

## Table of contents

List of Illustrations . . . . .	11
Foreword . . . . .	15
Introduction . . . . .	19
Translator's Note . . . . .	21

### **Part One**

#### **Definition of an archive building. The architectural brief.**

#### **Basic options. Overall plan**

##### Chapter One

###### Basic definitions

1. Definition of an archive service . . . . .	25
2. Definition of an archive building . . . . .	25

##### Chapter Two

###### Drawing up an architectural brief.

###### The roles of the archivist and the architect

1. The architectural brief . . . . .	27
2. The contents of a brief . . . . .	27
3. The choice of the architect . . . . .	28
4. The roles of the archivist and the architect . . . . .	28

##### Chapter Three

###### The basic choice: a new building or the adaptation

###### of an existing one

1. Arguments in favour of new buildings . . . . .	29
2. Arguments in favour of old buildings . . . . .	29
Economic argument. Cultural argument . . . . .	29
3. Making the decision. Mistakes to avoid . . . . .	30
4. A combined solution: old and new buildings side by side . . . . .	31

##### Chapter Four

###### The site and layout

1. A single building or multiple buildings? . . . . .	32
2. Historical archives and semi-current records . . . . .	32
3. The choice of a site . . . . .	33
Sites to avoid. 33 Definition of the best sites 34. Storing archives out of town? 35 The orientation of the building. 35	
4. Underground repositories . . . . .	36
5. The height of buildings . . . . .	37
6. Provisions for the future . . . . .	37
7. Area of land required . . . . .	38

**Part Two**  
**The features of a typical archive building**

**Chapter Five**

The overall plan, access and parking facilities

1. Constituent parts of an archive building . . . . .	41
2. A basic principle: isolation of the strongrooms from the rest of the building . . . . .	41
3. Work-flow patterns and general layout . . . . .	42
Inward movement of accessions and outward movement of documents for destruction (non-public areas). – Movement of the public. – Movement of documents which are being consulted. – Movement of staff. –	
4. Access . . . . .	44
5. Car parks and garages . . . . .	44

**Chapter Six**

Strongrooms: construction and equipment

1. General characteristics of strongrooms . . . . .	45
2. Location of strongrooms . . . . .	45
3. The structure of strongrooms and floor loading . . . . .	45
4. Height of floors and shelving units . . . . .	47
5. Floor area of strongrooms . . . . .	47
6. Capacity of strongrooms relative to their areas . . . . .	47
7. Exterior walls and windows . . . . .	47
8. Strongroom floors and floor coverings . . . . .	48
9. Protection against fire and theft; heating, air-conditioning, ventilation and lighting in strongrooms . . . . .	48
10. Shelving . . . . .	48
Definition, material for shelves, general characteristics and installation. 54	
Shelving standards. 50 Methods of attaching the shelves. Shelving accessories. 51	
Mobile or compact shelving. 51 The arrangement of documents on the shelves. 53	
11. The preservation of special types of documents . . . . .	54
The preservation of maps, plans, posters and other large documents. 54 Vertical storage cabinets, horizontal plan cases, storage of rolled documents. 54 The preservation of seals and sealed documents. 55 The preservation of photographs, cine-films, sound recordings and computer records (photographic images, microforms, cine-films, mechanical sound recordings, documents on magnetic media). 56	
12. Vaults . . . . .	59
13. Work in strongrooms . . . . .	60

**Chapter Seven**

Work-areas closed to the public: workshops and offices

1. General features . . . . .	61
2. Areas for receiving and fumigating documents . . . . .	61
Reception area for transfers; the loading bay. 61 The fumigation room. 62	

3. Areas for documents which are to be destroyed . . . . .	62
Documents to be destroyed after a fixed period. 62 Documents for immediate destruction: removing documents to be destroyed. 63 The destruction of documents. 63	
4. Rooms for appraisal and sorting . . . . .	64
5. The photographic studio . . . . .	65
General remarks. 65 Location and plan of the photographic studio. 65 The camera room. 66 Processing and film duplicating room. 67 Room for enlarging and printing. 67 Room for editing and checking films. 67 Storage of materials. 67	
6. Areas for photocopying, duplicating and printing . . . . .	68
General remarks. 68 Location. 68 Photocopying. 68 Duplicating and printing. 68	
7. The bindery and conservation laboratory . . . . .	69
Introduction, location. 69 The bindery – traditional hand binding; American or 'Perfect' glued bindings; binding by plastic rings; binding collections of newspapers. 69 The conservation laboratory. 71	
8. Workshop for seal repair and making casts of seals . . . . .	72
9. The packing room . . . . .	73
Location of room. 73 Archive boxes. 73 Bundles in folders or wrappers. 74 Pouches, bags or envelopes for records. 75 Straps and string. 75 Labelling. 75 Stamping and numbering. 76 Making-up postal parcels. 76	
10. General maintenance workshop . . . . .	76
11. The offices . . . . .	76
12. Stores for materials . . . . .	77
13. Staff rest rooms and canteens . . . . .	77
14. Shower rooms and toilets . . . . .	78
15. Technical service areas . . . . .	78

### Chapter Eight Areas open to the public

1. General features . . . . .	79
2. Reception hall and enquiry office . . . . .	79
Public entrance hall. 79 The enquiry office. 80 The publications sales office. 80	
3. The reading areas . . . . .	81
One room or several? 81 The problem of supervision. 81 Reception of readers, cloakrooms. 82 The link with the strongrooms, the distribution of documents to readers and the storage of documents which are in use. 83 Space, internal arrangement and furniture of reading rooms. 83 Finding aids and reference works. 84 Library of historical works. 85 Individual research carrels. 86 Administrative searches: the administrative documentation centre. 86 Special equipment for consulting records (microfilm readers, ultra-violet lamps). 86	
4. Areas for exhibitions, cultural and educational activities . . . . .	88
General features. 88 Exhibition areas. 89 Lecture rooms and film theatres. 90 Education service rooms.	
5. Rooms for meetings, seminars, etc. . . . .	91
6. Public rest room . . . . .	91
7. Cafeteria . . . . .	92
8. Telephone booths . . . . .	92
9. Toilets and cloakrooms . . . . .	92

**Chapter Nine  
Staff accomodation**

1. General features . . . . .	93
2. Location and size of staff accommodation . . . . .	93
3. Fittings of staff flats . . . . .	94
4. Annexes to the flats . . . . .	94

**Chapter Ten  
General technical arrangements and equipment**

1. The importance of protection and safety in archive buildings . . . . .	95
2. Construction: materials, structures and designs . . . . .	96
3. Roofs . . . . .	96
4. Fire protection and fire fighting . . . . .	97

General remarks: the causes of fire in archive buildings. 97 Protection against fire: building design (fire-resistant walls and floors; fire-resistant doors; isolation of stairs and lifts; 97 isolation of ducts and shafts: smoke-vents; lightning conductors; fire escapes; special arrangements in strongrooms; arrangements in high-risk areas). 98 Fire detection:

1. automatic extinction systems (sprinklers; carbon dioxide; halons; high expansion foams); 100
2. hand-held extinguishers; 101
3. the role of the fire brigade. Safety measures. Safety regulations. 102

5. Protection against theft . . . . .	103
---------------------------------------	-----

General remarks. Technical methods of protection. 103 Security regulations. 103

6. Protection against flooding . . . . .	104
7. Protection against humidity, dryness and climatic variations . . . . .	104

General remarks: optimal climatic conditions (paper and parchment based records, black and white photographic materials, coloured photographic materials, records on magnetic mediums, work areas for public and staff). 105 Measurement of temperature and relative humidity. 106 Architectural measures: insulation against heat and humidity. 106 Heating. Cooling. 107 Humidification and dehumidification. 108 Ventilation. 108 Air-conditioning. 109

8. Protection against atmospheric pollution . . . . .	110
---	-----

General remarks. 110 Measurement of pollution and acidity. The acidity of paper. 110 Filtration of exterior air. 111

9. Protection against excessive light . . . . .	111
---	-----

General remarks. 111 Protection against sunlight in strongrooms. 111 Protection against sunlight in exhibition areas and work areas. 112 Electric lighting in strongrooms. 113 Electric lighting in work areas and areas open to the public. 113

10. Protection against insects and fungi: fumigation . . . . .	114
--	-----

General remarks. 114 Architectural precautions. 114 Fumigation of rooms. 115 Fumigation of documents.

11. Protection against rodents . . . . .	116
--	-----

12. Protection against dust . . . . .	116
---------------------------------------	-----

13. Sound insulation . . . . .	117
--------------------------------	-----

14. The electrical installation . . . . .	117
---	-----

15. Batteries and emergency generators . . . . .	118
--	-----

16. The water supply . . . . .	118
--------------------------------	-----

17. The gas supply . . . . .	118
18. Telephones . . . . .	119
Telephone connections to the external network	119
Internal telephones and intercom.	119
19. Handling and internal movement . . . . .	119
Elevators and goods lifts.	120
Conveyors, paternosters, etc.	120
Trolleys.	121
Lifting and handling gear.	122
20. Computers and computer terminals . . . . .	122
21. Facsimile transmission, remote access, etc. . . . .	122
22. Television aerials . . . . .	122
23. Security, continuous monitoring of equipment, automatic building management . . . . .	123

### **Part Three Two special subjects**

#### **Chapter Eleven Records centres or intermediate repositories**

1. Location and overall design . . . . .	127
2. Strongrooms, shelving . . . . .	128
3. Working areas . . . . .	128

Reception of records. 128 Appraisal and sorting. 128 Documents to be destroyed. 128 Consulting documents. 129 Workshops. 129 Offices. 129 Toilets, exits, garages, technical equipment and technical areas. 129 Staff flat. 129 Transport and communication problems. 130

#### **Chapter Twelve Archive buildings in tropical countries**

1. The problem of humidity and fungi: protection and fumigation . . . . .	131
2. The problem of hurricanes . . . . .	132
3. The problem of solar radiation . . . . .	132
4. The problem of termites . . . . .	132

### **Appendices**

#### **Appendix 1 Summary of the main dimensional requirements and technical standards for archive buildings**

1. Area of land needed on which to build archive buildings . . . . .	137
2. Capacity of archive buildings . . . . .	137
3. Relationship between linear measure, weight and volume of archives . .	137
4. Dimensions of strongrooms and of shelving . . . . .	138
5. Dimensions of work areas and staff flats . . . . .	138
6. Climatic standards . . . . .	139
7. Electric lighting . . . . .	139
8. Acidity of paper and packing materials . . . . .	139
9. Goods lifts . . . . .	140

**Appendix 2****Model brief for the construction of departmental archives in France**

<b>1. General remarks . . . . .</b>	<b>141</b>
Functions of the building. 141 Location and area of land required. 141 General plan. 142 Work-flows. 142	
<b>2. Strongrooms . . . . .</b>	<b>143</b>
General characteristics. 143 Structure. 143 Dimensions. 143 Windows. 144 Shelving. 144 Special strongrooms. 145 Vertical communication. 145 Protection against sunlight in the strongrooms. 145 Protection against fire and theft. 145 Climatic conditions. Protection against dryness and humidity. Heating. 146 Protection against dust. 146 Electrical installation. 146	
<b>3. Work areas not open to the public . . . . .</b>	<b>147</b>
Definition. 147 Room for receiving accessions. 147 Appraisal room. 147 Room for documents which are to be destroyed. 147 Fumigation room. 147 Photographic and microfilm studio. 148 Bindery. 148 Conservation laboratory. 149 Reprographics area. 149 Room for packing, carpentry, etc. 149 Offices. 150 Staff cloakrooms and washrooms. 150 Staff canteen. 150 Other technical areas. 150	
<b>4. Areas open to the public . . . . .</b>	<b>150</b>
Definition. 150 Entrance hall, enquiry office and exhibition area. 150 Reading rooms and catalogue rooms. 151 Area for reserved documents ('kept out' area). 151 Photocopy room. 151 Lecture theatre. 151 Exhibition area. 152 Education service room. 152 Public cloakrooms and washrooms. 152	
<b>5. Technical areas and installation . . . . .</b>	<b>152</b>
Electricity. 152 Water. 153 Cabling. 153 Telephone. 153 Protection against fire and fire fighting. 154 Protection against theft and vandalism. 154	
<b>6. Staff flats . . . . .</b>	<b>154</b>

**Select bibliography****Bibliographies.**

The general concept of archive buildings. 155 General studies. 155 Monographs on buildings. 156 Shelving. 157 Preservation of special documents. 157 Binding and repair. 158 Microfilm. 158 Fumigation and protection against pests. 159 Climatic control in buildings. 159 Fire-protection and fire-fighting. 159 Use of old buildings for archives. 160 Archive buildings in tropical countries. 160 Journals. 160

<b>Index . . . . .</b>	<b>161</b>
<b>Illustrations . . . . .</b>	<b>163</b>

## List of Illustrations

### Exterior of buildings

III 1.	Archives départementales du Calvados (photo: Archives du Calvados)	163
III 2.	Archives départementales de la Seine-Maritime (photo: Archives de la Seine-Maritime)	164
III 3.	Archives départementales du Val-de-Marne (photo: Archives du Val-de-Marne)	165
III 4.	Public Record Office, Kew (photo: Public Record Office)	166
III 5.	Archives départementales de la Haute-Vienne (photo: Thibaudin, Inventaire general, SPADEM)	167
III 6.	Archives départementales de l'Hérault (photo: Archives de l'Hérault)	167
III 7.	Österreichisches Staatsarchiv (photo: Requat and Reinthaller)	168
III 8.	Archives départementales du Val-d'Oise (photo: B. Feypell and E. Zoltowski)	169
III 9.	Archives nationales du Québec (photo: Université Laval)	170

### General plan of buildings

III 10 and 11.	Diagrams showing the isolation of strongrooms from the working areas	171
III 12.	Plan of the main circulation routes	173
III 13, 14 and 15.	Plans and sections of the Archives départementales du Val-d'Oise (drawings by B. Feypell and E. Zoltowski)	174
III 16 and 17.	Plans of the Archives départementales des Alpes-Maritimes (drawings by B. Feypell and E. Zoltowski)	177
III 18.	Section of the Archives départementales du Val-de-Marne (drawing by B. Feypell and E. Zoltowski)	178
III 19.	Facade and section of the Archives départementales d'Ille-et-Vilaine (drawing by B. Feypell and E. Zoltowski)	179
III 20.	Plans of the Österreichisches Staatsarchiv (drawing by F. Requat and Reinthaller)	180
III 21 and 22.	Model and plan of the Centre des archives contemporaines, Fontainebleau (model and plan: Cl. Aureau)	181
III 23 and 24.	Plan and section of the Archives départementales de la Somme (drawings by Cl. Aureau)	183

**Building structures**

III 25. Archivio di Stato, Udine (photo: Fotoartistica Udine) . . . . .	184
III 26. Archives départementales du Var (photo: Forges de Strasbourg) . . . . .	185
III 27. Archives départementales des Bouches-du-Rhône (photo: Archives des Bouches-du-Rhône) . . . . .	186
III 28 A Archives départementales du Finistère (photo: E. Le Grand, Quimper) . . . . .	187
III 28 B Archivio di Stato, Ascoli Piceno (photo: Tarquini, Ascoli Piceno) . .	188
III 29. Archives départementales de l'Aude (photo: Archives de l'Aude) . . . . .	189

**Strongrooms and storage equipment**

III 30. Model layout of a strongroom . . . . .	190
III 31. Row of shelving . . . . .	190
III 32 A Fixed back-to-back shelving (photo: Centre des archives contemporaines, Fontainebleau) . . . . .	191
III 32 B Mobile shelving with sideways movement (photo: Lapouyade) . . . . .	191
III 33. Mobile shelving with forward movement (photo: Forges de Strasbourg) . . . . .	192
III 34 and 35. Layout of fixed and mobile shelving . . . . .	193
III 36. Method of arranging boxes on shelving . . . . .	195
III 37. Archive boxes stored flat (photo: Hauptstaatsarchiv, Düsseldorf) . . . . .	196
III 38. Archive boxes stored vertically (photo: Centre des archives contemporaines, Fontainebleau) . . . . .	196
III 39. Archive boxes for intermediate storage (photo: Centre des archives contemporaines, Fontainebleau) . . . . .	197
III 40 and 41. Making a bundle of records (photo: Archives nationales, Paris) . . . . .	198
III 42. Plan cases (photo: Archives nationales, Paris) . . . . .	201
III 43. Shelving for vertical storage of large volumes (photo: Archives nationales, Paris) . . . . .	202
III 44 A Cabinet for storing microfilms (photo: Archives nationales, Paris) .	203
III 44 B Cabinet and pockets for storing documents with seals (photo: Rijksarchief, Maastricht) . . . . .	204
III 45. Cabinet for the flat storage of documents with seals (photo: Rijksarchief, The Hague) . . . . .	205

### Transport and handling

III 46.	Archives trolley (photo: Archives de l'Hérault) . . . . .	206
III 47.	Trolley for moving plans (photo: Algemeen Rijksarchief, The Hague)	207
III 48.	Platform roller truck (photo: Centre des archives contemporaines, Fontainebleau) . . . . .	207
III 49.	Elevator platform (photo: N. Choublier, Cergy) . . . . .	208
III 50.	Conveyor belt (photo: Archives de la Loire-Atlantique) . . . . .	208

### Workshops and technical equipment

III 51.	Ethylene oxide fumigation chamber (photo: Mallet) . . . . .	209
III 52.	Sorting bench . . . . .	210
III 53.	Sorting rooms (photo: Archives du Nord and Centre des archives contemporaines, Fontainebleau) . . . . .	211
III 54.	Paper shredder (photo: Archives du Val-de-Marne) . . . . .	213
III 55 and 56.	Conservation and binding workshops (photo: Archives nationales, Paris) . . . . .	214
III 57 to 60.	Photographic studio; photos: Archives nationales, Paris (59B and 60A), Centre des Archives contemporaines, Fontainebleau (59A, 61, 62), Archives de Loir-et-Cher (60B) . . . . .	218
III 61.	Studio for audiovisual recording and editing (photo: Archives du Val-de-Marne) . . . . .	224
III 62.	Air-conditioning plant and technical control panel (photo: Centre des archives contemporaines, Fontainebleau) . . . . .	225

### Areas open to the public

III 63.	Entrance hall (photo: Archives des Hauts-de-Seine) . . . . .	226
III 64 and 65.	Reading rooms (photo: Archives de la Seine-Saint-Denis and Riksarkivet, Oslo) . . . . .	227
III 66 A	Microfilm readers (photo: Centre des archives contemporaines, Fontainebleau) . . . . .	228
III 66 B	Microcomputer in the reading room (photo: Archives du Val-de-Marne) . . . . .	229
III 67.	Exhibition area (photo: Historisches Archiv, Cologne) . . . . .	229
III 68.	Inventories and card indexes, display case (photo: Archives du Val-de-Marne) . . . . .	230
III 69.	Lecture theatre (photo: Archives de la Seine-Saint-Denis) . . . . .	232