, but which were not part of any *explicit* set of objectives for the construction of Ifo II programme, specifically, but which were seen to emerge during the case study period nevertheless. Some of these may be ascribed to the layout design itself, and some to the method and timing of the implementation and construction:

a. As mentioned above, the simplified, non-'clustered' layout of the residential plots actually gave the refugees a greater degree of flexibility in deciding upon their own communal groupings, in this specific situation.
b. There was a heightened level of social mobilisation, transfer of technical skills, and 'ownership' of the public and non-residential areas by the refugee residents, through the cash-for-work schemes, which provided rotations of employment for approximately 500 men and 500 women.
c. The lack of clarity as to the position of the main market intended to be placed between Ifo and Ifo II, and the postponement of the demarcation and construction of such a market during the initial relocation to Ifo II, led to a quick dispersal of smaller market stalls along the sides of many of the individual shelter blocks, often gathered around the water points which served each block on the southern boundaries. This inadvertently assisted claims that the layout of the camp was complying with guidelines concerning the maximum possible decentralisation of services. The markets were placed at the edges rather than in the interior of the blocks, but in doing so were moving towards creating in some parts of Ifo II an intermediary level of small-scale public spaces, situated between the individual shelter plots and the larger open spaces and institutional non-residential structures.

Fig. 5.21. Small stall in Ifo II. (Kennedy).

d. Because individual family latrines were not immediately available on each plot, the humanitarian organisations had supported the incremental relocation to Ifo II through the construction of communal latrines, one per five family plots (deliberately calibrated to be in line with the numeric minimum standards). These communal latrines could not be placed inside individual plots, and there were no other communal spaces within the residential blocks, so the latrines were placed at regular intervals at the cross-roads of some of the smaller interior pathways within the blocks. The dimensions of the latrines, as well as the berms around the latrines created by the excavation of the soil for the 3m-deep pits, meant that a slightly larger space had to be created around each of the latrines, cutting off the corners of the four surrounding shelter plots. Whilst this theoretically violates the principle of equitability contained within the global template and its guidelines, nevertheless it follows instead concurrent guidelines about initial provision of sanitation facilities, and in doing so it may provide smaller scale public areas at those points, once each family constructs their own latrines, and the public latrines are decommissioned and the pits filled in.

Fig. 5.22. Ifo II with communal latrines (metal structures) placed along footpaths. (Kennedy)

3) *To what degree did Ifo II (and greater Ifo, beyond the scope of the historical overview earlier in this chapter) exhibit the gaps and stresses identified as those potential to the global template?*

As the field work for the case study was conducted during some of the first months of construction of Ifo II, it has been too early to observe many of the gaps or stresses which are dependent upon greater lengths of time to emerge in other situations. However, as noted previously in this chapter, many of those time-dependent gaps and stresses have already been noted in the older parts of Ifo, and in many ways the construction of Ifo II itself was done in acknowledgement of some of those stresses. Other gaps identified as potential to the template which became evident in Ifo II included:

a. Firstly, as noted above, like most if not all designs for refugee camps, there is a gap or absence of stated connection between the design of the camp, and longer-term development or durable solutions.
b. There was a lack of awareness of the surroundings during this design phase for Ifo II. This has already been alluded to in the problems of encroachment onto some of the green belt areas. But it was also evident in the lack of awareness of the existence or location of some of the larger back-roads which went through or adjacent to the Ifo II area, and which naturally did not conform the contours of the block grid of the Ifo II layout. Nor was there any awareness of the use of the water towers as navigation points or beacons for vehicles, and the network of back roads linking the water towers (customarily used by humanitarian organisation vehicles as well) and which rendered the front access road of Ifo II very much underused, with most vehicles entering Ifo II

from two or three separate points on the south side of the camp, close to the police station and the two schools.

c. There was in the design, a lack of awareness of local culture. The lack of designated site on the plan for a mosque was highlighted by the fact that at one point in February 2007, some of the refugee block leaders in Ifo II took the decision to locate the main mosque at a point which had been reserved by the UNHCR site planners for the main garbage disposal pit.
d. There was an assumption of one-size-fits-all in terms of the space allocated to each family plot, with the results that even at an early stage, many families were already constructing more than one shelter on one single plot.
e. There were in essence only two officially-designed scales of elements within Ifo II—that of the shelter plots (albeit grouped into blocks) and that of the larger non-residential structures. This created juxtapositions of private and public space which were in terms of the camp quite extreme, with individual family plots located in some cases only a few metres away from the boundary fences of one of the schools. It was quickly observed that much of the thickest and tallest live fences were being placed at these points, on some of the southern edges of blocks N10 and N11. This close juxtaposition of extreme large and small scales was formalised by the construction of the different scales of ditches around the boundaries of the residential blocks, and around the boundaries of the non-residential structure sites, although the initial stages of the formation of a more median scale of structures could be seen in the encroachment into the public spaces by the informal market areas.
f. Despite the elongation of the space containing the non-residential structures, there still remained a concentration of the population towards the true 'centre' of Ifo II, that is in blocks N6-N10, closest to the police station and the UNHCR field outpost. This concentration of population was exacerbated by the methodology of allowing the refugees who volunteered to relocate to Ifo II to choose their own shelter plot. This raised concerns that those who were then located in the blocks furthest from the centre (and therefore in the places from which there were the most reports of security incidents) were more likely to be of increased vulnerability, because they were more likely to either be the most recent arrivals from Somalia, or else members of minority ethnic Bantu groups.

It should be noted that there was also one stress noted in Chapters 2 and 4 of this thesis as being potential to the global template, which did not appear as yet evident in Ifo II, and that was the stress caused by the apparently absolute lines drawn between the interior of any camp, and the exterior. However, the area surrounding Ifo II was largely open space, and apart from some areas to the south-west of Ifo II were unpopulated either by local communities or by other refugees, and that to a large extent to political boundaries of Ifo II were not represented by any demarcation actually on the ground.

4) *What other gaps and stresses have become evident in Ifo II, which were not enumerated in the discussions on the global template in Chapter 4?*

There were a smaller number of stresses which were specific to the geographic and cultural context for Ifo II, often evinced in the ways in which the spaces within the camp were

adapted or appropriated by the refugees themselves, and therefore which may not have been evident or guessable from any examination of the template as an ideal design:

a. The primary stress not evident from the global template was closely associated with the construction of the live fences, which in most cases was undertaken by the refugees even before the construction of the shelters. As seen in the older parts of Ifo, the construction of the live fences could be said to have created as much insecurity as it has removed (or to be more accurate, the fences have re-directed acts and perceptions of insecurity). But on a more fundamental scale, this appropriation of the essentially open-plan assumptions of space in the global template calls into question long-held ideas of what constitutes a 'community', or a 'cluster' and essentially the nature of the social building blocks of any camp, and the hierarchy of layout organisation.
b. There were very quick attempts by some of the refugees to individually appropriate some of the public space. Goat corrals made from live fences were constructed at the edges of blocks, or in as-yet unoccupied residential plots, or in some early cases in the spaces intended for the schools and the police station; self-appointed guardians of some of the water taps cordoned off the space for the water run-off as their own private irrigated vegetable gardens; some of the block leaders unilaterally extended the boundaries of their own plots on the justification that some local staff from some of the humanitarian organisations had asked them to look after some construction materials. This also raised questions as to the nature of more widely accepted ideas of what is private, and what is inviolably public or 'communal'.

It should also be noted that there was one particular stress caused in part by the main deviation which the layout of Ifo II made from the global template and acknowledged the local geographic context, and that was in the elongation of the camp along the contours of the higher ground. Even though this elongation of the camp was paralleled by the elongation of the non-residential 'centre', there was still only one single police post, near the exact centre of Ifo II, and therefore only one point in Ifo II which contained the function of officially-provided security. This meant an increase in the distances which police patrols at night would have to cover, in order to adequately monitor the furthest residential blocks, with a corresponding reduction in security for those blocks.

5) *What are the mechanisms which have been employed in order to cope with those gaps or stresses, by individual refugees, the social structures of the refugee communities, the host communities (where relevant), and the humanitarian organisations which are providing their support?*

Various coping mechanisms could be seen to be emerging over the period of the case study, some of which have already been described briefly above:

a. First and foremost, there was the construction of the live fences, often before the construction of the shelters, or before the construction of the shelters had been completed, and with the most dense fencing facing the public areas with the highest amount of external traffic.

Fig. 5.23. Example of early start to live fencing in Ifo II (Kennedy).

b. With the suggestion and support of the humanitarian organisations' security focal points, each block was asked to create patrols for security, which would receive training and equipment from UNHCR.
c. Many of the families initially migrated daily between their older family plots in Ifo sectors A and D, and their new family plots, concurrently held, in Ifo II. This was in order for the families to stake a claim to a location in Ifo II, but at the same time to remain in closer location to the schools, larger markets and other facilities which had not at that point been installed in Ifo II. This also prolonged the process of full re-location, and of the closing down of the older blocks.
d. As not all of the water taps were immediately functional when the first refugees arrived in Ifo II, and none supplied water for 24 hours a day, a proportion of refugee families walked daily between different tap stands, in order to take water from different taps which were working at different hours in rotation. This increased the speed at which some of the informal or customary pathways in Ifo II were defined or reinforced by their own foot traffic, as those carrying heavy containers of water are apt to take the path of least resistance.
e. There were various attempts by refugee families, as described above, to appropriate parts of the 'public' spaces. This in itself was a coping mechanism to deal with the scarce resources in the camp. There was a reactionary coping mechanism engaged by the humanitarian organisations, of insisting (with cash-for-work incentives) that the refugees dig micro-irrigation ditches along the sides of each interior pathway and along the boundary for each block, as a way of visually defining those boundaries, and containing those encroachments.
f. The informal back roads which went through Ifo II were, where possible, rationalised and incorporated into the officially designed road circulation. This was augmented in some cases, by discouraging vehicular traffic from using back

roads which went through residential blocks, by taking some of the excavated soil from the drainage, and creating speed bumps on the pathways.

* * * *

This chapter has presented a case-study of a single refugee camp, and has done so by emphasising the historical processes which have changed the camp, and in doing so has tested a number of hypotheses about the design of refugee camps in general. Based upon the case study, and the comparison of Ifo II and the global template for refugee camps, a few conclusions may be drawn:

1. The global template, with all its advantages and disadvantages, can be seen to have been a primary influence upon the design of a camp, and there has been some indication as to the limits of how far the template can be imposed upon a real-life situation and an indication that in reality there are certain scales where the design might be substantially altered by the local stakeholders, not least of whom the refugee inhabitants themselves.

2. The vast majority of the gaps in the global template for camp design were visible to some degree in the case study (the exception being issues arising from the definition of the border of the camp), and therefore it is possible for the vast majority of those gaps to be present in a camp in reality.

3. However, there were also identified in the case study a number of local stresses which could not be readily predictable from an analysis of just the global template as an ideal document. Therefore, an analysis of the global template is not sufficient, and there is a value in case studies in this field of research. However, there is no necessarily closed set of such local stresses, and therefore no predictably closed set of case studies which would guarantee the identification of all such stresses.

4. Whilst past research has pointed to the fact that there are some elements of the numeric guidelines embedded within the global template which themselves are not self-consistent, nevertheless the vast majority of observed stresses in the case study occur as a result of the gaps or lack of connection in the placement of the elements from the global template into the dimensions of a specific time and a specific place.

The following Chapter will expand upon the observations made from this case study, in attempting to predict a range of scenarios for the future for Ifo and Ifo II. These scenarios will attempt to forecast how the various performance-related stresses identified within the case study may change within the future. The design tool in Chapter 7 will then be created in response to the extension of the analysis of Ifo through the scenario-creation.

Chapter 6. Scenarios for the Future of Ifo

Chapter 5 contained a case study of Ifo camp. After an overview of the development of the camp from 1991 to 2007, the case study examined the degree to which the design of Ifo camp reflected the global design type, and how it performed and in particular to what degree it contained the stresses evident from an examination of the global design type, and to what degree it might contain other stresses which were not evident from the investigation of the global design type. This chapter will go one step further, and create a range of future scenarios for Ifo camp, in order to extend the analysis into the future, and give some indication as to how the performance of the camp might conceivably develop into the future. This will form the starting point for the development of the design tool in Chapter 7, which will initially attempt to address the conditions of Ifo and Ifo II through a series of processes to be deployed incrementally into the future, and which will then investigate the degree to which such processes might be applied to a wider set of camps in other contexts.

* * * *

This question of what are the likely scenarios for Ifo not only steps to a certain degree beyond the temporal scope of the case study field work, but also faces the greatest constraints in having any accuracy or significance. Nevertheless, much of this thesis has made an argument for the consideration of the dimension of time into the projected futures of refugee camps, and so there is an argument to be made for concluding the case study by making some tentative prognostications derived from the observations of the construction of, and inhabitation of Ifo II, as processes in time. Having said that, the length, protracted nature, and unpredictability of the political events in Somalia make it perhaps particularly hard to create a set of meaningful scenarios for the future in Ifo.

There also stand the question of what might be the significant categories of variables for any such scenario. As seen in Chapters 1 and 5, there are a number of variables whose influence has been incremental and chronic, but which has not been of an emergency nature, nor been the cause of any crisis response, which as an example might include the degradation of the environment. Then, there are those variables including events which are occasional, unpredictable, and which at the time of their necessitate a rapid response, but where the conditions of the camp usually return to the *status quo ante* relatively rapidly. Examples of these might include the floodings, or else the recent occasional outbreaks of diseases like Rift Valley Fever. Thirdly, there are those variables which are of such a nature as to make quick and large-scale changes to the morphology of the camp, of a nature which are not easily reversible afterwards. Foremost amongst these, have been the periods of sudden large influxes of refugees (or conversely, those periods back in the mid-1990s, when large numbers of refugees were actually repatriated, and the population of the camp decreased).

Unlike the other variables, it has to this date only been large and rapid changes in population which have occasioned major changes in the design of the camp, in terms of the creation of new extensions by the humanitarian organisations, or the building of new non-residential facilities. Even in the case of the decision to build the Ifo II extension, the floodings of December 2006 were more of a pretext, and it had been the influx of 35 000 new refugees in

three months which had been the real cause of that decision. In terms of the part taken in the design of the camp by the refugees themselves, they are also overwhelmingly undertaken as a response to population density, and the proximity of other refugees – the clusterings of market stalls, or the construction of the live fencing. Even the other incremental, 'non-emergency' variables can be said to be determined ultimately by large changes in the camp population rather than by anything else. Therefore, any scenarios of interest should hinge upon changes in population, whilst still acknowledging that other variables may have subsidiary effects.

Perhaps three general scenarios, of slowly increasing populations, more quickly increasing populations, and then lastly decreasing populations, may be entertained, and some general consequences for the camp design ascribed. In all three cases, the majority of the design interventions, as has been the case so far, would be those spontaneously undertaken by the refugees themselves, rather than those officially planned by the humanitarian organisations. However, in all cases, there would be some trigger for large-scale design interventions by the humanitarian organizations as well.

Scenario 1: slow and long-term increase in population

The first scenario is one whereby there are no further mass influxes of population from Somalia, but nevertheless the security situation remains unpredictable, and so therefore there are no efforts at mass voluntary repatriation. In this scenario there would be incremental increases in the population in Ifo II due to a mix of live births, and minor influxes, on the parts of both Somali refugees, and local ethnic Somali Kenyans. Under this scenario, over the following 2-5 year period, a number of changes in the physical environment may be envisioned:

a. There will be a further densification of population, particularly in the central blocks of Ifo II (blocks N6-N11), mirroring the processes already seen in the older sectors of Ifo.
b. There may be in time, the demarcation of extension blocks. Given the geography of Ifo II, and the relative height of the land, this is more likely to happen at the eastern edge of Ifo II, rather than along the northern side, or in between Ifo II and what will be by then the non-residential greenbelt areas where sectors A and D used to be.
c. Regardless of the eventual placement of the official market between old Ifo and Ifo II, within Ifo II itself there will develop larger informal markets around the entrances to the police stations, hospitals and schools. Meanwhile, the smaller sets of market stalls which have already been set up near the current water stands will spread along the southern edges of the residential blocks, and whilst they may never go beyond the depth of a single row of stalls, they will nevertheless constitute a separation between the two scales of residential and non-residential institutional.
d. Eventually, with the increase of host populations newly settling in areas to the east of Ifo, and with the encouragement offered through the creation of the new water pans in order to supply the mud-brick shelter projects, there will be a formal abutting of one host village with the edges of Ifo II or other eastern points of Ifo. This is most likely to happen close to a junction to one of the back roads on the eastern side of the camp.

However, the back roads will continue to play a double-edged role as simultaneous conduits for economic activity and for personal insecurity.

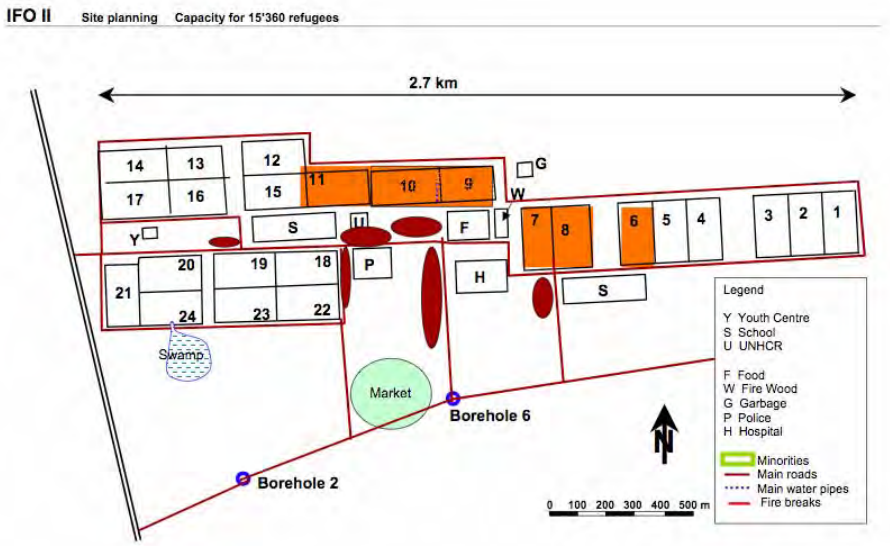

Fig. 6.1. Adapted UNHCR map of Ifo II, projecting changes of density of population in the future, with darker coloured blocks (N6—N11) indicating most densely populated blocks, and darker oval shapes indicating likely locations of informal markets. (Kennedy)

Scenario 2: rapid and large increase in population

The second scenario is one of sudden and massive population influx from Somalia, with no immediate prospects for repatriation. In such a case, some elements of the scenario remain the same as the first scenario above, with some further additions or adjustments:

a. Some of the population influx will infill into Ifo II, living with relatives or clan members, and accelerating the rate of population densification in Ifo II described above. If however the influx occurs before Ifo sectors A and D have been completely depopulated and closed down, it is possible that much of the influx might self-settle in the emptied parts of sectors A and D, thus removing many of the benefits gained from relocating the older populations to Ifo II: in this regards, the humanitarian organisations would be back at square one.

b. If the population influx is significantly large, then the humanitarian organisations would seek to settle that new population in areas already designated for camp extensions in the other sub-camp of Dagahaley. If this was the case, with up to 20 000 new refugees located to the north-west of Ifo II, then the hitherto relatively neglected ‘front’ access area of Ifo II, touching upon the main Dadaab-Dagahaley road, would assume more importance, with a corresponding increase in population densification and economic activity happening in those areas.

Fig. 6.2. A map of Dagahaley camp, directly north of Ifo, showing (in pink, at the south of the camp) contingency plan for extensions of residential blocks in case of rapid large-scale population influx. (UNHCR Dadaab 2007)

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Scenario 3: rapid but incomplete decrease in population

The third scenario is one which is dependent upon a major and sustainable improvement in the situation in Somalia, precipitating major population returns from Dadaab to Somalia. However, in such a scenario, it is unlikely that the entire camp would depopulate readily. Firstly there are still those (at least 4000 people) who still live in the camp, but who are of Kenyan nationality. Secondly, there is the minority of refugees in Dadaab who are not Somali, and it would be unlikely that sustainable peace and the removal of human rights abuses would also simultaneously break out in Somalia at exactly the same time as the Democratic Republic of Congo, Ethiopia, etc. Thirdly and most importantly, there are probably a significant (though uncountable) number of the Somali refugees in Dadaab who have developed economic and other ties with the Northeastern Province of Kenya, and would be extremely reluctant to return to their home country. Based upon these scenarios, the following assumptions may be made:

a. At a certain point, either the government of Kenya or UNHCR or both, will act to consolidate the remaining population into just one of the three camps, although there are high chances that this consolidation might only be partially successful, or might become a rather protracted process.
b. Many of the families with continued economic or other ties in Kenya, may split up their families, so that some members return to Somalia, whilst others would stay in

Dadaab to retain a physical stake in the place. Thus, the number of completely vacated shelter plots would never correspond to the number of population repatriated.

c. There would be a tendency to appropriate spaces, including vacated shelter plots, by those refugees who remained in Ifo.

d. There would be some degree of general contraction of the local economy, due to the reduction in refugee numbers, and the corresponding reduction in aid funding. However, the settling and urbanisation processes experienced over the last 16 years by both the refugee and host communities might well render them less resilient and less self-sufficient than before, and that therefore there would be a real danger of increased insecurity generally for the area.

Scenario-building and the design tool

The three scenarios outlined above give some indication as to the upper and lower bounds of change in terms of the one critical variable, future population change in Ifo. As stated in Chapter 1, the design of refugee camps contains unique constraints in that the vast majority of camps will have finite yet unpredictable lifespans. This means that the development of any design tool can not be done in response to a condition of stasis: somehow the development of the design tool must take into account the changing condition of the refugee camp and the progress of that change.

Whilst this chapter has described a number of variables which are important for the prediction of scenarios in the context of Ifo, there might be other sets of variables for other camps, or the relative importance of the different variables may change. Although it is reasonable to assume that in the vast majority of cases these might concern issues of population, environment and relations with host communities, the potential lack of limit to the specific contexts of refugee camps' existences would mean that this set of variables could not be closed or predictable. Nevertheless, it would seem reasonable either to adopt the approach used here in this chapter, whereby one single variable was judged as being the pivotal variable by which all other variables would be influenced, or else adopt an approach of creating a matrix of variables, in those cases where no one single variable was seen to be pivotal. From the scenarios created using these methods, a design tool may be developed, which would take into account the condition of the camp beyond the initial baseline snapshot of information.

* * * *

This chapter has contained an investigation of the variables for creating a range of scenarios for the future of Ifo. This has been followed by three general scenarios which describe the upper, lower and median ranges of change in the pivotal variable of population change, and give some indication as to the way that this would effect the operations of the camp, and how that may cause different categories of stakeholders in the camp towards different general types of design interventions as a result. The following chapter will develop a design tool for Ifo, in reaction to the descriptions of the processes of change in Ifo contained in the scenarios in this chapter. The design tool for Ifo will then be investigated with the aim of applying some of the principles in order to create a design tool applicable to a wider set of camps.

Chapter 7. A Design Tool for Refugee Camps

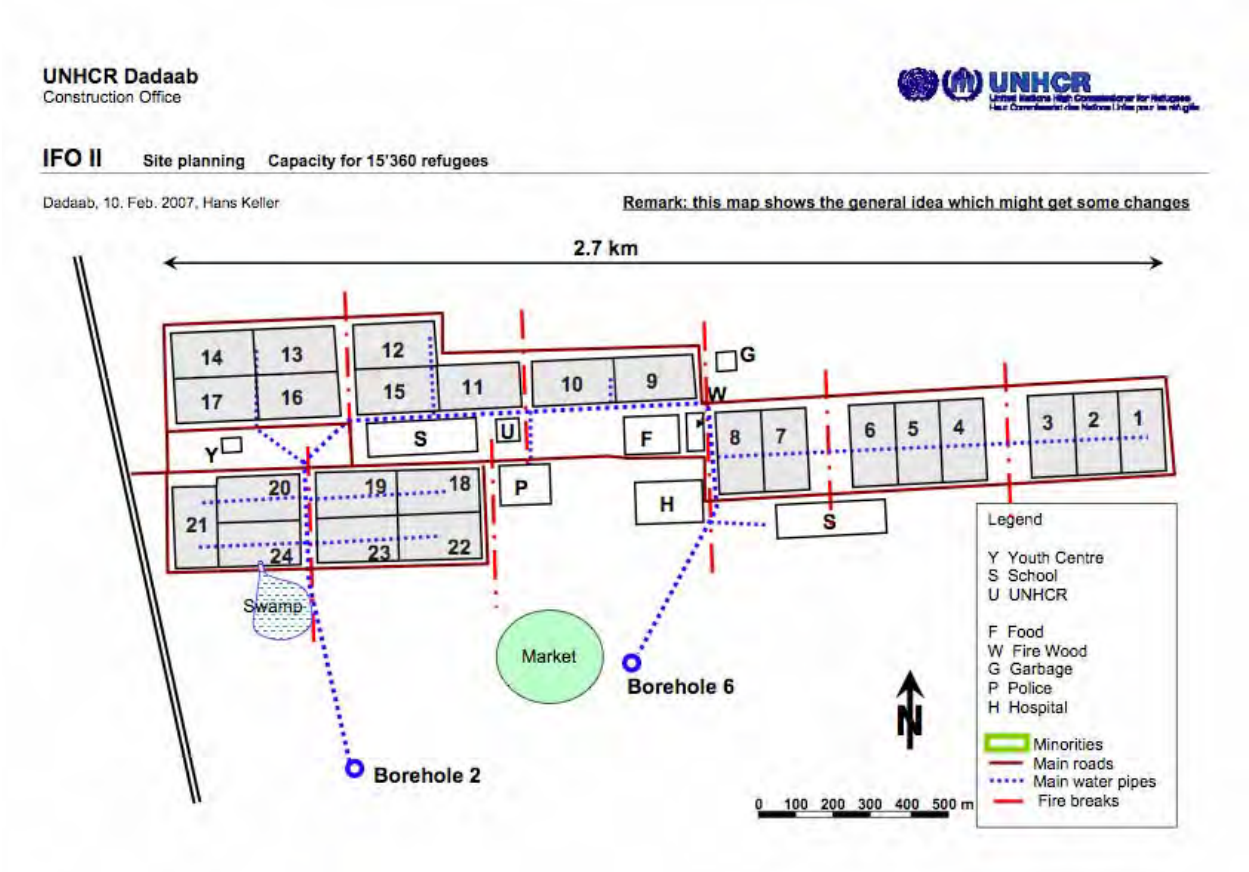

Fig. 7.1. Final UNHCR design for Ifo II, February 2007. (UNHCR)

In Chapter 6 a method was developed for creating scenarios to generally describe the range of future changes in Ifo which might have significant possible effects upon the design of the camp. A set of scenarios was then created, depending upon the circumstances of large-scale change in population, which was seen as the one pivotal variable in the scenarios. These scenarios were described as being the starting points for the development of a design tool for Ifo, and a design tool which would then take into account the changes in the Morphology, Operations and Performance of the camp over the long-term. This chapter will build up on the end of the previous chapter, and will develop the design tool for Ifo. as a reflection of the case study in Chapter 5 and the scenario-building exercise in Chapter 6. Chapter 7 will then investigate the degree to which it might be possible to take some of the principles used for the design tool for Ifo, and apply those for the development of a design tool for a wider set of camps.

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Reassessment of design constraints and assumptions

Through Chapters 4 and 5, a comparison was made between a global design type for refugee camps, and one example of a refugee camp constructed in north-east Kenya, Ifo camp, which

was planned as incorporating the vast majority of the elements of the global design. Through the case-study it was discovered that not only do the refugees and other actors in the camp appropriate and adapt spaces within discrete scales (e.g. within the physical confines of individual shelter plots) but that there exists the possibility that they might also appropriate areas within the camp by creating spaces of different (intermediary) scales which have not been taken into account in the set of elements provided for in the global design type. It has also been noted, in Chapters 1 and 5, that there are a range of impacts which a camp and the refugees living in the camp can have upon the environment external to the boundaries of that camp, whether in terms of being a population magnet for the host communities, causing degradation of the environment, using space for livelihoods activities, or the creation of new informal roads. It was noted that the actual refugee camp could not be adequately described within the limits of the set of terms which comprise the global design type, and that the creation of the camp is a complex process: because this complex process involves influences from the environment, the refugees themselves, the host community and the personnel of the humanitarian organisations, it must necessarily be greater than, and not contained by, the global design type. It was also noted that in reality, the element which is the most important in exacerbating stresses, or through which later stresses emerge, is the dimension of time, and the undeterminable lifespan of the camp. Furthermore, although there were a number of potential gaps and potential causes of stresses identified through an examination of the global template in Chapter 4, it was discovered in Chapter 5 that not all of those potential gaps may be evident in a real camp, and that there may be other gaps evident in a real camp which may not have been readily identifiable through an examination of the template.

This chapter will contain proposals for design tools for refugee camps, but will do so in two main parts: for the specific case of Ifo, and then for a more generally applicable guidance set. These proposals will be focused on finding solutions to some of the issues which have arisen in the earlier chapters of this thesis, through the examination of the gaps in the currently existing global design type, and in one real-life adaptation of the majority of elements from that template. This will be done mindful of the following major constraints for defining and presenting such a tool:

1. The assumption of the role of ‘designer’ in this case is not assumed by one single person, or one single organisation. To a great degree, the potential set of those who might participate in the design of a refugee camp could be seen as being large and unlimited. Quite apart from the fact that practically speaking the humanitarian organisations might employ a number of different site planners over the lifespan of a camp, there is a far greater degree of design appropriation by non-formal (and non-official) methods than is seen or assumed in other, non-refugee ‘bottom-up’ approaches to settlement planning like sites-and-services or structure-and-infill methodologies. This is in part because of the ‘temporariness’ of the materials, the assumptions of temporariness of the space-use, and the skeleton-like nature of the administrative structures for the control of such design interventions, all of which increases the ease at which space-use can be changed, through a lack of formal allocation, and a lack of hard-lining or boundaries.

2. There are sets of suggested principles by authors like Cuny, Davis, Zetter and others, which would already constitute many of the principles for a potential design tool. In this sense, the challenge is to give added value and go beyond repeating these principles which in themselves could be considered to be best practice, and where the only issue at hand is their lack of widespread adoption by implementing organisations. As one of the major issues at hand has been the potential for gaps between general principles and either the lack of implementation, or the qualitative difference in realisation, then one further step which will be explored in the development of the design tool in this chapter, will be pragmatic responses to the question of how to implement in reality a general principle of refugee camp design. In addition, building upon a summary of those principles of good practice already in existence, this chapter will focus upon those proposals which go beyond, or address gaps in the valid principles of good practice already in existence.

3. Further from point 2 directly above, there is a need to indicate the boundaries between any potential design tool for refugee camps, and those design tools already in existence for settlement or urban design for which there are assumptions of non-emergency causes and permanency of existence. This can be initiated by a revisiting of the definition of refugee camps posited in Chapter 2 of this thesis, in order to determine which elements of that definition clarify the relationships and boundaries between refugee camps and other settlements. There can then be the potential for focusing the design tool upon those elements which are unique to camps, on the assumption given that there would remain profound relations between certain other elements of the design of camps, and that of other settlements.

4. Although there have been a number of gaps identified in the existing global template and in the specific case study camp of Ifo, explored in the previous chapters of this thesis, there is no necessary guarantee that adequate design solutions can be provided for all of these issues, and there remains the possibility that some problems connected to refugee camp design will remain intractable, and that even an optimum design tool will remain inadequate as a complete solution. This remains true even after consideration has been taken (as was essayed in Chapter 2) of those stresses observable in camps for which expectations of a *design-centred* (as opposed to a non-physical) solution would be unreasonable. This constraint looms larger when one considers claim given in the final section of Chapter 5, that the set of stresses in real-life implementations of refugee camp designs, is potentially unlimited. At the very least care must be taken to separate in this chapter tools or measures for which there are clear intended connections with the main identified gaps in the existing global template, particularly those which touch upon long-term development scenarios and durable solutions, and those measures which are intended to ameliorate life in refugee camps, but where the connections between those measures and the list of gaps and stresses are more diffuse.

5. In any case, one of the main arguments of this thesis has concerned the demonstration that a single design tool, in this case a global template, can never achieve adequacy in real life. Therefore, in order to sidestep this threat of inconsistency, this chapter must

also confront the challenge of having to create something which is a design tool and an 'anti'-design tool at the same time, and which can make valid guidance for squaring the circle of wider applicability, and local adaptation.

* * * *

As a first step to avoid the pitfalls identified in point 5 directly above, this section of the chapter contains proposals for a specific set of measures directed towards the situation in Ifo. The set of these measures unified in these categories, present a provisional design tool for one single case. This will then be broadened to wider conclusions in the subsequent part of this thesis, which can be then tested against the array of gaps which were posited in Chapter 2, and then augmented and amplified in subsequent chapters. Of those gaps, the main issues, in review, are (1) the inadequacy in accounting for the relationship between the camp and its surroundings, (2) the lack of consideration for evolution of the camp's morphology and its performance over time, (3) the lack of anticipation of the emergence of scales of space other than those denoted in the skeletal hierarchy of elements (and their graphic symbols) contained in the global design type, and (4) the incertitude in demonstrating how the design of a camp is explicitly intended to support long-term development processes.

This section of the chapter is in turn divided in two. The first section will concentrate upon Ifo II, whilst the second will examine the older sections of Ifo: those issues which concern the connection between the two parts will be for the most part addressed in the section focused upon Ifo II.

- The first section, concerning Ifo II, will initially consider design responses specifically to the three scenarios posited in the final section of Chapter 5. After that it will consider any other measures which can have claims to generally improving the quality of life in Ifo II, without necessarily having intended exclusive links with one scenario or another.

- The second section, on Ifo as a whole camp, but in the main concentrating upon the older parts, will assume the same set of scenarios as the first section, and will examine measure in response to or in anticipation of issues which might face the camp as a whole, or effect that major, camp-wide elements of the design, and then issues particular to a small number of key zones within Ifo.

In fairness to both the ambitions of this chapter, and on the other hand the extreme demands sometimes placed upon site planners in the field, it should be noted that none of the three scenarios described at the end of Chapter 5, include the type of high-speed mass influx as seen in Rwanda in the mid-1990s, when literally hundreds of thousands of refugees crossed the border in a single day. Nor do any of the scenarios, even the one which does centre on large-scale influxes into Ifo, assume that there will not be sufficient space across Dadaab as a whole, to provide minimum services to all of the refugees. Therefore, what follows is not a design reaction to a worst-case scenario. Nevertheless, although in reality some of the processes described below probably could not be implemented in camp design under the most extreme of conditions, their principles remain valid, and furthermore will be seen as equally applicable to camps which are not being constructed anew, but which are found *in*

situ, and therefore are principles which can be visited upon camps even after an emergency deployment of lower design standards.

The section which follows, that which will contain proposals for various design measures for Ifo II and those connections between Ifo II and old Ifo, will be based upon a certain number of assumptions:

1. The assumed starting point for any of these measures is 15 December 2006, that is, the point at which assessments of the flooding of Ifo had been conducted, and the general location of Ifo II had been identified, but before any substantial work had been conducted on the design of Ifo II. Although there is no record of the exact date at which the self-settled population in Ifo II (i.e. those who had spontaneously moved away from the inundated areas in sections A and D) peaked in numbers, it will be generally assumed that at that point on 15 December, there were sufficient numbers of self-settled families to give some initial indications of plot sizes, the relationships between plots, and the choices of positions of plots, but that there would also be sufficient number of self-settled refugees to create possible obstacles to site planning and construction.

2. The real-life rationales for the construction of Ifo II and the relocation of population to Ifo II, will not be challenged. That is, assumptions will be made that such a project would indeed have observable benefits in terms of reduction of hazard and health risks, and in terms of reduction of long-term or repetitive costs in camp and shelter maintenance.

3. Real-life assumptions will be retained regarding the reluctance on the part of many of the refugees to move to Ifo II, and the need for some form of attraction or incentive for them to willingly make that move.

4. Despite the reality of emergency funds released in response to the flooding of November and December 2006, there will be an assumption of limitation of budget, and an assumption that any such measures would be constrained towards implementation only through currently-used ranges of materials, tools and construction methods.

5. It is also assumed that the prevailing shelter and plot designs created by the refugees themselves must be accommodated, and are unchangeable in large-scale. Where obvious changes might be insisted upon, a methodology of achieving such changes should be given.

6. It is assumed that whilst Ifo II would remain essentially open, without boundary fences, and with freedom of local travel for the refugees and their livestock, but at the same time is also assumed that attempts of any significance to construct shelters or other structures beyond the limits of the real Ifo II, would put those structures at a higher risk of flood hazard, and would also possibly instigate protracted negotiations with the local community as to the access and use of such land.

7. It is assumed that the initial targeted population for Ifo II shall remain at the same number as in reality, that is, between 15 000 and 16 000 people, and that there are an estimated further 15 000 people for whom relocation is intended from Ifo sections A and D to Hagadera New Site. However it goes without saying that there is no assumption whatsoever that the population of Ifo II will remain at that constant level for the entirety of its remaining lifespan.

8. General assumptions contained in the definition of refugee camps given in Chapter 2, and in particularly an assumption of finite but unknowable lifespan, will be retained through all sections of this chapter.

In summary, the three scenarios posited for the future of Ifo II in the last section of Chapter 5, indicated:

a. No further mass influxes of population, but a further prolongation of the existence of Ifo, and ongoing increases of population, mainly through live births and minor influxes.

b. A sudden mass influx of refugees from Somalia.

c. Large-scale repatriation, but on a long-term basis, and with little realistic possibility of entire camp closure.

Whilst the predicted results which followed upon each scenario were based upon an acceptance of the design of Ifo II thus far, and an extension of the processes of construction, adaptation and appropriation which had been observed up until April 2007, for the purposes of this section of this chapter, based as it is upon a baseline of 15 December 2006, there is no assumption that the design implemented in reality is the one which must be adhered to.

Design tool for Ifo II extension

Ifo II Design in response to Scenario 1

Of the three scenarios, it is the first one which is the most difficult to engage with, because it contains the potential for the longest and least predictable prolongation of the lifespan of the camp. At the same time, the changes in the camp which could exacerbate or create stresses within the camp, are often quotidian and incremental in nature. This leaves a risk of their being no clearly identifiable ‘trip-wires’ or benchmarks which would occasion any revisiting of initial design-brief assumptions. The potential is for any such benchmarks to be imposed arbitrarily, in terms of, for example, total population numbers, or leaves strategies for physical development of the camp hostage to opportunity for windfall funding, and resulting piecemeal projects of works. Having said that, this scenario is probably that which most clearly resembles the scenarios which the majority of refugee camps around the world are currently facing.

In concrete terms, this first scenario, when outlined at the end of Chapter 5, included descriptions of eventual densification of population towards the centre of Ifo II, possible extensions of Ifo II towards the east, and the potential for future convergence of Ifo II with newly-established host community settlements, again posited as being most likely at the eastern side of Ifo II, and therefore at the opposite side of Ifo II to the current position of the main road to Dadaab. Therefore, a small group of ameliorating objectives may be proposed directly to counter the stresses given in this scenario:

1. Creation of appropriate spaces, and in all likelihood spaces which have types of ownership which are not one hundred percent under direct administration of the humanitarian actors, and which in all likelihood are of sizes which could also be described as being intermediary, which will have sufficient support to function, *inter alia* as decentralised loci of socio-economic activity, and possible catalysts for social structure development aimed at security and livelihoods improvements. These could be located at edges or within centres of shelter blocks. Possible installation tactics could include, but should not be limited to, using either 'anchors' which are installed by the humanitarian organisations (such as water taps), or those which are built by the refugees (such as mosques or *madrassas*). The challenge would be to ensure that these spaces do not become reduced to being just slightly bigger uniform boxes on either drawn plans or in reality. An insurance against such a risk, would be to use the groupings of the shelter plots described in point 5 below, to contribute to the dimensions of the intermediary spaces, and thus mitigate against pressure towards inappropriate uniformity.

2. These spaces should be connected into the general framework of circulation within Ifo II, using a widened choice of types of roads and pathways, which reflect in their differing needs in terms of anticipated and desired traffic volume, the security needs and perceptions of the refugees, and their position vis-à-vis projected density distributions of the population.

3. An incremental formalisation of structures of multiple trunk roads running in a generally north-south direction, through and beyond Ifo II, with the subsidiary objectives of (i) acknowledging the existence and in some manner the primacy of the informal 'back roads' which run at the current eastern edges of Ifo II, towards the older sections of Ifo, and then to Dadaab, (ii)spreading the load of vehicular traffic, with possible benefits for decentralisation of livelihoods opportunities, and a dispersion of some of the environmental degradation and flooding hazard currently concentrated in the single Dagahaley-Dadaab road.

4. The use of an expanded palette of agro-environmental features, such as green-belt areas, water pans and revegetation zones, complimentary in their roles to the roles intended for the main trunk road network described immediately above – that is a not only in their bare functionality as retainers of water or erosion control, but in equal measure as an expansion of camp-design tools into a third, height dimension (including the potential for that dimension to continue below ground level with channel or water pan excavations). Thus, those often aquacentric agro-environmental

features would not only channel or direct water and vegetation, but also human use and circulation. (This type of intervention will be further revisited in the subsequent section focused upon the older parts of Ifo.)

5. The spontaneously self-settlement of shelters observed in Ifo II in December 2006 revealed groupings on a micro-level. The data from observation from the self-settled groupings in Ifo II in December 2006 must also be treated with some caution, because there is no certainty that the refugees who did spontaneously move to Ifo II from old Ifo were representative of all segments of the flood-effected population. Nor is there in retrospect any way of determining whether those shelters and plots in the spontaneous groupings in Ifo II were intended by the refugees as being for long-term use. Nevertheless, the issue of size, type and groupings of shelters must be addressed, given the fact that there is such an obvious divergence between the layout of the spontaneous groupings and the official site plan, and given that the current cluster designs contained within the global template are not capable of adapting to population growth over time. In essence, these questions touch upon the crux of control spatial design and use within discrete scales of space, as well as of the boundaries between scales themselves. That is, the question remains as to how a boundary is created between those elements where the designed is controlled from the top up (i.e. by the humanitarian organisations), often for reasons of logistical or public health and safety exigencies (not to mention the need to maximise use of limited space resources), and those elements which the refugees are expected to control, in the name of community ownership. As has been seen in Chapter 4, the attitude of the designers of the global template has been to use the edges of ‘clusters’ to draw a limit to permitted or encouraged appropriation of space by the refugees. The life-saving aspects of a refugee camp mean that certain larger-scale elements must remain as imposed by the humanitarian agencies, but it is far from clear that uniform ‘clusters’ fall into this category – in fact, the only strong claim which has been made for them, is that they are, in terms of social support, a better alternative to military-style row designs. Therefore, the perhaps radical step should be taken of removing the element of uniform ‘clusters’ from the palette of options, which may in turn actually give more meaningful and manageable control of the environment to the ‘community’. Instead, early support of the intermediary, semi-public spaces through implementation of some of the reforesting or other environmental features, could encourage denser self-settled groupings of shelter plots around the decentralised intermediary spaces, which would then allow negotiation of subsequent expansion of new shelter plots into infill areas between the first generation of intermediary spaces. However, this would be dependent upon a commitment to continued engagement by the humanitarian organisations, so that any infill process could be given negotiated direction through iterations of implementation of other elements (whether those from the environmental features palette, the creation or redirection of circulation routes, or a support for a further series of intermediary spaces), with the potential for engaging the civil structures located around the intermediary spaces, as entry points for such negotiations. Such a dialogue of interventions could also be used in order to engage with and influence the development of potentially different types of layouts in juxtaposition to the open areas surrounding the non-residential structures, and in

shepherding the process by which the physical structures and economy of two or more intermediary spaces converge, and a further scale of larger-intermediary space emerges. Finally, such a methodology might also provide adequate tools for negotiating the processes by which the refugee and host communities physically approach each other on the eastern edges of Ifo II.

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Ifo II Design in response to Scenario 2

The second scenario given at the end of Chapter 5, that of sudden mass-influxes of refugees, included descriptions of large-scale increases of population back in Ifo sections A and D, as well as in the planned extension area of Dagahaley camp to the north, with some increase in population within Ifo II itself. Again, a small number of objectives may be proposed, as being ameliorating of such a situation:

1. There would not be any reason why certain of the objectives proposed as responses to the first scenario, above, would change as a response to the second scenario. The interlocking objectives for the shelter groupings, the agro-environmental features, the decentralised semi-public spaces, and the complex variety of pathways and circulation routes, could all remain much as they would be intended for the first scenario response, although their number, positioning and physical relationships, and the intensity and speed of the iterative process for developing those elements would all have to be adapted to meet the specifics of the second scenario, particularly at the western side of Ifo II, where the greater number of direct stresses are anticipated. In particular, care would have to be given as to the interflow of people and economy between shelter groupings and the areas where larger markets are anticipated, close to the Dadaab-Dagahaley road.

2. Instead of the series of more or less parallel trunk roads running north and south through Ifo II, a different large-scale artery network should be created, which would take into account the risk of heightened insecurity for those living alongside the Dadaab-Dagahaley road at the western side of Ifo II, and would take into account the risk of uncontrolled expansion of market areas in that side of the camp, and at the very least the attendant health and safety hazards.

3. Measures should be taken in anticipation of any expansion from spontaneous settlement by new refugees, of the vacated areas in sections A and D in the older parts of Ifo. Interventions within the resettled areas of sections A and D will be dealt with in the second part of the section following, which proposes design solutions for key parts of older Ifo, but in terms of measures to be taken at Ifo II, certain tools in the palette already described, and in particular those which relate to the green-belt areas, should be adapted to channel the expansion of close-built shelter plots from the south, and ensure a transition of spaces from the morphology of sections A and D, to the incrementally developing built tissue of Ifo II.

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Ifo II Design in response to Scenario 3

The third scenario, that of significant but incomplete repatriation of the refugee population back to Somalia, contained descriptions of appropriation of vacated plots by the remaining refugees, split households retaining shelters in both Ifo and in Somalia, and a contraction of the host and refugee economies. A series of objectives for ameliorating this type of scenario might also be proposed:

1. Again, there are some objectives, from the first scenario, which should also be adopted as responses to the third scenario, with adaptation, but without any significant amendment to the nature of the objectives. In the case of the third scenario however, the different elements which would occupy various micro- or intermediary scales, largely within the conventional boundaries of the camp, would need to be re-balanced. In particular, the agro-environmental tools would have to be adapted in order to facilitate amore diffuse land-use, and environmental recovery as an integral part of changing livelihoods choices for the remaining population.

2. On the assumption that Ifo, with the oldest and best-established facilities would be the likely site for a consolidation of all of the remaining populations from the other camps of Dagahaley and Hagadera, and on the assumption that the specific location preferred by the humanitarian organisations would be sections B and C (whilst by that point the main markets and other facilities would be closer to Ifo II), specific measures would need to be taken in order to affect connections between those two population groupings, through support of a further type of intermediary-scale space which would not be intended as being the focus of any one shelter plot grouping, but being the focus of a non-residential ‘community’ that of merchants in an open market and public-plaza stakeholders.

3. The phenomenon of split families, with members of families travelling periodically between Dadaab and Somalia, would also necessitate physical manifestations of compensatory measures to deal with such temporary fluctuations in localised population groups, and the potential for social destabilisation which the re-entry or departure of those other family members might represent. Although many of the tools for doing so may be generally ones already described in these points, the objective in this case would be for extending the realm of security towards the micro-level, and assuring that the tools for environmental recovery are sufficiently nuanced to accommodate secure transit through and use of those spaces, without encroachment by design implementations.

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Design tool for Ifo

The same three generalised scenarios remain valid for the older parts of Ifo, and in response a similar number of objectives may be proposed. But in the section which follows here, greater

focus will be given to measures which are in essence inserted into the milieu of an ongoing camp situation (as opposed to Ifo II, where the assumption is that measures would be initiated at a point in time when there was still only a bare minimum of structures on the ground, and where the impact of the refugees on the location had been less concentrated). The practical constraints in the case of older Ifo are greater, and the emphasis therefore should be reinforced upon interventions which are achievable because they are incremental, fine-grained, and opportunistic.

Ifo Design in response to Scenario 1

With regards to the first scenario, that of continued long-term existence, but without further sudden large-scale influxes of refugees, the following objectives may be enumerated:

1. The use of a variety of small-scale 'anchors' (as described in the first point of the list of objectives for the section on Ifo II, above), but consciously deployed in the north-eastern parts of section B, in order to strengthen the spatial links between Ifo and Ifo II and above all to reinforce social and physical structures in those areas where there is still a high turnover of plot occupancy, and remaining potential for population infill.

2. On the assumption that the hazards of inhabiting sections A and D truly are overwhelming, and that a full removal of population from these areas is truly necessitated, there remains the need to ensure that those sections remain depopulated, free from renewed encroachment of shelters, and at the same time there remains the need to demonstrate that those depopulated areas can still fulfill some positive set of functions within the camp, whilst respecting the realities of the flood-based ecology of the area. Options for the design of absolute but non-confrontational barriers to settlement in the form of waterpans or reservoirs should be explored, with the incorporation of self-sustaining biotechnological support for local species of mosquito predators, to reduce the risk of malaria and other water-dependent diseases.

3. Given the fact that the majority of the national curriculum schools in Ifo have over the previous sixteen years become tightly embedded within the fabric of the residential blocks (unlike the situation in reality in Ifo II, where the two primary schools were planned to form part of the elongated central non-residential area), the schools should be designated as the foci for a *sub-system* of decentralised intermediary sites, and a further evolution of implementation tools on the micro- and intermediary levels.

4. As a continuation from the point above, incremental measures of support might be provided at those areas adjacent and extending from the intermediary-scale decentralised semi-public spaces which have spontaneously developed within older Ifo over the previous sixteen years. Whilst the tools for implementing such support should be varied albeit on the micro-level, the sub-objectives should include addressing issues of personal security through the formalisation of pathways and

through the extension of engagement and ownership of those spaces by the community structures centred in those areas.

Ifo Design in response to Scenario 2

With regard to the second scenario, that of rapid, large-scale influx, including unplanned renewed settlement of sections A and D, the micro- and intermediary-scale palettes of tools described above would continue to be deployed, with the addition of the following objectives specific to the scenario:

1. A programme of deployment of aqueous or other ecological physical barriers (as described in point two of this section, immediately above), with elements scaled to the dimensions of single shelter plots, as the buttress of a programme of incremental appropriation of the re-occupied shelter plots by the humanitarian organisations, once other camp extension locations have been identified for the newest influxes of refugees. Ideally, this would be implemented in a form of ripple effect, with a gradual coalescence of shelter plots turned into larger and larger water reservoirs emanating from the south and centre of sections A and D.

2. In parallel with the programme of (re)depopulation and land appropriation described above, there would be another rippling of intermediary-scale decentralised anchors, but in this case deliberately clustered at the underpopulated northeastern edges of Ifo, as a method of drawing some of the newly arrived population away from the redensification of existing plots in other sections.

Ifo Design in response to Scenario 3

With regards to the third scenario, that of significant but incomplete repatriation, the additional objectives would be proposed:

1. A dispersal of the emerging water pans (built otherwise as part of the physical features of the camp, and in particular as part of the barrier system to control population encroachment into the old sections A and D), so that the environmental degradation caused by livestock (on the assumption that pastoral activities would be taking on an even more central role in the livelihoods strategies of many of the remaining families) would also be less concentrated.

2. An opening up, or enlarging of a selection of the network of road and pathway types leading through the camp, taking advantage of the reduced refugee land needs in order to do so, and with the objective of encouraging access to the non-residential structures, such as the schools, which in theory should be shared or taken over by the host community at that point.

3. The creation of further sets of easily removable natural barriers, in the shape of scrub, or narrow drainage, which by defining the land into small parcels, would offer a

possibility for the facilitation of negotiations for the incremental reappropriation of the land by the host communities.

Although the measures proposed for the three scenarios above, for Ifo and for Ifo II, are not exhaustive, the question already emerges as to what degree all of the proposed responses listed for the three scenarios above can be synthesised, when the numbers and the expectations of the populations involved, as well as the time-frames involved, are so divergent. As a first step, there are those objectives, mainly at the micro and intermediary scales, which remain adapted but essentially constant throughout the objectives for response for all three scenarios, which can be summarised as follows:

- Adaptive groupings of shelters, without the containing barriers of formal 'cluster' edges, and dependent upon development through iterations of other micro- and intermediary scale interventions by the humanitarian organisations.

- A broadened palette of physical tools, including many which serve dual roles, as controls of circulation, as much as supports for environmental custodianship.

- An emerging (and unclosed) set of intermediary spaces, often decentralised and often semi-public, where there remains the potential for each intermediary space to spawn other such spaces, and to evolve into larger networks of spaces, and thus into larger scales of spaces.

The main identifiable hybrid element of the above set, is as follows:

- The use of water reservoiring systems of differing perimeters, as a cumulatively large-scale method of prevention against encroachment of population into the most hazard-prone areas in the camp, in sections A and D.

There then remains a number of objectives specific to each scenario, and often occupying a larger scale of features, such as main trunk roads through the camp, which would not be able to contribute in the same way to life within the camp, if initial assumptions about the likelihood of any one scenario then proved to be incorrect. There would be possibilities for redirecting their impact, or dispersing their effects, but it is most likely, pragmatically speaking, that a programme to tackle such issues would be conducted through smaller, incrementally deployable tools, rather than through a second series of large-scale elements.

Of the various tools described above, it is the smaller-scale tools which would seem to be the most adaptable and with the widest range of applications, and which could be said to occupy roles as general ameliorating agents for the camp as a whole, as well as having the potential for being directed towards objectives which have closer and more explicit connections with scenario-dependent long-term development goals. Having said that, the creation of this range of tools is in no way value-free, in terms of their implications for the shape and direction of long-term development for the refugee and host populations. In particular, in terms of repatriation as a durable solution, it is likely that the measures proposed in response to the

first and second scenarios would be best suited to supporting small-scale, household- or workshop-based enterprises, most of which would be assumed to include some degree of physical labour. And this strategy would have certain consequences for the speed and course of re-establishment of the refugee populations back in Somalia, and their contribution to the Somali civil society and economy as a whole. It would encourage the formalisation of those refugees as essentially urban dwellers, whilst not having provided them with any specific support for the development of non-physical, or service-industry livelihoods. The third scenario offers more support to those who retain ties to the land, and who might as an extended family, mix livestock-related livelihoods with other enterprises, whether returning to Somalia in the near future, later, or with no intention of returning to Somalia.

Beyond the value choices contained in the proposals of these two sections thus far, an initial examination of the proposals listed, would in categoric terms indicate a focus upon issues of usage of spaces, as opposed to the usage of structures, in effect an inversion of the focus of many of those texts contributory to the global design type. Secondly, the points, seen in collective, make an attempt to regulate different scales, and (as a collective of points) the interaction between some of those scales. It is also worth noting that some of the stresses concerning for instance personal security present in Ifo, and described in Chapters 1 and 5, are not addressed in a separate intervention measure, but emerge as integral parts and collateral intended benefits of the other measures, and that as a compliment to this observation it should also be noted that all of the tools described above are intended for multifunctional purposes.

But, with all of these measures, there is still the risk that the long-term consequences will diverge from their original objectives, given the indeterminacy of the lifespan of the camp in all but the third scenario. In the case of Ifo II and old Ifo, it is not unreasonable to imagine that these might include, at the very least:

- Uses of those intermediary areas which not only do not correspond to the intended original uses, but which subvert the development goals for both the immediate surroundings and for the camp as a whole.

- Certain examples of physical elements in the camp, which might once have been termed small- or intermediary in scale, and therefore under a particular assumed form of control both in terms of the social mechanisms and the palette of design responses, may over time take on a different scale, to the extent where there is a disconnect between the scale and the control and response mechanisms.

These risks are exacerbated by the fact that such changes have the potential for being both rapid and unpredictable. Furthermore, once it has been admitted that a series of first steps in design interventions may need to be periodically re-examined, it must also be admitted that any round of secondary interventions would also eventually need to be subject to the same type of re-evaluations, with the possibility of a third, and after that serial evaluations and interventions, and that the scope of the evaluations would also need to be periodically examined, as a form of meta-evaluation process. As an example, the proposed response above for the humanitarian agencies to the spread of shelter plots, would be an open-ended

series of small-scale physical interventions, punctuated by evaluations to determine the need, timing and type of any further intervention. However, both that type of intervention, and importantly the designed scope of the evaluation method, could be said to be limited within the small-scale, and there is no built-in 'alert' or 'trip-wire' function, to call attention to any point at which the location in question evolves into a place of different, larger (or smaller) scale to the degree whereby the existing set of intervention responses and evaluation scopes become inadequate.

Therefore, an initial tentative conclusion may be made, that it is insufficient to consider the design of a camp in terms of a single action, and that it is also insufficient to consider the design of a camp in terms of there being only a constant cycle of re-evaluation and re-intervention repetitions. The inadequacy of a single-action design has become obvious over the previous five chapters, but the eventual inadequacy of open-ended alternations of interventions and evaluations is more conjectural. (This is in large part because although a large variety of scales of spaces undoubtedly exist in many different camps, the deliberate engendering of such spaces by camp designers has not been considered, and therefore such types of spaces have eluded any records until now.) Nevertheless, if an assumption is made that different scales of space need different sorts of implementation, then the knowledge of the lack of stasis in either camp populations numbers or livelihoods strategies would lead to the conclusion that the eventual inadequacy of any undifferentiated and non-reflexive intervention process must be the case.

Assimilation of design elements

As a result, a second level of more generalised measures may be proposed, which move beyond the specific set of tools proposed for Ifo, and which concern the way any such sets should be assembled *as a process* in other camps around the world:

1. For any one refugee camp situation, sets of implementation tools should be developed, based upon localised ecologies and built-structure morphologies. Such tools may consist of, but not necessarily be limited to, built infrastructure, built structures both residential and non-residential, and environmental features. These tools should have as their goal assistance in the definition of the usages of networks of an open set of spaces of differing scales as the operations of the camp.

2. The deployment of such tools as a whole, should be intended as being process-based, with potential for continued repetition, as a periodic cycle of assessment and re-adaptation of such interventions, in negotiation with the refugee communities, and in engagement with the evolution of the built environment and its uses, in and surrounding the camp.

3. Certain groupings of such tools may themselves be referred to in appropriate instances as sub-systems, which themselves can then form the tool elements for the evolution of larger-scale entities within a camp. Likewise, the deployment of these sub-systems should be intended as being process-based, with cycles of intervention in dialectic with the performance of the evolving camp environment.

4. A periodic reflexive assessment is necessary concerning the ongoing assessment process itself, whereby the scale and performance of any one element or set of elements within the built environment are contrasted with the ongoing response tools to determine the degree of appropriateness of such linkages in terms of scales of response. Such reflexive assessments, and the possibly resulting changes in scale of design intervention, are facilitated by the fact that the tools of intervention may occupy simultaneous places in a sub-system of an intermediary or larger scale, and individually or in smaller groupings, in places of a smaller scale

5. A definition of what would constitute the benchmarks or tripwires, or the periodicity to occasion reflexive evaluation and changes of response implementations to different scales, is impossible to determine on a global level. However, in each case the guidelines for such reflexive assessments must be closely supportive of small sets of possible scenarios for the future of the refugee camp, its residents, host community members and other stakeholders, and where possible with proactive linkages with the long-term development solutions posited through those scenarios, as design planning through reacting to scenarios would appear to be the only way to validly widen the complexity and nuance of response.

By developing the generalised tool in this way, a number of major challenges in the design of refugee camps may be finally overcome:

1. The tool deals with issues of discrete and seemingly isolated scales and elements by being concerned also with ways in which certain parts of a camp can change from being of one scale to another

2. The tool as a process includes ongoing and active involvement in the planned demise or closure of the camp, a fact which provides one of the main clear differences between a design tool for a refugee camp and one for an intended permanent settlement, in that at inception no permanent settlement contains the design for its own end.

3. The tool can be described as being widely applicable across a variety of refugee situations, without being inappropriate – through substitution of standards of *involvement* for standards of *construction*.

4. The tool provides an appropriate methodology for dealing with the speed and unpredictability of the evolution of spaces and their functions in and around the camp.

5. The tool permits adaptation as process to often moving target of long-term development goals.

In summary, the definition of refugee camp design tool becomes: one which successfully engages with the need to anticipate the camp's unpredictable end, and one which accepts the speed of change and plasticity of the tissue of the built environment in a camp as a challenge

but also as opportunity, necessitating a design as a process of potentially unlimited but essentially short-cycle re-evaluations and adaptive interventions, and a reflexive method of reviewing the implementation and scale of such interventions against benchmarks provided by scenario predictions of long-term development.

* * * *

Conclusion

This thesis has investigated the design of refugee camps through an adapted application of a framework of an analysis of the Morphology, Operations and Performance of the design. The thesis began by investigating some of the critical terms, and developing definitions which would aid in the research. This was followed by an overview of the institutional constraints on the design of refugee camps, in terms of the various networks of laws which determine the nature of the existence of camps. An examination was then undertaken of the development of the design of refugee camps as the state-of-the-art. An argument was made that there has essentially only been one design for refugee camps, although in many variants. A case study then examined how that design was implemented in the case of Ifo camp in Kenya. The degree to which Ifo conformed with the global design type was examined, and then the set of stresses in the performance of the camp were enumerated. A range of future scenarios for Ifo was created, based upon the case study. From this range of scenarios a set of design tools was developed for Ifo. The principles contained within the design tool for Ifo were then adapted, in order to create a design tool which could be applied to a wider range of camps.

The main conclusions from the research were as follows:

- The design of refugee camps operates under a number of major constraints. The combination of institutional and other constraints means that the design of the camp must always work under the assumption that the camp will eventually be closed down, whilst also having to work under the assumption that the lifespan of the camp is unpredictable, but that a longer lifespan is more probable than a shorter one.

- The current state of the art in refugee camp design takes insufficient consideration of the way in which refugees use the camp (the camp's operations), and the way in which the camp actually performs. In particular, there is insufficient awareness of how these might develop over the lifespan of the camp, or affect stakeholders in the camp, even after the camp has been closed down.

- Because the performance of a refugee camp is so dependent upon its specific context (in terms of the environment, the cultural background of the refugees, the political causes of the forced displacement, etc) no universal set of numeric or graphic guidelines for the camp's morphology would be adequate for application across a wide range of camps.

- Given the capacity for the morphology of a camp to be radically and unpredictably changed by refugees and other actors on the ground, a single instance of design intervention is inadequate. Therefore, the design tool must be described as a process, with cycles of assessment and intervention, using a palette of localised tools, in response to the previous adaptations of the morphology, and developments in operations and performance of the camp.

- The cycle of interventions needed to be assessed themselves, in order to determine whether the type of interventions were still appropriate as any one location in the

camp changed in operations, or in scale of location. In this case, the design tool was completed by an assessment cycle of the assessment-intervention cycle.

* * * *

Because the design tool is one where the palette of localised is being reassessed for appropriateness, and the direction of the intervention is being revisited on a constant basis, the design tool as *process* can be said to have a wider application across a range of camps, than any previous set of guidelines, where the emphasis was instead upon the morphological dimensions of one initial intervention. Because the design tool contains an assessment of the assessment-intervention cycle, it means that the cycle should not become of a constant scale, or self-perpetuating. Therefore, the design tool also has potential for application in those cases when the camp population is being reduced, or the camp is being closed down.

The primary limit of the tool is that there can never be a full creation of the palette of tools for intervention prior to the creation of the camp. A database of reports from previous camps could aid the assembly of elements to create such a palette, but the composition, and the way that composition is amended, will be different for every camp. Therefore, in comparison with the current state of the art, a greater degree of responsibility of given to the camp designer in the field, to make choices about the actual tools for intervention. Having said that, the design tool includes in its cycle of assessment and re-intervention, the necessary steps for correcting any previous interventions. To a large degree it is this potential for correction which becomes more important than the morphology of the first design.

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Whilst the thesis has delineated its research as concerning only camps for those who fit the definition of refugee under current international law (i.e. those who have crossed an international border as a result of forced migration), the design also has the potential for adaptation to cases of other planned settlements for those who have been forcibly displaced through conflict or natural disaster.

As a first example, there is the potential to use the tool in the design of camps for those who are IDPs, i.e. those who have been forcibly displaced within their own country of origin as a result of conflict or threat of violence. In this instance, the tool would have the potential to take into consideration any changes in land rights, or any decisions to turn the non-permanent ‘camp’ into a permanent re-settlement location.

As a second example, the tool might also be adaptable for use for camps for those who have been displaced by natural disaster. Although best practice clearly stipulates that those who have been affected by natural disaster should be assisted to remain on their customary land wherever possible, it is sometimes not possible to do so, if there is a continued threat (e.g. in the case of flooding or volcanoes) or if the customary land is no longer habitable (e.g. in the case of landslides). In most of these cases, the settlements for those who have been displaced are smaller in population number, and so the tool would have to be adapted to take into account a population which might be more dispersed, and where the morphology of the

settlement would not necessarily need to include all of the non-residential facilities which form part of the definition of ‘camp’ given in Chapter 2 of this thesis.

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With regards to further research, this thesis offers indications for a number of directions of investigation. First and foremost would be research which would examine the use of the design tool in a real instance. There are also a number of questions for which research might provide some answers, in terms of the practical duration of the cycle of assessment and intervention, or in terms of methods for ensuring the involvement of the refugees in such processes. Secondly, there is a need to use adapted versions of this research as a starting point in order to create a more rigorous method of mapping the operations of any one camp, in terms of the number, location and type of security incidents within a camp, or the location and type of any informal economic enterprises. Thirdly, if through the use of this design tool, or through any other means, a genuinely alternative model for the morphology of a refugee camp is ever constructed on the ground, then further research could be opened into the comparative performance of either of the two camps, and a possible method for taking into account the variables in the two cases.

The research as it stands in this thesis provides an overview of refugee camp design as the state of the art, an analysis of its constraints, and a demonstration of a design tool which could be adapted to a wide range of camps in order to improve the performance of the camp on the social level. The research was undertaken with an acknowledgement of the importance of the long-term development of a camp, whilst also aware of the central problem of the design of refugee camps, which is that all camps are assumed to be non-permanent, but with the potential for an infinite range of impermanent lifespans.

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Annex: Refugee Camps Catalogue Raisonée

Overview of the methodology for the Catalogue Raisonée

This *catalogue* is based upon a list provided by UNHCR, which at the time of writing represents the most comprehensive list available. The hurdles for creating a credible *catalogue raisonée* of refugee camps are not inconsiderable. On the one hand, there remains the question of what exactly is a refugee camp. At the same time there is the task of resolving what might be meaningful ways to categorise the camps, once a selection has been made. Both of these present moving targets, as both the numbers and the definitions are being updated by UNHCR, in light of its changing mandate.

The definition of 'refugee' as accepted by the international community and the humanitarian agencies, derives from the 1951 Charter for the UNHCR, and its 1967 Protocol, which reads as follows:

> [People who] owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, are outside the country of their nationality, and are unable to or, owing to such fear, are unwilling to avail themselves of the protection of that country… (UNHCR 1951)

According to this definition, those who have been displaced but who have not crossed any borders (now referred to as 'Internally Displaced Persons' or IDPs), are not included. Neither are those who are displaced through large scale natural disaster, or the increasingly recognised 'complex emergency' where the causes of the displacement may be a combination of environmental, economic, and rights-related threats. Since the 1990s, there has also been an increasing number of those who remain in the category of 'asylum seekers' rather than 'refugees' because the well-foundedness of their fear of persecution has not yet been decided upon by the authorities of their new host country.

Those who fall into these latter categories are recognised in part by the Organisation for African Unity's 1970 *Convention*, and UNHCR has adapted its mandate since the 1960s, to include programmes within national borders, or in response to natural disasters, but this has been selective rather than comprehensive: UNHCR's *State Of The World's Refugees* reports prior to 2006 refer therefore, to a global total of 19 million refugees, out of a grand total of 35 million 'persons of concern'. Since 2005, with reforms of the UN's office of the Humanitarian Co-ordinator, UNHCR's mandate has broadened, by being assigned as the lead UN agency for emergency shelter and camp management, regardless of geographic location. However, these recent changes have not yet resulted in a comprehensively updated list of locations to reflect these newly included numbers. Therefore, the catalogue as presented here, will make reference only to those people and locations as listed by UNHCR as of June 2006, prior to the widening of its mandate.

Even after accepting some conventional definition for the term to describe the affected population however, the definition of 'camp' remains to be addressed. The list of locations available from UNHCR refers to *refugee locations* which can include 'camps', 'urban

locations', 'refugee centres', 'refugee accommodation', 'asylum seeker centre', 'IDP centre', and 'refugee settlement', depending upon often politically charged definitions negotiated with the various host countries.

In the case of the UNHCR June 2006 list of refugee locations, the ambiguity of definition, exacerbated in some cases by ambiguities in geographical boundaries, is evident. There are 'refugee locations', for instance in the Democratic Republic of Congo, where the refugees are scattered across a certain area, possibly in a mix of rural self-settlement, small self-settled camps and host families, but where agglomeration is sufficient for UNHCR to refer to them collectively as one unit for administration and monitoring. The same is true in certain parts of east Africa (Uganda, Kenya and Tanzania), where for administrative and reporting purposes, there may be one refugee population area referred to as a single 'camp' but where on the ground, the single camp actually comprises two or more smaller groupings, with distinct geographical boundaries between each one. Questions might also arise over some of the 'refugee settlements' in east Africa, and whether this change in name from 'refugee camp' was caused by changes in land-tenure rights, the assignment to each family of a sustainable amount of arable land, or merely because of the longevity of the location, or any other reason.

Therefore, for the purposes of this *catalogue*, the term 'camp' will be used, to refer to the selection which is extracted from the entire UNHCR list, of all those refugee locations which have at least some planned elements, but where the planned element of the settlement is not predicated upon being dispersed. The location category where the most ambiguity is likely, is that of 'refugee settlement', some of which locations will be included in the list, and some not (see those categories with asterisks next to them in the list below). This is largely dependent upon whether the 'settlement' is a planned but dispersed rural area (e.g. certain locations in Tanzania), or whether it is termed a 'settlement' largely in reference to its longevity, and the fact that a large proportion of the buildings are now made from permanent materials (e.g. certain locations in Uganda). In any case, the locations in this category are judged on a case-by-case basis.

Categories of 'refugee locations' from the UNHCR list which are included in the *catalogue*	**Categories of 'refugee locations' from the UNHCR list which are not included in the *catalogue***
Refugee Camp	Refugee Urban Location
IDP Camp	Returnee Centre
Asylum Seeker Settlement	Refugee Centre
Refugee Settlement*	IDP Centre
IDP Settlement*	Asylum Seeker Centre
	Refugee Location
	Refugee Accommodation
	IDP Accommodation
	Refugee Settlement*
	IDP Settlement*

This then leaves the *catalogue* with a revised total of 657 locations of interest, out of a complete set of 1106 locations in the UNHCR list.

However, although the UNHCR list is the largest available, it should be noted that this list is far from complete, and refers only to those locations where there are known groupings of people who fall into UNHCR's categories of concern. Therefore, for whatever reason, the list does not include for instance, the large groupings of Tibetan refugees currently in India. Nor does it make reference to the large number of Afghani refugees who might have originally started off in refugee camps closer to the Afghanistan border in Iran, but who have now self-resettled in Tehran or other of the larger cities. In some cases the list may only include those locations which a host government is ready to admit has refugees. The list also does not include the vast majority of the world's locations of IDPs. As the list is both incomplete and stops at the first half of 2006, there may also be more recently constructed camps (for instance, in Niger, Chad or Uganda), which do not feature on the list. Lastly, it does not include any of the camps for Palestinian refugees, the longest-lasting camps of all, because those camps are administered by a separate UN agency, UNRWA.

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As will be pointed again out below, the list as it stands, is more of a snapshot of current locations, than a *catalogue raisonée* over time. The list is good enough to give the opening dates for about one third of the locations, but it doesn't make reference to the many locations which have come into existence, and then closed or have been decommissioned prior to 2006. A full list of all the locations which have ever existed since 1951, or even since the early 1970s, would be a massive and unwieldy thing: it is estimated that during one conflict alone – the Bangladesh war of independence in 1971, there were approximately 825 camps for Bengali refugees in India, all of which have since disappeared.

But once an initial list is created for the *catalogue*, the criteria for how to sort such a list remain to be discussed. The information given in the UNHCR list is limited – often through no fault of the UNHCR staff, but due to the difficulties in obtaining data in the field. Therefore, what will follow, will be a framework for organising the data available from the UNHCR list, and then another, more theoretical framework, which would describe all the types of data which would be significant for a full and complete *catalogue* to be produced.

The UNHCR list, once it is sorted alphabetically by country, allows the reader to sort the information according to location (both national boundary, and GPS), and in some cases, the date of establishment of the camp. This can give some indication of the range of lifespans of the camps currently open, but is not complete enough to produce a timeline which would demonstrate the peaks and troughs of camp construction over the last 30 years. For some countries, the data for establishment of the camps is more complete than in others, and in these cases, some indication of the extent to which a refugee crisis is chronic, endemic or long-lasting, can be given, although caution must be used, because as stated above, the camps which are in existence and on the list today, may not be the totality of the camps which have come and gone in response to any particular crisis, or cycle of crises. In some but not all cases, the national or ethnic origin of the refugees in a camp can be confidently guessed, but

not in other cases. Likewise, some of the gaps for the establishment dates of the camps can be filled in from a general knowledge of history, although these additions would be much more approximate, and much less confident, as many may have been built as extensions, or in order to take care of secondary influxes of refugees, many months or years after an initial conflict commenced.

From the partial list of location establishment dates, some sets of very tentative analysis can be drawn out. Firstly, amongst those planned settlements where the establishment date is known, the average longevity of a camp, is 12.9 years. However, as two thirds of the planned settlements do not have those dates available, this average could be entirely misleading of the list as a whole. Nevertheless, in terms of justifying the choice of Ifo as a subject for the case study for this thesis, this incomplete list is sufficient to demonstrate that the longevity of Ifo's existence is not abnormal in terms of camps across the globe.

The second, even more tentative analysis, would be to look at those points where there are larger close groupings of camp establishments, as being possible artifacts of previous large-scale refugee crises, although for the reasons cited above, any such correlations should initially be seen as being coincidental, rather than something from which conclusions could be drawn. It may be noted that the most acute rise in planned settlement numbers, occurs between 13 and 9 years ago, that is, during the periods of the wars in the Great Lakes area of Africa, and an examination of the table of planned settlements does indeed confirm that the vast majority of the planned settlements still in existence which were established at that time, are in Uganda, where there have been large-scale refugee influxes, for many of whom a durable solution is still remote. However, this may be exceptional rather than the norm.

Thirdly, it is possible to work with other data lists, specifically the annual reports on the state of the world's refugees released annually by UNHCR, in order to provide population estimates for some of the camps, and then range the camps accordingly. However, this information is also only available for a minority of the camps on the list. Furthermore, from the population data it would appear that some of the 'camps' on the UNHCR list are not large enough to justify their own non-residential facilities, and therefore would not fit the definition of 'camp' provided by this thesis in Chapter 2. Therefore, the judging of the typicality of Ifo as a camp using this criterion must also be treated with some caution, although this list does prove that Ifo is not an extreme case in population size, and under that criterion at least should not be disqualified as the subject of a case study.

The UNHCR data also provides a list of GPS co-ordinates for each camp, which leads to one further potential source of data on camps in the form of satellite photographs of the camps taken from GoogleEarth. In theory, this additional information would allow greater clarity on the question of which percentage of the currently extant refugee camps actually follow the global design type described in the humanitarian organisations' guidelines. However, in determining this, there are a number of constraints. Firstly, GoogleEarth does not provide images of sufficiently high resolution for all part of the globe, and rural areas in Africa, where many of the world's refugee camps are located, would seem to be some of the areas least well served with higher resolution images. Secondly, the difference in dates between the list released by UNHCR (2006) and the search on GoogleEarth (2008) has meant that some

of the camps have been closed down, and evidence of their existence on the satellite images is minimal or gone. Thirdly, there would appear to be a number of instances where the GPS units supplied are inaccurate, and where a search of the area has not provided any evidence of the camp in question. This is particularly the case for camps in countries like Iran, where the GPS unit given for the camp turned out to be merely for the centre point of the nearest major city.

Nevertheless, images are available for 62 camps (including Ifo and the other camps at Dadaab), from 19 countries in Asia, Africa and the Middle East, which are of sufficiently high resolution to indicate the type of camp design. These have been separated into three categories: those which conform to a large extent to the global design; those which conform to the 'military-style' design; and those which have some other type of design. If a camp is included in the first category, it is done because the overall camp design shows evidence of having the same hierarchy of elements as described in Chapter 4 of this thesis, with the residential areas made up of community cluster modules. This is the case even if the layout of the modules themselves differ from each other, or if the intentions of having small 'village' communities having some sort of communal or shared activities within the clusters has been stymied by the refugees building walls or other barriers around their individual shelter plots. Camps have been included in the 'military-style' category if the shelters are generally laid out in undifferentiated lines, even if, as in some modern camps, the lines are broken up at more or less regular intervals by lateral firebreaks. The third category of camps does not seem to contain any other predominant alternative to the first two categories. Rather, the camps which fall into this third category are a mixed group. The majority are those which have been 'self-settled' by the refugees, without any layout imposed from above, and which are often densely populated, but without any discernible patterns emerging from the layout of the shelters. There are others which fall into this third category because they are divided into sections where one section followed the global design, one section follows the military-style design, and one section is a self-settled and 'undesigned' area. There are a few where the location of the camp on a steep slope may have been the rationale for the different design. However, none of those other designs can make a case for not seeing the global design type as the predominant design type for refugee camps, nor for making a case that Ifo is not one of the majority of documented camps which is included in this type.

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Beyond the information, or partial amounts of information which can be extracted from this list, there lies a wish list of other basic data which would fill a second, ideal catalogue. The primary need, would be for more information on the population inside the camps. This data would ideally also be disaggregated by age groups and gender. Then, there should be a tally of population for each location, on a yearly basis. This would already allow a comparison between the absolute number of refugees in planned settlements, and the numbers of planned settlements themselves, to find out whether certain sharp increases in the number of planned settlements was due to large new influxes of refugees, or rather that refugee agencies had commenced a policy (which UNHCR has claimed to do at least since the early 2000s), of constructing numbers of smaller, scattered planned settlements, rather than single large planned settlements.

The collection of this amount of data would already prove somewhat problematic, though. On a practical level, not all camps have been able to achieve full registration of its inhabitants, or a full and up-to-date census. The collection of such data is particularly hard at times of rapid influx of high numbers of refugees, or when the camp itself has had some sort of emergency, or has come under attack. In some areas (e.g. northern Uganda), the security situation is such that international staff, or the staff of international agencies can not enter those areas, and so any data collection must be done by the staff of local implementing partners, who may have less capacity. In the case of this *catalogue* population data has been added where possible, from other UNHCR documents, but this information is not complete enough to support any further analysis.

The second most important set of data in an ideal *catalogue*, would be the geographic dimensions of the camp, both in linear metres along its perimeter, as well as in terms of square metres, for its area, as this is not always easily calculable from the GoogleEarth images alone. As is discussed at greater length elsewhere in this thesis, the greatest concern for all those writing on camps since the mid-1970s, has been the constraints of space: lack of space is attributed as being a primary cause of public health risks, fire hazards, sanitation issues, and social unrest. Although there is a strong argument for saying that a more complex calculus should be used, the UN and the humanitarian organisations have since the early 1980s, employed a short-hand rule of thumb which is square-metres-per-person (for indoor shelter, shelter plot, or, since 1986 at least, as an average across an entire camp), or else linear-metres distance between any person and a specific facility (ranging from the distance to a water-source, to the distance to a school or health clinic). In order to make any judgment upon whether the existing standards were adequate, an ideal *catalogue* would also include a scale, containing every camp, showing where each of them stood in terms of square-metres-per-person, and all of the other major spatial indicators. Added to this would be the other major indicators taken from Sphere or other existing guidelines, such as the distance of the camp from the source of conflict, or the amount of water in litres, accessible per person per day.

Once the camps had been set out along a graph for each of these quantitative indicators (or even a graph of graphs, which would show how many of the indicators were achieved in each camp), then a series of more ‘qualitative’ or social indicators could be added, by which the camps could be categorised. As space constraints are assumed as being one of the main causes of a variety of ills, data on rates of infection for various diseases, or numbers of reported crimes or incidents of violence, for example, could also be correlated against the ratio of square-metres-per-person. However, once again, the ability to collect this information on a global basis is problematic. Within the UNHCR itself, different offices or departments are responsible for overseeing different aspects of life in the camps, and so the department which is in charge of mapping the camps, and collecting the geographic data (including, where possible, the raw population numbers), is not the same as the department which monitors security or protection issues, and which would have the data concerning security incidents within camps. In any case, even if there was a centralised collection point for all data, there are indications that release of data concerning security issues might be treated with a greater degree of caution than release of data about other aspects of camp existence.

Beyond these very broad-stroke indicators for the well-being of a camp population, a small number of other qualitative indicators might be added, which would require accurate maps for each camp, or else good analysis of satellite images of each camp, but which would produce numbers which could be tallied, and which could be used to create another form of scale, along which each and every camp could be usefully placed. The first of these might be some ratio of areas with vegetation (cultivated or bush), versus cleared areas. The second, would be the ratio of public versus private space, preferably with the private space sub-divided into different categories, from small pathway, to major plaza. However, this categorisation would be the most problematic, or at least any derivation of normative observations would be problematic, as different communities would differ widely upon the values which they put on private or public space, and the clarity of the definition between the two, and any attempt to judge a camp as having greater or lesser success simply on the basis of this ratio, would run the severe risk of misjudging local norms by universal standards.

A catalogue raisonée by numbers

Table 1: Refugee camps according to longevity

Country Name	Location Name	Establishment Date	Longevity (in years)
Botswana	Dukwi	1-Jan-70	37
Islamic Republic of Iran	Jahrom	1-Jan-72	35
Sudan	Awad El Seid	1-Jan-72	35
Sudan	Fath El Rahman	1-Jan-72	35
Islamic Republic of Iran	Azna	1-Jan-75	32
Algeria	Awserd	1-Jan-76	31
Algeria	Dakhla	1-Jan-76	31
Algeria	El Aiun	1-Jan-76	31
Algeria	Smara	1-Jan-76	31
Islamic Republic of Iran	Ziveh	1-Jan-77	30
Sudan	kilo 7	1-Jan-77	30
Sudan	Kasha El Girba	1-Jan-79	28
Sudan	Kilo 26	1-Jan-79	28
Iraq	Al Tash	1-Jan-80	27
Islamic Republic of Iran	Sarvestan	1-Jan-80	27
Sudan	Wad Sharife	1-Jan-82	25
Islamic Republic of Iran	Bardsir	1-Jan-83	24
Swaziland	Malindza	1-Jan-83	24
Islamic Republic of Iran	Rafsanjan	1-Jan-84	23
Islamic Republic of Iran	Soltanieh	1-Jan-84	23
Sudan	Um Gargour	1-Jan-84	23
Thailand	Mae La	1-Apr-84	22.7
Sudan	Fau 5	1-Jan-85	22
Sudan	Shagarab-I	1-Jan-85	22
Sudan	Shagarab-II	1-Jan-85	22
Sudan	Shagarab-III	1-Jan-85	22
Uganda	Magburu I	1-Apr-87	19.7

Ethiopia	Kebribeyah	1-Jan-88	19
Islamic Republic of Iran	Bazileh	1-Jan-88	19
Islamic Republic of Iran	Dilzeh	1-Jan-88	19
Islamic Republic of Iran	Dizli	1-Jan-88	19
Islamic Republic of Iran	Kangavar	1-Jan-88	19
Islamic Republic of Iran	Sara	1-Jan-88	19
Islamic Republic of Iran	Saveh	1-Jan-88	19
Islamic Republic of Iran	Songhor	1-Jan-88	19
Islamic Republic of Iran	Varmahang	1-Jan-88	19
Islamic Republic of Iran	Niatak	1-Jan-89	18
Uganda	Agojo	1-Aug-89	17.5
Uganda	Robidire	1-Oct-89	17.3
Uganda	Keyo I	1-Nov-89	17.2
Uganda	Alere I	1-Dec-89	17.1
Central African Republic	Mboki	1-Jan-90	17
Islamic Republic of Iran	Semnan	1-Jan-90	17
Islamic Republic of Iran	Dalaki	1-Jan-90	17
Uganda	Keyo II	1-Apr-90	16.7
Uganda	Keyo III	1-May-90	16.6
Uganda	Nyeu	1-Jul-90	16.5
Djibouti	Ali-Addeh	1-Aug-90	16.4
Djibouti	Hol-Hol	1-Aug-90	16.4
Ghana	Bududuram	1-Aug-90	16.4
Uganda	Alere II	1-Oct-90	16.3
Nigeria	Oru	1-Nov-90	16.3
Afghanistan	Hadda	1-Jan-91	16
Islamic Republic of Iran	Ansar	1-Jan-91	16
Islamic Republic of Iran	Baninajjar	1-Jan-91	16
Islamic Republic of Iran	Sefid Chogha	1-Jan-91	16
Syrian Arab Republic	El Hol	1-Jan-91	16
Saudi Arabia	Rafha	1-Apr-91	15.6
Uganda	Oliji	1-Apr-91	15.6
Nepal	Timai	1-Nov-91	15.2
Papua New Guinea	East Awin	1-Nov-91	15.2
Ethiopia	Bonga	1-Jan-92	15
Ethiopia	Dimma	1-Jan-92	15
Kenya	Dagahaley	1-Jan-92	15
Kenya	Hagadera	1-Jan-92	15
Kenya	Ifo	1-Jan-92	15
Kenya	Kakuma camp	1-Jan-92	15
Liberia	VOA	1-Jan-92	15
Namibia	Osire	1-Jan-92	15
Thailand	Ban Mae Surin	1-Jan-92	15
Uganda	Elema	1-Jan-92	15
United Republic of Tanzania	Tanga (Chogo)	1-Jan-92	15
Uganda	Baratuku	1-Feb-92	14.9
Uganda	Ibibiaworo	1-Mar-92	14.7
Bangladesh	Kutupalong	20-Mar-92	14.7

Bangladesh	Nayapara	14-Apr-92	14.6
Nepal	Beldangi I	1-May-92	14.6
Nepal	Sanischare	1-May-92	14.6
Nepal	Goldhap	1-Jun-92	14.5
Nepal	Beldangi II	1-Jul-92	14.5
Nepal	Beldangi II ext.	1-Nov-92	14.2
Ethiopia	Fugnido	1-Jan-93	14
Nepal	Khudunabari	1-Mar-93	13.8
Uganda	Nyumanzi I	1-Apr-93	13.7
Niger	Goure	1-Dec-93	13.1
United Republic of Tanzania	Lukole A	1-Dec-93	13.1
Eritrea	Haz haz	1-Jan-94	13
Liberia	Samukai	1-Jan-94	13
Liberia	Zuannah	1-Jan-94	13
United Republic of Tanzania	Mtabila II	1-Feb-94	12.9
United Republic of Tanzania	Mtabila I	1-Feb-94	12.9
United Republic of Tanzania	Kanembwa	1-Mar-94	12.8
Uganda	Ukusujoni	1-Apr-94	12.7
Uganda	Umwia	1-Apr-94	12.7
Uganda	Ocea	1-May-94	12.6
United Republic of Tanzania	Mkugwa	1-May-94	12.6
Uganda	Olujobo I	1-Jun-94	12.5
United Republic of Tanzania	Lukole B	1-Jun-94	12.5
Uganda	Arra	1-Jul-94	12.5
Uganda	Obilikongo	1-Jul-94	12.5
Uganda	Odobu I	1-Aug-94	12.4
Uganda	Odobu II	1-Aug-94	12.4
Uganda	Matangacia I	1-Sep-94	12.3
Uganda	Ariwa I	1-Sep-94	12.3
Uganda	Nyumanzi II	1-Oct-94	12.3
Uganda	Simbili I	1-Nov-94	12.2
Uganda	Siripi	1-Nov-94	12.2
Uganda	Ariwa II	1-Nov-94	12.2
Uganda	Ngurua	1-Dec-94	12.1
Malawi	Dzaleka	21-Dec-94	12
Uganda	Olujobo II	1-Jan-95	12
Uganda	Kolididi	1-Feb-95	11.9
Uganda	Eden I	1-Mar-95	11.8
Uganda	Eden II	1-Mar-95	11.8
Uganda	Eden III	1-Mar-95	11.8
Uganda	Tika I	1-Mar-95	11.8
Uganda	Tika II	1-Mar-95	11.8
Uganda	Eden IV	1-Mar-95	11.8
Thailand	Mae Ra Ma Luang	23-Mar-95	11.7
Uganda	Matangacia II	1-Apr-95	11.7
Uganda	Tika III	1-Apr-95	11.7
Uganda	Tika IV	1-Apr-95	11.7

Uganda	Tika V	1-Apr-95	11.7
Uganda	Tika VI	1-Apr-95	11.7
Uganda	Wanyange I	1-May-95	11.6
Uganda	Wanyange II	1-May-95	11.6
Uganda	Matangacia III	1-Jun-95	11.5
Uganda	Ariwa III	1-Jul-95	11.5
Uganda	Ariwa IV	1-Aug-95	11.4
Uganda	Ariwa V	1-Aug-95	11.4
Uganda	Mungola Opi	1-Dec-95	11.1
Afghanistan	Herat Minaret I&II	1-Jan-96	11
Afghanistan	Maslakh	1-Jan-96	11
Afghanistan	Rawashan	1-Jan-96	11
Afghanistan	Rawza	1-Jan-96	11
Afghanistan	Shaidai I	1-Jan-96	11
Liberia	Banjor	1-Jan-96	11
Pakistan	Kotchandna	1-Jan-96	11
Thailand	Ban Mae Nai Soi	1-Jan-96	11
Thailand	Mae La Oon	1-Jan-96	11
Uganda	Kiriadaku	1-Jan-96	11
Uganda	Mariaba	1-Jan-96	11
Uganda	Mungola Esia	1-Mar-96	10.7
United Republic of Tanzania	Mtendeli	1-Jul-96	10.5
Uganda	Mungola Aliwara	1-Aug-96	10.4
Uganda	Simbili II	1-Aug-96	10.4
Uganda	Mungola Adidi	1-Sep-96	10.3
United Republic of Tanzania	Muyovosi	1-Sep-96	10.3
United Republic of Tanzania	Nyarugusu	1-Oct-96	10.3
Rwanda	Kiziba	1-Nov-96	10.2
United Republic of Tanzania	Nduta	1-Dec-96	10.1
United Republic of Tanzania	Lugufu I	1-Jan-97	10
United Republic of Tanzania	Mwisa	1-Jan-97	10
Uganda	Maaji I	1-Feb-97	9.9
Ghana	Krisan	1-Mar-97	9.7
Thailand	Nu Po	21-Mar-97	9.7
Thailand	Ban Don Yang	1-May-97	9.6
Thailand	Tham Hin	1-May-97	9.6
Uganda	Kaligo I	1-Jul-97	9.5
Uganda	Kaligo II	1-Jul-97	9.5
Uganda	Walope	1-Jul-97	9.5
Uganda	Ossa I	1-Jul-97	9.5
Uganda	Dubajo	1-Jul-97	9.5
Uganda	Yelulu	1-Jul-97	9.5
Uganda	Maaji II	1-Jul-97	9.5
Uganda	Maaji III	1-Jul-97	9.5
Uganda	Aligoi	1-Aug-97	9.4
Uganda	Maaji IV	1-Aug-97	9.4

Uganda	Maaji V	1-Oct-97	9.3
Uganda	Magburu II	1-Nov-97	9.2
Rwanda	Gihembe	31-Dec-97	9
Islamic Republic of Iran	Torba-e-Jam	1-Jan-98	9
Zimbabwe	Tongogara	1-Jan-98	9
Uganda	Olua A	1-Feb-98	8.9
Iraq	Makhmour	28-May-98	8.7
Rwanda	Kigeme	1-Aug-98	8.4
Guinea	Kouankan	1-Jan-99	8
Thailand	Umpium	1-Jan-99	8
Uganda	Ajeri	1-Jan-99	8
Uganda	Olua B	1-Mar-99	7.8
Uganda	Agulupi	1-Apr-99	7.7
Uganda	Ossa II	1-Apr-99	7.7
Uganda	Kaligo III	1-Jul-99	7.5
Yemen	Al Kharaz	18-Nov-99	7.2
United Republic of Tanzania	Lugufu II	1-Jan-00	7
Zambia	Nangweshi	1-Jan-00	7
Central African Republic	Molangue	1-Feb-00	6.8
Uganda	Katiku	1-Apr-00	6.7
Zambia	Mwange	12-Apr-00	6.7
Democratic Republic of the Congo	Nkondo	13-Jun-00	6.5
Angola	Viana	1-Aug-00	6.4
Namibia	Kasava	1-Aug-00	6.4
Zambia	Kala	19-Aug-00	6.4
Eritrea	Emkulu	22-Nov-00	6.1
Guinea	Kountaya	30-Jan-01	5.9
Guinea	Boreah	1-Mar-01	5.7
Guinea	Telikoro	9-May-01	5.6
Guinea	Kola	1-Sep-01	5.3
Mali	Loulouni	10-Jan-02	5
Burundi	Gasorwe / Kinama	27-May-02	4.5
Sierra Leone	Largo	1-Sep-02	4.3
Mozambique	Marratane	1-Nov-02	4.2
Uganda	Kiryandongo	1-Nov-02	4.2
Malawi	Luwani	1-Jun-03	3.5
Iraq	Grey Gewry	1-Jul-03	3.5
Iraq	Daratoo	1-Jul-03	3.5
Iraq	Malaparwan	1-Jul-03	3.5
Iraq	Hussainiya	1-Jul-03	3.5
Iraq	Misirike	1-Jul-03	3.5
Chad	Farchana	17-Jan-04	2.9
Chad	Gaga	17-Jan-04	2.9
Chad	Goz Amer	25-Apr-04	2.7
Chad	Am Nabak *	25-Apr-04	2.7
Chad	Bredjing	2-Jun-04	2.6
Chad	Mile	2-Jun-04	2.6

Chad	Iridimi	2-Jun-04	2.6
Chad	Djabal	2-Jun-04	2.6
Chad	Touloum	2-Jun-04	2.6
Chad	Oure Cassoni	15-Jul-04	2.6
Burundi	Gihinga	1-Sep-04	2.3
Iraq	Balqus	1-Jan-05	2
Iraq	Muqible	1-Jan-05	2
Iraq	Girdarashah	1-Jan-05	2
Iraq	Harir	1-Jan-05	2
Iraq	Jazhnikan	1-Jan-05	2
Benin	Come	1-Jun-05	1.5
Sudan	Um Shalaya	1-May-06	0.6

Table 2. Refugee camps according to population size

Geo_Name	LOCATION NAME	Population 2003	Population 2004	Population 2005
Kenya	Kakuma camp	89,378	86,217	94,677
United Republic of Tanzania	Nyarugusu	58,454	59,483	59,303
Kenya	Ifo	51,010	52,188	48,455
Kenya	Hagadera	50,469	51,928	46,304
Ghana	Buduburam	41,853	41,813	39,292
Thailand	Mae La	32,915	34,046	38,143
United Republic of Tanzania	Mtabila II	44,462	40,963	35,564
Kenya	Dagahaley	33,237	34,502	32,628
United Republic of Tanzania	Muyovosi	39,835	36,277	30,575
Chad	Oure Cassoni		23,604	29,610
Chad	Bredjing		29,275	26,769
Ethiopia	Fugnido	31,529	31,976	26,591
United Republic of Tanzania	Mtendeli	41,098	25,911	25,950
Chad	Amboko		13,826	25,389
United Republic of Tanzania	Nduta	42,920	32,244	24,493
Nepal	Beldangi II	22,040	22,242	22,476
Zambia	Mwange	26,044		22,200
Nepal	Sanischare	20,375	20,626	20,911
Chad	Touloum		17,662	20,058
Guinea	Lainé	32,118	26,482	19,607
Central African Republic	Mboki	35,850	19,245	19,203
Ethiopia	Bonga	18,045	18,773	18,502
Zambia	Kala	24,010		18,420
Nepal	Beldangi I	17,868	18,073	18,252
Chad	Goz Amer		19,097	17,701
Thailand	Ban Mae Nai Soi			17,510
Rwanda	Kiziba	15,949	17,733	17,473
Rwanda	Gihembe	17,612	20,004	17,274
Chad	Farchana		19,067	17,249

Chad	Am Nabak		16,183	16,498
Ethiopia	Sherkole	18,290	15,929	16,360
Chad	Yaroungu		15,857	15,857
Thailand	Umpium	15,511	15,895	15,301
United Republic of Tanzania	Mtabila I	17,843	16,494	15,134
Zambia	Nangweshi	26,529		15,116
Chad	Iridimi		16,283	14,974
United Republic of Tanzania	Kanembwa	19,135	15,009	14,770
Uganda	Kyaka II	6,175	8,799	14,598
Guinea	Kouankan	32,322	24,978	14,427
Chad	Djabal		17,227	14,381
Chad	Treguine		13,928	14,001
Chad	Mile		14,982	13,419
Nepal	Khudunabari	12,937	13,100	13,333
Islamic Republic of Iran	Bardsir	12,731	12,749	12,755
Bangladesh	Nayapara	11,606	12,026	12,472
Uganda	Kiryandongo			12,428
Chad	Kounoungo		12,661	11,628
Nepal	Beldangi II ext.	11,255	11,420	11,546
Ethiopia	Shimelba		7,064	10,683
Thailand	Mae La Oon		17,209	10,635
Nepal	Timai	9,945	10,112	10,261
Thailand	Nu Po	8,597	8,796	9,768
Nepal	Goldhap	9,210	9,342	9,469
Thailand	Tham Hin	8,911	8,168	9,401
Benin	Agame			9,248
Thailand	Mae Ra Ma Luang	9,465	9,763	8,828
Ethiopia	Dimma	18,692	19,251	8,623
Bangladesh	Kutupalong	8,041	8,265	8,467
Yemen	Al Kharaz	10,913	10,973	8,226
Guinea	Kountaya	16,459	10,545	7,893
Sierra Leone	Gondama		7,952	7,207
Sierra Leone	Tobanda		7,656	6,997
Burundi	Gasorwe / Kinama	3,153	7,043	6,877
Afghanistan	Maslakh			6,719
Sierra Leone	Largo	6,983	7,056	6,714
Guinea	Kola	6,497	6,563	6,222
Namibia	Osire	13,386	8,497	6,206
Sierra Leone	Jembe	7,362	6,587	6,150
Côte d'Ivoire	Nicla	5,295	7,161	6,065
Chad	Gaga			5,978
Nigeria	Oru	6,115	5,341	5,751
Liberia	VOA	9,165	1,628	5,750
Sierra Leone	Taiama	6,897	5,803	5,617
Malawi	Dzaleka		5,146	5,462
Sierra Leone	Gerihun	6,853	5,780	5,372
Sierra Leone	Jimmi Bagbo	6,043	5,615	4,986
Rwanda	Nyabiheke			4,664

Sierra Leone	Bandajuma	5,193	4,618	4,369
Mozambique	Marratane		4,505	4,239
Ethiopia	Bumbudie / Yarenja	4,316	4,588	3,968
Gabon	Libreville	5,067	5,201	3,937
Sudan	Abuda	2,615	2,828	3,742
Djibouti	Ali-Addeh	12,858	7,259	3,698
Eritrea	Emkulu	3,261	3,523	3,657
Guinea	Telikoro	9,315	6,416	3,480
Thailand	Ban Don Yang	3,626	3,341	3,458
Djibouti	Hol-Hol	9,632	6,214	2,998
Botswana	Dukwi	3,830	3,813	2,995
Islamic Republic of Iran	Semnan	2,900	2,720	2,761
United Republic of Tanzania	Tanga (Chogo)		2,867	2,663
Malawi	Luwani		1,005	2,627
Georgia	Pankisi			2,480
Thailand	Ban Mae Surin	3,005	3,403	2,457
United Republic of Tanzania	Mkugwa		2,015	2,427
Burundi	Gihinga		1,768	2,320
Zimbabwe	Tongogara			2,091
Islamic Republic of Iran	Dalaki	2,157	2,364	2,080
Gabon	Franceville			1,861
Islamic Republic of Iran	Jahrom			1,778
Islamic Republic of Iran	Sarvestan	5,800	2,826	1,748
Gabon	Moanda		2,689	1,697
Gabon	Tchibanga	2,739		1,465
Democratic Republic of the Congo	Kilueka	3,914	1,752	1,464
Guinea	Boreah	7,681	4,910	1,286
Benin	Come			1,141
Central African Republic	Molangue	2,947	1,000	937
Islamic Republic of Iran	Azna	1,359	934	935
Liberia	Samukai	3,364	699	930
Angola	Kamatende			830
Eritrea	Elit	622	714	818
Liberia	Banjor	1,392	368	718
Rwanda	Kigeme	748		698
Gabon	Mouila	579		608
Democratic Republic of the Congo	Nkondo	4,198	804	604
Guinea-Bissau	Jolmete	517	556	556
Democratic Republic of the Congo	Kaka2	1,221	1,220	543
Angola	Kautepwe		470	470
Gabon	Ndendé	660		380
Democratic Republic of the Congo	Kulindji		3,057	374
Angola	Sungi		329	287
Islamic Republic of Iran	Ansar		692	262
Democratic Republic of the Congo	Kpezu			258
Gabon	Koula-Moutou			250
Niger	Niamey	203	246	243
Gabon	Gamba	233	233	223

Democratic Republic of the Congo	Biringi & Ayamba	379	349	188
Gabon	Mounana	253	272	184
Mali	Loulouni	149	150	159
Democratic Republic of the Congo	Kaka1	323	348	154
Democratic Republic of the Congo	Kinsalulu	2,444	2,213	118
Gabon	Lastoursville	158		110
Niger	Goure	138	139	106
Algeria	Awserd	34,404	34,404	
Algeria	Dakhla	40,437	40,437	
Algeria	Smara	41,852	41,852	
Azerbaijan	Beylagan	16,281		
Azerbaijan	Fizuli	50,326	54,348	
Azerbaijan	Imishli		13,338	
Burkina Faso	Ouagadougou		518	
Democratic Republic of the Congo	Kinsafu	2,303	1,333	
Democratic Republic of the Congo	Tshifwameso	1,133	1,828	
Democratic Republic of the Congo	Napassa	1,492	1,220	
Democratic Republic of the Congo	Kimfwakata	2,178	1,947	
Democratic Republic of the Congo	Kimpindi	997	966	
Democratic Republic of the Congo	Biringi	12,750	12,750	
Ethiopia	Kebribeyah	11,629	10,317	
Gabon	Lébamba	139		
Gabon	Mayumba	156	155	
Gabon	Ngwoni		2,184	
Gabon	Rinanzala	254		
Gabon	Dilemba	372		
Gabon	Molengui Binza	409		
Gabon	Koumou Doussala		366	
Gabon	Mabanda	137		
Gabon	Bakumba		177	
Gambia	Bambali	120	102	
Ghana	Krisan	2,023	1,826	
Islamic Republic of Iran	Dilzeh		2,112	
Islamic Republic of Iran	Dizli		410	
Islamic Republic of Iran	Kangavar	1,882	250	
Islamic Republic of Iran	Niatak	5,299	4,878	
Islamic Republic of Iran	Soltanieh	200	241	
Islamic Republic of Iran	Torba-e-Jam	5,438		
Namibia	Kasava	414	276	
Pakistan	Kotkai	12,662		
Pakistan	Mirali	47,840		
Pakistan	Asgharo 1	9,334		
Pakistan	Dara I	15,621		
Pakistan	Roghani	17,411		
Pakistan	Barkilli	4,971		
Pakistan	Dara II	20,952		
Papua New Guinea	East Awin	2,491	2,677	
Saudi Arabia	Rafha	813	440	

Sudan	Awad El Seid		1,037	
Sudan	Fath El Rahman		603	
Sudan	Fau 5	1,278	1,230	
Sudan	Kilo 26	8,765	11,044	
Sudan	kilo 7		650	
Sudan	Um Gargour	7,506	7,716	
Sudan	Wad Sharife	29,693	29,828	

Table 3. Refugee Camps by camp design

Country Name	Location Name	Longitude	Latitude	Global design type	Military' design type	Other design type
Algeria	El Aiun	007*59*45W	027*40*08N	X		
Algeria	Smara	007*50*16W	027*24*28N	X		
Azerbaijan	Guzanli	047*09*20E	040*09*55N		X	
Azerbaijan	Barda TRC	047*07*55E	040*28*35N	X		
Azerbaijan	Barda SRC1	047*09*45E	040*24*39N	X		
Chad	Amboko	016*35*16E	007*56*24N			X
Chad	Kounoungo	021*56*59E	014*27*46N	X		
Chad	Farchana	021*47*43E	013*39*03N	X		
Chad	Goz Amer	021*45*41E	012*00*31N	X		
Chad	Bredjing	021*42*47E	013*29*09N	X		
Chad	Mile	021*55*47E	014*35*42N			X
Chad	Iridimi	022*08*27E	015*08*07N			X
Chad	Djabal	021*20*53E	012*13*44N	X		
Chad	Touloum	022*16*05E	015*00*02N	X		
Chad	Oure Cassoni	023*01*36E	015*43*58N	X		
Chad	Am Nabak *	022*20*22E	014*48*39N	X		
Chad	Gaga	021*26*49E	013*45*49N	X		
Djibouti	Hol-Hol	042*55*00E	011*18*00N			X
Ethiopia	Bonga	034*51*08E	008*11*18N			X
Ethiopia	Fugnido	034*13*47E	007*40*11N		X	
Ethiopia	Sherkole	034*37*11E	010*22*11N			X
Ethiopia	Shimelba	037*43*28E	014*10*07N		X	
Guinea-Bissau	Jolmete	015*51*56W	012*12*50N	X		
Iraq	Harir	044*21*10E	036*33*05N		X	
Jordan	Ruwayshed	038*21*50E	032*33*20N	X		
Kenya	Dagahaley	040*17*17E	000*11*29N	X		
Kenya	Hagadera	040*21*00E	000*00*03N	X		
Kenya	Ifo	040*18*47E	000*06*30N	X		
Liberia	Banjor	010*48*34W	006*24*27N		X	
Liberia	Samukai	010*43*45W	006*24*01N			X
Liberia	VOA	010*49*04W	006*25*35N			X
Mozambique	Marratane	039*15*00E	015*15*00S	X		
Namibia	Osire	017*21*53E	021*04*12S	X		
Nepal	Beldangi I	087*41*59E	026*43*02N		X	

Nepal	Beldangi II	087*41*16E	026*43*01N		X	
Sierra Leone	Jembe	011*25*40W	007*55*09N	X		
Sierra Leone	Largo	011*06*20W	008*02*45N	X		
Sudan	Wad Sharife	036*26*49E	015*21*38N	X		
Sudan	Um Shalaya	022*58*22E	013*07*11N		X	
Sudan	Otash	012*05*44E	024*54*28N			X
Sudan	Nyala	012 02 58E	024 53 00N	X		
Sudan	El Shabab	012 54 28E	023 27 57N			x
Sudan	Hassa Hissa	012 54 49E	023 27 11N		X	
Sudan	Kutum	014 14 12E	024 39 18N	X		
Sudan	Abu Shok	013 40 00E	025 47 02N	X		
Sudan	Tawilla	013 29 47E	024 52 15N		X	
Thailand	Ban Mae Surin	097*49*53E	019*01*30N			X
Thailand	Ban Mae Nai Soi	097*49*50E	019*22*13N			X
Thailand	Mae La	098*22*27E	017*07*46N			X
Thailand	Mae La Oon	097*46*46E	017*46*33N		X	
Turkmenistan	Denizkhan	061*10*18E	037*09*35N			X
Turkmenistan	Dagkhan	061*05*18E	037*10*55N	X		
Turkmenistan	Aykhan	061*01*21E	037*11*40N	X		
United Republic of Tanzania	Lukole A	030*49*55E	002*34*05S		X	
United Republic of Tanzania	Lukole B	030*52*01E	002*33*23S		X	
United Republic of Tanzania	Mtabila II	030*15*34E	004*24*15S	X		
United Republic of Tanzania	Muyovosi	030*17*12E	004*23*46S		X	
United Republic of Tanzania	Nyarugusu	030*23*04E	004*13*15S		X	
Zambia	Mwange	029*51*32E	009*27*46S		X	
Zambia	Kala	029*05*13E	009*41*23S		X	

About the author

Jim Kennedy was born in Wallsend, England, on the 18th of February, 1969. He has received degrees from the School of Oriental and African Studies at London University, Beijing Film Academy, Wolfson College at Cambridge University, and a master of architecture in human settlements degree from the Katholieke Universiteit Leuven. He has worked extensively as an emergency shelter programme manager in Sri Lanka, Pakistan, Indonesia and Kenya, and has conducted training in emergency shelter in Sri Lanka, Somalia, Senegal and Uganda, and at Cambridge and Georgetown universities. He has been a peer reviewer for a number of global shelter guidelines, and has had articles published in *Forced Migration Review*, the *Journal of Contingencies and Crisis Management*, *Humanitarian Exchange* and the *Harvard Design Magazine*.