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Renovation strategies: use and changes to Lisbon's current domestic spaces

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ABSTRACT: This contribution proposes a comparative analysis of the original and transformed domestic layout in recent renovations of late 18th and early 19th century housing in Lisbon's *baixa pombalina*. We specifically look at modifications of room function and connections between spaces according to three main strategies: re-using alcoves for new bathrooms or storage; addressing the kitchen's present role in domestic sociability; creating additional housing units through flat division. The aim is to identify solutions in contemporary interventions that take advantage of original typological features while simultaneously addressing changes in family life and new comfort demands.

1 INTRODUCTION

The urban character of European cities with significant late 18th and 19th century development is framed by city expansion plans and the redefinition of public spaces. Lisbon's *baixa pombalina* is an example of a planned coherent ensemble of this time where housing plays a fundamental role. The terrible destruction due to the 1755 earthquake was followed by the 1758 plan for the rebuilding of the downtown area, comprising repeated rectangular blocks with a narrow central courtyard and a variable number of buildings. This impressive plan was extensively analysed by several authors, starting with the seminal work by José-Augusto França *Une ville des lumières* (França, 1987 [1962]). More recently, it was featured in the *Monumentos* thematic journal (Costa, 2004) and in an exhibition curated by Walter Rossa and Ana Tostões that produced a catalogue with new analyses (Rossa & Tostões, 2008). Maria Helena Barreiros's (Barreiros, 2004, 2011, 2012) latest articles are, as far as could be established, the most recent updated work describing the layout and functional organization of the domestic spaces.

The large-scale enterprise of the *baixa pombalina* allowed for the testing and stabilizing of the block of flats, which usually had two or, otherwise, one flat per floor. Façades were planned mainly onto the public space, and few original floor plans have made it to this day. The general flat layout, of which we undertook a partial statistic analysis (Wall Gago, 2007), can summarily be described as follows. Reception rooms intended for public display faced the street, generally in enfilade. Emphasis was placed on their separation from the kitchen, usually placed next to the courtyard. Access separation between reception and service areas was most often done through a distributing passage from the entrance, which was usually reinforced by creating two entrances from the staircase landing, especially when there was one flat per floor. When there were two flats per floor, one or two entrances per flat were nearly as common. With the exception of the passageway from the entrance, the distribution within the flat was most often done directly between rooms without mediating spaces. Corridors existed only occasionally. A single or double layer of interior rooms parallel to the façade – usually termed alcoves – completed the set. According to Barreiros (Barreiros, 2011: 120), apart from the kitchen, room function was predominantly flexible in the flat plans, becoming more specific throughout time.

Renovation of this current historic housing is a necessity to avoid the loss of historic values, to address changes in family life and comfort demands, and to ensure building safety. Inhabitants increasingly value distinctive original features of buildings, while at the same time expecting the added comfort that comes with present-day infrastructure and insulation. Contemporary interventions have the potential to contribute to richer spaces by valuing the qualities of the original domestic spaces such as ceiling height, room dimension, and plaster or woodwork, while simultaneously responding to these new concerns.

There are recurring issues that renovation projects frequently need to address. One of them is the addition of new domestic functions, such as the placing of one or more bathrooms, as well as the privacy of bathrooms and bedrooms. Nowadays, the almost systematic placing of bedrooms in rooms with windows next to the building façades also often calls for room function reorganisation. Moreover, the reduction or elimination of household staff, associated to the new role of the kitchen in the house's social life, have led architects to rethink the previously hidden service spaces in relation to the rest of the house. An additional issue is the division of larger flats, often brought about for economic reasons and by the demand for more diversified housing in the city centre.

When renovating, it is both a challenge and an opportunity to find design solutions that make use of the houses' original layout features to address present-day housing programs. As we shall see, far from the possible and visible losses this patrimony has experienced, some interventions represent coherent examples of how to achieve solutions for compromise[i].

2 METHODS

This article summarily presents part of a broader on-going study[ii] on the contemporary renovation of late 18th and 19th century current housing in the cities of Lisbon and Oporto, in Portugal, and Geneva, in Switzerland.

The first objective was to understand how changes in family life and new comfort expectations led to transformations in room function and in the connections between rooms. Consequently, we focused on interventions where the housing function was kept to increase the comparability between original and new layouts. This comparison was also made possible by choosing examples where the original structure and main layout features still existed at the time of intervention.

The second main objective was to identify design solutions where not only a balance could be achieved between original features and new ones, but where the existing elements played an important role in the present-day housing program. We chose, therefore, to analyse interventions that did not entail an extensive removal of original elements.

For the present article we focused on recent interventions located in a key late 18th and 19th century expansion period area of the city of Lisbon, the *baixa pombalina*, including mostly current blocks with one or two flats per floor. Out of our original pool of examples for the city of Lisbon, we focused on three of the renovations that best illustrate some of the identified layout changes.

The analysis of the modifications to the domestic spaces is based on the understanding of the original layout of each example. This work was undertaken by conducting archivist research and by collecting metric surveys through the intervening architects. The most important step was, then, to compare the original and new flat plans to identify the changes in room function and in connections between rooms. Whenever possible, we determined the likely motives for these transformations from written documents on the projects, from meetings with the architects and by comparing the original layout and new flat plans.

3 RE-USING ALCOVES FOR NEW BATHROOMS OR STORAGE

3.1 *Original usage of alcoves*

Alcoves were usually the smallest rooms of Lisbon's *baixa pombalina* flats. They were interior rooms that gave onto bigger rooms that, in turn, gave onto a street or courtyard façade. These bigger rooms would indirectly provide light and air to the alcoves through a door-size or bigger

opening, often complemented by a fanlight. Alcoves could either be accessed only through this bigger room or also have a secondary access through another room or mediating space.

The final section of Monique Eleb and Anne Debarre-Blanchard's *Architecture de la vie privée* (Eleb & Debarre-Blanchard, 1989: 291) presents the description of housing room functions as included in some French architecture encyclopaedias or dictionaries since the 18th century. While in 1765 D'Alembert and Diderot described the alcove as a usual part of the bedroom where the bed was placed, sometimes including some chairs, in 1877 Bosc depicts it as no longer being an essential part of the home, but rather a device which could be useful in defining apartment layout.

In Lisbon's late 18th and 19th century *baixa pombalina* flats, alcoves exist almost invariably, as we can easily see by going through the general metric survey done by Jorge Marcarenhas for his PhD thesis *A study of the design and construction of buildings in the Pombaline quarter of Lisbon* (Mascarenhas, 1996). In 2004 Maria Helena Barreiros described the function of these interior rooms, "in principle", as "sleeping chambers" (Barreiros, 2004: 92) or, otherwise, as "dressing rooms, children's rooms, or all that simultaneously" (Barreiros, 2004: 96). The possible advantage of using them as sleeping chambers – meaning where the bed was placed and not much else – was to be able to use the adjoining rooms next to the façade for social functions whenever necessary, keeping the beds hidden away[iii].

3.2 *Bathrooms, libraries and kitchen storage – Rua da Alfândega*
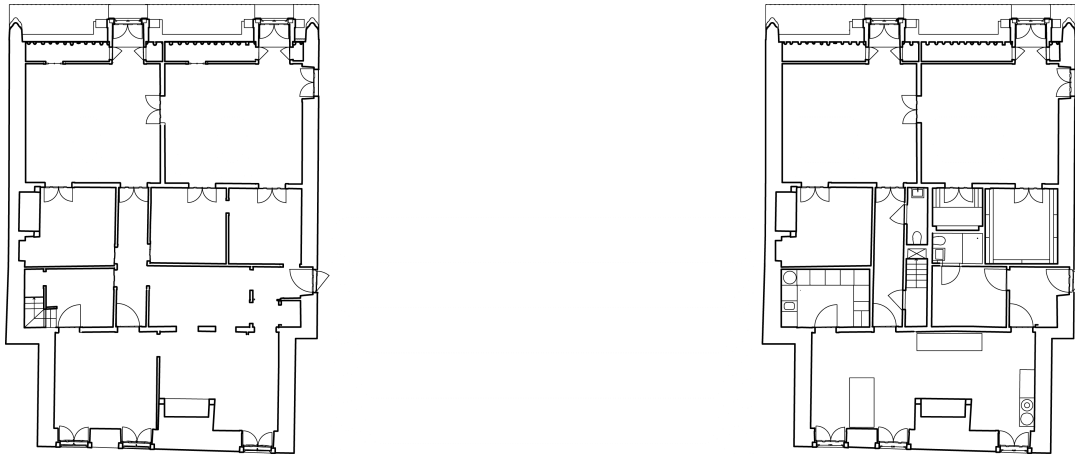

Figure 1. Established original plan and plan after renovation (drawings by Atelier do Bugio architects, adapted)

The adaptation of previous alcove spaces to a present-day housing programmes is illustrated by the renovation of the top floor of a late 18th century building on *Rua da Alfândega* (Figure 1), right next to the *Praça do Comércio,* one of the *baixa*'s main squares. The original floor plan comprised two intercommunicating square rooms next to the street façade, possibly dedicated to social functions. A central passageway linked these rooms to two others next to the courtyard façade, including the kitchen, which had its own separate entrance from the staircase. In addition, two parallel sequences of smaller alcove spaces gave onto these bigger rooms. The existence of two chimneys could possibly be explained by one being originally dedicated to the kitchen and another to a dining area; in alternative, the flat could have been divided in two at some time.

The recent intervention by Atelier do Bugio (Figure 1) makes use of the attic to increase the housing space: most bedrooms were placed above, keeping the social areas downstairs. On this lower floor, the transformation was mostly concentrated in the central alcove spaces, where additional housing functions were placed. According to chief architect João Favila, this strategy kept the original fundamental geometry of the rooms next to the façade, using the alcoves as rooms that complement these spaces.

Housing in Lisbon's *baixa pombalina* is documented not to have originally had WCs, but only a basin in the kitchen (Mascarenhas, 1996: 97). In several of the houses that are nowadays renovated we find that, throughout the 20th century, small WCs were often added just outside the kitchen onto the small courtyard next to the sewage drainpipe, or that improvised bathrooms were placed inside the kitchen or just next to it. In the *Rua da Alfândega* flat a bathroom had been placed inside the kitchen, going to the length of dividing the existing window. In the recent intervention the kitchen is kept in the same location, now including the eating area. The downstairs bathrooms were moved to be included in part of the previous alcove spaces. They also have a more private entrance by giving onto the existing passage. In order to pass the sewer distribution it was necessary to create a step from the corridor to the bathrooms. The sewage piping then passes between and parallel to the existing floor beams. It is then connected to the drainpipe located on the courtyard side. Water distribution is done above the wooden ceiling, which was redone identically to the original damaged one.

Alcove spaces next to the living rooms – two rooms giving onto the street façade – complement this social function. Two of them include the library space; their walls were covered in shelves and one of them includes a desk, allowing for its occasional use as an office. The third alcove, where the second chimney is located, is used as the television room. On the kitchen side, next to the courtyard façade, one of the alcoves was used to place a service bedroom and bathroom, connected to the house's second entrance. The other is directly connected to the kitchen and includes additional storage and the laundry room.

According to the inhabitants, these multiple small spaces allow several people to do different things at the same time without overlapping. As in the original plan, their function is only partially defined. Consequently, the interior alcove spaces – that are also comfortable thermally and acoustically – allow for a flexibility of usages in family life.

4 ADDRESSING THE KITCHEN'S PRESENT ROLE IN DOMESTIC SOCIABILITY

4.1 *Original service spaces*

The kitchen is one of the few spaces in most *baixa pombalina* flats that can usually be assertively determined due to the presence of the original chimney. As in most housing of the time, service spaces were kept within distance of the reception ones and of the public eye – the street. As such, the kitchen gives almost invariably onto the courtyard façade. As mentioned earlier, this separation could be made through the flats' distributing passageway from the entrance or, alternatively, by establishing multiple entrances to the flat. Whenever there were two separate entrances to the flats, the most common system was for them to be placed on the same landing: one giving access to the distributing passageway, another to a room giving onto the street façade (Wall Gago, 2007). However, as in the previous renovation example, there could be two separate entrances from different landings. This was, naturally, a more elaborate system that was probably used when cost was less of an issue.

4.2 *The kitchen come dining come living room - Rua de São Mamede*

One of the topics that is frequently addressed in recent renovations is precisely the original distance between service areas – namely the kitchen – and social areas. The aim is usually to bring the kitchen closer to the dining room or the living room areas. The fact that the kitchen can now be part of or accessible through the living room attests to less embarrassment and to the greater participation of activities that take place in the kitchen, such as food preparation, in social life. Several strategies can be put in place according to each house's original features. In the previous example in *Rua da Alfândega* (Figure 1), the dividing wall between the kitchen and its next-door room had been removed before the intervention. The inhabitants chose to keep this newfound kitchen size and join food preparation to the eating area. The living room remained in the rooms giving onto the street. Another strategy that is sometimes put in place is to introduce a more direct connection between the kitchen and the living-eating room by changing the distribution in the flats' central area.
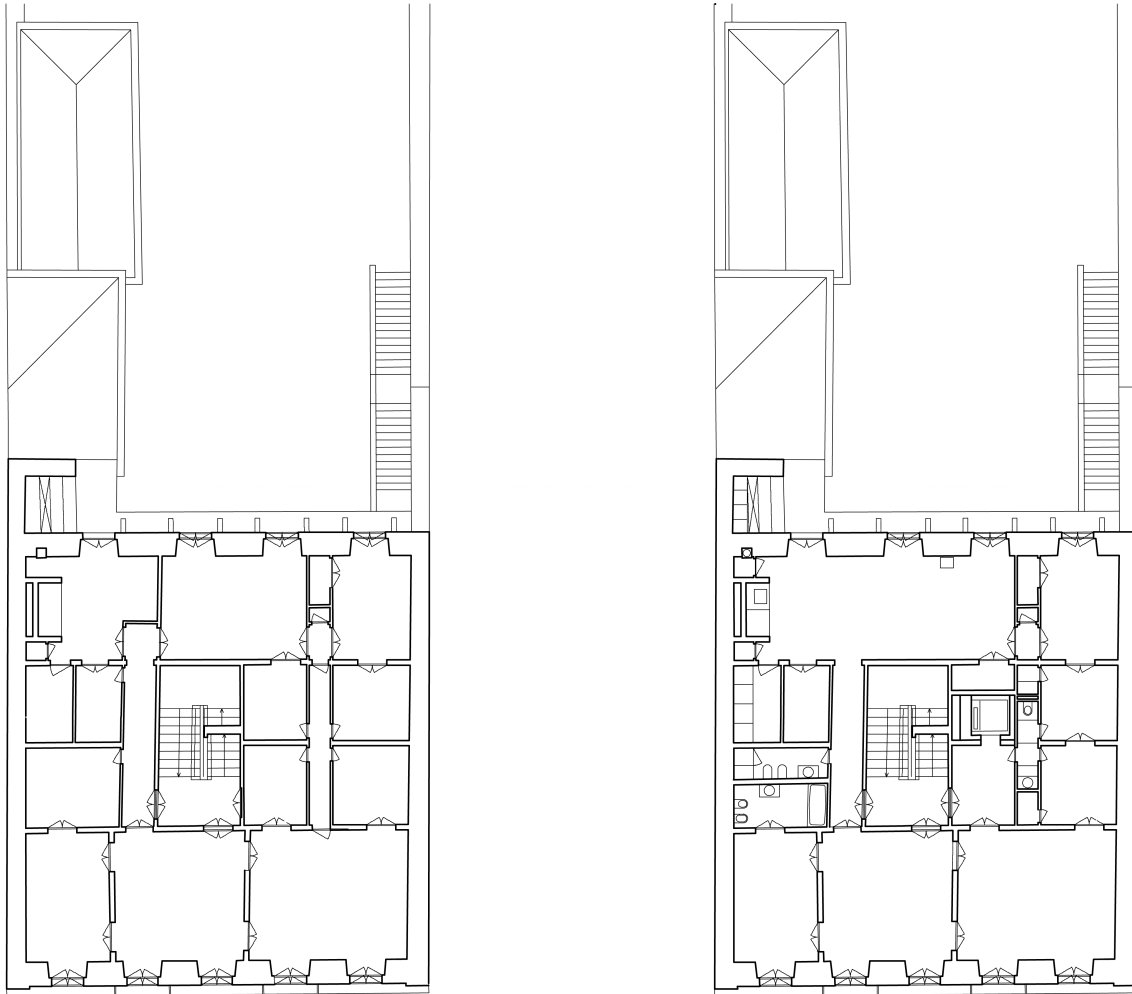
Figure 2. Established original 3rd floor plan and plan after renovation (drawings by architect Alberto de Souza Oliveira, adapted)

A recent renovation of a flat occupying the third floor of a *Rua de São Mamede* building (Figure 2)*,* in the *baixa pombalina*'s Eastern area, by architect Alberto de Souza Oliveira*,* takes the kitchen's new role in domestic sociability one step further. The original layout presented multiple entrances from the same staircase landing: one let to a distributing passage, another to the three rooms next to the street façade that are connected in enfilade. The kitchen was placed towards the courtyard, as were also two other rooms. In between, two parallel lines of interior alcoves gave onto these spaces.

This building had the specificity of having the kitchen on the South-side. In contrast to the usually small courtyards in most of this neighbourhood's blocks, this one had a terrace to the back on the ground floor and balconies with a view on the upper floors. One of the main transformations was to move the living and dining room areas onto the kitchen side, thus placing two bedrooms and a more private living area towards the street. In order to constitute this food preparation-eating-living area a non-structural dividing wall was removed. The interior rooms next to the kitchen serve as pantry and dishwashing area. As in the previous example, the other pre-existing alcoves are used as bathrooms and, in this case, also as dressing rooms for the bedrooms.

5 CREATING ADDITIONAL HOUSING UNITS THROUGH FLAT DIVISION

5.1 *Original and changing flat division*

In most of the *baixa pombalina* buildings the 1st floor originally had one or two flats per floor. According to Maria Helena Barreiros (2012: 149), it was sometimes possible for there to be fewer larger flats on the lower, nobler floors, that were divided into more flats above. This division could be done just by closing a few openings or partitions. In these cases, one can imagine that lower flats could occasionally be divided at a later date according to the same scheme, thus allowing for a greater flexibility in usage. Moreover, the addition of housing units to the buildings was also undertaken by adding more floors than initially planned, either in the original construction or in the century that followed.

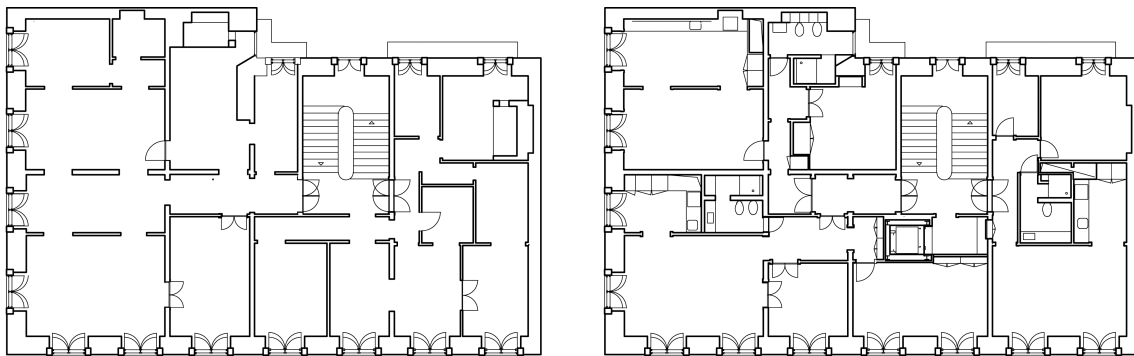## 5.2 *Multiple entrances and interior corridors as new flat entrances – Rua dos Fanqueiros*

Figure 3. Established 3rd floor original plan and plan after renovation (drawings by architect José Adrião, adapted)

As we have seen, the importance of the separation of the service areas from the reception spaces often resulted in the presence of multiple entrances, especially in larger flats, which presumably housed wealthier inhabitants with a more numerous staff. Consequently, a large number of flats had two entrances (occasionally three), one closer to the service rooms, and another one usually giving access to the social area of the house.

Nowadays, whether it is to maximise a renovation investment or to provide a more varied offer in terms of flat size and sale or rental price, some renovation projects divide existing larger flats, sometimes from an original one to two flats per floor, or from two to three flats per floor. Within recent analysed renovation projects we identified two types of interventions that employ existing distribution features to establish the new flat divisions: using previous multiple entrances to the flats from the staircase landing as new flat entrances; transforming the existing interior corridors or passages into flat distribution spaces.

The renovation of a building on *Rua dos Fanqueiros* by architect José Adrião (Figure 3), located in the heart of Lisbon's *baixa*, is an example attesting to the use of both strategies. Throughout the 20th century, the flats had been quite transformed. Nevertheless, most of the original structure was still present and a large part of the layout was identifiable: one line of bigger interconnecting rooms parallel to the street façades, the kitchens towards the courtyard façade, and a few alcoves and passageways in between. According to archive transformation plans[iv], the 1st floor originally housed one flat with three entrances, while the upper floors were divided in two just by closing a passage between rooms. One of these upper floor flats had one entrance; the other had two from the same landing, one closer to the kitchen, and the other closer to social areas near the street.

The intervention divided the floors into three separate flats. One of the flats uses one of the original entrances; the other original entrance gives access to a previously existing passageway or small corridor. It is this space that distributes the two remaining flats. The entrance hall to the new lift makes use of the third original entrance from the staircase landing. Even though they

are smaller, the new flats also address the issues we looked at in the previous examples. Accordingly, some of the bathrooms were placed in previous interior rooms. The kitchens were brought towards the front so that they are directly connected to the living rooms. Moreover, they attest to the surpassing of a prerogative at the time of building, that is, that access to the kitchen be possible without being visible from the reception areas. On the contrary, in these flats the kitchens are only accessible through the living rooms.

6 CONCLUSIONS

This article looked at three main renovation strategies in current late 18th and 19th century housing: re-using alcoves for new bathrooms or storage; addressing the kitchen's present role in domestic sociability; creating additional housing units through flat division. We focused on examples of recent renovations of housing in Lisbon's *baixa pombalina,* comparing original and transformed flat layouts.

From the summary analysis that was undertaken, we can conclude that it is possible to adapt the flats to contemporary housing programs while addressing changes in family life, such as the need for infrastructure from the introduction of more bathrooms, for instance, or the connection of the kitchen to the social areas. Furthermore, some recent renovations show that this work can be undertaken not only without an extensive demolition of the houses' original main layout features but also by using these characteristics as a basis for transformation. Inhabitants mention valuing the renovated flats for their location in the city centre but also for the flexibility they continue to allow. Rooms can inclusively be used for different interchanging functions due to the connections between them, the presence of some spaces of similar size, and the existence of small interior ones.

Nevertheless, while our aim has been to show the existence of qualified recent renovation work, it is still important to notice the long-time degradation of a large number of buildings in several city centres. This degradation has and can ultimately lead to their destruction or to irreparable patrimonial losses. As in the *baixa pombalina*, current 18th or 19th century housing buildings with repeated traits often define the urban character of large city areas. In Lisbon, the 2012 *Plano director municipal* (Municipal directing urban plan) has started to address this issue in consolidated central building areas, for instance, by allowing for building demolition only in very specific situations, such as their impending ruin. Furthermore, whenever a building has been demolished for this reason or due to the technical unviability of the renovation, it is required that the original volume be maintained. If wrongful doing is proven, the building should be partially or completely rebuilt (CML, 2012: Art.45°).

As a final note, it is also important to mention that partial interventions, for instance, on one building floor – even respectful ones – sometimes do not have the power to address infrastructure at a building level, let alone structural problems due to damaging interventions. Several interventions that have been done throughout the 20th century have led to the loss of characteristic historic elements, such as original chimneys, ceiling plaster decorations, wooden flooring etc., and could compromise the buildings structurally due to the removal of structural walls on some floors. As such, it is, as ever, especially important to establish dialogue and cooperation between actors that allow for the inhabitants' safety and for the preservation of fundamental urban heritage.

ENDNOTES

[i] The word compromise is used in a positive sense to refer to critical design solutions that achieve a non-conflicting balance between equally important issues.
[ii] We refer to the on-going doctoral project we are developing within the framework of the *IST-EPFL Joint doctoral initiative* on the contemporary renovation of current late 18th and 19th century housing in Lisbon, Oporto and Geneva.
[iii] With all due distance, this possible usage for the alcoves was described by Dominique Bertin and Nathalie Mathian for the later 19th century housing in the city of Lyon (Bertin, Mathian, 2008).

[iv] Building file n°1590 from the *Arquivo Intermédio da Câmara Municipal de Lisboa* (Lisbon city archives).

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