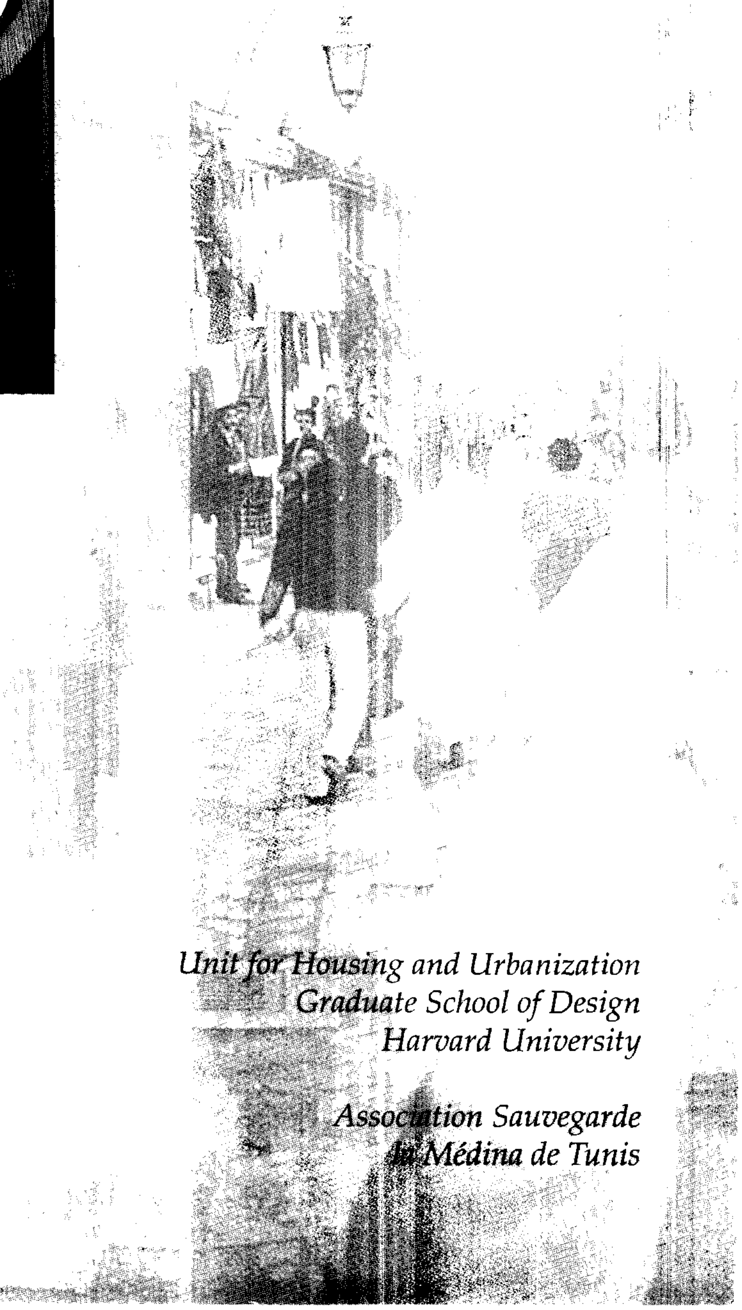
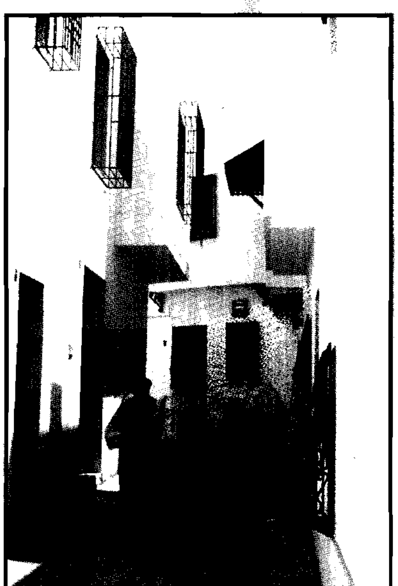
Culture in Sustainable Development

Case Study: Tunis, Tunisia
Rehabilitation of the Hafsia Quarter

48143



Public Disclosure Authorized



Unit for Housing and Urbanization
Graduate School of Design
Harvard University

Association Sauvegarde de la Médina de Tunis

Culture in Sustainable Development

Case Study: Tunis, Tunisia
Rehabilitation of the Hafsia Quarter

Unit for Housing and Urbanization
Graduate School of Design
Harvard University

Association Sauvegarde
de la Médina de Tunis

**The International Bank for Reconstruction
and Development/THE WORLD BANK
1818 H Street, N.W.
Washington, D.C. 20433 U.S.A**

Photographs in this publication are by Mona Serageldin and Samir Abdullac, Unit for Housing and Urbanization, Graduate School of Design, Harvard University and staff of the Association Sauvegarde de la Médina de Tunis.

Contents

Foreword

Urban growth in Tunisia has been characterized by relatively rapid population increase over the past three decades. In 1980 the urban population rose to 55 percent of Tunisia's total population of 6.6 million. This escalating rate for the period between 1975 and 1980 was due to a massive influx of immigrant workers and an intensive internal rural-to-urban migration. The housing situation rapidly deteriorated during this same period. The 423,850 housing units in 1975 grew by 30 percent at the end of the period. But this growth and the production capacities of the public sector could not keep pace with the housing demand.

In October 1999, Tunis marks its twentieth year since designated a World Heritage City by UNESCO. Its inscription in 1979 read in part: "With its palaces and its houses, its madrassas and its numerous souks, Tunis bears an exceptional testimony to the organization of space and the daily life of a great Islamic city. The Medina in its entirety is an eminent example of a traditional human settlement which has become vulnerable under the impact of socio-economic and socio-cultural changes."

The World Bank initiated the Third Urban Development (Urban III) Project in 1982 to help Tunisian authorities design and implement better shelter and improved urban services for low-income families; redress inequities in housing policy to reach the segment of the population that could not afford housing with adequate public-sector services; strengthen the institutional framework and coordination of agencies involved in the urban and housing sectors; and promote the implementation of a national approach to housing planning and policy formulation. Urban III was the first project attempting to introduce a new approach to low-income housing on a large scale.

A main component to accomplish the objectives of Urban III was the revitalization of an old part of the Hafsia medina. The revitalization of Hafsia comprised the improvement of infrastructure including street pavement, water supply, sewerage, electricity and gas network; construction of commercial buildings and housing on part of vacant municipal land; and sale of the remaining serviced land to private developers (including hotels) with the profits funding the upgrading of about 47,000 square meters of housing in low-income areas.

T'he Hafsia component is considered successful both from the conceptual and op-erational point of view. The project helped preserve and protect part of the national heritage. Harvard University's Graduate School of Design, Unit for Housing and Urbanization and the Association Sauvegarde de la Medina du Tunis conducted an ex-post evaluation of the intervention in Hafsia. In general the Hafsia project reactivated the medina economy and resuscitated its historical, cultural, architectural, and artistic values. Hafsia is without a doubt a case worth studying in regards to intervention in historic urban cities throughout the world.

Ismail Serageldin
Vice President, Special Programs
The World Bank

Project Team

Harvard University Graduate School of Design, Unit for Housing and Urbanization

François Vigier, *Director, Charles Dyer Norton Professor of Regional Planning*
Mona Serageldin, *Associate Director; Adjunct Professor of Urban Planning*
Samir Abdullac, *Research Fellow*
Sherif Lotfi, *Research Affiliate*
Wesley Wirth, *Research Affiliate*

Consultant

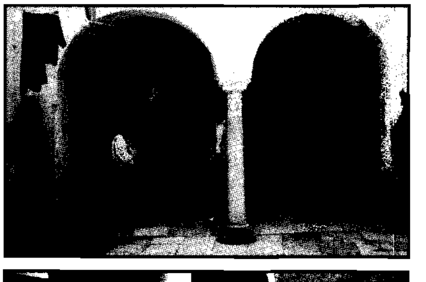
Denis Lesage

Association Sauvegarde de la Médina de Tunis

Semia Akrout Yaiche, *Directeur Général de l'ASM*
Faika Bejaoui, *Chef du département Réhabilitation et Permis de Bâtir*
Zoubeir Mouhli, *Chef du département Architecture*
Abdelkerim Gazzah, *Chef du département Travaux*
Khaled Bouzid
Moez Tabib
Mohsen Azaiez
Lassad Ben Slimane
Mourad Ghannoudi
Amel Meddeb Ben Ghorbal
Moez Jied
Soulef Aouididi
Khaled Ayed
Hela Bouderbala
Leila Naanaa

Project Summary

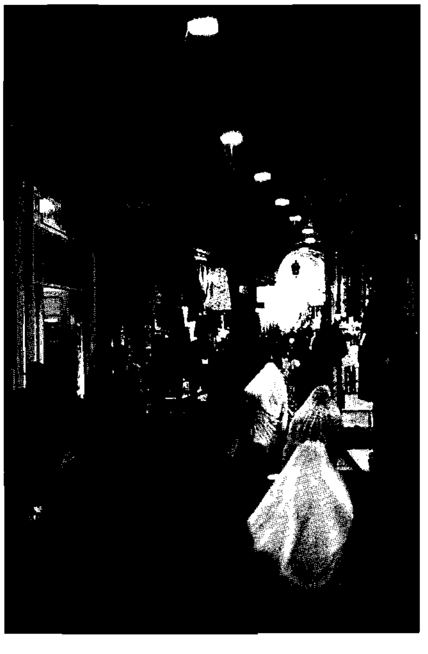
The preservation and rehabilitation of historical cities has become a priority concern of national governments and international organizations. Rapid urban growth since the 1950s has transformed the social mix and physical appearance of older districts through intra-urban population movements as well as waves of rural migrants. The subdivision of the traditional housing stock into low-rent, one- and two-room dwellings with shared sanitary facilities resulted in its progressive deterioration through lack of maintenance and overcrowding. Reversing these trends pose serious challenges as interventions need to resolve complex property tenure patterns, face often heavy relocation loads, and face characteristically high investments and difficult cost recovery. The rehabilitation of the Hafsia Quarter in Tunis is an example of an innovative effort to meet these challenges.



Privately owned houses subdivided, and rented as tenements set in motion the process of deterioration. Rehabilitation strategies that directly benefit long time middle class residents are central to the project. Municipal rehabilitation of a historic house. This strategy is too costly to be financially sustainable and has to be confined to culturally significant buildings.

The 16.5-hectare Hafsia Quarter is located in the lower Medina. By the 1920s, it had become a reception area for rural migrants and many buildings were subdivided into one-room dwellings by their absentee owners. Declared an unsanitary area in 1928, several buildings were expropriated and demolished between 1923 and 1939 and additional clearance took place in 1945 for the construction of three public housing structures. The first comprehensive attempt to revitalize the area was started in 1973. Developed by a public agency, the *Société nationale immobiliaire tunisienne* (SNIT), it consisted of 95 housing units, 22 shops, and a new, covered souk of about 100 shops. It was designed in a style reminiscent of the old Medina by the *Association de Sauvegarde de la Médina* (ASM) a private organization whose mission was to both preserve historical buildings and devise ways to infill vacant lots in a pattern compatible with the character of the historic fabric and encourage new construction. Even though the streets are wide enough to accommodate cars, their irregular pattern and the use of culs-de-sacs is clearly inspired by the historical pattern.[1] The project was completed in 1976.

Regional inflationary trends in the 1970s resulted in a 121-percent increase in construction costs and the new housing proved too expensive for the limited income households for whom it was intended. The units were sold at cost to a mix of affluent households from the Medina and to young professionals (24 percent) and to foreigners attracted by the central location and the quality of the design. The intervention failed to revitalize the Quarter as the project stood as an isolated enclave in the midst of dilapidated buildings, that were expropriated by the Municipality of Tunis but left standing, and vast empty areas occupied by ambulatory vendors and parking for cars, trucks and taxis. The more balanced social mix could not be sus-



Reconstructed covered souk

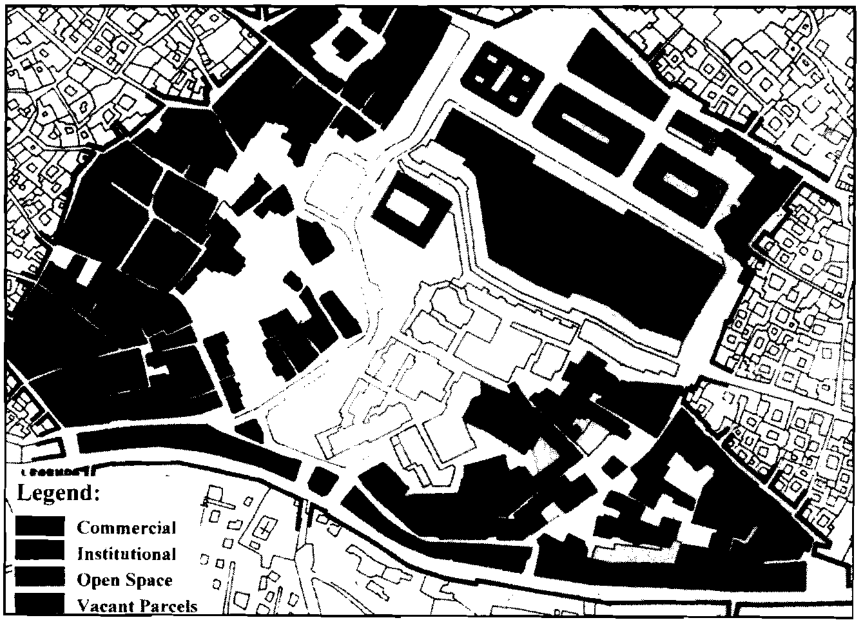
[1] *The project received an Aga Khan Award for Architecture in 1983 as "a noteworthy attempt to deal with the problem of urban public housing in a sensitive and humane fashion."*

New housing development

tained and, eight years later, only 50 percent of the building were owner-occupied; the other half had been subdivided into rental units. Those who had moved out indicated incompatibility of life style as the primary reason for leaving, a comment directed at the rural migrants living in nearby dilapidated buildings.

The present intervention was initiated in 1981 in the context of Tunisia's Third Urban Project, financed in part by the World Bank. The intervention proposed to "stop the deterioration that spreads from vacant areas and to create an activity pole capable of revitalizing the Medina." The site population of 4,100 were living in an environment of deteriorated structures and obsolete infrastructure at a density of about 360 persons per hectare.

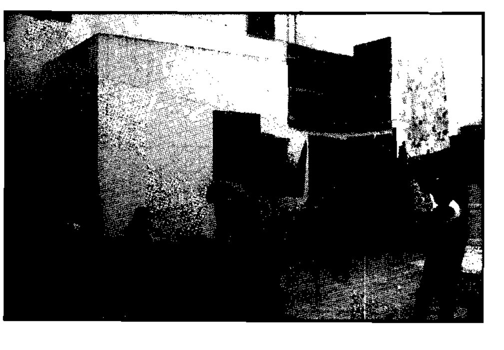
Figure 1
The Hafsia Quarter of the Medina of Tunis before 1981



Project Overview

A 13.5-hectare intervention area was delineated in September 1981 and the final plan approved in June 1983. The 1981 survey of the area enumerated 711 households living in two distinct neighborhoods, Sidi Younes and Sidi Baiane (Table 1), with median monthly incomes of TND (Tunisian Dinars) 61.9, and TND67.4, respectively. Median rents ranged from less than TND5 to over TND40 with a median value of TND13.1 in Sidi Younes and TND9.6 in Sidi Baiane. Only 21 percent of households in Sidi Younes and 10 percent in Sidi Baiane were homeowners. Dwellings were small, averaging only 3 square-meters for a five-to six- person household; 30 percent of the units had no running water, 5 percent no electricity, and half of the households shared a toilet. The anticipated public cost of project is broken down in Table 2.

The intervention was conceived as an urban element tying together the 1977 intervention to other neighborhoods in the lower Medina with a network of commercial streets and residential culs-de-sacs. The 400 units of new housing were to emulate the traditional pattern of patio houses while the renovation of 65,000 square meters of existing structures would respect their architectural characteristics. In addition to the housing, the program proposed the construction of 5,350 square meters of retail space, one or more hotels, 4,150 square meters of offices, and 6,130 meters of community facilities (a public bath, a kindergarten, a club for young workers, a covered parking and 3,000 meters of new streets).



Municipal property rehabilitated without displacing rural migrants living in the building.

Box 1
Objectives specified in the project document

1. Improving the condition of life of Hafsia's 4,100 inhabitants, some of whom are squatters living in vacant decayed buildings through
   a. Regularizing occupancy status.
   b. Rehabilitating 47,700 square meters of buildings.
   c. Providing home improvement loans.
   d. Improving streets and infrastructure.
   e. Constructing 135 units of affordable housing.
   f. Relocating 610 of the 620 displaced households in the immediate vicinity.
   g. Constructing community facilities – public bath, dispensary, etc.

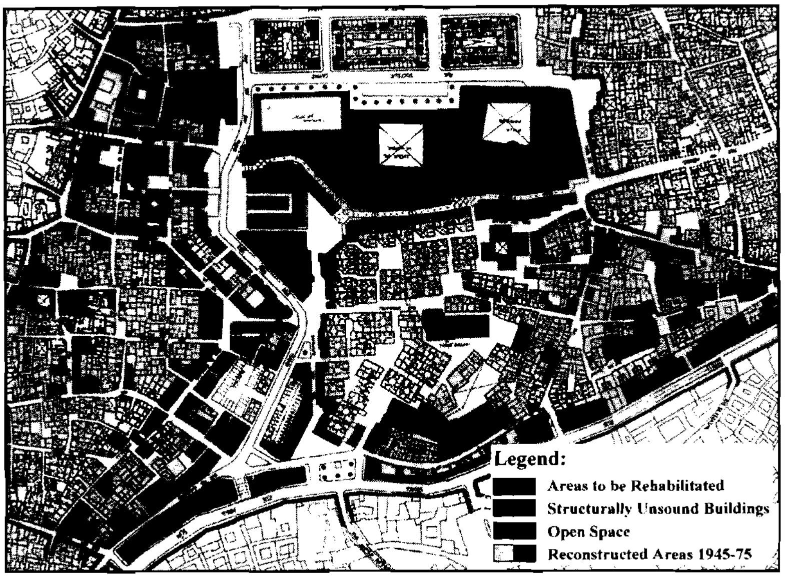
2. Economic objectives.
   a. Maintain rent increases in rehabilitated dwellings to a maximum of 18% of median monthly income.
   b. Create new commercial and handicraft activities to increase employment opportunities by constructing 700 m^2 of new shops and a second-hand clothing market.
   c. Sell 12,000 m^2 of serviced land to private developers to build new market-rate housing to cross-subsidize the project and diversify the socioeconomic characteristics of the neighborhood.

3. Cultural objectives.
   a. Renovate historical structures as cultural and tourist facilities.

Table 1.
Number of Hafsia households, by size

	1 Person	2 Persons	3-4 Persons	5-6 Persons	7+ Persons	Median Size
Sidi Younes	11	34	79	87	158	5.6
Sidi Baiane	19	37	79	87	117	5.1
Total	31	73	158	174	275	5.5

Figure 2.
The Hafsia Quarter of the Medina of Tunis after 1993



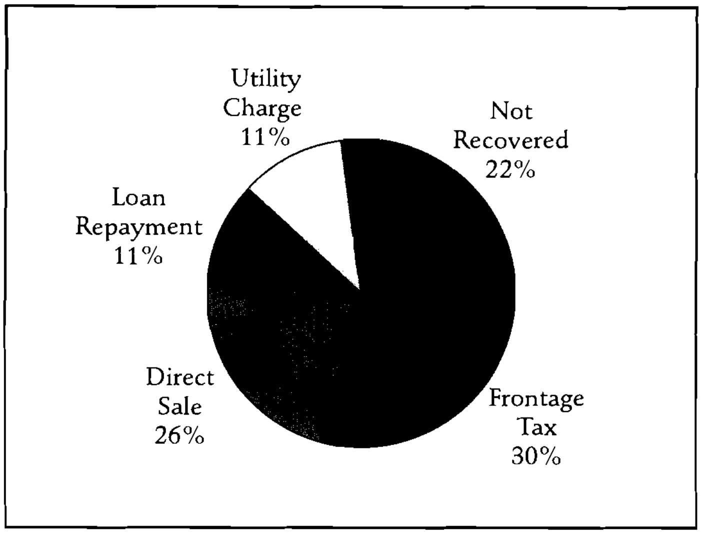
A total of 144 households living in dilapidated structures were relocated. These able to afford home ownership were given the choice to acquire a unit in rehabilitated or new buildings, in suburban serviced lots, or a cash relocation indemnity of TND500. Temporary housing was provided in apartments owned by the municipality, including a new 29-unit rental building constructed on the site on behalf of SPROLS.[2]

Table 2.
Anticipated public cost of the project (Unit: TND)

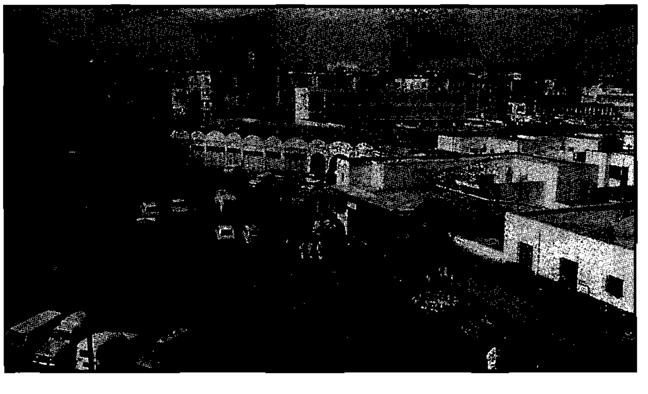
Street and infrastructure improvements	1,500,000
Rehabilitation of existing structures	1,300,000
Construction of new housing and commerce	7,000,000
Construction of community facilities	1,000,000
Land regularization	1,500,000
Other	700,000
TOTAL	13,000,000

[2] *Socété de promotion des logements sociaux, the national social housing agency.*

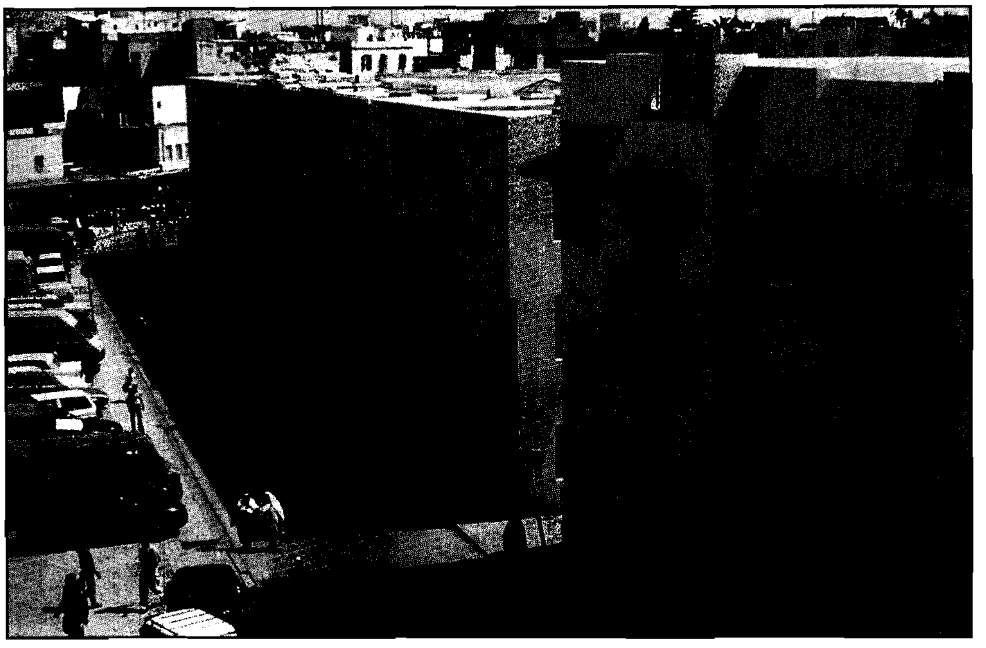
Figure 3.
Modes of cost recovery: Tunisia Urban Development Project



The financial plan capitalized on the presence of 2.2 hectares of strategically located vacant parcels in government ownership to cross-subsidize the upgrading of the built-up areas to be renovated. Even so, the feasibility study indicated an estimated 22 percent shortfall in cost recovery that was to be covered by the state. New construction was to bear the brunt of the cost of the street and infrastructure improvements. Older structures that could be rehabilitated would not be assessed a betterment charge. Access to credit was provided by improvement loans drawn on a special account. The beneficiaries were expected to provide 20 percent equity and could borrow up to TND 7,000 at 7 percent for 15 years. A World Bank loan of TND1.22 million provided over half the special fund's capitalization of TND 2.4 million, the balance being financed by the



Vacant site before the project.



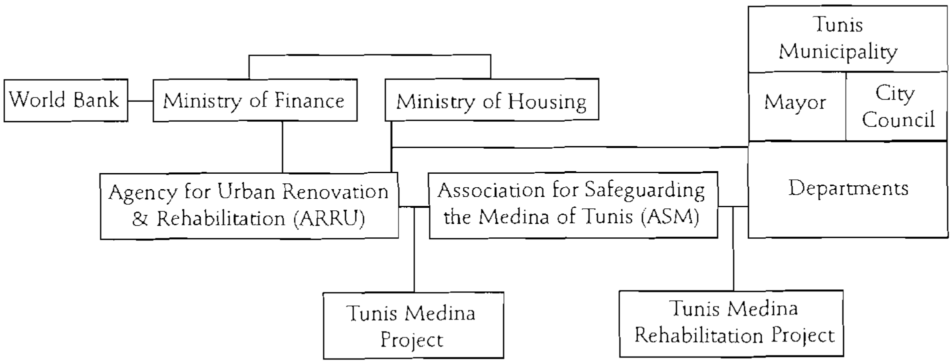
Mixed use buildings constructed on the site.

profits generated by the sale of improved parcels (TND154,000), the down payment of beneficiaries (TND522,000) and the FNAH[3] (TND500,000).

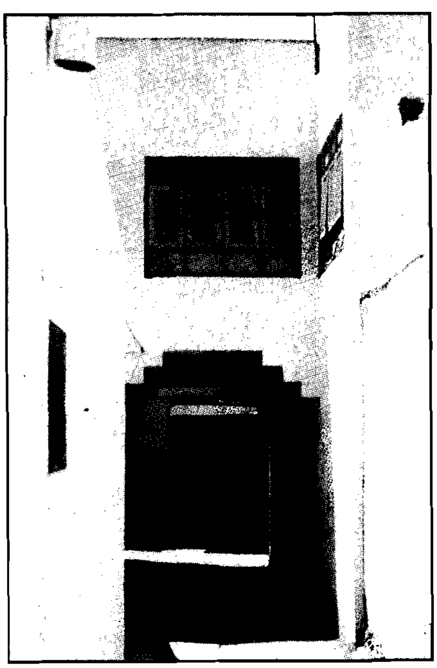
A national agency, the *Agence à la réhabilitation et la rénovation urbaine* (ARRU), was created as the project implementation unit. The initial phase, comprising a commercial center and 40 dwellings built by ARRU for relocated families, started in April 1985 and completed in May 1986, with the remainder of the land to be sold to private developers. The demand for hotels and office space did not materialize. The decision was made to put the remaining land at auction and let the private market develop it, subject to the design guidelines developed by the ASM. Developers quickly bid up land prices to build three- and four-story upper-middle class housing with underground parking. Phase Two (56 dwelling units and 31 commercial establishments) was completed between October 1986 and July 1988; Phase Three (68 dwellings and 27 shops) between June 1989 and January 1992. Phase Four (54 dwelling units and 37 commercial spacese) was undertaken in two parts, from December 1990 to July 1993.

[3] *Fond national de l'amélioration de l'habitat: National Fund for Housing Improvements.*

Figure 4.
Tunis Rehabilitation Project: Organizational Framework

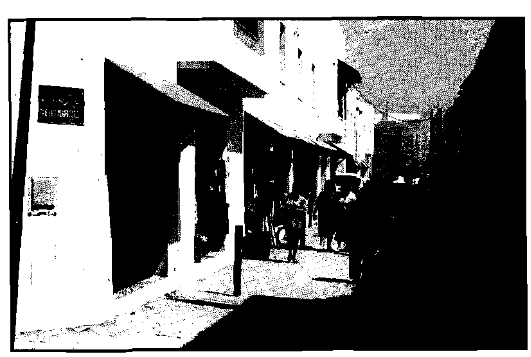


The rehabilitation of existing buildings was predicated on a creative financing mechanism designed to circumvent rent control and allow improvements to take place without displacing tenants. A home improvement credit line was granted jointly to owners and tenants as co-signatories to undertake necessary improvements. The program gained momentum after cumbersome loan application procedures were streamlined and access to credit was opened up to the Medina as a whole, including its two traditional suburbs.



The architectural style of the new construction was inspired by historic typologies.

Rehabilitated buildings and shops along a commercial street.



Project Evaluation

An evaluation study was undertaken jointly in 1993 to 1994 by the ASM and Harvard University's Unit for Housing and Urbanization in order to assess the social, economic and spatial impacts of the project.[4] The study undertook to assess how the different project components affected residents, property owners, and operators of economic activities, and the extent to which private investment decisions were influenced by specific project components (infrastructure improvements as an aid to the development of formal and informal microactivities, access to credit as an incentive to private investment, improvements to the built environment as a catalyst to private investment in the renovation and rehabilitation of the building stock). In-depth household surveys were supplemented by focussed interviews of neighborhood employers and work force.

Household Survey

A stratified sample of 91 households was selected to reflect location, tenure, the status of the work and whether it was carried out by ARRU or a private developer. Six household types were interviewed:

- Newcomers to the neighborhood,
- Borrowers who sought funding to rehabilitated their dwellings,

[4] *The evaluation was co-financed by the Aga Khan Trust for Culture and the World Bank.*

- Self-funders who used their own resources to rehabilitate their dwellings,
- Old-time residents who had not been impacted directly by the project, and
- Households who had been relocated temporarily.

Households which moved to Hafsia as a result of the project stand in sharp contrast to the original population. Over half of household heads hold senior positions, either in government or the service sector; 61 percent had a university education. Fifty-six percent lived previously in other parts of the Medina or its traditional suburbs and 35 percent lived in outlying districts. The selection of Hafsia as a preferred place of residence is related to their employment as 24 percent work in the Medina and 43 percent in the nearby modern city center; 62 percent walk to work. The acquisition cost of their dwelling varied between TND14,700 and TND45,000 with monthly payments ranging from TND50 to TND 380; the average payment of TND137 is equivalent to 25 percent of average income. Over two-thirds (69 percent) were previous subscribers to a housing bank home-purchase savings account and bought their dwellings with the help of a loan. Those who moved in as tenants are primarily employed in trade and services located in the Medina—50 percent walk to work. Their educational level is lower than for home owners, 30 percent having only completed primary school and 60 percent secondary school. They pay a monthly rent varying between TND120 and TND250.

Credit mechanisms

Property owners who rehabilitated their unit with a project-financed loan spent between TND2,983 and TND8,950 (with an average value of TND5,850) on the improvement of their dwellings. Privately financed renovation expenditures varied between TND3,000 and TND12,000. In both instances, the work undertaken included painting, floor finishes, the addition of kitchen and bathroom, and in many instances, the construction of an additional floor. The smaller amount expended by Hafsia households borrowing from the Project's special account is due to the 20 percent equity requirement; the average household was able to finance only TND1,150 keeping the loan amount to TND4,700 or well below the project ceiling of TND7,000. This situation reflects the socioeconomic characteristics of the Hafsia as the level of borrowing in the Medina as a whole was substantially higher. It is worth noting that the bulk of rehabilitation expenditures were undertaken by property owners who

Figure 5.
Appraisal 1982—Project costs (TND thousands)

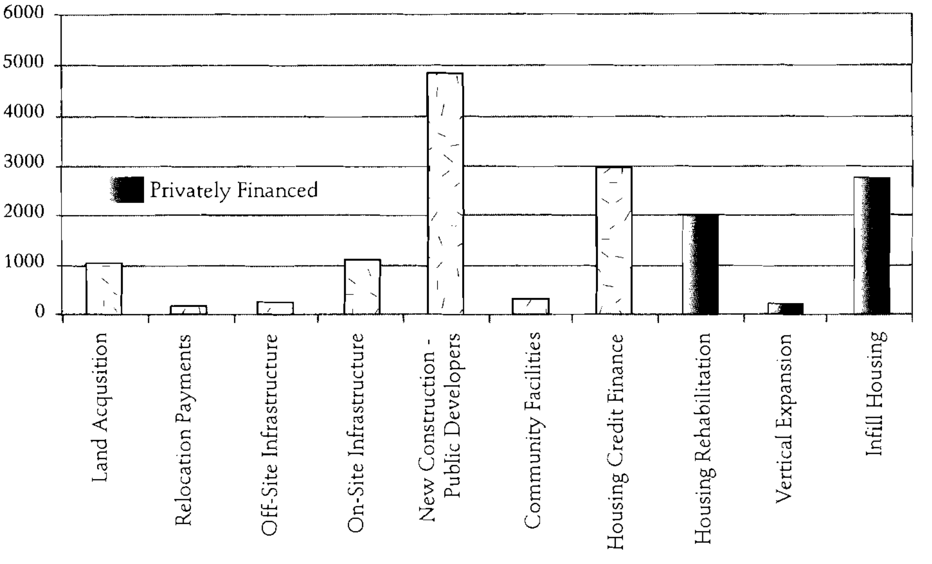
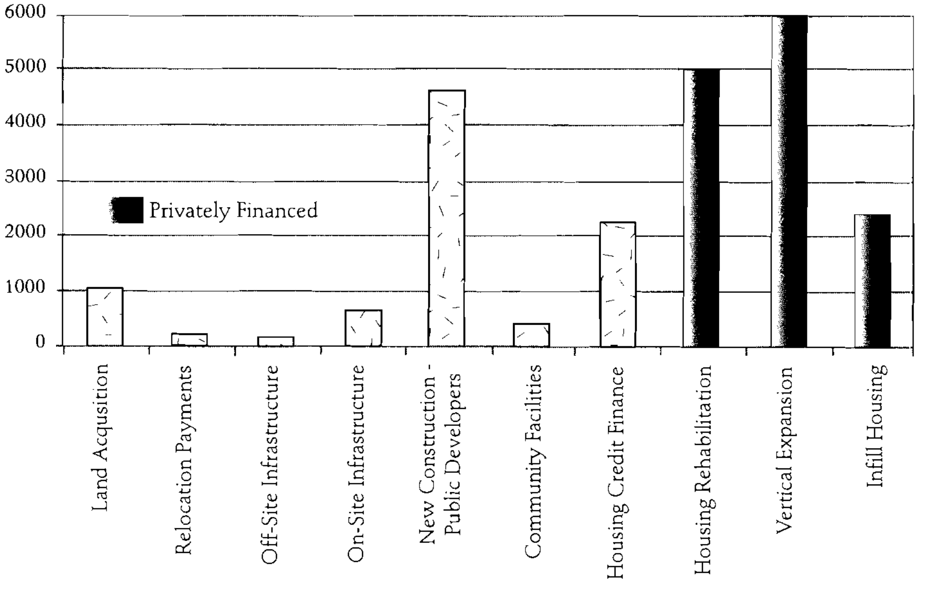


Figure 6.
Field assessment 1993—Project costs (TND thousands)



did not draw on credit mechanisms. A prime source of private financing was the sale of occupancy rights in additions to existing structures.

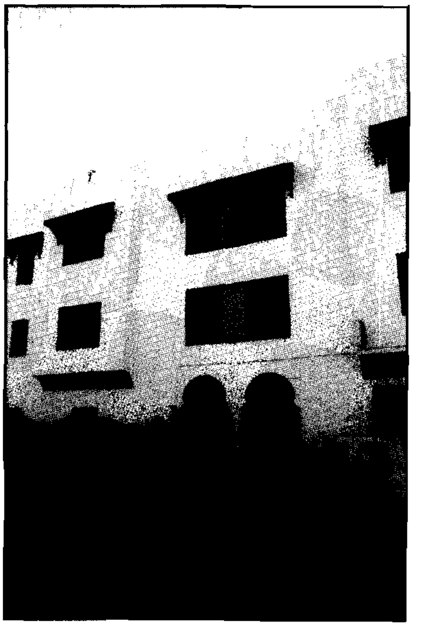
The extension of the rehabilitation loan program to other parts of the Medina was highly successful. A total of TND1,000,000 was extended to 200 rehabilitation loans. The average equity investment per dwelling was TND1,670 and the renovation cost TND6,700. Spatially, all neighborhoods participated to a greater or lesser extent and no specific pattern can be discerned. The predominant factor seems to have been the ownership of small houses whose inherent quality encouraged improvements, regardless of their location.

Survey of Economic Activities

Forty-eight economic activities were surveyed, falling into four types:

- Neighborhood activities present before the project and occupying the same premises—16 establishments;
- Neighborhood activities present before the project but had moved to other premises—13 establishments;
- Activities that moved to the neighborhood after the initiation of the project—19 establishment ; and
- New activities induced by the project and located in former or existing residential premises—30 establishments.

Of the 32 new economic activities started between the completion of the initial phase in 1986 and 1993, 28 were established after 1991. Most activities (72 percent) are small businesses with one or two employees in addition to the proprietor and only 20 percent employ from three to six employees. Generally, the excellent location of Hafsia relative to both the Medina and the modern city center was cited



Privately developed building following the ASM design guidelines.

The project stimulated private investment in new construction in filling vacant lots.

as the primary motivation for both start-up and relocated economic activities. The investment undertaken in new or relocated activities has been rather modest, ranging from an average value of TND600 for the improvement of existing premises to TND3,670 for new premises; the median capital invested in merchandise and equipment is on the order of TND17,200 and was financed in its entirety from family savings and loans from friends.

Property Disposal Prices

The initial expropriation price of vacant land was set at TND15 per square meter as opposed to around TND50 in other parts of the Medina. This low value is attributable in part to the fact that most land owners were no longer living in Tunisia. The value of improved lots rose sharply at the successive auctions held by ARRU reaching an average value of TND133 per square meter in 1988 and TND142 in 1990. Depending on the size and location of the parcel, residential lots were sold for between TND35 per square meter for small residual areas bought by an abutter and TND 250 for larger parcels. Commercial parcels went for TND330 to TND260 per square meter, depending on location. The apartments built by AARU sold initially for TND243 per square meter in 1986–88, but prices rose to TND315 in 1989–92 and to TND355 in 1993. Forty-five 12-square-meters to 15-square-meters shops built by ARRU were auctioned off at prices varying between TND350 and TND1,250 depending on their location. Similar trends are observable in the private market were prices for older structures reached TND150 per square meter.

Financial Assessment

Total project costs were US$12.5 million with a World Bank participation of US$2.8 million. Nearly TND 8 million was disbursed between 1983 and 1993 (TND748,900 in infrastructure improvements, TND4,373,000 in the construction of new housing, TND359,000 in public facilities, and TND2,318,000 in home improvement loans.) The phasing of disbursements is summarized in the table 3 below.

Table 3.
Cash disbursements (TND thousand)

	Infrastructure	Housing	Public Facilities	Special Account	Total
1983	0	0	0	0	0
1984	104.0	0	0	0	104.0
1985	330.0	193.0	38.0	0	561.0
1986	264.0	521.0	10.0	0	795.0
1987	14.0	449.0	0	50.0	513.0
1988	18.0	157.0	0	375.0	550.0
1989	3.0	373.0	27.0	250.0	653.0
1990	0.9	984.0	66.0	125.0	1,175.9
1991	7.0	724.0	87.0	100.0	918.0
1992	8.0	540.0	17.0	150.0	715.0
1993	0	432.0	114.0	1,268.0	1,814.0
Total	748.9	4,373.0	359.0	2,318.0	7,798.9

A preliminary assessment by the World Bank in April 1992 estimated project revenues to be about US$13.5 million, providing a surplus of US$1.0 million. As shown in table 4 below, land and property sales provided the cross-subsidy for the rehabilitation component.

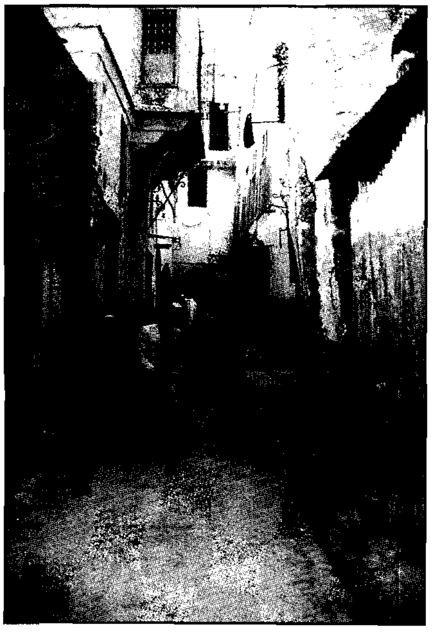
Table 4.
Project financial summary (US$)

	Expenses		Revenues
Upgrading and Rehabilitation			
Infrastructure and Community facilities	1,200,000	Repayment of home improvement loans	1,100,000
Home improvement loans	1,100,000	Profit sharing on land sales	1,200,000
Compensation of displaced households	4,000,000	Repayment on resettlement loans	1,900,000
Sub-total	**6,300,000**	**Sub-total**	**4,200,000**
Land Development			
Land Acquisition	1,400,000	Land sales to developers	1,500,000
New construction of housing & shops	4,800,000	Sale of ARRU housing & shops	7,800,000
Sub-total	**6,200,000**	**Sub-total**	**9,300,000**

Project Impacts

The rehabilitation of the Hafsia Quarter benefits not only its residents but also Tunis as a whole. The unique character of the Medina is a source of pride to Tunisians and the tourism it generates provides a source of foreign currency revenue to the nation, as well as employment and income to the local residents. The physical transformation of a derelict area into a thriving mixed-use residential and commercial node had a spill-over effect into adjacent neighborhoods where privately financed rehabilitation resulted in the improvement of over 200 dwelling units.

The project's economic impacts are assessed through three indicators: employment generation, the mobilization of private resources, and its contribution to the Tunisian economy, quantified by its present value (NPV) and economic rate of return (EIRR). The analysis has been confined to the project area and excludes significant spillover effects in the rest of the Medina. Benefits arising from increased revenues from tourism and the intrinsic value of conserving the cultural heritage were not included in the analysis. It should be noted that credit for housing improvements was made available throughout

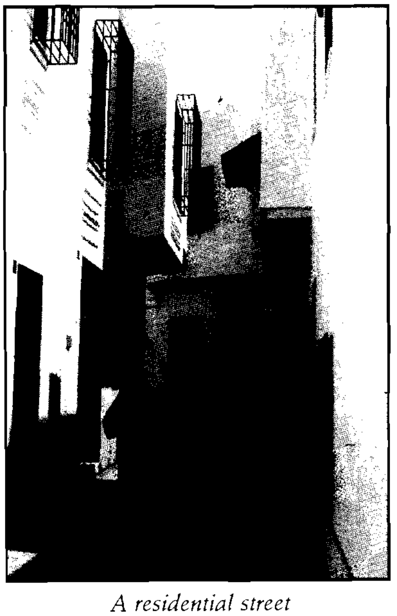


Inadequate infrastructure and structurally unsound buildings resulted in alarming deterioration of the historic Medina.

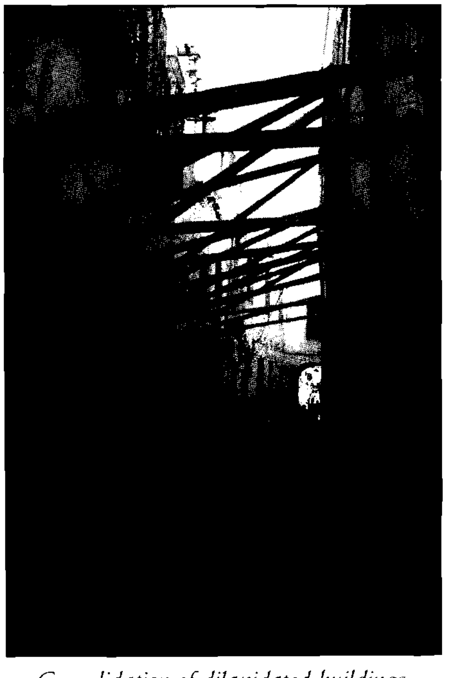
the Medina and its traditional suburbs and that the majority of the loans concerned property outside the project area per se.

Employment Generation

The employment generated by the project since its inception in 1983 is estimated at 2,200 jobs grouped in five main categories: formal construction, informal construction, construction support services, micro-enterprises, and jobs induced by second-round expenditures on goods and services. About 44 percent of the jobs are in occupations requiring lower skill levels. Conservatively, only 15 percent of the employment generated is considered to represent jobs created by the project and included in the computation of benefits. It is assumed that jobs in the formal construction sector and related support services would employ few previously unemployed workers. In the micro-enterprise and informal construction sector unemployment is estimated at no less that 15 percent at any point in time as workers await new jobs or seek casual labor, since national statistics estimated the unemployment rate at about 15 percent.



A residential street in the rehabilitated area.



Consolidation of dilapidated buildings.

Leveraged Private Investment

The bulk of the benefits generated arise from the increase in economic activity and development potential created by the project. This potential was realized by the sale of serviced sites to private developers, infilling of vacant parcels by their owners, vertical expansion of one-story structures and the rehabilitation of existing premises. The study team's best estimate based on 1993 field surveys is that no less than 73,560 square meters of floor area haves been newly constructed. The financial cash flow of TND9.3 million of private investments to purchase serviced parcels and premises from the public sector, relative to TND7.4 million of public expenditures for land expropriation, new construction and infrastructure improvements, allowed the government to cover all project costs, including the rehousing of displaced households and the subsidization of housing for low-income families. The renovation of buildings, and the refurbishing of dwellings continues in the impact area. In 1993, the leverage ratio was estimated at 3.4.

Public and private investment pave the way for commercial activity which creates employment opportunities and generates the cash flow needed for rehabilitation and maintenance.

Building rehabilitation by owner occupant with income generated by the ground floor commercial use.

Economic Returns

The increase in property values attributable to the project is used as the proxy to measure benefits, since it captures the current and prospective economic value of the development potential created by the project. The incremental value attributed to the project is computed as the difference between the projected value of land in the impact zone and the value of land outside the impact area plus the value of the improvements to property.

The present value of TND3.7 million discounted at 10 percent and an economic rate of return of 13.82 percent reflect the long implementation period that is typical of rehabilitation projects in historical environments. The flow of benefits was much slower than anticipated at appraisal due to long delays during the start up phase. A multiplicity of problems had to be addressed, including:

- Complex tenure and occupancy patterns;
- Technical difficulties entailed by the consolidation and rehabilitation of structures;
- Widespread joint ownership and numerous co-owners of overcrowded tenements which necessitated dedensification; and
- Expropriation and relocation requirements, including appraisal of properties, compensation of owners and the provision of alternative housing accomodations for displaced families.

However, the benefits accruing were higher than originally anticipated as a result of property values rising at higher rates and reaching higher levels than was ever thought possible during appraisal. Because the Medina abuts the modern CBD, public improvements led to a one-time jump in price that doubled property values in two to three years, followed by a progressive increase at a rate higher than in unimproved areas (12 percent per annum between 1983 to 1993 versus 8 percent on the urban fringe) because of the sustained demand for improved sites in this strategic location. In restrospect, ARRU in its eagerness to launch the project underpriced the core complex it marketed in 1986. Demand for accessible vacant parcels sent land prices soaring, eventually stabilizing at about TND300 per square meter in 1993 to 1994.

The evolution of residential and commercial property values during the implementation of the project as well as following its completion was estimated from the record of property sales by ARRU and interviews with real estate brokers. As in most historic centers, well-located parcels having ground-floor commercial potential fetched higher prices than parcels located deeper in the residential fabric. Unimproved existing buildings increased only marginally in value. However, renovations and particularly the addition of upper floors are consistently valued at higher than real building costs attesting to the desirability of the location. The value of new apartments built by the public sector, that initially sold for their production cost, rose sharply by 30 percent from 1988 to 1992 and by another 13 percent in 1993 when prices seemed to be increasing at about 1 percent in real terms annually.

Moreover, the project strengthened the managerial capacities of the municipality of Tunis and of the ASM, particularly in working collaboratively with developers

Table 5.
Hafsia project economic assessment

Economic Return	
NPV (million of TND)	3.7
EIRR (percent)	13.82
Gross Employment	**2,180**
Direct	1,230
Public Works	60
Building Construction	
Public Developers	380
Private Developers	160
Informal Builders	690
Indirect	870
Microenterprises	730
Construction related	140
Induced	80
Leverage Ratio	**3.4**
Public Investment (TND million)	6.9
Private Investment (TND million)	23.26
Floor Area Developed (m^2)	**73,560**

and property owners and in organizing and coordinating public and private inputs in the rehabilitation process. As a result, the effort to improve and rehabilitate historical structures has now become a priority activity for the Tunis municipality.

Mitigation of Negative Impacts on Property Owners and Residents

The affected population falls into two categories: property owners some of whom reside outside the Medina and occupants of dwellings and commercial premises in buildings affected by the project.

Compensation of Property Owners Affected by the Project

Property owners were entitled to full compensation at appraised value for property demolished in whole or in part. The amount of compensation was determined according to national laws governing by eminent domain. Property owners in Hafsia were given the option of receiving a serviced parcel in a new project developed on the urban fringe. Owner-occupants were also entitled to relocation payments.

Relocation of Displaced Households

All occupants in the buildings affected by the project were entitled to receive a relocation payment, and/or a compensation option, which included housing accommodations. Temporary relocation accommodations were provided for families having to vacate premises during consolidation and rehabilitation work as well as families in need of accommodations while waiting for alternative housing solutions. Displaced families were able to choose among several options:

- A serviced plot in a public project on the urban fringe,
- An apartment in a government-built affordable housing project, and

- Monetary compensation in cash, allowing them to find alternative housing on their own.

A list of occupants based on the 1982 and 1984 surveys of affected buildings was used by the study team to assess the relocation process. The results of the 1994 follow-up are summarized in table 6.

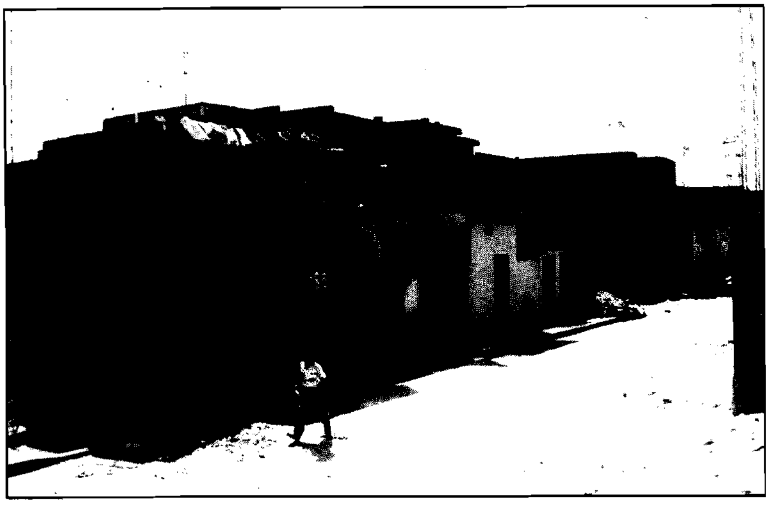
The study team also visited the area in Douar Hicher where 12 plots were allocated in 1991 to lower-income Hafsia families who were living in overcrowded tenements and for whom permanent accommodations could not be found in the Medina. The lots were priced by ARRU at TND1,000, and a TND2,000 construction loan to be repaid over 15 years was granted to the beneficiaries. In 1994 of the four developed lots, two were occupied by their owners, one was rented out, and one was still under construction. The remainder of the lots were vacant, their owners having found permanent housing elsewhere while keeping the parcels which have appreciated rapidly in value as the El Taddamen/Douar Hicher area has grown from a small fringe settlement into a large urban district. None of the lots was offered for sale.

The owner-occupants were very satisfied with the relocation option. In Hafsia they were tenants and shared their housing with other families. Today, they own

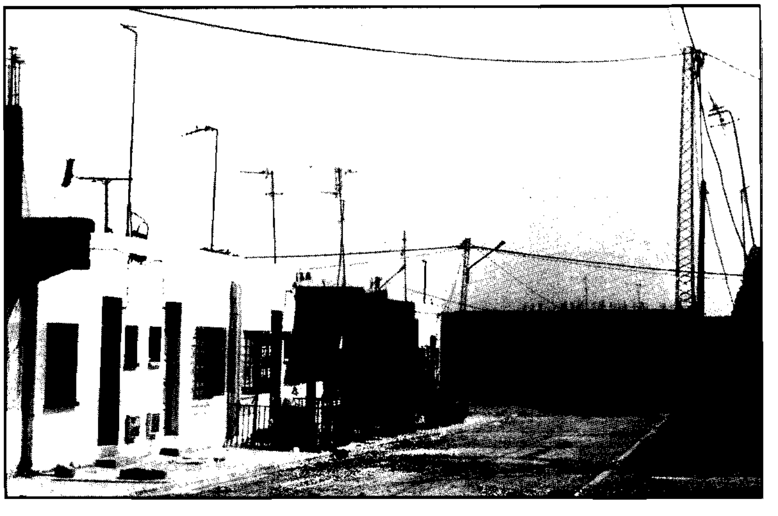
Table 6.
Hafsia—Relocation of displaced households
project assessment 1994

Relocation/Compensation Package	1st stage 1982-84	2nd stage 1984-86	Total
Cash Compensation	17	20	37
Dwelling Units in Hafsia	9	3	12
Temporary Displacement	13	15	28
Apartments in Hafsia (or elsewhere)	9	3	12
Land in Douar Hicher (serviced site)	9	3	12
No Information in 1994	19	24	43
Total	**76**	**68**	**144**

Source: Unit For Housing And Urbanization, GSD, Harvard University ASM, Tunis



House constructed by a family who opted for a serviced site in Douar Hicher.



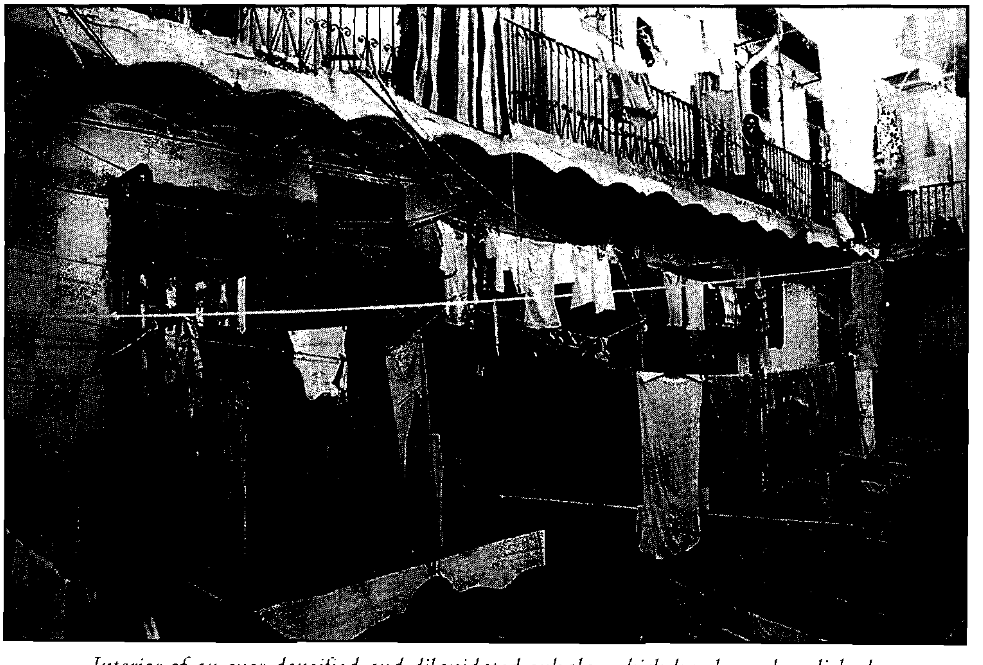
View of street in Douar Hicher where serviced parcels were allocated to displaced households.

their houses and the land on which they stand. They take great pride in the houses that they built according to their needs and means. One of the families holding the vacant lots was traced and interviewed. The head of the household asserted his intent to develop the lot. The family, which had decided to remain in an overcrowded tenement in Hafsia, had recently been relocated under the *oukala* project in a rental apartment in the El Agba housing project. This is a recurrent pattern encountered whenever access to urban land is unaffordable to lower-income families and a shortage of rental housing prevails.

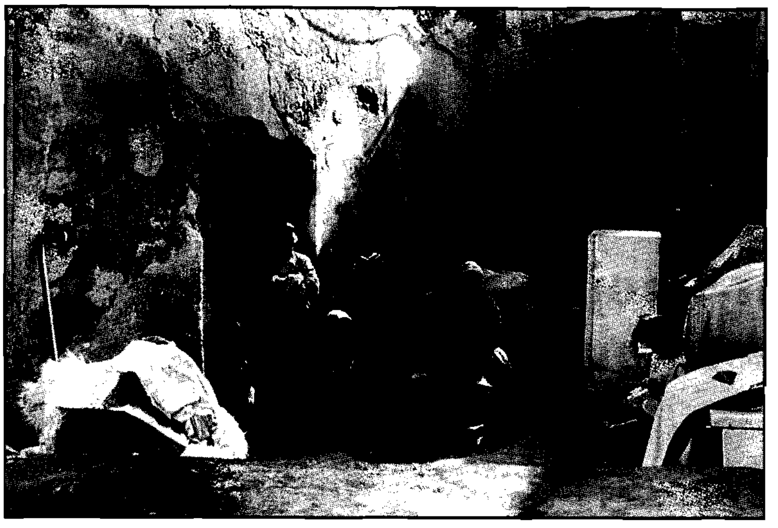
Living in a dilapidated, overcrowded tenement may, if the building is condemned, be a passport to housing and home ownership. Occupancy of buildings to be expropriated or slated for demolition usually swells on rumors regarding potential condemnation. Elderly parents often transfer to children the parcels or apartments they receive as relocation housing and resettle in an oukala in the Medina. Furthermore, some resourceful poor residents, led particularly by elderly women, have found it advantageous to opt for cash compensation as relocation payment and then to promptly resettle in another oukala in the Medina and await potential future demolition of the building. The municipality has tightened its monitoring of the relocation process under the oukala project in an effort to curb these costly abuses.

Post-Project Rehabilitation Activities in the Medina

The demonstrated success of the Hafsia rehabilitation project induced the municipality to extend the experience gained to the Medina as a whole but shift emphasis to the rehabilitation of oukalas. Because the two projects overlapped somewhat geographically and chronologically, there has been a tendency to confuse them. However they are quite distinct and the World Bank was not involved in the oukalas project. They address two different issues in the rehabilitation of historic areas. The



Interior of an over-densified and dilapidated oukala, which has been demolished.



Family occupying one room in a structurally unsound oukala.

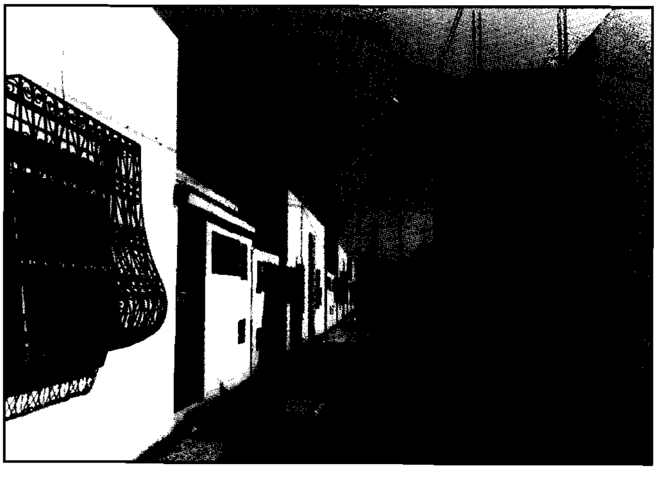
Exterior of a dilapidated oukala.

municipal project focuses on the seemingly intractable problem of oukalas, former middle-class houses often of architectural merit, that have been divided into single-room dwellings and each occupied by a low-income household. Shared sanitary facilities are minimal and living conditions unsafe due to the dilapidation of the overdensified buildings. A survey conducted by the ASM in the early 70s showed that the 562 oukalas in the Medina and its suburbs housed 3,000 households, or approximately 15,000 people in accommodations unfit for human habitation.

Starting in 1990, the municipality conducted a detailed survey of building conditions and determined a comprehensive rehabilitation strategy. This assessment led to the condemnation of 256 tenements housing 1,296 households, 90 percent of which were in private ownership with owners unwilling to repair them. Another 403 buildings, housing 1,600 households, were still in sufficiently sound structural condition to be rehabilitated.

Thirty oukalas owned by the municipality and housing 164 families are to be rehabilitated—consolidation of the structure, sanitary improvements, and water proofing. Of these, five structures are designated to provide temporary accommodations for households that have to be displaced while repairs are being made. The cooperation of the owners for the rehabilitation of 373 privately owned oukalas, housing 1,436 households, is predicated on the availability of low-cost improvement loans, payable over 15 years at 5 percent interest. The municipality can intervene on its own right to undertake emergency repairs should the owner refuse to intervene; this has occurred in thirty cases. Thirteen buildings of special architectural merit were vacated, and are being restored and reused as community facilities.

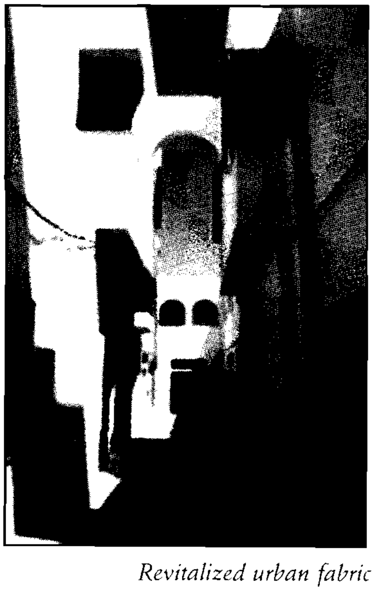
The need to dedensify the rehabilitated oukalas resulted in only 78 of the 1,296 displaced households being relocated in the Medina. The others have been rehoused in three phases from 1991 to 1996 on serviced lots on the urban fringe. Unsalvageable buildings are being demolished and the cleared parcels are being rebuilt by their owners or sold to private developers. Some 40,000 square meters of cleared land will accommodate an estimated 76,000 square meters of residential floor area and 10,000 square meters of commercial space. The profits realized from land sales are being used to partially defray expropriation, demolition, infrastructure and building rehabilitation costs and the rehousing of displaced families.



Relocation area for families displaced from the demolished oukalas in the Medina.

Conclusions

The Hafsia project was the first attempt at upgrading a whole sector of an historic city center, rather than individual buildings. It built the capacity of participating institutions to address the environmental, economic and social dimensions of the problem in a holistic manner. It allowed them to develop a multi-faceted approach to rehabilitation. Several lessons can be learned from the Hafsia project. Foremost is the economic feasibility of the public sector undertaking an ambitious improvement effort in a historical area by intervening strategically and acting as a catalyst to induce private developers, property owners and tenants to participate in the revitalization effort.



Revitalized urban fabric and renovated houses in Hafsia.

The long history of private disinvestment in the area and its subsequent deterioration and pauperization was successfully reversed through selective clearance, infrastructure improvements, and the construction of community facilities. Given the opportunity to develop vacant parcels, build additional floors, rehabilitate and sell deteriorated premises, the private sector bid up property values. The resulting leverage ratio of TND3.4 for every TND1.0 of public investment allowed the government to recover public improvement costs, including the rehousing of displaced households. In broader economic terms, additional benefits were realized through increased economic activities induced by the project.

Secondly, the complexity of any intervention in the historical fabric requires a longer implementation period than the time frame of conventional upgrading projects on the urban fringe. Complex property tenure patterns, involving the cooperation of multiple owners and agreements between owners and tenants, necessitate the creation of innovative institutional mechanisms. Furthermore, the urban fabric of the Medina constitutes a valuable cultural asset that must be preserved as it lends a special significance to each of its components. The need to fit new construction into the traditional pattern of low buildings and narrow streets calls for the creation of appropriate safeguards while fostering private investment in rehabilitation and new construction. The challenge to planners and architects was to preserve the historic fabric and individual buildings of architectural merit while enabling Medina residents to create an environment suitable to their current needs. Sustained interest and effort by the municipality and the ASMs ability to devise cost conscious, simplified and enforceable building regulations, its participation alongside the municipality in negotiating with property owners and developers, in driving outreach and raising popular awareness of the value of the cultural heritage, account for the success of this landmark project.

The contrast between renovated houses and dilapidated oukalas is striking.

References

Association Sauvegarde de la Medina de Tunis and Harvard University, Graduate School of Design, Unit for Housing and Urbanization. 1994. *Etude de l'impact social et economique du Projet Hafsia*, Vol. 1. Tunis, Tunisia: ASM.

———. 1994. *Etude de l'impact social et economique du Projet Hafsia*, Vol. 2 Annexe. Tunis, Tunisia: ASM.

Harvard University, Graduate School of Design, Unit for Housing and Urbanization and Association Sauvegarde de la Medina de Tunis. n.d. Working notes on the relocation of displaced families.

Harvard University, Graduate School of Design, Unit for Housing and Urbanization. *Economic Assessment of the Hafsia Rehabilitation Project*. n.d. Working notes and model.

World Bank. 1994. *Project Completion Report: Tunisia, Third Urban Development Project (Loan 2223-TUN)*. Washington, D.C.: World Bank.

World Bank. 1982. *Staff Appraisal Report: Republic of Tunisia, Third Urban Development Project*. Washington, D.C.: World Bank.

Culture in Sustainable Development

The World Bank
1818 H Street, N.W.
Washington, D.C. 20433