

International Scene

The Role of the Technical Service of the Direction des Archives in the Construction of Archival Buildings in France

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Abstract: The Technical Service of the Archives de France, an office in the government's central administration, mediates in the construction and furnishing of archival buildings throughout France, at the national, departmental, and municipal levels. This concentrated responsibility and continuing interaction with architects and engineers has allowed the assemblage of considerable documentation on archival buildings and the development of technical and dimensional standards (a summary of which is appended to the article).

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A LITTLE HISTORY IS useful for understanding the role played by the Technical Service of the Archives de France in the construction of an archival building by any French geographic department, city, or town. It demonstrates why and how this small office within the government's central administration has managed to have such influence. The organization of the Archives de France is parallel to that of the governmental administration at the national and local levels. The Archives Nationales, established in 1790, accessions the governmental records and other records of central state bodies; the departmental archives, established in 1796, exist in each geographic department in order to preserve the records of the departmental administration; the city and town archives preserve the records of municipal administrations, regardless of the size of the municipality.¹ All of these archives have received technical expertise and supervision from a central authority named the Direction des Archives de France, created in 1897. The director general of the Archives de France serves on behalf of the Ministry of Culture and at the same time is the director of the Archives Nationales.

One single law, the law of 3 January 1979, applies equally to the national, departmental, and municipal archives, with the Direction des Archives de France responsible for overseeing its application. With this authority this office is called upon to mediate in the construction and the furnishing of archival buildings throughout France.

Until 1945, few departments had made the effort to construct buildings specifically designed as archives. Between 1918 and 1939, scarcely a dozen departmental re-

positories had been built. Credit is owed to the first post-war director general of the Archives de France, Charles Braibant, for pulling the departmental archives out of their stagnation. He directed the Archives de France from 1948 to 1959. The unprecedented economic expansion of France at that time had at least modest repercussions for archives, and Braibant's personal dynamism was a contributing factor as well. France was filled with construction sites as the country was undergoing modernization. Between 1948 and 1959 sixteen departmental archives buildings were built and twenty-five others were renovated or enlarged.

The Technical Service of the Archives de France was created in this context in 1948. This office immediately began to study the technical problems of the construction and furnishing of archives. Little by little, the archivists who administered the Technical Service found practical solutions to the problems of the profession. A doctrine developed. In 1966 a book on the buildings and furnishings of archives appeared which marked an important step in the conception of archival buildings in France.²

What gave the Technical Service its influence? A decree of 20 June 1950 permits the construction of departmental archives to benefit from a subsidy from the national government of from ten to thirty percent of the total cost, contingent upon technical approval of the Archives de France. At the very outset of its creation, the Technical Service of the Archives de France had to be familiar with all of the construction and renovation projects of the departmental archives because the departments always solicited assistance from the central government. This office could thereby in-

¹*Département* is a French term referring to a geographic area, roughly equivalent to the English *province* or *county*. In this article *département* is translated directly as *department*. There are 100 French *départements*, of which four are overseas (Guadeloupe, Guyana, Martinique, and Réunion).

²See Michel Duchein, *Les bâtiments et équipements d'archives* (Paris: Conseil International des Archives, 1966).

tervene by modifying technical documents, and even occasionally improving them. The creditors were also officially authorized to give advice, which soon became a standard arrangement.

This system of the past forty years is still going strong. Naturally the relationship has evolved between the Archives de France and local project authorities. Up until 1972 the departments chose freely the architect for the departmental archives. It was most often the departmental architect (the official architect on permanent contract to the local authority) who received this honor and responsibility. This architect might never have constructed an archival building, might have no knowledge of archival conservation issues, and might be interested or not. A 1972 decree required local authorities to organize architectural competitions for the construction of buildings as costly and complex as archival buildings and established the notion of engineering contracts. The architect has since this point been aided by a technical team of engineers, by structural engineers, and by heating, ventilation, and air conditioning (HVAC) engineers. As a result, the Technical Service of the Archives de France has to work with actual teams. This presents both advantages and inconveniences. Certain architects have made quite a reputation in building archives, and certain engineering offices have become specialists in resolving the problems of preserving written documents. It is interesting for the Technical Service office to work with them, and the quality of the buildings is a reflection of this. On the other hand, these architects and engineers consider themselves specialists in constructing archival buildings with no need for advice from the Archives de France. They even tend to bypass its recommendations.

In other respects, in contrast to the strongly centralizing principles that have directed France in the nineteenth century

and early twentieth century, a decentralized and regionalized system has emerged since the 1970s. Initiated twenty years ago, this movement has accelerated since 1981 with the arrival of the socialist government. The laws of decentralization of 2 March and 22 July 1982, of 7 and 22 July 1983, and of 28 January 1984 have profoundly modified the French system of local government. But these laws have changed nothing, paradoxically, in terms of the subsidies for the construction of departmental archives buildings, even though the departments have been recognized as competent in terms of resources for archives and have to assume the financial cost of their preservation. The Direction des Archives de France has retained legal control over the departmental archives in scientific and technical matters, which were recently specified by decree #88-849 of 22 July 1988. This decree authorizes the Technical Service of the Archives de France to grant subsidies for the construction of archival buildings.

To obtain the approval and support of the Technical Service, construction projects have to be in accordance with standards for the preservation of archival documents. These norms are established by the Centre de Recherche sur la Conservation des Documents Graphiques (CNRS) in cooperation with the Direction des Archives de France. Because of these norms, spectacular progress in conservation has been made in recent years. They are summarized in the program for the construction of archival buildings that the Technical Service developed in detail in the 1960s and which was just reissued in 1985 in the last edition of the standard book on buildings and furnishings on archives.³ This program has served as a basis for all construction of ar-

³Michel Duchein, *Les bâtiments d'archives: construction et équipements* (Paris: Archives nationales, 1985). Translated as *Archive Building and Equipment* (Munich-New York-London: K.G. Saur, 1988).

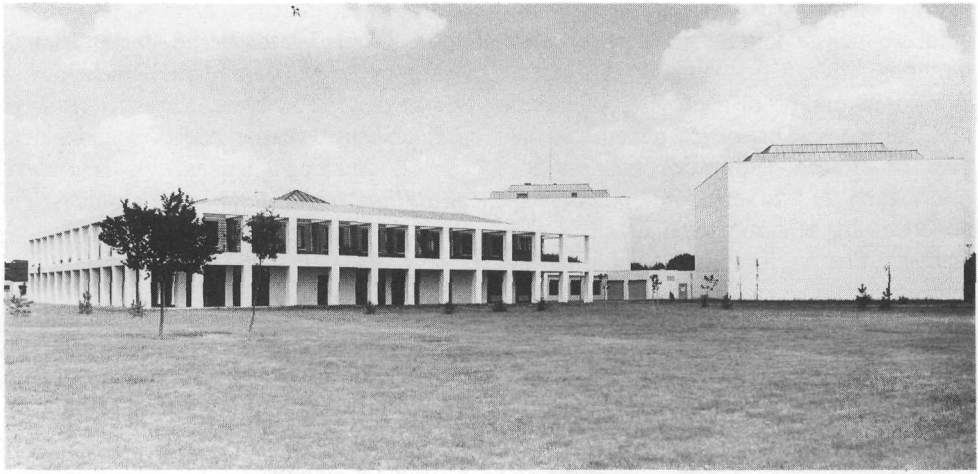


Figure 1: Departmental archives of l'Aube. The architect is Jacques Morel, of Troyes. The building was constructed in 1986-88. The photograph is an exterior view of the administrative building and the two conservation "tours," or towers.

chival buildings in France since 1960, amounting to more than seventy structures.

The program is not a rigid formula except for storage spaces, fire prevention systems, security systems, temperature and humidity control, light, floor loads, and shelving installation. Local authorities can always add new elements in the public areas (conference rooms, exhibit space, audio-visual projection areas, meeting rooms, seminar rooms, local organizations' meeting rooms, etc.). In certain recent buildings, this category of space has reached about twenty percent of the total floor space (it was less than ten percent twenty years ago). A summary of the technical and dimensional standards is appended to this article.

Today new archival buildings continue to be built throughout France. Three or four are inaugurated each year, and since 1980 there have always been a dozen active construction sites for archives. The French archivists are now more sensitive to the appearance of their buildings. Through architectural competitions, well-known architects have become interested in archival

buildings. Along with the attention that their prestige draws, the identity of the archives as a building type has also achieved greater recognition.

We can use as an example of this trend the archives of Val-de-Marne. In preparing the plans for the new town of Creteil at the end of the 1960s, the builders chose the design of the archives, like that of the prefecture or of the court house, to reflect the function of the building. In doing this, the regional authorities have simply followed the lead of the Archives Nationales with its construction of the Central Depository of Microfilm at Espeyran in the Gard department in 1969-73, of the Center for Overseas Archives at Aix-en-Provence in 1969-73 (enlarged between 1984 and 1986), of the Center for Contemporary Archives at Fontainebleau (unit I from 1975 to 1977, unit II from 1981 to 1983), the Center for Inquiry and Research of the Archives Nationales in Paris (1985-88), and the Center for the Archives of Labor at Roubaix (with construction beginning in 1989).

According to the offices of foreign archives asking for assistance, the Technical

Service of the Archives de France has a unique expertise through its experience in providing advice, participating in studies, and approving or disapproving proposed building plans. This office remains at the disposal of local authorities who ask for information and benefit from others' experience. By bringing together all of the technical files on the construction of buildings of the Archives Nationales and of the departmental archives, the Technical Service has for almost forty years constituted an exceptional documentation source on archival buildings and has acquired an undoubtable savoir-faire in these matters. Its essential role remains to assist new construction, to avoid repeating past errors, and to preserve archives in the best physical condition possible. The success of the Technical Service is evident to us in such beautiful French archival buildings as those constructed at Rouen, Nanterre, Montpellier, and Besançon.

In playing this role, the Technical Service has done no more than apply the policy from these last years of the general director of the Archives de France, Jean Favier, who has held his position since 1975 and who has always expressed a willingness to aid the local entities in constructing good and beautiful buildings in order to preserve and promote the value of the written heritage. He has given an example with the National Archives in building prestigious and beautiful buildings, well adapted to their function. Thanks to the stimulus that he has given to the large office that he directs, the archives building has through the years raised a new architectural awareness. It is a complex and laborious achievement but one that collective bodies, be they national or local, accept nonetheless without reticence.

Summary of Dimensional and Technical Standards

What follows is a summary of the dimensional and technical standards for the con-

struction of French archival buildings. For more detailed information, see the translation of the work by Michel Duchéin, *Les Bâtiments d'Archives, Construction, et Equipements*. (Paris: Archives nationales, 1985). The English translation is *Archive Buildings and Equipment* (Munich-New York-London: K. G. Saur, 1988).

1. Area of Land Required. There is no set norm for the area of land required for archival buildings, since this depends on the height and density of buildings which are constructed. For a building of medium height, an area of 3,000 square meters is considered minimum for a structure with a capacity of 20,000 linear meters of shelving (offices, public spaces, work areas, and circulation included).

2. Capacity of Archival Buildings. The unit of measurement for the capacity of archival buildings is the linear meter of shelving, corresponding to the quantity of documents fitting on a shelf which is one meter in length. A storage room of 170 square meters can contain on an average 1,000 linear meters of non-compact shelving (circulation aisles and principal corridors included, with a usable height of 2.20 meters). With compact shelving the capacity of a room of 170 square meters can go up to 1,800 linear meters of shelving, but this brings particular constraints on weight and convenience.

Reference to an "archival building with a capacity of 20,000 linear meters of shelving" thus represents a floor space of $170 \times 20 = 3,400$ square meters of storage rooms equipped with non-compact shelving, to which is added work areas, public spaces, technical work areas, and in some cases staff lodging.

3. Standard Characteristics of Stacks and Shelving.

- Maximum floor space of each stack room: 200 square meters.
- Weight load of the floor: 1,200 kilograms per square meter for non-compact

shelving up to 2,400 kilograms per square meter for compact shelving.

- Maximum height between the floor and the highest usable level of shelving: 1.80 meters. In many countries, and notably in France, storage rooms have a standard height of usable space.
- Shelving: maximum length of rows is 10 meters. The extremity of the rows should be separated from the walls by a circulation corridor of at least 0.70 to 0.80 meter in width.
- Shelving: depth of standard storage shelves: 0.30 meter (or 0.60 meter for the double-shelved), but for large documents shelving 0.40 meter in depth is preferable. Each shelf of one meter should be able to support 100 kg of documents (or 120 kg for a shelf of 1.20 meters).
- Size of the corridors for principal circulation: 1 meter to 1.20 meters.
- Size of the circulation aisles: 0.70 meter to 0.80 meter.
- Natural lighting: Window surfaces ought not to exceed ten percent of the exterior walls.

4. Standard Sizes for Work Spaces and Lodgings. Norms do not exist for the relative size of storage space in comparison to that of working areas or lodgings, nor for the relative size of public space compared to space accessible only to staff. These ratios depend on the nature of the buildings and the type of work they contain and also on the extent to which one wishes to devote space to various workrooms, exhibition areas, and the like. In several cases, the most recent archival buildings constructed in France by the Direction des Archives de France for departmental archives have on the average the following division of total floor space: storage space, seventy percent; work space and offices not accessible to the public, thirteen percent; public space, eleven percent; living quarters, six percent. The characteristic sizes of the work areas and lodgings (including floor space and room height) are fixed by national building stan-

dards in force for offices, workrooms, lodgings, etc. The lodging of the director (head archivist) should not be less than 120 square meters. It is customary in France that the directors of archival institutions (head archivists) have their lodgings in the building as a measure of security.

5. Climatic Norms. In storage areas for documents on paper or parchment, the standard environment should be a temperature of 18 degrees C (plus or minus 1 degree) with a relative humidity of 55 percent (plus or minus 5 percent). In storage areas for black and white photographs and similar materials the standard environment should be a temperature of 12 degrees C (plus or minus 1 degree) with a relative humidity of 35 percent (plus or minus 5 percent). In storage areas for color photographs and similar materials the standard environment should be a temperature of 5 degrees C (plus or minus 1 degree) with a relative humidity of 35 percent (plus or minus 5 percent). In storage areas for tape and other media containing electro-magnetic impulses the standard environment should be a temperature of 18 degrees C (plus or minus 1 degree C), with a relative humidity of 40 percent (plus or minus 5) and an obligatory air filter for dust.

For work spaces and lodgings: a minimal temperature of 19 degrees C. There is no official norm for the hygrometry, but the optimal conditions for the comfort of people are between 40 percent and 70 percent relative humidity.

Ventilation: 100 percent air change per hour in the work spaces, 50 percent air change in the storage spaces.

6. Electrical Lighting. In the storage spaces: 150 lux. In the work spaces, 300 lux on actual work areas; 400 lux on work spaces requiring a particularly intense lighting.

7. Acidity of Paper and Containers. The acidity of paper, cartons, folders, etc. ought to be maintained above pH 4.5. Below pH

3 there is a risk of deterioration and deacidification becomes necessary.

8. Elevators. Elevators inaccessible to the public; load capacity between 500 and 800 kg; usable surface within the elevator 1.50 x 1.80 meters; minimal width of the ele-

vator door 1.20 meters. Elevators accessible to the public: national norms according to the number of people to be transported. For elevators with access to the handicapped the door must be 0.80 meter wide.