An Assessment of New University Library Building in France during the Period 1990-1999

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As Introduction

At the 1993 Barcelona seminar of the LIBER Architecture Group, I had the opportunity to present the French Government's university building program for the period 1991-1995, entitled "Université 2000". This Plan also encompassed the building of university libraries. It was an initial Plan, followed by a second, covering the period 1994 to 1999. During the ten years in question, a total of 110 university library buildings, either new constructions or extensions, were opened to the public. Some 350,000 square meters of space either new or renovated -added to the 600,000 square meters that had existed previously, were thus available for students and staff. In sum, these programs represented a "renewal" in the domain of university-library building. The investment represented some 3 billion francs (457 million euros), met equally by central government (50%) and local authorities - regions, departments or towns -(50%). I ought to add that there had been no building or renovation of French university libraries over the preceding fifteen-year period, i.e. between 1975 and 1990. I should also add that the current French-university student population is approximately 1,500,000.

The surfaces devoted to libraries vary from a few hundred square metres (such as for temporary buildings for newly built universities), to 15,000 square metres. They meet, or (for the more modest) try to meet, a certain number of development aims for library services, such as:

- ensuring that the user (student, teacher or researcher), remains the key factor in the library environment;
- ensuring unrestricted access to the major part of contemporary collections (on the national average, only 20 per cent of university library collections were on unrestricted access at the start of the 'Nineties);

- ensuring access to all types of collections printed works as well as audio-visual, computerised and multimedia supports – and developing every kind of computerised information access, both local and remote: catalogues, CD ROMs, databases, digitised documents, access to the university's intranet and the Internet etc.;
- creating a maximum of reading areas, as diversified as possible, and work-spaces in sufficient numbers: initially, one place per ten students, teachers and researchers in the university (the national average was only one place per eighteen in 1990), followed, as quickly as possible, by one place per five or six;
- ensuring the dispensing of user training in information technology;
- ensuring opening of services to the public at least 60 hours a week initially, then 70 hours, 50 weeks per year (on the national average, opening hours were 44 hours a week in 1990, and 55 in 2001).

These objectives could be augmented by additional requirements, such as:

- the need to plan for buildings capable of absorbing in proper conditions

 an increase in document collections over the next twenty-five years, despite the inroads being made by electronic information;
- the need to construct flexible and modular buildings, able to evolve over time according to user and staff requirements;
- the need to produce buildings of quality, whether from the viewpoint of their architecture or the materials used, in order to ensure their durability.

PRESENTATION OF THE BUILDING-ASSESSMENT METHODOLOGY

Following implementation of the two governmental programs mentioned earlier, a third such plan, referred to as the "Third Millennium University" ("U3M") was then considered, with an initial work phase stretching from 2000 to 2006. In view of implementing the latest plan, and given the objectives outlined just now, the Ministry of Education, as the authority responsible for university libraries, thought fit to undertake an assessment of at least one part of those buildings newly opened to the public. The aim of this assessment was to ensure that future library construction and refurbishment programs would incorporate the changes achieved, both as regards pedagogical methods employed in university teaching, and the development of information technologies.

I should now like to describe the methodology of this assessment, then present some data regarding the results obtained. In April 1998 a think-tank was set up under my responsibility, comprising around fifteen project managers, university library managers or document-section heads in charge of the building or restructuring project for their particular libraries.

1. The Questionnaire

The group members worked from a very detailed questionnaire which asked them to evaluate their buildings from a certain number of aspects, such as:

- comparing the objectives initially set at the time the building or restructuring program for the building was drawn up, against the project as-built, by analysing points of convergence and divergence;
- analysing use of the building by the public and the staff, while emphasising any observed "divergent usage's";
- analysing the said "divergent usage's" in order to define the reasons why
 modifications had been necessary (faulty programming? requirements correctly expressed but poorly applied by the prime contractor? too-long a
 timescale between the planning stage and construction of the building,
 leading to a modification in the requirement etc.?);
- studying the quality level of the building construction: general legibility of functions, services and spaces; volumes; materials used; natural and artificial lighting; comfort of public and staff; furniture etc.;
- analysing the quality of the dialogue established between the project partners (university, local education authority, library, contracting authority, program management, building companies, furniture suppliers etc.).

This questionnaire was sent to the members of the Working group in May 1998; it was discussed during successive meetings between June 1998 and February 1999 – a total of seven meetings and numerous exchanges of Emails. Certain of these work meetings took place in the provinces and allowed members of the group to visit one or other of these new library buildings. Furthermore, during the course of 1999, a dozen other newly opened libraries were invited to answer the questionnaire. Therefore, the study population comprised some thirty buildings.

2. The Results

As in any assessment, we find positive results and negative results. The positive aspects are as follows:

* From the Viewpoint of the Public:

- The new university library buildings met with very wide success from students, success characterised by a very large increase in library-visiting and use (up by 50 per cent in the months following opening), induced by four factors: a greater number of users; longer stays in the library; more-intensive use of the documentation provided; an increase in the number of documents taken for home-borrowing.
- The public was also overwhelmingly favourable to the increased collections on unrestricted access. Thus, very new libraries such as those in new universities currently have practically none of their book collections in closed-stacks.

Libraries with an older tradition keep a part of their collections in closedstacks, but employ their newer buildings for unrestricted access to several tens or hundreds of thousands of works that were previously in storage.

It should nevertheless be understood that new library buildings, which still remain undersized in relation to their number of users or the scale of their collections, unfortunately keep a high proportion of the latter in repositories.

- Users gave a very favourable welcome to the diversity of the reading areas provided: multiple reading rooms and of reasonable dimensions; work rooms for small groups: individual work booths; training rooms for information technology; stations for querying on-line catalogues and accessing networks etc. In the new buildings, the places offered give an average ratio of one place for 11 users, whereas the national average is one per 16 users. This constitutes a large improvement, but it is still far from being truly satisfactory if one compares these figures with the objectives of one place for five or six users. And only four libraries out of 30 are today above or anywhere near these levels.
- Another factor of satisfaction: the public is sensitive to the architecture of
 the new buildings and the spaces and services provided, even if the desire
 is for even more documents on unrestricted access, and more reader seats.
 Users nevertheless emphasise the scantness of information-technology
 assets (too-few access points for intranet and Internet services in relation

to requirements), which again was one of the black spots in buildings opened before 1998.

* Results for Staff Members

Moreover, staff members emphasised the same positive aspects as the students, while adding:

- the high visibility of the library building on the campus or in the town, and an often successful integration within the university;
- the quality of the corresponding construction programs, and the beneficial contribution of the project actors to the discussion and technical requirements expressed by the staff side.

However, the latter has a more contrasted assessment of the library buildings than do the users, with comments and criticisms hinging on six main points. I should nonetheless point out that, in the context of the working-group meetings, my own attitude regarding new library buildings was often more critical than that of my colleagues managing these same establishments!

A. Generally Insufficient Spaces

Despite the progress achieved, the surface areas of these new installations remain very under-dimensioned (often by a half) in relation to the scale of the requirements expressed. Thus, out of the 110 operations performed, only 63 (57.3%) had an area of 2,000 square metres or more, and only 11 (10%) exceeded 6,000 square metres. And of the 30 buildings investigated, the average surface area available per user is still only 0.81 square metres, whereas the national average measured for all university libraries is approximately 0.55 square metres (1999) and the minimum internationally recognised ratio is 1.50 square metres.

This lack of space is felt both for the public areas (unrestricted access to collections; reference areas; convivial areas; collective/action areas; rest areas etc.), as well for the library's internal departments and closed stacks.

With regard to public areas, for example, we find in particular a reduction in the width of circulation aisles between the stack areas, hence detriment to user comfort. Another bad discovery is the reduced dimensions of workspaces for readers. The *quantitative* (number of places offered to meet the pressing demand of users) continues, therefore, often to take precedence over the *qualitative* (comfort of users).

Similarly, the space allocated for the library entrance hall is often found to have shrunk, whereas this space:

- provides a meeting point, rest area or conversational enclave for library users;
- constitutes a point of convergence for a multitude of services (information terminals for library and/or university messages; machines for recharging cards for use of photocopiers and printers; small-ad display boards; public telephones; faxing centre: toilet access etc.);
- is also the first point for dispensing library-management services, such as reception, information, loan and return of documents, browsing of reviews or newspapers, students' electronic messaging systems, first entry point for browsing the library catalogue, the university's intranet network and/or the Internet etc.).

For their part, exhibition areas too often still remain "confidential", even though they are recognised as needing to assume a very important role in the cultural policy of the university, and integration of the library within the university.

The workspaces reserved for library staff are generally organised in a functional manner, but they suffer from restricted surface areas, in particular as regards:

- the individual space allocation for the various tasks to perform;
- the limited or non-existent possibilities for installing meeting rooms and training rooms for personnel (nonetheless essential functions);
- the quasi-absence of rooms for storing and archiving administrative documents, library supplies, furniture, equipment items etc.

According to the members of the working group, a minimum of fifteen useful square metres per equivalent full-time employee should be allowed for, irrespective of the person's function within the establishment. This figure prejudices neither the dimension of the offices allocated to each employee to meet the requirements of his function, nor the organisation of the workspaces (individual offices, offices shared by two or three persons, pooled-working rooms for cataloguing for example, or for handling operations etc.). On top of this figure, it is recommended to add four or five useful square meters per employee (calculated on an equivalent full-time basis), to allow for common-use accommodations: meeting rooms, training rooms, professional library, miscellaneous storage areas etc.

As for closed stacks, their dimensions are found to decrease significantly in the new buildings, to take account in particular of the unrestricted access mode for large collections. Yet a new university library attracts document collections of all kinds, originating from integration of research libraries, and from gifts of collections that are in cases very large (several tens of thousands of volumes), which must be housed, sorted and processed before being put out for use. This new reality for French university libraries is a certain vector of richness, yet it immediately poses the problem of storing and valorising these collections due to lack of storage areas in the buildings. Problems of extension therefore become rapidly crucial!

B. Building in Successive Phases

Most buildings with areas greater than 8,000 or 9,000 square metres (and often much less) were constructed in two work phases. This is detrimental to overall coherence, even if the construction programs had been designed to take account of the overall requirements. Examining the situation positively, it could be said that the fact of building in successive phases does in cases allow the "correcting" of certain programming errors, and the inclusion of certain very rapid changes in the requirement, in the informatics field particularly, but the disadvantages unquestionably remain far greater than the "advantages": noise, dust, multiple transfers of collections, discomfort for both public and staff, risks of accidents, disrupted organisation over a long period – sometimes several years; global escalation of the building cost etc. Such factors ought to dissuade this kind of approach!

C. Insufficient Allowance for Information Technologies

The 'Nineties saw profound and accelerated changes in virtual information access, making it very difficult to anticipate technological developments, wiring schemes or connection plans in perfectly adapted buildings. Furthermore, for financial reasons, no technological upgrades could be applied during site works. It is a known fact that between the establishment of a construction program and the effective completion of a building, a minimum of four or five years elapses – sometimes more – and rare are those buildings designed prior to the mid-'nineties that do not suffer from a severe lack of information-technology infrastructure and equipment.

Today, of the 30 buildings investigated, it is observed that on average, only five percent of reader places can boast micro-computer assets, and that approximately 20 per cent of additional places could be connectable without heavy investment work. Furthermore, given the fact that the buildings are normally designed for a life cycle of at least 25 years, and more probably 50, it can be appreciated that heavy investment work will need to be performed in the very short term.

D. Profusion of Glazed Surfaces

In terms of architectural design, it is necessary to emphasise the immoderate use of glazed surfaces and skylights in the roofs of new buildings. The phenomenon leads to serious disadvantages such as excess cold or heat, rarely compensated for by air-conditioning installations (which are always seen as too costly in investment terms, whether from the operational or the maintenance viewpoint). Yet another observation is the insufficiency of blind systems on windows; yet excess reflections on computer screens make reading difficult and tiring; finally, other disadvantages include the extra cost of maintaining and cleaning windows – sometimes requiring the presence of scaffolding due to difficult access, and penetration of water etc. The said list of disadvantages continues, and worse still, has been known about for years, without, none-theless, any imposition of the related demands on contractors by the various contracting authorities!

E. Restricted Dialogue between Partners

Lack of co-operation between partners on a given project is frequent. This has often resulted in exclusion of the prime user of the building – namely, the library staff – from the dialogue, or the university itself when the Contracting Authority is a local authority delegated by central government. The situation is often more serious than first appears, since it is the university that takes over the building on a full-ownership basis, therefore assuming full liability, following construction. What is the reaction, therefore, in the face of a choice of costly architectural solutions, materials ill-suited to intensive use by an uncaring public, complex technical solutions necessary to counteract the obvious faults of a poorly designed building, or uninvestigated maintenance costs?

The main factor in the restriction of dialogue between partners is known: it is the fear of the Contracting Authority to exceed the defined construction times for the operation, and thereby the creation of additional costs. This fear is expressed first and foremost to the library personnel, which, being highly involved in the building project, demands explanations and asks for the incorporating of modifications of a functional nature before validating the various stages of the plans and diverse architectural options.

At this stage, the question of the organisation of architectural competition panels (obligatory in France) must also be raised, insofar as librarians – as representatives of the universities – are often noticeable by their absence. In the best cases, the library manager is the only library professional contributing to the panel, as against a large number of architects – four or five or more –, in cases often representing one-half or more of the panel members! Therefore, it

is often justified to say that architectural competitions are essentially judged by architects, and not by the contracting authorities!

It can only be hoped that in the future, technical committees and panels constituted by contracting authorities will give wider place to library professionals, in numbers which, after all, could be equivalent to those of architects, and to university staff as well. It is far from certain that the quality of the architecture would suffer!

F. Insufficient Construction and Equipment Costs

The increasing sophistication of buildings today results in costs that are insufficiently taken into account during the establishment of budgetary envelopes:

- heavy costs associated with the increasing requirements of safety regulations imposed on places of assembly, and in particular libraries;
- the requirement for dense wiring systems in buildings to properly meet the rising demand for electronic data in our economically developed societies;
- the use of materials of quality to prevent libraries from deteriorating too quickly, given the increasingly intense usage they face;
- ever more complex centralised building management systems (access controls, door-monitoring incorporated with fire detection systems etc.), ever-more numerous plant rooms etc.

It is probable that to seriously address these different criteria, library-building budgets would need to be increased by 25 to 30 per cent. The working group also raised important problems with regard to the very low levels of equipment credits for furniture and fittings, which often results in the selection of furniture of lower quality, therefore of lower performance.

FOR THE FUTURE...

Many other observations and criticisms were put forward by the think-tank members, covering, for example:

- the low level of flexibility and modularity in the buildings,
- the need for large and very legible surfaces, and also for small workspaces promoting individual work or small-group activities,
- the insufficiency of soundproofing in practically all of the buildings,
- the sometimes less-than-satisfactory organisation of reading areas,

- the importance of providing very legible main trafficable areas, conveying a desire to discover the library environment etc.,
- finally, the need for increased numbers of personnel, with ever-increasing qualification levels, to take account of evolving services and increases in information-technology assets, including maintenance and development of information systems.

Certain of these comments and recommendations allowed changes to the ratios or figures mentioned in the frame of reference "Building a University Library: from Design to Completion" (cf. Bibliography, item. 3), published in 1993. The new data were integrated into the publication resulting from the related work assessment – "University Libraries: Evaluation of New Buildings (1992-2000)" (cf. Bibliography, item 6).

It remains to be stated that the work of the think-tank was carried out on only 30 buildings out of the 110 built during the decade. It would have been preferable for it to have incorporated one-half of them.

Yet what emerges today, it is that, during the ten years that evolved, the understanding of the complexity of documentation within universities, the need to build correctly sized buildings in relation to the number of users, and the special features of university library buildings, were only accepted on a piecemeal basis by the universities themselves, and, it could also be said, by the ministry in charge of the universities. French university libraries are on the way back from their far retreat, one forgotten over decades! It may be worth repeating in this respect that, during the ten years that have elapsed, credits for construction and restructuring of university libraries represented but *six per cent* of all credits allocated to rebuilding and extending of university buildings. And it is only because we are starting to see large and handsome university library buildings (such as Paris 8, Montpellier-Richter, Avignon, Perpignan, Lyon 2-Lyon 3, and soon Toulouse 2-Le Mirail etc.) that these buildings can start to prove their worth, and the utility of the services they offer, within universities.

Another striking point in the overall assessment it is that out of the 110 operations undertaken, a certain number (13) involved libraries for new universities, opened from scratch at the beginning of the 'Nineties. "Standalone" universities, in particular in Paris *intra-muros*, where the situation is catastrophic, have seen no library-building in ten years, which confines them in their documentation role and binds them into an architectural context that is over thirty years old, therefore totally obsolete.

The new building plan – the "Third Millennium University" ("U3M") is now in operation. The situation in Paris in particular (with its 300,000 students) should find itself markedly improved by the establishment of four or

five major libraries. What we should be hoping for is that this assessment effort, which, as I said, is formalised by an official publication, will serve the entire community – the Universities, the State, the Contracting Authorities in general, Architects and Contractors, the Librarians, for their part, having already made known their latest observations, criticisms and recommendations derived from the collective effort of the building think-tank.

I thank you for your kind attention.

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