

# *Information center/ system planning: Physical layout and facilities planning* \*

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**Abstract:** This presentation highlights the general issues of physical planning for libraries, explores alternate plans from the angle of collection, users, staff, etc. The presentation provides some practical tips for the whole exercise of physical planning for libraries including tips for acquiring equipment and furniture, discusses other related aspects like space estimation, allocation and utilization. Lastly a case study of projecting requirements of space for a special library, namely, ISRO Satellite Centre (ISAC) library is presented with emphasis on various practical aspects of creating physical facilities and environment.

**keywords:** Library planning, physical planning, library building, library space

## **A. Tips for planning library building**

1. Library buildings cost 20 times (even more than) the annual budget of a library
2. New construction is a rare phenomenon
3. Before asking for new construction, explore alternatives; don't expect others to do it
4. Adoption of an existing building is not unusual
5. Going for a low cost building is yet another option ( see case study of ISAC Library)
6. Make sure that the presently available space is not wasted and that the cost of continuing to live in the present building (including cost of required rehabilitation work and impaired efficiency in services) is greater than the cost of new construction
7. Buildings usually do not wear out but fashions, standards and needs change, growth of collection (with no/ few/ occasional weeding!), increased use lead to inevitable growth of library. Hence, *addition, renovation, refurbishing* and *adoption* are reasonable alternatives

### **Collection related alternatives:**

- Intelligent relocation
- Judicious weeding
- Cooperative storing
- Decentralisation
- Separately storing part of the collection

- Branch libraries
- Compact storage
- Converting to other medium

### **Users/ Readers related alternatives**

- Economies of reading seats
- Stealing aisles
- Restricting facility to ones own users in peak hours
- Charging outside users

### **Staff related alternatives**

- Squeezing one more desk
- Careful rearrangement without loss in efficiency and in productive labour

### **General alternatives**

- Adding a mezzanine floor
- Making use of non-assignable or architectural spaces like hall, lobbies, basement, corridors, etc.
- Consider adjacent non-library facilities like class rooms, meeting halls, administration office, etc.

**Note:** Clearances from structural engineer about load capacity, safety, etc. are essential

## **B. Estimation of space**

Note: 1. Each library must workout its own formula for housing the collection

2. Check the norm yourself to suit your situation

- (i) no. of volumes per rack
- (ii) weight of volumes on rack
- (iii) weight of rack + vols.

(See case study of ISAC library)

#### **Actual at ISAC library**

Books & reports	500 per 3.75 sq. m.
Bound journals	300 per 3.75 sq. m.
Current journals	25 per 4.00 sq. m.
Standards, reprints, etc.	1000 per 3.75 sq. m.
Micro forms	10000 per 3.00 sq. m.
Load capacity of floor	1500 kg per sq. m.
Reading area	2.75 sq. m. per user

## 1. Stack

There are many recommended norms for stack

6 vol. Per linear foot (includes 25% free space)

10-15 vol. Per sq.ft. (includes 25% free space)

Add

- 5% growth rate per year
- 6% configuration loss
- 25% non-assignable space

## 2. Users:

Total space: 25 sft in reading room + 25 sft elsewhere in the building per user

## 3. Reading area

Make provision for 10% of population to be served

Norm for academic libraries (per user)

undergraduate	30 sft.
graduate	40 sft.
faculty	50 sft.

Norm For Special Libraries: 75 Sft Per User

- |                       |   |
|-----------------------|---|
| 4. Catalogue cabinet  | : 20 sft per cabinet                          |
| 5. Microforms readers | : 150 sft per unit                            |
| 6. Conference room    | : 500 sft                                     |
| 7. Staff              |   |
| librarian             | : 250 sft                                     |
| deputy head           | : 125- 150 sft                                |
| clerical staff        | : 50 sft                                      |
| 8. Furniture          |   |
| table                 | : seating economy vs privacy 2'x3' vs 4'x6'   |
| height                | 29" ; Bullnose edge or wood/ vinyl round edge |
| Chair                 |   |
| Height                | : 26"   |
| knee height           | : 17"   |
| Rack                  | : 71/2' x 22" x 3'                            |

## C. Tips for acquiring equipment and furniture

### 1. Generating specifications and drawings:

- Other libraries
- Associations
- Manufacturers and vendors
- Literature

**2. Evaluation of offers**

- Fictitious offers
- Counter / alternate offers
- Full specs & printed catalogue
- Demonstration
- Performance reports
- Published evaluations

**3. Trade off of specifications with price**

**4. Indigenous or imported?**

- Imported through agent or import directly
- Need for installation, training and post-sale service support

**5. Importing formalities**

- Justifying the need
- Import provision
- Banned & restricted items
- Agency commission
- FE & CIF
- Airfreight
  - i. Delicate items
  - ii. Light weight
  - iii. Limited shelf life of consumables
- User license, NMI & CDE
  - i. Justification for importing
  - ii. Consequences of not importing
  - iii. Indian sources cited to be explored first
- Provision of CD

**6. Maintenance and post-sale services**

- i. Strategic spares unutilised
- ii. Spares imported / down time
- iii. Cancellation / change of agents
- iv. AMC
- v. Hike in cost of spares, consumables & AMC
- vi. Trial and error learning by new engineer/ agent
- vii. Training new batches of engineers
- viii. Nuisance of sales promotion demonstrations

**A CASE STUDY**

**PROJECTED REQUIREMENT OF SPACE (IN SQ.M.) FOR ISAC LIBRARY  
(AS ON 5.8.88)**

**SUMMARY:**

S.No. Area Head	Present Space	Required Space	Annual Addition
1. Collection	500	590	70
2. Reading	125	721	36
3. Catalogues	23	23	3
4. Browsing & New Arrivals	0	40	
5. Circulation Counter	27	40	
6. Sp. Materials (Maps, Dictionaries, Atlas Stand etc.)	5	10	
7. Micrographics Unit	20	16	27
8. AV Room	0	30	
9. Reprographics Unit	20	20	
10. Documentation Unit	0	60	
11. Working Area	225	300	30
12. Computer Workstations	0	10	4
13. Committee Meeting Room / Exhibition Hall	0	40	0
	<b>1000</b>	<b>1900</b>	<b>170</b>

Requirements as on 5.8.88 : 1900

Future requirements for 10 yrs @ 170 / yr : 1700

**Total** **3600**

**DETAILED WORKING:**

**1. Collection:**

	Unit rate	Existing No.	Space	Annual addition No.	Space
i. Books	500/3.75	20,000	150.0	2,000	15.0
ii. Reports	500/3.75	9,000	67.5	1,500	11.25
iii. Bound Jls	300/3.75	7,000	87.5	1,500	18.75
iv. Current Jls	25/4.00	650	104.0	25	4.00
v. Standards, Reprints, Trade Catagues, etc.	1000/3.75	7,000	26.25	1,000	3.75
vi. Microforms	10000/2.00	75,000	15.0	5,000	1.00
<b>Sub-Total</b>		<b>1,18,650</b>	<b>450.25</b>	<b>11,025</b>	<b>53.75</b>
<b>Add: 6% configuration loss and 25% nonassignable space</b>			<b>139.58</b>		<b>16.67</b>
<b>Total</b>			<b>589.83</b>		<b>70.42</b>

**2. Reading Area:**

200 users (10% of population) @ 2.75 sq m / user	550
Add: 6% configuration loss & 25% nonassignable space	170.5
	720.5
Annual Addition: 10 users	36.0

**3. Catalogues:**

10 catalogue cabinets @ 1.75 sq.m. per unit	17.5
Add: 6% configuration loss & 25% nonassignable space	5.45
	-----
	22.95
	-----
Annual * Addition: 1 unit	2.3
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4. Display of New Arrivals and Browsing Lounge	40
5. Circulation Counter ( + Personal property counter)	40
6. Special Materials (Dictionary, Atlas & Map stands, trollies, vaccum cleaners, stools, chairs with writing pads)	10
7. Micrographics Unit (Production, duplication, hardcopy conversion, etc.)	16
8. AV Room (Films, slides, videos, equipment & carrels)	30
9. Reprographics Unit	20
10. Documentation Unit	60
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Total of 4 to 10	216
Add: Nonassignable area (25%)	54
	-----
Total of 4 to 10	270
	-----
Annual addition for 4 to 10	27

**11. Library Working Area:**

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i. Processing Unit (Classification, indexing, cataloguing, etc)	10
ii. Acquisition Unit (Journals, books, reports, etc.)	14
iii. Reference and Stack Maintenance Unit	0
iv. Library Office (Mail Opening, etc.)	4
v. Librarian	30
Sub-Total	----- 58 -----
vi. Library Staff :	

	<u>Existing</u>		<u>Annual addition</u>	
	<u>No.</u>	<u>Space</u>	<u>No.</u>	<u>Space</u>
Professional @ 11 sq m	12	132	1	11
Others @ 7 sq m	10	70	1	7
Sub-total	----- 22 -----	----- 202 -----	----- 2 -----	----- 18 -----
Add: i to v		58 ----- 260		
Add: 25% nonassignable space		40 -----		
Total		300 -----		
Annual addition		30		
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12. Computer Work Stations (LAN terminals, PCs, CD-ROM workstations, etc.)	10
Annual addition	4
13. Committee meeting room/ Exhibition hall	40



**GROWTH OF ISAC LIBRARY SPACE, MEMBERS, COLLECTION, USE AND STAFF**

Year	Staff			Space	Reading	Members	Use			Collect-
	Prof.	Non-prof.	Total	(in sq ft)	seats		Issues	consul-tations	Total	ion (in 000's)
							(in 000's)			
1972	0	1	1	800	16	NA	NA	NA	NA	212
1973	0	1	1	800	16	200	NA	NA	NA	1229
1974	0	2	2	800	16	263	NA	NA	NA	1807
1975	0	2	2	800	16	285	NA	NA	NA	2328
1976	0	3	3	800	16	316	NA	NA	NA	3539
1977	0	4	4	1100	16	485	NA	NA	NA	5005
1978	3	5	8	2500	30	633	NA	NA	NA	7274
1979	4	5	9	2500	20	692	7	NA	7	13306
1980	4	6	10	3000	30	783	15	31	46	29063
1981	4	6	10	4000	50	890	18	33	51	42753
1982	6	5	11	4000	40	982	23	47	70	54725
1983	9	8	17	4000	40	1160	32	64	96	65563
1984	10	8	18	8000	60	1210	25	64	89	79131
1985	11	8	19	8000	50	1305	31	91	122	91298
1986	11	9	20	8000	50	1525	39	87	126	99694
1987	12	9	21	8000	50	1676	35	107	142	114353
1988	13	10	23	8000	50	1731	34	169	203	126059
1989	13	10	23	8000	50	1799	35	159	194	141430
1990	13	10	23	8000	50	1887	31	146	176	157429
1991	13	9	22	13000	150	1954	35	115	150	172228
1992	13	9	22	13000	150	1955	33	162	195	187025
1993	13	8	21	13000	150	2018	33	177	210	199006
1994	13	8	21	18000	200	2036	35	148	183	206586

Key: NA, not available

## GROWTH OF ISAC LIBRARY COLLECTION

Year	Periodicals		Books	Reports		Standards		Trade cats	Repr ints	AVs	Total*
	Current	Bound		HC	MF	HC	MF				
1972	0	0	212	0	0	0	0	0	0	0	212
1973	30	0	1229	0	0	0	0	0	0	0	1229
1974	60	0	1807	0	0	0	0	0	0	0	1807
1975	72	54	2220	54	0	0	0	0	0	0	2328
1976	96	405	2729	405	0	0	0	0	0	0	3539
1977	141	604	3761	604	36	0	0	0	0	0	5005
1978	208	749	5740	749	36	0	0	0	0	0	7274
1979	337	937	7639	1784	1898	518	0	304	197	29	13306
1980	533	1665	9040	2847	13425	1355	0	407	278	46	29063
1981	575	2224	9984	3369	24164	2151	0	484	316	62	42753
1982	645	2780	11462	4200	31962	3065	0	698	462	96	54725
1983	655	3943	12748	5011	39022	3309	0	800	630	100	65563
1984	631	4497	14158	5947	48828	3907	0	850	840	104	79131
1985	632	5670	15800	6832	55512	4258	1340	890	891	105	91298
1986	650	6460	17300	7850	57930	4366	3871	900	910	107	99694
1987	615	7158	19318	8684	65408	4643	6619	1100	1286	137	114353
1988	620	7954	20640	9352	67556	4786	12732	1350	1488	201	126059
1989	582	9040	22211	10390	73430	6182	17078	1169	1785	219	141430
1990	549	10034	24020	10913	81144	6384	21602	1250	1837	245	157429
1991	444	10759	25305	11796	88303	6630	26000	1290	1890	255	172228
1992	438	11399	26505	12459	95574	6988	30556	1322	1920	302	187025
1993	441	12283	27541	13124	102233	7275	32831	1354	2041	324	199006
1994	437	13189	28666	13973	106251	7736	32831	1365	2213	362	206586

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