

**Report on a
UNESCO Mission to Deir Ezzor
for the Restoration of the
Old Souk and the Saray Structure**



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Executive summary

The present report makes detailed recommendations for the revitalisation of the old souk in Deir Ezzor, especially in relation to the design of closures for the arched shop fronts that characterise the souk, which are presently mostly concealed by steel roller-shutters. It is recommended that the recruitment of two architects to the project team is an essential prerequisite for successful implementation. Recommendations are made for the repair of the stonework of the Saray building. The need for the input of a structural engineer specialising in historic structures is identified in relation to the souk complex itself, the Saray building and the barracks building in the Saray courtyard.

Commission

Under the terms of UNESCO Contract No. 179303, the writer was commissioned to undertake a mission to Damascus and Deir Ezzor, Syria, to inspect the Old Souk and the Saray structure in Deir Ezzor to:

- Assess the state of conservation of the two buildings;
- Meet relevant local authorities and, if possible, document previous restorations;
- Establish restoration guidelines in line with international standards and previous experiences with Ottoman architectural structures, in particular old markets;
- Establish restoration guidelines for the Saray building;
- Establish restoration guidelines for the Ottoman gate in order to advise on its reopening and enhancement.

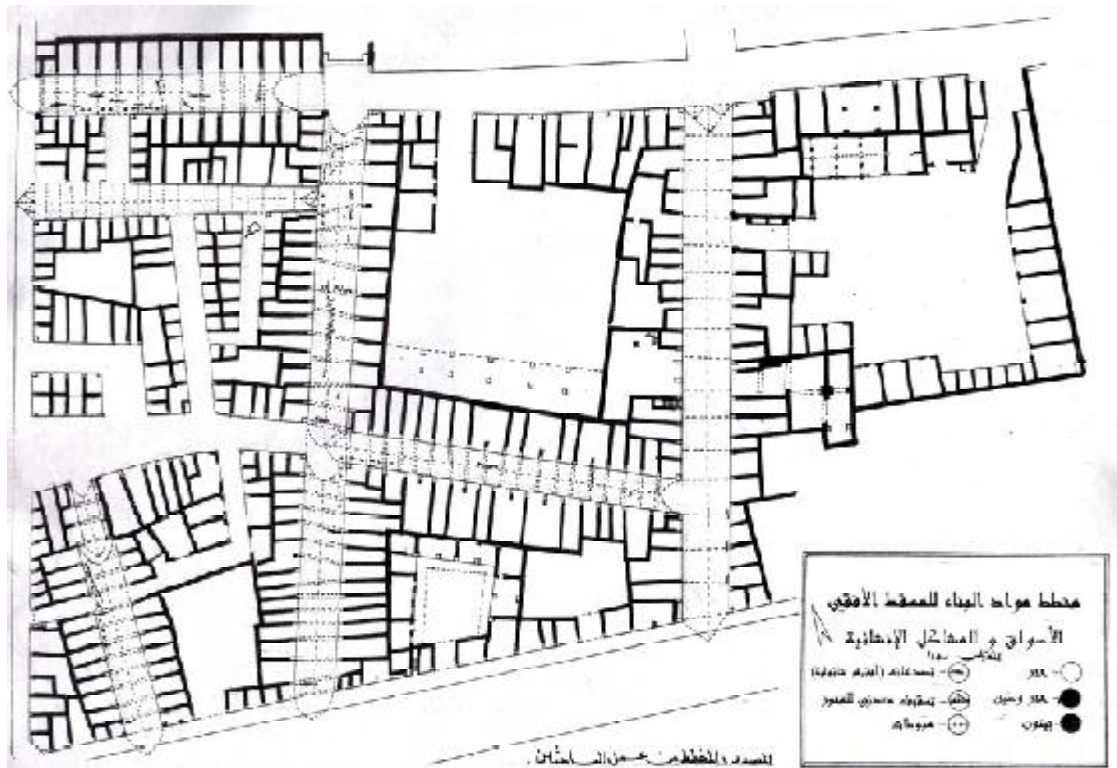
Implementation

The initial mission was undertaken between 9th and 12th July 2008. Travel from Damascus to Deir Ezzor and site visits were undertaken with Fadi Tumah, UNDP project manager. A final debriefing meeting was held in Damascus on 25th July.

Architectural characteristics of the Old Souk

The Old Souk at Deir Ezzor was built between 1875 and 1880, in the reign of Sultan Abdul Hamid II, a period during which covered souks were being built in other eastern provinces of the Ottoman Empire. Of the various souk streets, seven are roofed by ribbed vaults, constructed of stone in clay mortar, covered with lime plaster.





Above, plan of the souk, an updated version of the 1926 cadastre, indicating the seven covered streets, illustrating the varying sizes of the different shops and the former khan courtyards which lie between the streets of shops.



Left, examples of vaulted shops with arched entrances.

Most of the shops have arched entrances, many are vaulted and the souk therefore has considerable architectural qualities which are now not easily apparent. Unlike the Hamidiye Souk in Damascus, for example, the Deir Ezzor souk is no longer central to the local retail and wholesale economy and is largely catering to the poorer population from the city's rural hinterland. This reduced place in the economy has resulted in reduced trading hours and the souk is closed from the afternoon onwards. The UNDP project seeks to re-establish its position in the local economy, but also to diversify its function by reuse of the form khan courtyards clasped by the surrounding streets of the souk, for example for tourism development. However, the proposal to reuse the courtyards will not be viable without upgrading the souk itself. There are two main problems, the first of which prevents the architectural values of the complex

The Old Souk and Saray Building, Deir Ezzor



Above left, arched shop entrances are entirely concealed by steelwork when the shops are closed.



Above right, lack of management allows shopkeepers to use (and block) public space rather than their shops for sales.

from being appreciated, and the second of which is a lack of management which permits serious encroachment on public space. At night, roller shutters conceal almost all the arched shop fronts and present an unremitting façade of steel to the potential visitors, who are envisaged as using the khan courtyards in addition to the shops.

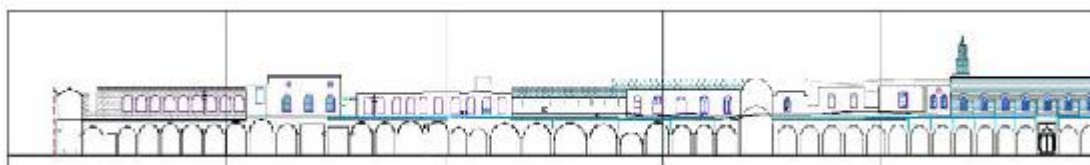
A survey carried out by the project indicates that most of the shops in the souk retain their original architectural character; those that have been altered are indicated with a black dot on the plan below.



A strategy for enhancement

Revealing the underlying architectural character

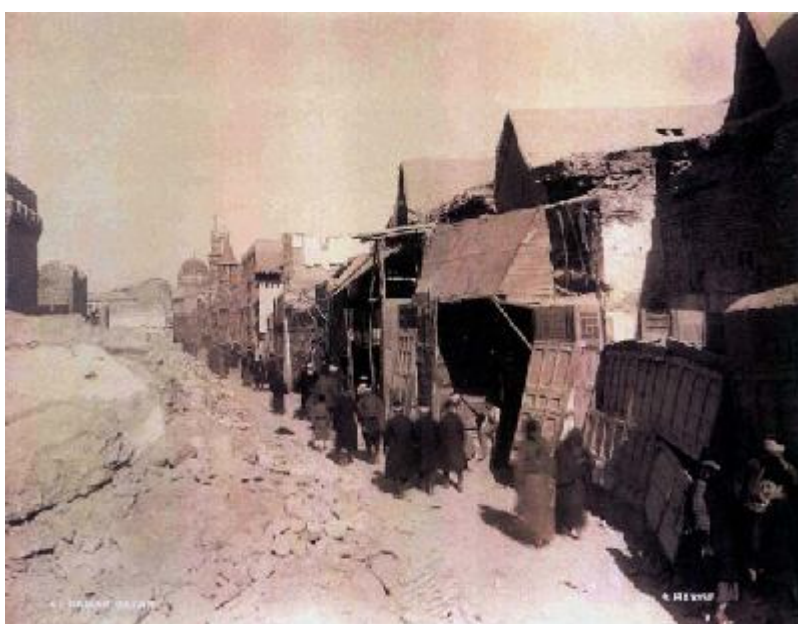
Both when the souk is in use, and in the afternoons and evenings when most of the shops are closed, only the ribbed vaulting of the covered streets is visible to show the architectural characteristics of the complex, while the architectural character of the shops themselves are largely concealed either by steelwork when the shops are closed, or by goods hung on the façades when the shops are open. To reveal the character of the shops themselves would transform the appearance of the souk.



This is graphically illustrated by Midhat Basha souk in Damascus. The survey drawing above demonstrates the underlying character of the arched-fronted vaulted shops, but their architecture is almost entirely concealed by steel roller shutters (*left*), a modern intrusion into the streetscape, directly paralleling the situation in the souk at Deir Ezzor.

It is evident that in some cases shop fronts were closed by demountable wooden shutters which were taken down and set aside while shops were open during the day. Such shutters are clearly shown in an archive photo of the construction of the Hamidiye Souk in Damascus at the beginning of the 20th century (*below*).

However, such shutters are not practicable in the present age because of the space which they take up, when shopkeepers have many more goods to display than was the case in the past, and where shops may now have inner glass windows behind the line of the external shutters.





There is some evidence to suggest that demountable shutters of this type were used in the Deir Ezzor souk, as two shops appear to show the remains of such shutters above the modern steel roller shutters (*left*).

However, there is now incontrovertible evidence that the most up-to-date type

of closure for shop fronts in the late Ottoman period was the sideways-folding iron shutter, possibly modelled on examples from southern France. There was extensive trade between the Ottoman Empire and Marseilles in particular during this period tobacco was exported to Marseilles and the ships returning to the Ottoman domains were laden with building materials, including bricks and roofing tiles. The relatively thin metal leaves of such shutters, about 25 cm wide, neatly fold away when the shutters are open during the day. It can be proved that such shutters were in use in Syria during this period, as they are shown in an archive photograph of a shop in Souk Sarouja in Damascus.



Above, archive photo of the giant plane tree which formerly stood in Souk Sarouja; just to the left, a shop front closed with folding iron shutters is clearly visible.

Since the study of this matter started, increasing numbers of surviving historic iron shop shutters have been identified in Istanbul, the former imperial capital, as well as elsewhere, and are illustrated on the following page.

It will be argued below that revising this type of historic closure is the best method for valorising the architecture of historic markets which consist of rows of shops with high arched entrances, such as the souk in Deir Ezzor, especially since this type of architectural detail was specifically designed for such shops. In addition, they provide the need for security, but at the same time are visually attractive.

Historic use of folding iron shutters



Above, pair of historic shops in Salt, Jordan. On the left, historic iron shutters leave the architecture visible, while in the case of the shop on the right, the modern face-fixed roller shutter completely conceals the arched shop front. In this case, the leaves of the iron shutters are wider than those identified elsewhere and recommended for use in Deir Ezzor.



Left, pair of shops in the Fish Market, Beyoğlu, Istanbul. The shop on the left shows how, in shops with arched entrances, the folding shutters were normally fitted under a fanlight which allows light into the shop itself.

Below, old iron grill closing a fanlight arch in the Deir Ezzor souk.



Designing a valorisation scheme for the Deir Ezzor souq

An excellent parallel to the design of the required scheme for the souk at Deir Ezzor is provided by the studies carried out for the restoration of rows of historic shops in Malik Faisal Street in Damascus, prepared by the EU-funded MAM Programme.



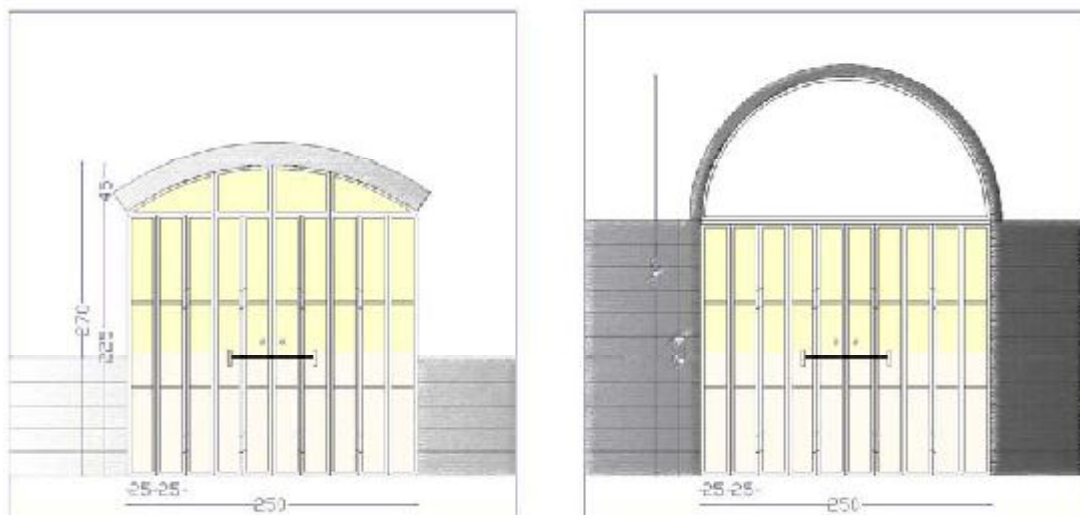
Above, a row of Ottoman-period shops and workshops on the south side of Malik Faisal Street, as existing; *below*, the same buildings as they would appear with later accretions removed and with the openings fitted with sideways-folding iron shutters.



Above, row of Ottoman- and Mamluk-period shops on the north side of Malik Faisal Street, as existing; *below*, the same buildings as they would appear with modern accretions removed and with the arched shop fronts fitted with sideways-folding iron shutters.



The MAM project has also carried out a study to show how sideways-folding iron shutters could be fitted to every kind of shop opening found in Midhat Basha in Damascus (*below*), paralleling the examples or original shutters in Salt and Istanbul illustrated on p.8 above.



Mistakes to be avoided



Damascus also provides examples of enhancement schemes where mistakes have been made. Kaymariye Street was subject of an enhancement scheme in the 1990s, but the need to remove the face-fixed roller shutters was not addressed. In consequence, the scheme had a greatly reduced impact (*left*).

The current enhancement scheme for Souk Midhat Basha, Damascus, involves replacing steel roller shutters with folding wooden shutters bound by steel frames. It is impossible to make wooden shutters as thin or the leaves as narrow as those of the historic iron shutters illustrated above. The shutters are difficult to fold away and tend to project forward and block the pedestrian walkway, as can be seen in the example on the extreme right of the illustration above.



Circumstances in which roller shutters are an appropriate solution



Some large souks, dating from the very end of the Ottoman period, contain shop fronts designed from the very first to be closed with roller shutters. The shutters can be clearly seen in the archive photograph of Souk Al-Hamidiye, Damascus (*left*). These shutters do not roll up into a large shutter box, as modern roller shutters do, but up under the roof of the shop. Most

importantly are fitted in check behind the facade and do not conceal the

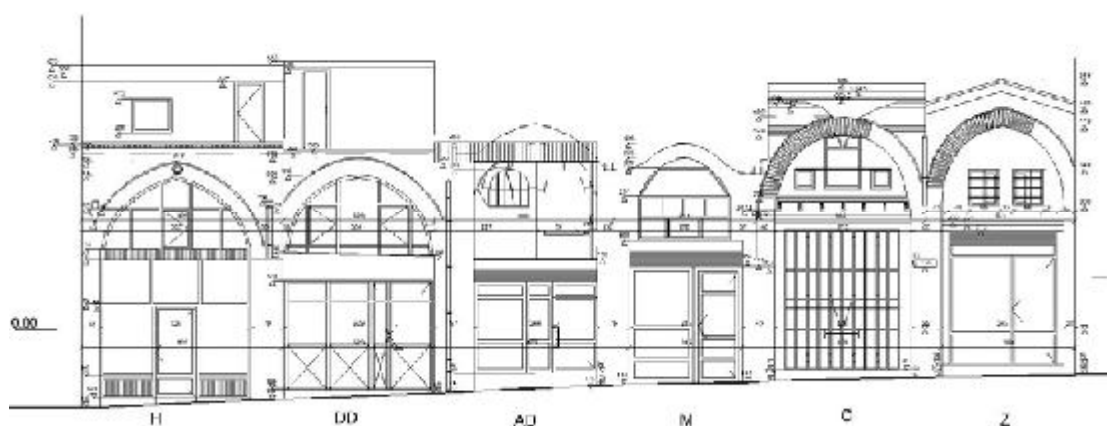
architecture, as is the case with modern face-fixed shutters with protruding shutter boxes. A few shops in the Deir Ezzor Souk were also designed in this way (*right*) and in these cases roller shutters should be retained. However, the example of Balat Market (Istanbul), discussed below, demonstrates the visual advantage of using shutters made of steel mesh rather than solid



shutters, as shown here. In the case illustrated, the visual appearance would also be much improved by the reinstatement of the wrought ironwork in the fanlight which will certainly originally have been present.

The positive example of the Balat Market rehabilitation scheme, Istanbul

The best parallel for the proposals to revitalise the Deir Ezzor souk is provided by the scheme for the rehabilitation of Balat Market, a component of the 7-million *Rehabilitation of Fener and Balat Districts Programme*, funded by the European Union, completed in July 2008. The market consists of two streets of historic vaulted shops, lying on the southern shore of the on the Golden Horn in Istanbul, six of which are illustrated in the architectural survey drawing below.



Two of the shops retained their original Ottoman-period sideways-folding iron shutters, which have been restored, illustrations of one of which are presented below.



Replacement shutters have been fitted in all cases where such shutters could be shown to have originally existed by the survival of the pintles in the jambs of the shop-front openings, which supported the shutters at their outer edges. However, a modern variation has been introduced, in that the upper part of the shutters have been restored as an openwork grill rather than solid ironwork (*right and below*).



In other cases, roller shutters were fitted within the shop-front openings, but with the shutter boxes flush with the shop façades rather than projecting beyond the face of the buildings and therefore still allowing the architecture be seen (*right*). In addition, roller grills rather than solid roller shutters have been fitted.



It is recommended that both these solutions should be considered for the Deir Ezzor souk.

Paving and removing encroachments from the public space



The writer was informed that the souk streets were originally unpaved. Some shops retain their original limestone paving slabs, which could be copied to provide an attractive new walking surface for the whole souk.

In addition, it will be necessary to remove encroachments such as steps and storage containers projected into the public streets (*right*), so that the streets are fully restored for public use. A similar policy was successfully implemented during the restoration of Hamidiye Souk in Damascus.



Management of the public realm

Encroachment on public space by shopkeepers and vendors is a major problem in the Deir Ezzor souk (illustrated on p. 5 above), as in public markets in many other cities. In Damascus, following the rehabilitation of Hamidiye Souk in 2002, encroachment by shopkeepers has been prevented, but enforcement is very lax and intermittent in other souks in the city and is at its most acute in Seyidi Rukkaya Souk, because of the volume of pilgrims and other visitors who pass through Bab Al-Faradis. Shopkeepers narrow the street to half its width by placing tables in front of their shops. In open souks (as can be seen in the open sections of the Deir Ezzor souk), encroachment by

tables at ground level also results in encroachment at a higher level, as shopkeepers erect canopies to protect their tables from sun and rain.

UNESCO's experience in other heritage cities has shown that it is possible to make shopkeepers retreat within their shops, if the rule is applied fairly to all. The removal of encroachments not only frees the whole width of the street for pedestrians, but also reduces their number, as shoppers will go inside the shops to buy goods, rather than blocking the way in the street itself. In the case of Hoi An Ancient Town World Heritage Site, Vietnam (arguably the best managed historic town in Asia), the municipality even has a Section for Checking Civilised Behaviour, which is responsible for checking encroachment, noise pollution and other public nuisances. In the case of the Deir Ezzor souk, such an institution would be unnecessary, but nevertheless to truly valorise the souk it will be necessary for the municipality to institute regulations to regulate encroachment on public space in the restored souk and to be serious in implementing such regulations. The daily chaos in Seyidi Rukkaya Souk in Damascus provides an object lesson in the consequences of lax enforcement.

Signage



The regulations to manage the souk after restoration will also need to cover questions of signage. As was implemented in the Hamidiye Souk restoration in Damascus (above), it is recommended that only painted wooden signs should be permitted and that illuminated plastic signs should be banned. Similar policies are pursued in other

heritage towns, for example Hoi An (see above) and Lijiang (China) World Heritage cities.

Structural problems



Sections of the Deir Ezzor souk show significant structural problems, probably connected with subsidence of the foundations. Such problems have been linked to the problems of surplus water used by butchers' shops, which it is proposed should be moved out of the souk. This will certainly be a good idea as part of the proposal for the overall valorisation of the souk, but the structural problems should be checked by an engineer experienced in the assessment of historic structures. As an immediate step, tell-tales should be fixed over the cracks to establish whether, or how much, movement is currently taking place.

Left, crack showing the separation of the back wall from the cross wall in a shop in the souk.

A second problem has been identified in a section of the souk roofed with timber beams rather than by a vault (*right*). Here, the walls projecting above the arched shop fronts, show signs of inward rotation, where they are not restrained by the outward thrust of the vaults. This problem also requires investigation by a specialist structural engineer.



Implications for human resources

The Deir Ezzor souk is an extensive complex and its rehabilitation will require implementation through a significant construction contract. The height and width of the shop-front openings and indeed the sizes of the shops themselves shows considerable variation. It will therefore not be possible to produce standard detailing applicable to every shop front, but detailed surveys of the façades of the streets will

cities) and comparable projects demonstrates that there is no shortage of suitably qualified young professionals in Syria. There should therefore be no problem in filling the recommended posts.

The Saray structure

The Saray building (*right*), which was formerly used as a court and subsequently used as a museum, dates from the first half of the 20th century. It has a rectangular plan with two flanking wings with a slight projection. The first floor and the flat roof are supported on jack-arches. The long corridor on the first floor is lit by clerestory windows and the ground floor corridor beneath by borrowed light through glass floor lights.



The walls are faced with coursed, rock-faced, tightly jointed, masonry in what appears to be a soft, oolitic, limestone.¹ The masonry itself is bedded in a pinkish lime mortar, but the elevations have been pointed in an impervious hard grey mortar which is probably cement-based. In consequence, the stonework cannot breathe through the mortar joints, as it should, but the wall is

perforce absorbing and releasing moisture in different atmospheric conditions, in addition to capillary action, through the stones themselves, which has set up a severe cycle of salt damage and decay at the feet of the walls (*above left*).

Hard cement mortar like this is usually superficial and falls out and the best course of action is often to wait until this has happened. However, in this case the wall has

¹ Locally described as sponge stone, although this description is usually applied to pumice - a volcanic, not a sedimentary, rock.

been deeply pointed, the joints are narrow and the pointing is firm. The mortar used for pointing is so damaging to the wall that **it is recommended that an experiment should be carried out to see if it could be cut out with an angle-grinder without damaging the arisses of the adjacent stones. If this is not possible, it should be left. The bottoms of the walls should be repaired by replacing the decayed stones, which should be laid in a lime mortar matching the lime mortar of the original wall.** There is no easy and permanent solution to this problem, which is exacerbated by the raising of the level of the street pavement. Under no circumstances should the bottom of the walls be faced with stone tiles', as has been done in the case of the historic police building in the Saray complex.

On the first floor, the south-eastern corner of the Saray building has cracks which suggest past or current movement in the masonry. This should be monitored by tell-tales to establish if movement is continuing and should be inspected the structural engineer at the same time as more serious problems in the souk complex and the barracks building. On the south-west corner of the first floor, there is evidence of water penetration from a leak on the roof (*right*). In neither case are these problems visible on the ground floor, suggesting that they are probably not serious.



The overall condition of the Saray building appears to be fair. The plan, which has a centralised circulation based on long corridors on each floor, and the structure, with the floor supported by jack-arches, suggest that it will be suitable for its proposed use as a multi-purpose cultural centre and that the floors should be up to the loads that such a use will impose.

The Saray gateway

The Ottoman-period Saray gateway, which is at present bricked up, formerly provided access directly from the northern end of the souk into the former barracks courtyard and legal and administrative complex beyond. This impressive, monumental, structure has an inscription dated A.H. 1307. The vaulted structure to the rear of the gateway, on the courtyard side, has mostly collapsed and the area is filled with rubble. There is no problem in reopening the gateway, but the rear structure will require reconstruction, if that is the decision taken, or the rear portion could be conserved in a ruinous and the gateway itself just opened up.



Above left, southern, front, elevation of the Saray gateway, facing the souk.



Above right, northern, rear, elevation of the Saray gateway, showing the collapsed vaults.

The barracks building

The surviving barracks building (*right*) is a two-storey structure, with vaulted storey at ground-floor level, with a central row of columns supporting the vaults, and an upper storey with rooms accessed from a colonnaded corridor.



There is considerable differential settlement between the central row of columns and the exterior walls, less so where the ground floor has been divided by partition walls on the line of the columns, which has helped support the vaults. Where the columns are free-standing, however, the settlement is very marked and parts of the vaults have collapsed (*left*). The structure must be checked by a structural engineer qualified in evaluating historic buildings.

Left, the timber tie between the outer wall and the central column was originally horizontal, showing the extent of subsidence of the central row of columns.

The barracks courtyard

The barracks courtyard is a pleasant area, dotted with trees, which in the Ottoman period formed a link between the souk, entered through the Saray gateway, and the Saray courtyard proper, which contained buildings connected with the administration of justice.

The other sides of the courtyard contained a kitchen and stables, which survive in a state of



dereliction or collapse. All these buildings are capable of restoration, but the courtyard also has considerable potential for performing a range of new functions linked to the proposed multi-purpose cultural centre and can serve as a link between the main cultural centre in the Saray building and the souk itself.

The boundary of the project area

The project area is restricted to the souk complex, the Saray building and the barracks courtyard. This will result in the rehabilitation of the eastern side of Al-Saraya Street, while the opposite, western, side will remain untouched.

The experience of UNESCO in other heritage cities demonstrates that both sides of a street should be conserved under the same management regime.



Above, Al-Saraya Street should be treated as a unity.



In any case, many of the shops immediately outside the souk complex have their own architectural quality (*left*). If this suggestion is accepted, then the boundary should lie on the property boundary at the rear of the shops on the far side of the streets than define the souk complex on its southern and western sides.