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The University of Chicago

FOUNDED BY JOHN D. ROCKEFELLER

COMMISSION ON THE FUTURE  
POLICY OF THE UNIVER-  
SITY LIBRARIES

TENTATIVE REPORT  
JANUARY, 1924



THE UNIVERSITY OF CHICAGO PRESS  
CHICAGO, ILLINOIS



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## PREFACE

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We should welcome the receipt of critical opinions from any of those who may read the Report. We request in particular that each Department and each School of the University study with detailed care those portions of the Report which particularly concern that Department or School, and submit its criticisms of the Report to the Commission in typewritten form not later than March 1, 1924.

The appending of the signatures of the members of the Commission to this Preface implies simply that they authorize the publication of the Report in this tentative form, for the purpose of affording a basis for general discussion.

Mr. Martin A. Ryerson and Professor John M. Coulter, who are members of the Commission, have been prevented from seeing the Report by absence abroad.

ERNEST D. BURTON  
CHARLES W. GILKEY  
JOHN F. NORTON  
ALBION W. SMALL  
LEONARD D. WHITE  
ERNEST H. WILKINS, *Vice-Chairman*  
HAROLD H. SWIFT, *Chairman*

XII. Preface	iii
XIII. Introduction	1
XIV. Summary of Findings	1
XV. The Commission	1
XVI. The University of Chicago	1
XVII. The University of Chicago Press	1
XVIII. The University of Chicago Library	1
XIX. The University of Chicago Museum	1
XX. The University of Chicago Botanical Garden	1
XXI. The University of Chicago Divinity School	1
XXII. The University of Chicago Law School	1
XXIII. The University of Chicago Medical School	1
XXIV. The University of Chicago School of Education	1
XXV. The University of Chicago School of Engineering	1
XXVI. The University of Chicago School of Journalism	1
XXVII. The University of Chicago School of Public Administration	1
XXVIII. The University of Chicago School of Social Work	1
XXIX. The University of Chicago School of Theology	1
XXX. The University of Chicago School of Music	1
XXXI. The University of Chicago School of Fine Arts	1
XXXII. The University of Chicago School of Architecture	1
XXXIII. The University of Chicago School of Agriculture	1
XXXIV. The University of Chicago School of Forestry	1
XXXV. The University of Chicago School of Mining	1
XXXVI. The University of Chicago School of Civil Engineering	1
XXXVII. The University of Chicago School of Mechanical Engineering	1
XXXVIII. The University of Chicago School of Electrical Engineering	1
XXXIX. The University of Chicago School of Chemical Engineering	1
XL. The University of Chicago School of Industrial Engineering	1
XLI. The University of Chicago School of Aeronautics	1
XLII. The University of Chicago School of Naval Architecture	1
XLIII. The University of Chicago School of Marine Engineering	1
XLIV. The University of Chicago School of Oceanography	1
XLV. The University of Chicago School of Meteorology	1
XLVI. The University of Chicago School of Geology	1
XLVII. The University of Chicago School of Geography	1
XLVIII. The University of Chicago School of History	1
XLIX. The University of Chicago School of Political Science	1
L. The University of Chicago School of Economics	1
LI. The University of Chicago School of Sociology	1
LII. The University of Chicago School of Anthropology	1
LIII. The University of Chicago School of Archaeology	1
LIV. The University of Chicago School of Linguistics	1
LIV. The University of Chicago School of Literature	1
LVI. The University of Chicago School of Philosophy	1
LVII. The University of Chicago School of Religion	1
LVIII. The University of Chicago School of Law	1
LIX. The University of Chicago School of Medicine	1
LX. The University of Chicago School of Dentistry	1
LXI. The University of Chicago School of Pharmacy	1
LXII. The University of Chicago School of Nursing	1
LXIII. The University of Chicago School of Public Health	1
LXIV. The University of Chicago School of Hygiene	1
LXV. The University of Chicago School of Preventive Medicine	1
LXVI. The University of Chicago School of Therapeutics	1
LXVII. The University of Chicago School of Surgery	1
LXVIII. The University of Chicago School of Obstetrics and Gynecology	1
LXIX. The University of Chicago School of Pediatrics	1
LXX. The University of Chicago School of Dermatology and Syphilology	1
LXXI. The University of Chicago School of Ophthalmology	1
LXXII. The University of Chicago School of Otorhinolaryngology	1
LXXIII. The University of Chicago School of Radiology	1
LXXIV. The University of Chicago School of Pathology	1
LXXV. The University of Chicago School of Bacteriology	1
LXXVI. The University of Chicago School of Immunology	1
LXXVII. The University of Chicago School of Microbiology	1
LXXVIII. The University of Chicago School of Botany	1
LXXIX. The University of Chicago School of Zoology	1
LXXX. The University of Chicago School of Entomology	1
LXXXI. The University of Chicago School of Entomology	1
LXXXII. The University of Chicago School of Entomology	1
LXXXIII. The University of Chicago School of Entomology	1
LXXXIV. The University of Chicago School of Entomology	1
LXXXV. The University of Chicago School of Entomology	1
LXXXVI. The University of Chicago School of Entomology	1
LXXXVII. The University of Chicago School of Entomology	1
LXXXVIII. The University of Chicago School of Entomology	1
LXXXIX. The University of Chicago School of Entomology	1
LXXXX. The University of Chicago School of Entomology	1



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 FREDERICK D. BURTON

## TABLE OF CONTENTS

	PAGE
INTRODUCTORY STATEMENT . . . . .	vii
PART I: GENERAL SURVEY OF FACILITIES AND NEEDS	
SECTION	
I. GENERAL PRINCIPLES . . . . .	3
II. LIBRARY FACILITIES DESIRABLE FOR THE HUMANISTIC DEPART- MENTS AND SCHOOLS . . . . .	4
III. LIBRARY FACILITIES DESIRABLE FOR THE OTHER DEPARTMENTS AND SCHOOL AND FOR THE GENERAL LIBRARY STOCK . . . . .	9
IV. EXTENT OF FACILITIES NEEDED IN 1950-51 . . . . .	10
V. SURVEY OF PRESENT FACILITIES . . . . .	17
VI. THE MAIN DEPARTMENTAL INTERRELATIONSHIPS . . . . .	23
PART II: ALTERNATIVE SOLUTIONS OF THE BUILDING PROBLEM	
VII. INTRODUCTORY STATEMENT . . . . .	27
VIII. PLAN I: CENTRALIZATION . . . . .	28
IX. PLAN II: COMPLETION AND DEVELOPMENT OF THE HARPER GROUP WITH SEPARATE LIBRARIES FOR THE SCHOOL OF EDUCA- TION, MEDICINE, AND THE PHYSICAL SCIENCES . . . . .	30
X. ARGUMENTS FOR PLAN I AND AGAINST PLAN II . . . . .	32
XI. ARGUMENTS FOR PLAN II AND AGAINST PLAN I . . . . .	39
PART III: ADMINISTRATIVE QUESTIONS	
XII. DIRECTOR AND LIBRARIAN . . . . .	47
XIII. EXPENDITURES FOR BOOKS . . . . .	48
XIV. SALARIES OF LIBRARY STAFF . . . . .	50
PART IV: APPENDIXES	
A. THE DEGREES OF CLOSENESS OF LIBRARY INTERRELATIONS . . . . .	55
B. THE USE OF HARPER BY THE SOCIAL SCIENCE DEPARTMENTS . . . . .	57
C. THE INTERRELATION OF GRADUATE AND SENIOR COLLEGE WORK . . . . .	61
D. NUMBER OF PROFESSORS IN THE HUMANISTIC DEPARTMENTS AND SCHOOLS . . . . .	63
E. NUMBER OF STUDENTS . . . . .	65
F. NUMBER OF BOOKS . . . . .	79
G. MEMORANDUM REGARDING THE OFFICE OF LIBRARIAN . . . . .	90



TABLE OF CONTENTS

INTRODUCTORY STATEMENT	vii
PART I: GENERAL SURVEY OF FACILITIES AND NEEDS	
I. GENERAL PRINCIPLES	1
II. LIBRARY FACILITIES DESIRABLE FOR THE HUMANISTIC DEPARTMENT	4
III. LIBRARY FACILITIES DESIRABLE FOR THE OTHER DEPARTMENTS	9
IV. EXTENT OF FACILITIES NEEDED IN 1930-31	10
V. SURVEY OF PRESENT FACILITIES	17
VI. THE MAIN DEPARTMENTAL INSTALLATIONS	23
PART II: ALTERNATIVE SOLUTIONS OF THE BUILDING PROBLEM	
VII. INTRODUCTORY STATEMENT	27
VIII. PLAN I: CENTRALIZATION	28
IX. PLAN II: COMBINATION AND DEVELOPMENT OF THE HALLS	30
X. ARGUMENTS FOR PLAN I AND AGAINST PLAN II	32
XI. ARGUMENTS FOR PLAN II AND AGAINST PLAN I	39
PART III: ADMINISTRATIVE QUESTIONS	
XII. DIRECTOR AND LIBRARIAN	41
XIII. EXPENDITURES FOR BOOKS	46
XIV. SALARIES OF LIBRARY STAFF	50
PART IV: APPENDICES	
A. THE DEGREE OF CLOSENESS OF LIBRARY INSTALLATIONS	55
B. THE USE OF HALLS BY THE SOCIAL SCIENCE DEPARTMENTS	57
C. THE INSTALLATION OF GRADUATE AND SENIOR COLLEGE WORK	61
D. NUMBER OF TEACHERS IN THE HUMANISTIC DEPARTMENTS AND SCHOOLS	63
E. NUMBER OF STUDENTS	65
F. NUMBER OF ROOMS	70
G. MEMORANDUM REGARDING THE OFFICE OF LIBRARIAN	90

# INTRODUCTORY STATEMENT

1. The development of the Libraries of the University of Chicago has reached a critical point. The main library building is not only inconvenient to a very serious degree, particularly for research work, but is already badly overcrowded in respect to stack space, accommodations for students, and working space for the library staff. The branch libraries, similarly, are in many cases inconvenient to a very serious degree and already badly overcrowded; they suffer in some cases from insufficient or inefficient management; and in general their relationship to the central library is not satisfactory. New library construction on a very large scale is inevitable if the University is to continue to be an institution of the first rank. Nor are these the only serious aspects of the situation. The amount of money expended annually for books is insufficient: imperative needs are going unsatisfied, and the library collection is falling behind that of other institutions of similar rank. Furthermore, the low salaries paid to library workers make it increasingly difficult to secure efficient library service.

2. The library is the heart of the University. The rectifying of these conditions is essential to the life of the University. And the conditions are so serious that immediate action is necessary.

3. The Commission has therefore sought to survey the entire library problem; to assemble the essential facts and estimates; and to derive therefrom suggestions and recommendations the adoption of which would serve both to relieve the present emergency and to make reasonable provision for the continued growth of the University Libraries.



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## PART I

### GENERAL SURVEY OF FACILITIES AND NEEDS



PART I  
GENERAL SURVEY OF FACILITIES AND NEEDS

SECTION I  
GENERAL PRINCIPLES

4. The present Report is prepared on the assumption that the graduate work of the University will so grow as to require all or nearly all of the equipment and buildings upon the present quadrangles (and that therefore the development of the undergraduate work, in whole or in part, may be expected to be housed elsewhere); and, in particular, on the assumption that every possible effort is to be made to facilitate and to encourage discovery. It follows at once that library facilities which will in reality facilitate and encourage discovery should be provided for members of the Faculties and for graduate students.



## SECTION II

LIBRARY FACILITIES DESIRABLE FOR THE HUMANISTIC DEPARTMENTS AND SCHOOLS<sup>1</sup>

5. For the Humanistic Departments and Schools the provision of library facilities which will in reality facilitate and encourage discovery means, in practical terms, the provision of a study immediately adjacent to the stacks for every senior member of the Faculties and an individual working space in the stacks for every junior member of the Faculties and every active regular graduate student.<sup>2</sup>

6. Such provision is already made in the libraries of Harvard and Johns Hopkins Universities, and in the libraries of the universities of Michigan, Wisconsin, Minnesota, and California; and is being planned for, so far as this Commission is aware, in all new university library construction now in prospect, as in the cases of the universities of Illinois, Missouri, and Nebraska. In the present or future libraries of these several institutions, the details of stack construction and arrangement differ; but each of these libraries expresses in its construction and arrangement the principle that individual working spaces in or immediately adjacent to the stacks should be provided for members of the faculties and for graduate students—a principle which indeed may now be termed a generally accepted principle of university library construction.

7. Of the several libraries named above, the one with which the members of the Commission are most familiar is the Harvard Univer-

<sup>1</sup> The term "humanistic" is used arbitrarily in this Report to designate those Departments and Schools in which research work consists largely in the use of books: namely, the Departments of Philosophy, Psychology, Political Economy, Political Science, History, Sociology, Household Administration, Geography, Comparative Philology, Greek, Latin, Romance, German, English, General Literature, the History of Art, Mathematics, and Astronomy; and the Schools of Divinity, Education, Law, Commerce and Administration, and Social Service Administration.

<sup>2</sup> The term "active regular graduate student" is used arbitrarily in this Report to designate a graduate student doing full work in a normal quarter, that is, in an Autumn, Winter, or Spring Quarter. In the cases of the Divinity, Law, and Medical Schools, the term "active regular graduate student" is used arbitrarily to denote students engaged in research, as distinguished from students taking vocational courses. The question of provision for graduate students in the Summer Quarter will be discussed below.

sity Library. In that library the stacks occupy three sides of a quadrangle rising to a height of eight stack stories; the inner faces of these three sides of the quadrangle are in part occupied by studies for senior members of the faculties; and the outer faces are, in general, occupied by individual working spaces called "cubicles," for junior members of the faculties and for graduate students. Each cubicle is set off by transverse partitions from the adjacent cubicles, but is open to the stacks. Each cubicle is lighted by a window and by an electric light. Each cubicle contains a table (with a drawer) and a book shelf.

8. Such an arrangement does, in fact, conduce most directly to the facilitation and encouragement of research, as all who have had the privilege of work in a study or cubicle of the Harvard Library can testify. The instructor or student enjoys a reasonable amount of privacy; and he has the entire collection of the library at his immediate command. His study or cubicle is, in general, located near the stock of books which he uses most frequently; and he is enabled by means of stairways and elevators within the stacks to reach very quickly any other portion of the stacks. He can, at his leisure, examine for himself any portion of the library resources under good conditions of light and ventilation, gaining a knowledge of books such as cannot be gained in any other way. Whenever his research develops a new suggestion, he can pursue it from volume to volume, from stack to stack, from region to region, unlimited in scope, able always to return conveniently to his study or cubicle for the recording or the consideration of new data, and able always to turn to the stacks again as the call of the developing idea may lead him. Similarly, when his work demands the verification of a reference or a series of references, he can make the verification at once. No barrier, material or human, intervenes between him and his world of books. It is a joy and a stimulation to work in such a place. Two of the writers of this report have carried on research in the Harvard Library, and know whereof they speak.

9. It has been said that it is essential that members of the Faculties and active regular graduate students should have studies adjacent to, or individual working spaces in, the stacks. For senior members of the Faculty, studies adjacent to the stacks should be provided. In general, individual studies should be provided for full professors, and studies accommodating two persons each for associate and assistant professors. For instructors and active regular graduate students a set of cubicles like those of the Harvard Library would be ideally desirable;



but it seems unlikely that it would be practicable to extend such a system to accommodate numbers so large as those we must consider. A second means of providing individual working spaces in or close to the stacks would be to leave free between the outer edge of the stacks themselves and the outer wall a space wide enough to contain series of three or four individual desks set at right angles to the wall, or of single desks each long enough to provide for three or four students on one side. The outer portion of the stack space would, therefore, constitute a continuous reading-room. Each student would receive as a regular working space one of the individual desks or a section of one of the long desks. A reading-room very much of this type, but on a small scale, now exists on the third floor of our Classics Building, to the south of the stacks. Each individual desk or portion of a long desk should be equipped with a drawer which could be locked, and with shelves for books. This plan would have the advantage of allowing for gradual furnishing. Space should be allowed for the number of desks ultimately to be desired, but the desks could be installed as needed.

10. While it would be desirable in theory to provide individual working spaces of the same type for the much larger number of graduate students in the Humanistic Departments and Schools who attend the University in the Summer Quarter, it seems unlikely that it would be practicable to do so. Provision for these students is suggested below, in paragraph 12.

11. Senior College students should not have individual working places in the stacks, but should be provided for in general reading-rooms. These reading-rooms might serve either single departments or groups of departments. Seats should be provided to a number equal to one-third of the total course-registrations. This estimate rests upon a study made by the Commission of the extent to which students are likely to be in the library at the peak hours of library attendance. If this estimate seems large to any reader of this Report, or if the figures later based thereon seem large, let him summon to his memory visions of the overcrowded reading-rooms in which he has endeavored to work or has seen students endeavoring to work.

12. Reading-rooms designed to accommodate, on the scale just suggested, Senior College students resident in a normal quarter would suffice (with a few exceptions, noted below at the necessary points in the computations concerned) to accommodate, in the Summer Quarter, both the excess of summer graduate students over graduate

students in a normal quarter (on the supposition that in general a number of seats equal to one-half the excess number of graduate students would be sufficient) and the Senior College students resident in the Summer Quarter—since the number of Senior College students in the summer is much less than that in a normal quarter.<sup>1</sup> That the preceding statement is valid may be seen by inspection of the figures in Tables IX and XI, Appendix E, and the statements in section (7) of paragraph 23.

13. In the Divinity and Law Schools, much of the work is vocational and does not require research. The reading-rooms for these Schools should, therefore, suffice for practically the entire student body. In the case of the Divinity School, it would seem desirable that the reading-room provide seats equal to one-half the total number of students registered in the first term of the Summer Quarter, since the attendance is larger than in a normal quarter. In the case of the Law School, it would seem desirable that the reading-room provide seats equal to one-half the number of students registered in a normal quarter, since the attendance is larger in normal quarters than in the Summer Quarter.

14. The plan for library space for Senior College students outlined in paragraphs 11 and 12 is in accordance with the opinion of the majority of the writers of this report that it is undesirable to separate the work of the Senior Colleges from the work of the graduate schools. Our reasons for this belief are set forth in Appendix C. But we would note that even if the work of the Senior Colleges should in general be housed elsewhere than on the present quadrangles, and even if provision should be made in such housing for the library books most constantly needed by Senior College students, such students would nevertheless be compelled very frequently to consult books available only in the graduate library or libraries of the main campus, and that therefore the reading-rooms referred to in the preceding paragraphs would be used to a considerable extent even if the work of the Senior Colleges should be separated from that of the Graduate Schools.

15. Plans for library service for the Junior Colleges, if separated from the Senior Colleges and the Graduate Schools, or for the Junior and Senior Colleges, if separated from the Graduate Schools, will be

<sup>1</sup> This might appear to be a more generous provision for Senior College students than for graduates, but it is not so in fact, since a graduate student, working primarily in one department, needs seating space in one reading-room only, whereas a Senior College student, working in at least two departments, needs seating space in two or more reading-rooms.



formulated in a subsequent separate report. It may be noted that the construction called for below, since it is designed to supply the needs of the numbers of graduate and Senior College students expected in 1950-51, would as a matter of fact suffice for several years to supply the needs of Junior College students as well as those of graduate and Senior College students.

16. For each of the Humanistic Departments and Schools there should be one or more seminar rooms adjacent to the portion of the stacks containing the books most frequently used by the Department or School in question.

17. The type of stack and the type of stack flooring used in Harper seem to us satisfactory. The stacks should be amply supplied with stairways and with automatic elevators.

18. Catalogue and delivery rooms should be, if possible, on the ground floor of the library building or buildings.

### SECTION III

#### LIBRARY FACILITIES DESIRABLE FOR THE OTHER DEPARTMENTS AND SCHOOL AND FOR THE GENERAL LIBRARY STOCK

19. For the other Departments and School, in which research work centers rather in the laboratory than in the use of books—the Departments of Physics, Chemistry, Geology, the Biology Departments, and the Medical School—it does not seem necessary that every member of the Faculty and every active regular graduate student should have an individual working space in or adjacent to the stacks. In these cases, individual working spaces should be provided in the stacks to a number equal to one-third the number of expected graduate students. Some of the spaces thus provided could be temporarily assigned to students working on problems involving continuous library research; the rest would serve the convenience of other students. A general study room with, say, forty seats should be provided for the Faculty members of the Departments and School here in question; and a general reading-room for the summer graduate and for the Senior College students for each Department (or group of Departments) or School. In such general reading-rooms seats should be provided to a number equal to one-fourth the number of registrations by Senior College students in a normal quarter. Paragraphs 15, 17, 18 apply here as well as for the Humanistic Departments.

20. The general library stock—that is, the stock of books not specific to any department or school—may be placed in a general reading room and in stacks containing desks for the use of Faculty members and students consulting the books in question.



## SECTION IV

## EXTENT OF FACILITIES NEEDED IN 1950-51

21. This portion of the Report is devoted to tabular indication of the space needed, on the basis of the foregoing recommendations, in the year 1950-51. The selection of that year is, of course, arbitrary, for no one can reasonably suppose that the growth of the library as regards books will cease at that time; and it would be hazardous to predict that the growth of the University as regards students will cease at that time. It is indeed quite possible that the provision of library facilities such as those suggested in this Report would cause an even greater increase in the number of graduate students than the increase estimated by the Commission as probable. The difficulty of reasonable prediction of future conditions increases, of course, with the remoteness of the future date contemplated; and it seemed to the Commission that while we could frame reasonable predictions for the year 1950-51, we could hardly frame predictions of the same order of value for any substantially later date. In the interpretation of the following figures, it is to be constantly remembered, however, that they would in general be larger, particularly as regards stack space, if a later date were to be borne in mind; and that library construction should be ideally of such a nature as to be readily and indefinitely extensible, particularly as regards stack space. It should be remembered also that University library buildings hitherto have in general reached or approached their limits of usefulness in a much shorter time than was expected by those who planned them. We profoundly hope that the mistake so generally made through a lack of sufficiently resolute provision may not be repeated here.

22. Table I (pages 12-13) does not include space needed for library administration; nor does it make any allowance for the development of new Departments and Schools. The usual height of a story in the stacks is 7 feet; the average height of a study or seminar room is about 12 feet; the height of a reading-room varies with the other proportions of the room. The method by which the figures in the table were obtained is indicated in paragraph 23. In the portion of the table devoted to reading-room space, separate estimates are given for each department. This is done for the sake of consistency in treatment and freedom in the study of possible combinations.

does not imply that the Commission thinks that each department should have a separate reading-room.

Table I should logically stand at this point, but for convenience is printed on pages 12-13.

23. The figures in Table I were obtained as follows:

(1) The figures for the cubic space for books, etc. (Column A) were taken directly from the estimate of stack space required in 1950-51 (Appendix F, Table XVII, Column F), except that the estimate for Household Administration (i.e., for books primarily concerning Household Administration and not accounted for elsewhere), for which there is no basis in that table, was a rough guess based on the figures for Household Administration in the tabulation of volumes in classes corresponding to Departments and Schools (Appendix F, Table XII).

(2) The figures for the number of studies (Column B) were obtained from the table of numbers of professors in the Humanistic Departments and Schools (Appendix D, Table VII) by finding the sum of the estimated number of full professors in 1950-51 (figures in the third column of that table) and one-half the estimated number of associate and assistant professors in 1950-51 (figures in the fourth column of that table). (Compare the recommendations in paragraph 9.)

(3) The estimates of cubic space required for the studies (Column C) were obtained by multiplying the estimated number of studies (Column B) by 1,440, on the assumption that the cubic size of the studies will average about 1,440 feet (i.e.,  $10 \times 12 \times 12$ ), as at Harvard.

(4) The figures for the number of individual working spaces (Column D) for the Humanistic Departments were obtained by adding the estimated number of active graduate students in each Department in a normal quarter of 1950-51 (Appendix E, Table IX, first column) and the estimated number of instructors in each Department in 1950-51. This latter figure was obtained by dividing the sum of the estimated number of professors, associate professors, and assistant professors (the figures in the third and fourth columns of Table VII, Appendix D) by three—since the present ratio of instructors to the sum of professors, associate professors, and assistant professors is one to three. (Compare the recommendations in paragraph 9 as to individual working spaces for the Humanistic Departments.) The number of individual working spaces for the other departments was obtained by taking the number of active graduate students in a normal quarter of 1950-51 (Appendix E, Table IX, first column),



TABLE I  
CUBIC SPACE NEEDED

DEPARTMENT OR SCHOOL	STACK SPACE					
	A Cubic Space Needed for Books, Passage- ways, etc. (Figures Represent Cubic Feet)	B Number of Studies	C Cubic Space Needed for Studies	D Number of Indi- vidual Working Spaces	E Cubic Space Needed for Indi- vidual Working Spaces	F Total Cubic Space Needed for Stacks, Studies, and Individual Working Spaces
Philosophy.....	12,313	7	10,080	42	8,400	30,793
Psychology.....	9,600	5	7,200	41	8,200	25,000
Pol. Economy.....	55,560	9	12,960	73	14,600	83,120
Pol. Science.....	67,350	9	12,960	129	25,800	106,110
History.....	124,770	20	28,800	108	21,600	175,170
Sociology.....	28,862	11	15,840	74	14,800	59,502
Household Adm.....	1,000	2	2,880	16	3,200	7,080
Geography.....	18,465	9	12,960	44	8,800	40,225
Comp. Philology.....	9,690	2	2,880	7	1,400	13,970
Greek.....	15,510	3	4,320	13	2,600	22,430
Latin.....	17,588	7	10,080	23	4,600	32,268
Romance.....	28,792	17	24,480	62	12,400	65,672
German.....	14,188	6	8,640	15	3,000	25,828
English.....	109,800	26	37,440	150	30,000	177,240
General Lit.....	13,012	3	4,320	13	2,600	19,932
History of Art.....	20,280	4	5,760	32	6,400	32,440
Mathematics.....	9,630	11	15,840	83	16,600	42,070
Astronomy.....	4,726	5	7,200	38	7,600	19,526
Physics.....	10,834	.....	.....	22	4,400	15,234
Chemistry.....	15,255	.....	.....	56	11,200	26,455
Geology.....	34,140	.....	.....	26	5,200	39,340
Botany.....	14,700	.....	.....	22	4,400	19,100
Zoölogy.....	20,415	.....	.....	10	2,000	22,415
Anatomy.....	17,948	.....	.....	11	2,200	20,148
Physiology.....	9,830	.....	.....	12	2,400	12,230
Phys. Chem.....	5,685	.....	.....	11	2,200	7,885
Pathology.....	7,723	.....	.....	10	2,000	9,723
Hyg. and Bact.....	10,388	.....	.....	14	2,800	13,188
Divinity Sch.....	72,387	24	34,560	40	8,000	114,947
School of Ed.....	94,548	30	43,200	193	38,600	176,348
Law School.....	77,400	12	17,280	20	4,000	98,680
Sch. of C. & A.....	36,375	14	20,160	156	31,200	87,735
Sch. of S. S. A.....	11,715	3	4,320	51	10,200	26,235
Medical School.....	30,780	.....	.....	20	4,000	34,780
General study room for professors in Science De- partments and Medical School (see par. 19).....	.....	.....	16,000	.....	.....	16,000
General Library.....	132,174	.....	.....	40	8,000	140,174
Totals.....	1,163,433	239	360,160	1,677	335,400	1,858,993

TABLE I—Continued

READING ROOM SPACE		SEMINAR SPACE		TOTAL SPACE	DEPARTMENT OR SCHOOL
G Number of Reading- Room Seats	H Cubic Space Needed	I Number of Seminar Rooms	J Cubic Space Needed	K Cubic Space Needed for Stacks, etc., Reading- Rooms, and Seminar Rooms	
84	33,600	I	3,000	67,393	Philosophy
60	24,000	I	3,000	52,000	Psychology
118	47,200	I	3,000	133,320	Pol. Economy
49	19,600	I	3,000	128,710	Pol. Science
176	70,400	2	6,000	251,570	History
134	53,600	I	3,000	116,102	Sociology
12	4,800	.....	.....	11,880	Household Adm.
59	23,600	I	3,000	66,825	Geography
7	2,800	.....	.....	16,770	Comp. Philology
16	6,400	I	3,000	31,830	Greek
41	16,400	I	3,000	51,668	Latin
125	50,000	I	3,000	118,672	Romance
50	20,000	I	3,000	48,828	German
264	105,600	2	6,000	288,840	English
56	22,400	I	3,000	45,332	General Lit.
75	30,000	I	3,000	65,440	History of Art
101	40,400	I	3,000	85,470	Mathematics
17	6,800	I	3,000	29,326	Astronomy
62	24,800	.....	.....	40,034	Physics
141	56,400	.....	.....	82,855	Chemistry
45	18,000	.....	.....	57,340	Geology
42	16,800	.....	.....	35,900	Botany
39	15,600	.....	.....	38,015	Zoölogy
91	36,400	.....	.....	56,548	Anatomy
82	32,800	.....	.....	45,030	Physiology
44	17,600	.....	.....	25,485	Phys. Chem.
20	8,000	.....	.....	17,723	Pathology
38	15,200	.....	.....	28,388	Hyg. and Bact.
125	50,000	I	3,000	167,947	Divinity School
500	200,000	2	6,000	382,348	School of Ed.
225	90,000	I	3,000	191,680	Law School
100	40,000	I	3,000	130,735	Sch. of C. & A.
33	13,200	I	3,000	42,435	Sch. of S. S. A.
50	20,000	.....	.....	54,780	Medical School
.....	.....	.....	.....	16,000	General study room for professors in Science Departments and Medical School (see par. 19)
100	40,000	.....	.....	180,174	General Library
3,181	1,272,400	24	72,000	3,203,393	Totals



adding thereto a figure representing the probable number of instructors in each department in 1950-51, and dividing the results by three. The estimate of the probable number of instructors was obtained by a method parallel to that stated in the next to the last sentence—by use of the present ratio of instructors to the sum of professors, associate professors, and assistant professors (it does not seem necessary to print in this Report the statistics concerned). (Compare the recommendations in paragraph 19 as to individual working spaces for these departments.) The figure 40 for the Divinity School is arbitrary. The work of the Divinity School is primarily vocational; but each third-year student is required to take at least one research course, and a number of students in the Divinity School pursue courses leading to M.A. and Ph.D. degrees and involving research. The figures for the Schools of Education, Commerce and Administration, and Social Service Administration were obtained by adding to the estimated number of students in these schools in a normal quarter of 1950-51 (Appendix E, Table XI, first column) figures representing the probable number of instructors in 1950-51. These figures were obtained in the same way as for the Humanistic Departments. The figure 20 for the Law School is arbitrary. The work of the Law School is at present almost exclusively vocational; but it seems reasonable to suppose that a certain amount of legal research will be done by postgraduate students in years to come. The figure 20 for the Medical School is based upon the assumption that that school will have about fifty postgraduate students, whose work will be primarily laboratory work. The figure 40 for the General Library is arbitrary. It represents in reality not working spaces to be individually assigned, but similar spaces for the convenience of those working temporarily in the stacks concerned.

(5) The estimates of the cubic space for the individual working spaces (Column E) were obtained by multiplying the number of such spaces (in Column D) by 200, upon the assumption that 200 cubic feet will be allowed for each individual working space in the stacks. This is a little less than the Harvard allowance, which is about 220 cubic feet, but the system of arrangement of individual working spaces suggested in paragraph 9 will save cubic space and still leave slightly more actual desk space to the individual student.

(6) The estimates for the total cubic space required in and about the stacks (Column F) are the sums of those in Columns A, C, and E

that is, of the estimates of cubic space required for (a) books, passage-ways, etc., (b) studies, and (c) individual working spaces in the stacks.

(7) The figures for the number of reading-room seats (Column G) for the Humanistic Departments were in general obtained by dividing by three the expected registration of Senior College students in a normal quarter of 1950-51 (Appendix E, Table IX, third column). (Compare the recommendations in paragraph 11.) In the cases of the Departments of Comparative Philology, Latin, Romance, and Mathematics, however, the number of seats indicated by this method would not be large enough to provide for the excess of summer over regular graduate students plus Senior College students on the basis indicated in paragraph 12. In these cases, therefore, the figures were obtained by subtracting the expected number of active graduate students in a normal quarter of 1950-51 from the expected number of such students in the first term of the Summer Quarter, 1950 (figures in Appendix E, Table IX, first column, from those in the second column), dividing the result by two, and adding one-third of the expected registration of Senior College students for the same Summer Term (fourth column in the same table). (Compare the recommendations in paragraph 11.) The figures for the other Departments were in general obtained by dividing by four the expected registration of Senior College students in a normal quarter of 1950-51 (Appendix E, Table IX, third column). (Compare the recommendations in paragraph 19.) In the cases of the Departments of Physics, Chemistry, and Botany, however, the number of seats indicated by this method would not be large enough to provide for the excess of summer over regular graduate students plus Senior College students on the basis indicated in paragraph 12. In these cases, therefore, the figures were obtained by subtracting the expected number of active graduate students in a normal quarter of 1950-51 from the expected number of such students in the first term of the Summer Quarter of that year (figures in Appendix E, Table IX, first column, from those in the second column), dividing the result by two and adding one-fourth, instead of one-third, of the registration of Senior College students in the same term (fourth column). The figures for the professional schools are related in every case to the estimated number of students in professional schools for 1950-51 (Appendix E, Table XI). The particular figures chosen were reached by consideration of the probable actual



needs in each case. The figure for the General Library represents the Commission's rough estimate of the number of seats required for readers concerned for the time being with non-departmental books.

(8) The estimates of cubic space needed in reading-rooms (Column H) were obtained by multiplying the number of reading-room seats (Column G) by 400—upon the assumption that 400 cubic feet will be allowed for each reading-room seat (i.e.,  $5 \times 5 \times 16$  feet). The square space thus indicated ( $5 \times 5$ ) is a standard library figure. The height indicated seems a fair average reading-room height; it would doubtless vary in the several reading rooms.

(9) In Column I, for the number of seminar rooms required, one seminar room is assigned to each Humanistic Department or School, except that two seminar rooms each are assigned to the Departments of History and English, and two to the School of Education; and none to the Departments of Household Administration and Comparative Philology, since these two departments could doubtless use the rooms of allied departments. It may be noted that in the case of a Department having a departmental building other than the library building, additional seminar rooms may be located in the departmental building.

(10) The estimates of cubic space needed for seminar rooms (Column J) were obtained by multiplying the number of such rooms (Column I) by 3,000—on the assumption that 3,000 cubic feet (i.e.,  $12 \times 20 \times 12\frac{1}{2}$ ) will be allowed for a typical seminar room.

(11) The estimates for the total cubic space required (Column K) are the sums of those in Columns F, H, and J, that is, of the estimates of cubic space required (a) in and about the stacks, (b) for reading rooms, and (c) for seminar rooms.

## SECTION V

## SURVEY OF PRESENT FACILITIES

24. We turn now from the discussion of the character and extent of library facilities which the prosecution of research requires to a survey and evaluation of existing facilities in the light of the general principles suggested in the foregoing paragraphs.

25. The University Library is at the present time housed in part in the Harper Memorial Library and in part in a number of isolated and relatively small libraries associated with individual Departments or Schools. It is worth while to recall that the present situation is the product of an evolution which, starting some thirty years ago with the express purpose of maintaining departmental libraries, has now resulted, by the gradual consolidation of such libraries, in one large collection and eleven small collections. Each of these collections will be referred to briefly, chief attention being given to the Harper Library and its facilities.

26. The Harper Library now houses about 385,000 volumes, in the two floors of stacks below ground level, in the main reading-room, the magazine reading-room, and the west tower. The second floor of Harper is given up to the use of the library staff for administration. In the stacks there are about thirty-five tables with artificial light for the accommodation of students, and in the west tower reading-rooms for students in the Modern Language departments and in the School of Commerce and Administration and Social Service Administration. The seating capacity of these rooms is limited. In both east and west towers are a number of Faculty offices.

27. On the first floor is an undergraduate reserve library containing about 16,000 volumes and having an average daily circulation of about 2,000. The remainder of the first floor is taken up with recitation rooms and administrative offices. The main reading-room on the third floor seats 364 students and is devoted almost exclusively to undergraduates and to those consulting reference books.

28. The stacks in Harper are very badly crowded, necessitating the constant transfer of books which are an integral part of the main collection to the Classics Building and elsewhere. The continuance of this process of transfer will eventually restore in part the unsatisfactory conditions which the Harper building was designed to remedy.



29. The Harper Library does not now furnish the facilities for research which the Departments whose stocks of books are housed therein require. Some of the inadequacies are easily remediable; some are remediable by the completion of the original Harper plan calling for additional construction adjacent to and connected with the main building; while some appear to be irremediable even by the provision of these additional facilities.

30. Harper Library does not, and, by the nature of its construction, cannot, provide individual working spaces in or immediately adjacent to the stacks.<sup>1</sup> The stacks in Harper are, for the most part, underground. They are lighted only by artificial light, and the ventilation is bad. One cannot, with any satisfaction or convenience, spend time there in the examination of a considerable series of books assembled or scattered. There is practically no provision and no room for studies adjacent to the stacks for members of the Faculty. The individual working spaces of the students, so far as they have any, are in reading-rooms shared by a large number of students and without any considerable degree of privacy. Furthermore, these reading rooms are, in general, several floors from the stacks, with no means of access except the inadequate elevators or the long and winding main stairways, a series of corridors, and a locked door. If, for instance, a graduate student whose working space is in the Social Science reading room (in the Law Building), or one whose working space is in the Modern Language reading-room (on the fourth floor of the west tower) finds a promising clue in research and wishes at once to follow it up, it will take him several minutes and much inconvenience to reach the desired book or group of books in the stacks, and more minutes and inconvenience to return to his place. And if he then finds another clue, he must repeat the process. The tendency is, therefore, to postpone or neglect specific investigations and verifications.

31. The main stacks are very badly crowded, and require that some relief be had in the immediate future. The reserve shelves in the graduate reading-rooms are full, and with the regular expansion of periodicals will soon become inadequate. The graduate reserve shelves found in the corridor space at the east end of Harper reading-room are badly lighted and inadequate. The shelving space in most of the offices has reached the point where the floor is the only recourse. The undergraduate reserve room, E 11, has become so congested that

<sup>1</sup> The existence of a few studies in the lower part of the east tower and of a few tables in the alcoves does not alter the general truth of this statement.

some members of the staff have entirely given up trying to use it, and all complain of the difficulties found in its use, in spite of the commendable effort of the librarian in charge. Moreover, there is no reading-room in the neighborhood of E 11 for the undergraduate students.

32. It is impossible at present to provide in Harper the seminar rooms and working rooms which the Social Science Departments require. The corridors in the east tower are being used by the different Departments for space which ought to be provided in rooms specially constructed for this purpose. It is not an uncommon sight to see students trying to work on the stairs of the east tower anywhere from the third floor up to and above the sixth. Examination of the corridors from the third floor up to the sixth will reveal a collection of filing cases, map cases, drafting tables, and other apparatus, the use of which is of increasing importance and for which adequate provision should be made at the earliest opportunity.

33. The elevator service is entirely inadequate to provide for the constantly increasing demands made upon it. The increasing use of the seminar room E 41, the increasing use of the corridors on the fourth, fifth, and sixth floors, the increasing number of student conferences held in the offices on these floors, and the enlarged toilet facilities recently installed make the use of the east elevator constantly greater until the point has now been reached when during a part of the day it is better to walk than to wait for the elevator to return. More than this, power is frequently cut off from the power house and occasionally the machinery breaks down, in either case requiring members of the Faculty and students to walk to the upper floors. The elevators are used not only for members of the Faculty and students, but for the members of the Library staff, for book trucks, and for messenger's carts. Separate elevators are needed for staff purposes, but there is no room in Harper for additional elevators for any purpose.

34. From the point of view of the undergraduate constituency, Harper reading-room is at peak hours crowded; and although the confusion is much less now than it was a year ago, there is a necessary minimum of passing which results in a certain disturbance not favorable to the best study conditions. The lighting during the evening hours, although recently improved, remains unsatisfactory.

35. The space behind the delivery desk is no longer adequate for the amount of work which has to be done there. As this work increases the difficulties will become progressively greater.



36. The present public catalogue room is crowded to capacity at certain hours of the day, being used by as many as forty to fifty persons at one time. The amount of available space is being constantly diminished by the growth of the card indexes. The present tray capacity will last for two years only, when it will become necessary to bring in additional filing cases. The growth in the number of students using the card index and in the size of the index itself dooms the present room within a very short time. It is not easy to see what adjustment can be made in this respect.

37. The use of certain studies in Harper by members of the Faculty as offices for consultation with students, now a matter of practical necessity, tends to interfere with the efficiency of library administration.

38. These conditions, for the most part inherent in the use of the Harper building both as a library and as the home of the Social Science Departments, not only fail to facilitate and encourage research but they impede and discourage research. That such is, in fact, the case is not only the assertion of the writers of this Report, but is the general testimony of the members of the Faculties and of graduate students in the several Departments whose books are housed in Harper. It is voiced in many of the letters addressed by the Departments to this Commission, and has been expressed still more vigorously in many individual conversations.

39. Relief can be had for the crowded condition of the undergraduate reserve room E 11 by expanding its shelves into the adjacent room to the west, now used as a classroom; and other nearby room could be converted into a reading-room for those using E 11. There is reduction in the number of classrooms, however, would bring the University practically to the saturation point so far as classroom space is concerned. The east tower elevator could be improved by the installation of a more powerful motor; but additional elevators for the use of the library staff and for truck service are impossible. So long as Harper is used for the purposes of the Social Science Departments and the Library the essential weaknesses are irremediable. The inferiority of facilities for research in Harper already constitutes a reason why men called to become members of our Faculties in the humanistic field might well prefer to remain elsewhere rather than come here, and a reason why graduate students in the humanistic field might well prefer to go elsewhere rather than come here.

40. Discontinuance of Harper as a library for graduate work would by no means imply that Harper could not be used for other purposes. It might well be used as a building for the Social Science Departments: the Commission submits herewith, in Appendix B, a detailed plan for such utilization. Such use of Harper would obviate the construction of a large building for the Social Sciences, which would otherwise be necessary, and would constitute a continuation and development of one of the purposes for which Harper has always served. The beautiful building would be no less truly a memorial to President Harper than it has been hitherto, and might indeed win from those who use it an affection which it does not now enjoy. (There are still other possibilities for the utilization of Harper, as, for instance, that it be made the Administration Building, containing not only the offices of the President and the Dean of the Faculties, but the many miscellaneous offices of administration now scattered through many buildings.)

41. We turn now to a briefer survey of other library facilities.

42. Philosophy. The philosophy books are now in the Classics Building. This is exceedingly inconvenient in that they are separated from the books of other departments with which Philosophy is very closely allied (Psychology and the Social Sciences<sup>1</sup>), and in that the members of the Philosophy faculty have not and cannot well have offices in Classics (particularly in view of the prospective re-establishment and growth of the Department of the History of Art).

43. Psychology. The bulk of the psychology library is now badly crowded in two small rooms in the Psychology Building. Its shelves are crowded and it is pitifully inadequate in working space. No other room in the Psychology Building can be used for library purposes. Twenty-six shelves of psychology books are in Classics. Ready access to the psychology books is much needed by Faculty members and students in other Departments and Schools.<sup>1</sup>

44. Geography. It is recognized by the members of the Departments of Geology and Geography that the prospective growth of those departments will soon make it impossible for both to be housed in Rosenwald; and that when the time for separation comes, Geology should stay and Geography go elsewhere.

<sup>1</sup> See the Table of Degrees of Closeness of Library Interrelations in Appendix A.



45. Mathematics and Astronomy. These departments are relatively well off in respect to library facilities for the immediate present; but they are housed in a building designed for the use of the Physics Department, and the prospective growth of that department will eventually make it necessary that Mathematics and Astronomy be housed elsewhere.

46. Chemistry. The chemistry library is now badly crowded in one room in Kent. Its shelves are crowded and it is pitifully inadequate in working space. No other room in Kent can be used for library purposes.

47. The Biology Departments—Botany, Zoölogy, Anatomy, Physiology, Physiological Chemistry, Pathology, Hygiene and Bacteriology. The library now serving all these departments is packed into a relatively small space in the Zoölogy Building. Its shelves are crowded and it is pitifully inadequate in working space. The demands upon this library will be greater than ever with the development of the Medical School; and the space occupied by the library is needed for the expansion of the work of the Department of Zoölogy.

48. The Divinity School. The necessity for new library construction in this case needs no argument. Such construction is, of course planned for in the plans for the new building of the Divinity School.

49. The School of Education. The Education books are now housed half in Harper and half in Blaine. The library facilities in Blaine are very inadequate. The shelf space is insufficient, the reading-rooms are overcrowded, and there are no individual working spaces for graduate students.

50. The Medical School. The necessity for new library construction in this case needs no argument.

51. The other Departments appear to have sufficient library space for the next twenty-five years in the locations and with the provisions here indicated: the Departments of Comparative Philology, Greek, Latin, and the History of Art, in the Classics Building, provided that the philosophy books and much material stored in the basement be removed; the Department of Physics in Ryerson, provided that Mathematics and Astronomy be removed; and the Department of Geology in Rosenwald, provided that Geography be removed. The Law School appears to have sufficient space for the next twenty-five years.

## SECTION VI

### THE MAIN DEPARTMENTAL INTERRELATIONSHIPS

52. The library interrelationships of the Departments of Political Economy, Political Science, History, and Sociology are so intimate and so fully recognized that the separation of the books of these departments is virtually impossible. Similarly, the library interrelationships of the Departments of Romance, German, English, and General Literature are so intimate and so fully recognized that the separation of the books of these departments is virtually impossible. Similarly, the library interrelationships of the seven Biology Departments and the Medical School are so intimate and so fully recognized that the separation of the books of these Departments and that School is virtually impossible.<sup>1</sup>

<sup>1</sup> For the intimacy of the interrelationships referred to in this paragraph, see the Table of the Degrees of Closeness of Library Interrelations in Appendix A.



PART II

## ALTERNATIVE SOLUTIONS OF THE BUILDING PROBLEM



## SECTION VII

### INTRODUCTORY STATEMENT

53. The statements and forecasts contained in Part I make it evident that the University now faces a fundamental and very urgent problem, the solution of which will very materially affect its policy in respect to buildings. This fact makes it of peculiar importance, for when a building policy is settled, even though the decision is reached on educational grounds, the building policy tends thereafter to control educational policies themselves. It is to the Library policy as it affects future building plans that this part of the Report is devoted.

54. Of the various plans theoretically possible, two only seem to the members of the Commission who are responsible for the Report in its present form to be practicable. These are: I. Centralization, involving the construction of a single central library building which shall house the great majority of the books of the University; and II. Completion and development of the Harper group, with separate libraries for the School of Education, Medicine, and the Physical Sciences.\* As each of these plans has advocates in the Commission, it is necessary hereafter to express not the opinions of the Commission as a whole, but the divergent views of the two groups favoring each plan respectively. It will conduce to clearness if the reader will bear in mind the general plan of the following paragraphs. First, Plan I is stated, followed by the statement of Plan II. Then follow the arguments for Plan I and against Plan II; and in turn the arguments for Plan II and against Plan I.

\* Both plans assume separate provision for the Libraries of University College and the Yerkes Observatory.



## SECTION VIII

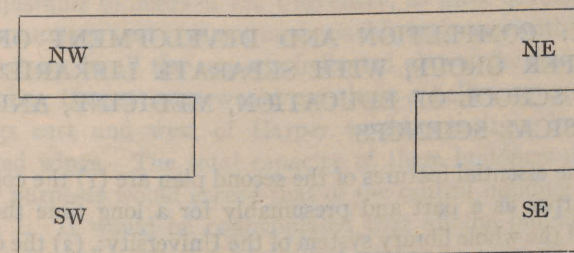
## PLAN I: CENTRALIZATION

55. The first plan calls for a great central library building including (1) all non-departmental books; (2) the general library stock of the Departments of Philosophy, Political Economy, Political Science, History, Sociology, Household Administration, Romance, German, English, General Literature, the Biology Departments, and the Medical School; (3) the general library stock of all or nearly all the following Departments, for which new library construction is already, or will soon be, necessary: Psychology, Geography, Mathematics, Astronomy, Physics, Chemistry; and (4) the general library stock of all other Departments or Schools disposed to enter the central library (the other Departments are Comparative Philology, Greek, Latin, History of Art, and Geology; and the other Schools are the Divinity School, the School of Education, the Law School, the School of Commerce and Administration, and the School of Social Service Administration). Such a central library building would presumably be located in the broad space which now separates the northern group and the southern group of buildings on the campus. The main axis of the building is conceived as vertical rather than horizontal, in part on the principle that the administration of a great library is thought to be more economical on a vertical plane, in part on the expectation that more rapid and satisfactory service would result, and in part in view of the architectural promise involved in the treatment of such a structure. The architectural aspects of the problem will be treated below.

56. This plan varies in range from complete to incomplete centralization. Complete centralization would involve the transfer to a single building of the general library stock of all Departments and Schools housed elsewhere than in the central library of the books of one or more of the Departments and Schools referred to under (3) and (4) in the preceding paragraph.

57. The central building proposed by this plan, as has been said, would presumably be located in the broad space that now intervenes between the northern group and the southern group of buildings on the campus.

Its plan would presumably be somewhat like a thick cross, the cross bar running from north to south, thus:



58. The extremities of the two western wings might be connected by one or more bridges and a subway; so also the extremities of the two eastern wings. The central portion would contain the rooms of a central and general character, including the catalogue room and the delivery room, preferably on the first floor, reading-rooms on the middle floors, and administration rooms on the upper floors. The four wings would contain stacks and seminar rooms planned, in each case, in accordance with the principles set forth above. The southeast wing would serve the Social Science Departments (including Philosophy, Psychology, Household Administration, and Geography), the Department of Geology, the Law School, and the Schools of Commerce and Administration and Social Service Administration. The southwest wing would serve the Language Departments, Classic and Modern, the Department of the History of Art, and the Divinity School. The northeast wing would contain the non-departmental books and would serve the Departments of Mathematics, Astronomy, and Physics, and the School of Education. The northwest wing would serve the Department of Chemistry, the Biology Departments, and the Medical School. Other plans would, of course, be possible—the foregoing is merely a reasonable suggestion. From east to west the building would probably extend about 300 feet, from a line about 250 feet west of University Avenue to a line about 250 feet east of Ellis Avenue. From north to south the building would probably extend about 200 feet, from a line about 75 feet south of Kent and Ryerson to a line about 75 feet north of Rosenwald and the proposed Divinity School. In height the building, as a whole, would probably rise to some ten stories. Should it be thought wise, the name "Harper Memorial Library" might be transferred to this new building.



## SECTION IX

PLAN II: COMPLETION AND DEVELOPMENT OF THE HARPER GROUP, WITH SEPARATE LIBRARIES FOR THE SCHOOL OF EDUCATION, MEDICINE, AND THE PHYSICAL SCIENCES

59. The essential features of the second plan are (1) the continued use of Harper as a part and presumably for a long time the headquarters of the whole library system of the University; (2) the erection of a building between Harper and Classics; (3) the erection of a building east of Harper, extending to Foster, the latter also being probably eventually converted to library purposes with such reconstruction as may be necessary; (4) the erection of the Theological Building north of Haskell and the installation in it of the Divinity School Library; (5) the erection of a Science Library (perhaps subdivided as suggested below) at such point as may seem best on the north half of the main quadrangle; (6) the eventual erection on the site of Haskell of a much larger building devoted wholly to library purposes, the memorial interest in the present building being conserved by the erection elsewhere of a more adequate Oriental Museum bearing a name fulfilling the trust; (7) the erection, if and when necessary, of a building joining the north end of the building replacing Haskell and the north end of the Law Building, thus yielding a Harper court 150X210 feet and a fore court between Rosenwald and the Theological Building; (8) if and when necessary, the conversion of the Law School Building to library purposes and the erection of a Divinity School Building at some other point. The proposed science library should be connected with Harper by a tunnel to carry pneumatic tubes and book conveyors and to enable the passage of persons and trucks from one library to another. The basement of the new Divinity Building might be connected with this tunnel and give pneumatic tube connection between the library desk of that building and the main desk in Harper.

60. It is of the essence of this plan that it will proceed by stages, providing in the near future the buildings west and east of Harper, the Theological Building, and the Science Library Building; and, some years later, replacing Haskell, which is recognized to be inadequate for even the immediately future development of the Oriental Museum, and to be incapable of enlargement on its present site,

much larger building, and when another expansion is called for, erecting the building across the north end of Harper Court. It is thus adjustable to needs of the University, as these develop, in ways and to an extent that it is not now possible to foresee with exactness. Carried out in all the respects indicated above, the four buildings surrounding Harper court would constitute a hollow square, and the buildings east and west of Harper would constitute immediately connected wings. The total capacity of these buildings devoted to library purposes would exceed that of the central building suggested in Plan I. It would be contemplated that all the buildings would be so connected in the basement and on one or more of the upper floors that the books of the several classes would occupy the space proportioned to their number and bulk and that the same would be measurably true of the studies and offices.

61. In general, and subject to the foregoing principle, library facilities would be provided for the several departments as follows:

- (1) The Classical Group in Classics Building.
- (2) The Modern Language Group in the building to be erected west of Harper.
- (3) The History and Social Science Group in Harper and the building to be erected east of Harper. Commerce and Administration might be included in this group, or preferably be located in its own building when one of adequate size is provided.
- (4) Geology in Rosenwald.
- (5) Geography, for the present in Rosenwald, eventually probably in connection with the Social Science Group if its development continues to be in that direction.
- (6) The Divinity School in the Theological Building.
- (7) The School of Education in a new building to be erected on the main quadrangle.
- (8) The Law School in the Law Building, for years to come the present one, eventually perhaps a new one.
- (9) Medicine, Biology, and Chemistry in a Science Library; Physics, Mathematics, and Astronomy, in this building or in an extension of Ryerson.



## SECTION X

## ARGUMENTS FOR PLAN I AND AGAINST PLAN II

62. In the consideration of the educational and administrative advantages and disadvantages of either plan, the fundamental criterion should be the degree to which each promises to facilitate and encourage research. This is more important than any other consideration, administrative or aesthetic. And in the long run, financial economy will coincide with the provision of facilities which will in reality facilitate and encourage research. Any attempt to economize by failing to provide such facilities will surely defeat its own ends.

63. The several departments and schools of the University are interrelated to a large degree in the use of books, and the closeness of such interrelations is clearly on the increase. This increasing interrelationship is, of course, due fundamentally to the increasing sense of the essential unity of knowledge, and in particular to the sense that research cannot be limited by departmental barriers. The results of a study of the degrees of closeness of the present interrelationships of the several departments and schools are presented herewith in tabular form in Appendix A: we commend that table to the particular attention of the readers of this Report. As the research conducted by the University extends in scope, interrelationships between Departments and groups of Departments will largely increase. The stock of books used most frequently by a given Department will be used more and more by members of the Faculty and graduate students of other Departments. No Department has a prescriptive right to the exclusive possession of any book; every book is potentially needed by students in many Departments. It follows that all books should be so located as most fairly and readily to satisfy such interdepartmental needs. A great central library provides just such a location.

64. A central library makes the non-departmental books—general periodicals, publications of learned societies, general reference works, etc.—equally accessible to all Departments and Schools.

65. A central library makes a great central catalogue equally accessible to all Departments and Schools. From the point of view of the facilitation and encouragement of research, the use of such a catalogue is preferable to the use of a smaller departmental catalogue, in the first place, because a great central catalogue can be maintained

on a level of expert excellence, both as regards inclusiveness and as regards analysis, which cannot reasonably be expected in a series of minor catalogues; and in the second place, because the habit of consultation of a general catalogue is in itself a broadening educational habit.

66. In a central library there is a tendency for members of different Departments to meet and compare notes as to the progress of research much more frequently and naturally than would be the case otherwise. Such informal conferences are of great value in the stimulation of research.

67. A central library permits excellent supervision by properly trained librarians over the various branches of the library. This applies to all phases of the library service, as, for instance, reading-room management, shelving, and stack service. Excellence in these respects contributes directly to the facilitation and encouragement of research.

68. A great central library permits immediate access to the whole stock of books by members of the library staff. This, in turn, particularly as it applies to the Reference Department and to searchers for "difficult" books, reacts directly upon the convenience of those consulting the library.

69. A central library eliminates the great delay caused by the mechanical transfer of books from one building to another. In the case of dispersed libraries, such transfer is necessary not only in the case of books specially called for by or from a departmental library, or wanted for a temporary reserve, but in the case of all books added to the permanent library stock, since all books are necessarily purchased and catalogued in a central building. This applies with particular force to periodicals, which come first to the main library, are then sent unbound to the dispersed libraries, are later sent back to the main library for binding, and eventually returned to the dispersed libraries.

70. On the administrative side, a central library is, in the view of those who favor this plan, greatly to be preferred. The expert in any branch of the service has greater range than in the case of dispersed libraries, both in respect to his individual duties and in respect to the supervision of his subordinates. He is, therefore, employed with greater efficiency and greater economy.

71. The concentration of effort on a single great central catalogue, already referred to as desirable from the point of view of research, is exceedingly desirable from the administrative point of view. Such



duplication in the preparation and filing of cards as is required (and laboratories) will become inevitable in the near future in some the maintenance of dispersed libraries is a matter of very heavy expense. This applies not only to the original making and filing of the cards, but to the necessity of entering the frequent changes of location of a given book upon all the cards concerned—the cost of which runs to 35 or 40 cents per card.

72. In a central library the charging system may be kept simple. In the case of dispersed libraries, duplication in charging frequently occurs, as, for instance, when a book indefinitely loaned to a special library is in turn loaned for reserve to another special library. This not only makes unnecessary charging, but is certain to cause the reader considerable annoyance and loss of time in being sent from library to library. Efforts are being made to reduce the cost of duplication by charging all books which are sent to departmental libraries instead of marking location symbols on the catalogue cards. This expedient, however, results in a huge accumulation of charging cards and means that every call slip must be compared with this file before being sent to the stacks. Results of recent investigations made at the University of Illinois for a number of departmental libraries indicate that between 25 per cent and 30 per cent of the entire expenditure is for cataloguing. In the case of dispersed libraries, unnecessary and undesirable duplication occurs also in the sending out of notices at the end of a quarter for books charged to Faculty and students.

73. Those who favor Plan I believe that the administration of the library upon this plan would be much less expensive than upon Plan II. This opinion appears to be shared unanimously by a number of librarians to whom the matter has been informally presented in general terms.

74. The building of a central library would obviate the necessity of erecting new buildings for the Social Science Departments and the Modern Language Departments. The classrooms, laboratories and other non-library facilities of the Modern Language Department could be located in Cobb Hall and (if the Classics books should be transferred to the central library) in the Classics Building.

75. Similarly, the building of a great central library would release other purposes—as, for instance, offices, classrooms, and conference rooms—spaces in many departmental buildings now given to stacks and reading-rooms; and would thus add appreciably to the resources of these buildings for work other than library work. The separation of library collections from the departmental facilities (as classrooms)

76. Such a building as that proposed in Plan I would, of course, afford a great architectural problem. It is the belief of the advocates of this plan that it would afford a magnificent architectural opportunity. In its proportions it is greater than any building now on the campus. It would occupy the center of the campus and might well be treated as the dominant and unifying architectural member of the whole University design—as the towering center toward which the other buildings lead up, around which they cluster like supporting buttresses. Furthermore, the fact that the several portions of the building differ somewhat in character and the fact that the wings might well differ from each other, to some extent, in size and in shape would afford the architect an excellent opportunity for the avoidance of monotony and for the development of that principle of variation which is a vital principle of Gothic architecture. In its vertical emphasis, also, the building would be absolutely within the Gothic tradition. The architectural difficulty and opportunity are both increased by the fact that the building should be so planned as to be capable of enlargement in the centuries to come. The designing of a structure thus prepared for extension is by no means impossible. Some of the notable buildings of Europe have grown to be what they are through a series of additions. It is within architectural power to design a building conceived not as a thing definitive and limited, but as a living, growing organism. It is the belief of the advocates of this plan that architects would be eager to meet the challenge of such an opportunity in the conviction that such a building might well be made one of the greatest buildings of the New World.

77. It is true that such a building would necessarily destroy the present character of the open campus and would diminish the independent architectural effectiveness of the buildings which are built upon that space. In this respect, however, it may be noted that though the cross-campus view of Ryerson, for instance, would be lost, it is equally true that a beautiful building remains beautiful even if higher buildings are erected near it, that it may indeed gain poignancy and may even more intimately reveal its fineness.



78. A great central library has further the very real value symbolizing the unity of knowledge and of educational endeavor. The conception of such a building certainly stimulates the imagination. If it should receive a loyal architectural expression, it might well kindle to good purpose the imagination of thousands of students.

79. The presence on the campus of a great central library would serve notice on the city and the country that the University considers its library as the heart of its educational equipment, and that it proposes to house its books properly and to provide proper access to them. Under such conditions gifts of collections of books or gifts for collections of books would be far more likely to be forthcoming than in the case of dispersed and less impressive libraries. Indeed the obvious stimulation to the imagination provided by such structure might well result in general gifts to the University as well as in specific gifts of or for books.

80. A great central library, properly designed, would make possible the indefinite extension of resources in a much more economical manner than would otherwise be practicable. The present Report envisages immediately the situation which will presumably exist in 1950-51; but no one believes that the growth of the University libraries will cease at that time. If a great central library, properly designed, is built in the location above referred to, a large addition could be made, say once in twenty-five years, as a single homogeneous piece of construction under a single contract; and the space available is such that by the proper utilization both of horizontal and vertical opportunities, the needs of the library could presumably be supplied for several centuries. If, on the other hand, growing libraries are maintained in a number of different buildings, frequent piecemeal additions of new wings to existing buildings will be necessary; and since the ground available for such wings is limited, and the height of the wings could hardly exceed that of the original buildings, a point will eventually be reached beyond which such piecemeal construction cannot go.

81. In the opinion of those who favor Plan I, there are certain disadvantages inherent in Plan II. One fundamental difficulty is that it tends to disjoin the sciences from the other departments. Omitting to speak of the specific cases which now bridge the gap between them (Psychology, Philosophy, Geography, etc.), those who favor Plan I desire to call attention to the strong prevailing tendency toward the introduction of scientific methods in the social sciences

and the recognition of the social sciences as belonging to the science group. Already the American Association for the Advancement of Science has a section (K) devoted to the social sciences; the newly organized Social Science Research Council is already co-operating with the National Research Council, and steps are under way to affiliate it with the National Research Council and thereby with the National Academy of Sciences. A number of professors of Political Science are now preparing a series of studies for the National Research Council. The mutual interest of the natural sciences and the social sciences in such fields as public health and sanitation, the study of the causes of mental disease, delinquency, and crime, applied engineering, and many others is sufficient indication that each group of departments now and will in greater degree be vitally interested in the books and program of the other. It is obvious, therefore, that Faculty members and students working primarily in the sciences will need in increasing measure to work among the Humanistic books, and vice versa. Plan I recognizes the need for contact between the two collections by proposing a tunnel connection between the buildings. The advocates of Plan I cannot help feeling that the degree of interrelation desirable more effectively obtained by a single library building.

82. In the opinion of those who favor Plan I, a second fundamental fault of Plan II is that it contemplates the indefinite expansion of the library on a horizontal plane. It is thought that true library economy demands the construction and operation of a great library on a vertical plane rather than a horizontal plane. Greater efficiency of service, greater rapidity in delivery of books, greater ease of access to books, higher efficiency in library administration, and more intensive use of ground space are all inherent in vertical construction. The difficulties of administration on a horizontal plane, already apparent in the operation of Harper Library, will be rapidly increased as the elements of Plan II are realized.

83. Those who favor Plan I find a third important weakness of Plan II in the fact that the plan appears to make inadequate provision for the growth of the Social Science and the Modern Language Departments. Examination of Appendix B will show that the space requirements of the Social Science Departments for facilities other than library facilities are such that they could at once use the whole of Harper to advantage for non-library purposes. And if one or more of the four closely allied departments—Philosophy, Psychology, Household Administration, and Geography—should join the group, the space requirements would be so much the larger.



84. The proposed building for the Modern Language Department if large enough to accommodate the libraries and other facilities the Departments concerned, would already be too large for the space west of Harper, and would have no room for expansion. Calculations show that the total stack space for books now required by the Modern Language Departments (Romance, German, English, and General Literature) is 30,780 cubic feet; that the space which would now be needed for professorial studies is 41,760 cubic feet; that the space which would now be needed for individual working spaces in the stacks is 22,000 cubic feet; that the space which would now be needed for reading-rooms is 111,200; and that for 1950-51 the corresponding figures would be 150,789; 74,880; 48,000; and 198,000. Nor do the foregoing figures provide for classrooms and other non-library facilities.

85. Plan II involves also a large-scale duplication. In the Harper center there would be of necessity a single inclusive catalogue with proper analyticals and shelf lists. In the Science Library it would be necessary to duplicate this equipment for the 80,000 books now in stock and for the thousands of yearly additions. In addition each card in the Harper catalogue belonging to a book in the Science Library would need to bear a special symbol showing the permanent location of the book. The maintenance of two large separate libraries would mean a considerable duplication of administrative and supervisory staff. In short, from a purely business standpoint the duplication in building, staff, and operation does not recommend itself to those who favor Plan I.

86. Library administration while somewhat improved over the present system by Plan II would still be open to difficulties easily remediable by a single library. The processes of ordering, cataloguing, recording, and binding would presumably continue to be centralized in Harper, thus necessitating the constant transfer of books from one library to the other and the constant requirement that the library staff go from one building to another.

87. It should be noted also that Plan II continues to have a very large stock of books underground in the Harper stacks, where they are not readily accessible to research students. Provision for studies on the ground floor of Harper would only partially remove this difficulty.

## SECTION XI

## ARGUMENTS FOR PLAN II AND AGAINST PLAN I

88. The reasons which favor the plan now under consideration may be presented under four heads:

1. Educational Considerations
2. Architectural Considerations
3. Financial Considerations
4. General Considerations

89. *Educational Considerations:* It is the opinion of those who favor Plan II that there are substantial advantages in the location of books used by the Humanistic Departments and Schools where they may be most conveniently accessible to instructors and students; and correspondingly, serious disadvantages in their concentration in a common central library building. The value of reference to collateral reading and the consultation of authorities is in many cases directly proportioned to the facility with which such reference may be made at the moment. It is important, therefore, to avoid in every practicable way whatever would tend to render such immediate reference physically inconvenient. Moreover, the location of books conveniently adjacent to classrooms lends additional interest, emphasis, and significance to the work of the related courses. The plan now under consideration seeks to secure these advantages by the arrangement described in paragraph 61.

90. The plan now under consideration contemplates the reconstruction of the first floor of Harper in accordance with the original plan of this building whereby a considerable number of studies for instructors and graduate students may be provided having adequate natural light; and when the other buildings of the group east, west, and north of Harper are constructed as contemplated in this plan, provision for this kind of study in immediate contiguity to the stacks will be greatly increased. Space for the expanding catalogue may be provided and other similar needs met in the building proposed to be built on the west of Harper.

91. The problem presented by the libraries of the Departments of Physical Sciences has its peculiarities and special difficulties. In a sense laboratories are to the Physical Sciences what libraries are to the Humanities. But the Physical Sciences also have their libraries which for practical purposes need to be in as close connection as



possible with the laboratories. If the literature of each science is sharply differentiated from that of all the other sciences, the arrangement for the specialist investigator would be a library of his own science immediately adjoining his own laboratory. But account must, of course, be taken of the fact that the literature is not sharply subdivided, and that the student in one field is obliged to consult the literature of other fields. It remains, however, that the interest of the laboratory investigator, the books of his subject should be within as easy reach of his laboratory as possible. Having had our past experience and reached our present development, we were beginning to erect buildings on a new site, it is not impossible that we should find the best solution of our library problem, so far as respects the Physical Sciences, in one huge building, at the center of which should be the library of sciences, and in the various outlying portions, the laboratories, classrooms, etc., of chemistry, biology, and physics.

92. This condition, however, does not exist. The buildings already erected for the several sciences, not to mention also the existing foreseen necessity for additional buildings, especially for biology and medicine, exclude any such solution of the problem, and compel us to seek instead an arrangement which, though not furnishing ideal conditions, shall contribute most highly to the future development of this group of subjects.

93. It is the conviction of those who favor the second plan that this cannot be done by removing all the libraries of the sciences to a central building, with the result that none of the scientific groups would have immediate and easy access to the books of its subject. On the other hand, it is desirable to group the libraries of related sciences as far as practicable. Perhaps there is no better solution than the establishment of a library of chemistry, the biological sciences, and medicine in a building in as close connection with the buildings of these subjects as practicable, and in Ryerson, or an extension of it, to develop a library for physics, mathematics, and astronomy. The former library might well be built on the main Quadrangle on a portion of the unoccupied land, south of Snell and west of, and connected with, Kent. Such a location will eventually be near the center of the biological group and adjacent to the buildings of the Medical School. This does not probably provide ideal conditions for Biology and Medicine, but such conditions are in any case rendered impossible by the detached character of the buildings already erected and of

that the buildings still to be erected for the hospitals and laboratories of the Medical School must be separated from the existing buildings by intervening streets.

94. Adequate library space is thus provided by the second plan for the period which the present report includes, both for the Science Departments and for the Humanities. The plan makes provision for Faculty studies and graduate-student working spaces in the books and for seminar rooms adjacent to the books. The plan recognizes substantially the existing interrelationships of Departments, groups the library facilities in accordance therewith. It raises a difficult architectural problem, but provides for new construction exactly the type which has prevailed. The plan lends itself readily to partial completion, one new building after another being built as the necessities of the situation require. These are all substantial advantages necessitating full and careful consideration of this plan as an alternative to Plan I.

95. Centralization, it may be conceded, has many advantages from the point of view of the library administration which it would be desirable to secure if this could be done without sacrificing the advantages of readers and investigators. If it could be carried out in full it would likewise serve excellently the convenience of the occasional visitor from outside the University and the scholar whose interests range over many departments. But it cannot be too strongly stated that the library administration exists to facilitate research and instruction by placing the resources of the library where they can be used with greatest facility by those who are engaged in research and giving or receiving instruction. The interests of the occasional visitor and of the widely ranging scholar are not to be forgotten, affecting, as they do, a relatively small group, should not be allowed to control to the detriment of the much larger number of the average class.

96. For example, housing the chemistry library in the same building with the Humanities removes the library of chemistry from continuity with its laboratory. The former relationship is desirable, the latter, contiguity of the chemistry library and laboratories, would probably serve the interests of research to ten times the extent of the location of the Chemistry library in the general library building would.

97. There are advantages in a building of ten stories over one of five for library purposes, but these may easily be overestimated.



It must not be forgotten that a building which is to provide room for 5,000 readers, assigning many of these individual study or reserved desks, working space for a staff of 200, storage for 2,000 volumes, and corridors and elevators for communication and transportation, cannot be other than a large building, with many rooms with considerable distances between the more remote portions. From one part to another of this building will inevitably consume time, and the advantages in the greater height over a group of connecting buildings of lesser height may easily be overestimated. One is to walk he can do so more easily on a level than up and down stairs, and often waiting for an elevator is more time-consuming than walking.

98. *Architectural Considerations:* The advocates of Plan I contend that their proposal has great architectural difficulties. To those who favor Plan II, these difficulties seem fatal to the plan. The University has led the way in planning its buildings on a conservative plan and giving due consideration to the educational value of architectural symmetry and beauty. The erection of a ten-story building in the center of the main quadrangle, approaching within 75 feet the much lower buildings north and south of it, would, in the judgment of those who favor the second plan, go far toward undoing what has been done in thirty years to create a group of buildings characterized not only by the architectural beauty of each building, but by the symmetry of plan. To them it would be an architectural disaster, not to the University of Chicago only, but to the city and the country. Such a sacrifice might be made if it were required by the educational efficiency. But when educationally also it sacrifices the interests of many departments to the convenience of the administrative staff and the occasional student of exceptionally wide interests, it is the opinion of those whom this paragraph represents, quite inadvisable.

99. *Financial Considerations:* The financial problem presented by the first plan is very difficult. It calls for perhaps four millions of dollars for one building which will far exceed immediate needs. The sum will be exceedingly difficult to obtain unless from one gift, in the case of the Widener Library. The University must solicit from its friends for several millions to enable it to make new educational advances. In this sum it may be possible to include a million or a million and a half divided into two or three sums, each for a building. It is to be feared that it might wait a long time, much longer than

afford to wait, for the single gift of four millions for a single building.

100. *General Considerations:* In reference to the problem as a whole, it is the opinion of those who favor the second plan that it is better to make necessary modifications in the plan which was approved in 1902 and has since been partly carried out than to abandon this plan and adopt a new one which twenty years hence may, in its turn, be to have somewhat missed the mark. Perfect foresight of the future is not given to us and is, perhaps, no more likely to be achieved than twenty-one years ago. Evolution and modification seem better than discarding a half-completed plan and beginning all over again.

To those who favor this second plan, moreover, it appears better to proceed by gradual development than to attempt to arrive at the goal by one great effort. The assumption on which the first plan is based, that we must expect the University to increase the number of its students at the rate and to the extent which a statistical study of our history would suggest, seems to the advocates of the second plan to rest upon very precarious grounds. Not only is it doubtful whether the extraordinary increase in the number of young people seeking a college education within the last twenty-five years will continue indefinitely, but even if it should so continue, it is quite probable that its duty lies rather in the improvement of the quality of work than in the increase of the numbers of its students, and that conservation of quality demands the setting of a limit to the number of students far below that which a mere statistical inquiry would suggest. It is already clear that to meet the needs of the University as well as to provide necessary space for other educational work will demand the early erection of additional buildings—certainly the buildings east and west of Harper, the Theological Building, and the building which shall eventually replace Haskell. Manifestly also provision must be made at a very early date for the libraries of the sciences and the physical sciences. But in view of the uncertainty as to the precise character of our future development and the extent of the future increase in our student body, it seems to the advocates of the second plan wiser to proceed from our present status by a course of gradual development than to attempt now to formulate a plan based on a statistical prediction of our future growth.



102. Further, it seems to those who favor the second plan, a serious objection to Plan I that it converts the Harper Memorial Library to a use for which it was not originally erected and to which it is not easily adaptable. Its capacious basement stacks would be not easily convertible to the purposes of a departmental building, nor is it a satisfactory disposition of the most beautiful reading-room in the world to employ it as an exhibition room for a museum of the historical and social sciences. Similarly, the plan proposes no use for the Classics Building, and none for the spaces east and west of Harper which are needed to complete the Quadrangle; and instead it proposes to occupy the space in the center of the main Quadrangle, which from every point of view should be left vacant as long as possible, if not permanently, with a building wholly out of scale with the existing buildings.

103. Plan II, on the other hand, retaining the use of the William Rainey Harper Memorial Library for the purposes for which it was originally built, conserves the sentimental interest attaching to this building, given to the University by more than two thousand donors, who made their gifts not only as a memorial to the first President of the University, but in the expectation that it would be the central unit of the University system of library buildings.

## SECTION XII

## DIRECTOR AND LIBRARIAN

104. The Commission believes that the final authority in the administration of the University Libraries should be as liberal as in the hands of a member of the Faculty serving as Director of the University Libraries. Since the Library exists for the specific purpose of the facilitation and encouragement of research, it is essential that the policy of the Library be directed by a man who is personally interested in the facilitation and encouragement of research. The principle that the Library exists for this purpose must dominate all other principles, and it cannot be effective so long as the direction is in other hands.

105. Accordingly, with the Director of the University Libraries there should be as liberal as possible a selection of the Librarian, who should have immediate control of the Library, and should himself initiate projects for library development, subject to the approval of the Faculty, and carry approved policies into efficient execution.

106. A point of view of variance with that expressed in the two preceding paragraphs is set forth in Appendix C, prepared by Mr. Hanson.

## PART III

## ADMINISTRATIVE QUESTIONS



## SECTION XII

### DIRECTOR AND LIBRARIAN

104. The Commission believes that the final authority in the administration of the University Libraries should be, as hitherto, in the hands of a member of the Faculties serving as Director of the University Libraries. Since the Library exists for the specific purpose of the facilitation and encouragement of research, it is essential that the policy of the Library be directed by a man who is himself vitally interested in the facilitation and encouragement of research. The principle that the Library exists for this purpose must dominate all other principles; and it cannot in practice so dominate if the direction is in other hands.

105. Associated with the Director of the University Libraries there should be, as heretofore, a trained librarian, who should keep himself abreast of all progress in library administration and technique (and should indeed be a leader in experiment in that field). The Librarian should have immediate control of the Libraries, should himself initiate projects for improvement, should advise the Director, and carry approved policies into efficient execution.

106. A point of view at variance with that expressed in the two preceding paragraphs is set forth in Appendix G, prepared by Mr. Hanson.

1913-14	1912-13	1911-12	1910-11	1909-10	1908-09	1907-08	1906-07	1905-06	1904-05	1903-04	1902-03	1901-02	1900-01	1899-00	1898-99	1897-98	1896-97	1895-96	1894-95	1893-94	1892-93	1891-92	1890-91	1889-90	1888-89	1887-88	1886-87	1885-86	1884-85	1883-84	1882-83	1881-82	1880-81	1879-80	1878-79	1877-78	1876-77	1875-76	1874-75	1873-74	1872-73	1871-72	1870-71	1869-70	1868-69	1867-68	1866-67	1865-66	1864-65	1863-64	1862-63	1861-62	1860-61	1859-60	1858-59	1857-58	1856-57	1855-56	1854-55	1853-54	1852-53	1851-52	1850-51	1849-50	1848-49	1847-48	1846-47	1845-46	1844-45	1843-44	1842-43	1841-42	1840-41	1839-40	1838-39	1837-38	1836-37	1835-36	1834-35	1833-34	1832-33	1831-32	1830-31	1829-30	1828-29	1827-28	1826-27	1825-26	1824-25	1823-24	1822-23	1821-22	1820-21	1819-20	1818-19	1817-18	1816-17	1815-16	1814-15	1813-14	1812-13	1811-12	1810-11	1809-10	1808-09	1807-08	1806-07	1805-06	1804-05	1803-04	1802-03	1801-02	1800-01	1799-00	1798-99	1797-98	1796-97	1795-96	1794-95	1793-94	1792-93	1791-92	1790-91	1789-90	1788-89	1787-88	1786-87	1785-86	1784-85	1783-84	1782-83	1781-82	1780-81	1779-80	1778-79	1777-78	1776-77	1775-76	1774-75	1773-74	1772-73	1771-72	1770-71	1769-70	1768-69	1767-68	1766-67	1765-66	1764-65	1763-64	1762-63	1761-62	1760-61	1759-60	1758-59	1757-58	1756-57	1755-56	1754-55	1753-54	1752-53	1751-52	1750-51	1749-50	1748-49	1747-48	1746-47	1745-46	1744-45	1743-44	1742-43	1741-42	1740-41	1739-40	1738-39	1737-38	1736-37	1735-36	1734-35	1733-34	1732-33	1731-32	1730-31	1729-30	1728-29	1727-28	1726-27	1725-26	1724-25	1723-24	1722-23	1721-22	1720-21	1719-20	1718-19	1717-18	1716-17	1715-16	1714-15	1713-14	1712-13	1711-12	1710-11	1709-10	1708-09	1707-08	1706-07	1705-06	1704-05	1703-04	1702-03	1701-02	1700-01	1699-00	1698-99	1697-98	1696-97	1695-96	1694-95	1693-94	1692-93	1691-92	1690-91	1689-90	1688-89	1687-88	1686-87	1685-86	1684-85	1683-84	1682-83	1681-82	1680-81	1679-80	1678-79	1677-78	1676-77	1675-76	1674-75	1673-74	1672-73	1671-72	1670-71	1669-70	1668-69	1667-68	1666-67	1665-66	1664-65	1663-64	1662-63	1661-62	1660-61	1659-60	1658-59	1657-58	1656-57	1655-56	1654-55	1653-54	1652-53	1651-52	1650-51	1649-50	1648-49	1647-48	1646-47	1645-46	1644-45	1643-44	1642-43	1641-42	1640-41	1639-40	1638-39	1637-38	1636-37	1635-36	1634-35	1633-34	1632-33	1631-32	1630-31	1629-30	1628-29	1627-28	1626-27	1625-26	1624-25	1623-24	1622-23	1621-22	1620-21	1619-20	1618-19	1617-18	1616-17	1615-16	1614-15	1613-14	1612-13	1611-12	1610-11	1609-10	1608-09	1607-08	1606-07	1605-06	1604-05	1603-04	1602-03	1601-02	1600-01	1599-00	1598-99	1597-98	1596-97	1595-96	1594-95	1593-94	1592-93	1591-92	1590-91	1589-90	1588-89	1587-88	1586-87	1585-86	1584-85	1583-84	1582-83	1581-82	1580-81	1579-80	1578-79	1577-78	1576-77	1575-76	1574-75	1573-74	1572-73	1571-72	1570-71	1569-70	1568-69	1567-68	1566-67	1565-66	1564-65	1563-64	1562-63	1561-62	1560-61	1559-60	1558-59	1557-58	1556-57	1555-56	1554-55	1553-54	1552-53	1551-52	1550-51	1549-50	1548-49	1547-48	1546-47	1545-46	1544-45	1543-44	1542-43	1541-42	1540-41	1539-40	1538-39	1537-38	1536-37	1535-36	1534-35	1533-34	1532-33	1531-32	1530-31	1529-30	1528-29	1527-28	1526-27	1525-26	1524-25	1523-24	1522-23	1521-22	1520-21	1519-20	1518-19	1517-18	1516-17	1515-16	1514-15	1513-14	1512-13	1511-12	1510-11	1509-10	1508-09	1507-08	1506-07	1505-06	1504-05	1503-04	1502-03	1501-02	1500-01	1499-00	1498-99	1497-98	1496-97	1495-96	1494-95	1493-94	1492-93	1491-92	1490-91	1489-90	1488-89	1487-88	1486-87	1485-86	1484-85	1483-84	1482-83	1481-82	1480-81	1479-80	1478-79	1477-78	1476-77	1475-76	1474-75	1473-74	1472-73	1471-72	1470-71	1469-70	1468-69	1467-68	1466-67	1465-66	1464-65	1463-64	1462-63	1461-62	1460-61	1459-60	1458-59	1457-58	1456-57	1455-56	1454-55	1453-54	1452-53	1451-52	1450-51	1449-50	1448-49	1447-48	1446-47	1445-46	1444-45	1443-44	1442-43	1441-42	1440-41	1439-40	1438-39	1437-38	1436-37	1435-36	1434-35	1433-34	1432-33	1431-32	1430-31	1429-30	1428-29	1427-28	1426-27	1425-26	1424-25	1423-24	1422-23	1421-22	1420-21	1419-20	1418-19	1417-18	1416-17	1415-16	1414-15	1413-14	1412-13	1411-12	1410-11	1409-10	1408-09	1407-08	1406-07	1405-06	1404-05	1403-04	1402-03	1401-02	1400-01	1399-00	1398-99	1397-98	1396-97	1395-96	1394-95	1393-94	1392-93	1391-92	1390-91	1389-90	1388-89	1387-88	1386-87	1385-86	1384-85	1383-84	1382-83	1381-82	1380-81	1379-80	1378-79	1377-78	1376-77	1375-76	1374-75	1373-74	1372-73	1371-72	1370-71	1369-70	1368-69	1367-68	1366-67	1365-66	1364-65	1363-64	1362-63	1361-62	1360-61	1359-60	1358-59	1357-58	1356-57	1355-56	1354-55	1353-54	1352-53	1351-52	1350-51	1349-50	1348-49	1347-48	1346-47	1345-46	1344-45	1343-44	1342-43	1341-42	1340-41	1339-40	1338-39	1337-38	1336-37	1335-36	1334-35	1333-34	1332-33	1331-32	1330-31	1329-30	1328-29	1327-28	1326-27	1325-26	1324-25	1323-24	1322-23	1321-22	1320-21	1319-20	1318-19	1317-18	1316-17	1315-16	1314-15	1313-14	1312-13	1311-12	1310-11	1309-10	1308-09	1307-08	1306-07	1305-06	1304-05	1303-04	1302-03	1301-02	1300-01	1299-00	1298-99	1297-98	1296-97	1295-96	1294-95	1293-94	1292-93	1291-92	1290-91	1289-90	1288-89	1287-88	1286-87	1285-86	1284-85	1283-84	1282-83	1281-82	1280-81	1279-80	1278-79	1277-78	1276-77	1275-76	1274-75	1273-74	1272-73	1271-72	1270-71	1269-70	1268-69	1267-68	1266-67	1265-66	1264-65	1263-64	1262-63	1261-62	1260-61	1259-60	1258-59	1257-58	1256-57	1255-56	1254-55	1253-54	1252-53	1251-52	1250-51	1249-50	1248-49	1247-48	1246-47	1245-46	1244-45	1243-44	1242-43	1241-42	1240-41	1239-40	1238-39	1237-38	1236-37	1235-36	1234-35	1233-34	1232-33	1231-32	1230-31	1229-30	1228-29	1227-28	1226-27	1225-26	1224-25	1223-24	1222-23	1221-22	1220-21	1219-20	1218-19	1217-18	1216-17	1215-16	1214-15	1213-14	1212-13	1211-12	1210-11	1209-10	1208-09	1207-08	1206-07	1205-06	1204-05	1203-04	1202-03	1201-02	1200-01	1199-00	1198-99	1197-98	1196-97	1195-96	1194-95	1193-94	1192-93	1191-92	1190-91	1189-90	1188-89	1187-88	1186-87	1185-86	1184-85	1183-84	1182-83	1181-82	1180-81	1179-80	1178-79	1177-78	1176-77	1175-76	1174-75	1173-74	1172-73	1171-72	1170-71	1169-70	1168-69	1167-68	1166-67	1165-66	1164-65	1163-64	1162-63	1161-62	1160-61	1159-60	1158-59	1157-58	1156-57	1155-56	1154-55	1153-54	1152-53	1151-52	1150-51	1149-50	1148-49	1147-48	1146-47	1145-46	1144-45	1143-44	1142-43	1141-42	1140-41	1139-40	1138-39	1137-38	1136-37	1135-36	1134-35	1133-34	1132-33	1131-32	1130-31	1129-30	1128-29	1127-28	1126-27	1125-26	1124-25	1123-24	1122-23	1121-22	1120-21	1119-20	1118-19	1117-18	1116-17	1115-16	1114-15	1113-14	1112-13	1111-12	1110-11	1109-10	1108-09	1107-08	1106-07	1105-06	1104-05	1103-04	1102-03	1101-02	1100-01	1099-00	1098-99	1097-98	1096-97	1095-96	1094-95	1093-94	1092-93	1091-92	1090-91	1089-90	1088-89	1087-88	1086-87	1085-86	1084-85	1083-84	1082-83	1081-82	1080-81	1079-80	1078-79	1077-78	1076-77	1075-76	1074-75	1073-74	1072-73	1071-72	1070-71	1069-70	1068-69	1067-68	1066-67	1065-66	1064-65	1063-64	1062-63	1061-62	1060-61	1059-60	1058-59	1057-58	1056-57	1055-56	1054-55	1053-54	1052-53	1051-52	1050-51	1049-50	1048-49	1047-48	1046-47	1045-46	1044-45	1043-44	1042-43	1041-42	1040-41	1039-40	1038-39	1037-38	1036-37	1035-36	1034-35	1033-34	1032-33	1031-32	1030-31	1029-30	1028-29	1027-28	1026-27	1025-26	1024-25	1023-24	1022-23	1021-22	1020-21	1019-20	1018-19	1017-18	1016-17	1015-16	1014-15	1013-14	1012-13	1011-12	1010-11	1009-10	1008-09	1007-08	1006-07	1005-06	1004-05	1003-04	1002-03	1001-02	1000-01	999-00	998-99	997-98	996-97	995-96	994-95	993-94	992-93	991-92	990-91	989-90	988-89	987-88	986-87	985-86	984-85	983-84	982-83	981-82	980-81	979-80	978-79	977-78	976-77	975-76	974-75	973-74	972-73	971-72	970-71	969-70	968-69	967-68	966-67	965-66	964-65	963-64	962-63	961-62	960-61	959-60	958-59	957-58	956-57	955-56	954-55	953-54	952-53	951-52	950-51	949-50	948-49	947-48	946-47	945-46	944-45	943-44	942-43	941-42	940-41	939-40	938-39	937-38	936-37	935-36	934-35	933-34	932-33	931-32	930-31	929-30	928-29	927-28	926-27	925-26	924-25	923-24	922-23	921-22	920-21	919-20	918-19	917-18	916-17	915-16	914-15	913-14	912-13	911-12	910-11	909-10	908-09	907-08	906-07	905-06	904-05	903-04	902-03	901-02	900-01	899-00	898-99	897-98	896-97	895-96	894-95	893-94	892-93	891-92	890-91	889-90	
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## SECTION XIII

## EXPENDITURES FOR BOOKS

107. The accompanying table shows the amounts expended and appropriated for books in certain recent years by nine university libraries.

TABLE II

University	Year	Number of Volumes Added	Expended for Books	Total Volumes in Library, 1921
Chicago	1912-19*	28,951	\$36,776	.....
	1919-20	29,081	51,358	.....
	1920-21	26,583	66,143	623,423
	1921-22	.....	55,000†	.....
Harvard	1912-19	48,725	89,642	.....
	1919-20	87,500	90,720	.....
	1920-21	73,100	107,053	2,101,200
Columbia	1912-19	26,152	42,737	.....
	1919-20	28,926	73,899	.....
	1920-21	36,768	75,623	797,106
	1921-22	.....	76,000	.....
Yale	1912-19	43,672	36,823	.....
	1919-20	27,000	29,240	.....
	1920-21	48,282	62,721	1,471,028
	1921-22	.....	57,000	.....
Cornell	1912-19	16,534	21,647	.....
	1919-20	27,587	26,118	.....
	1920-21	24,449	39,952	655,000
	1921-22	.....	44,000	.....
Princeton	1912-19	23,005	21,697	.....
	1919-20	14,983	26,907	.....
	1920-21	26,294	37,643	469,000
	1921-22	.....	55,000	.....
Michigan	1912-19	15,778	29,975	.....
	1919-20	18,898	56,000	.....
	1920-21	25,453	49,100	457,000
	1921-22	.....	51,000	.....
Illinois	1912-19	29,649	58,626	.....
	1919-20	21,423	43,000	.....
	1920-21	17,352	53,000	456,000
	1921-22	.....	57,000	.....
Wisconsin‡	1912-19	11,197	27,003	.....
	1919-20	10,420	26,661	.....
	1920-21	8,260	42,702	287,000
	1921-22	.....	60,000	.....

\* Entries for 1912-19 represent the annual average for those years.

† Entries for 1921-22 represent appropriations, not expenditures.

‡ Excluding State Historical Society.

108. From this table it appears that in 1920-21 Harvard spent for books \$107,000, Columbia \$76,000, and the University of Chicago \$66,000; and that appropriations for 1921-22 were as follows (Harvard amount not known): Columbia \$76,000; Wisconsin \$60,000; Yale \$57,000; Illinois \$57,000; the University of Chicago and Princeton \$55,000 each. In other words, the University of Chicago ranks far below Harvard and Columbia in its expenditures for books. If Chicago is to maintain itself as an institution devoted to research, its expenditures for books must be very considerably increased.



## SECTION XIV

## SALARIES OF LIBRARY STAFF

109. The Library Commission believes that adequate library facilities require and include an adequately trained and competent staff, which can be maintained only by adequate salaries. The following table, taken from the Bulletin of the American Library Association, Volume 17, page 73, gives the range of salaries in twenty-four American colleges and universities.

TABLE III

LIBRARY	DEPARTMENTAL HEADS		PROFESSIONAL ASSISTANTS		NON-PROFESSIONAL ASSISTANTS		CATALOGUERS	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Chicago.....	\$1,800	\$2,800	\$1,020	\$2,200	\$ 600	\$1,500	\$ 900	\$2,000
Iowa.....	1,900	2,000	1,200	1,500	780	1,200	1,200	1,700
Kansas.....	1,500	1,800	.....	1,800	720	1,200	1,000	1,800
Ohio.....	2,400	2,750	1,080	2,000	720	1,300	1,080	2,000
Oregon.....	1,500	2,000	1,200	1,300	900	1,200	1,200	1,300
California.....	2,700	2,700	1,320	2,000	1,020	1,800	1,800	2,000
Illinois.....	1,500	2,700	1,300	2,200	800	1,200	1,200	1,900
Northwestern.....	1,400	2,400	1,250	1,900	900	1,250	1,250	1,800
Purdue.....	1,800	.....	1,200	1,500	720	1,100	1,000	1,500
Bowdoin.....	.....	.....	800	1,200	.....	.....	1,000	1,000
Michigan.....	1,800	2,100	1,300	1,800	1,000	1,200	1,440	1,800
Missouri.....	1,800	2,000	1,500	1,700	900	1,300	1,300	2,000
Nebraska.....	1,500	2,600	1,200	1,500	720	1,100	1,500	1,800
Dartmouth.....	1,600	1,600	1,320	1,380	960	1,200	1,320	1,600
Princeton.....	2,000	2,800	1,500	2,000	600	1,200	1,500	2,000
Rochester.....	1,500	1,800	1,080	1,200	900	1,080	1,080	1,500
North Carolina.....	1,500	1,800	1,200	1,500	.....	1,200	1,500	1,800
North Dakota.....	1,600	2,000	1,500	1,800	.....	.....	1,600	2,000
Oklahoma.....	1,800	.....	1,600	.....	.....	.....	1,600	.....
Brown.....	1,400	1,650	.....	.....	720	1,020	840	1,400
Washington.....	1,400	1,800	1,260	1,400	.....	.....	1,260	1,400
Amherst.....	1,500	2,000	1,000	1,500	720	1,200	1,000	1,500
Harvard.....	3,500	4,500	1,140	1,800	780	1,080	1,000	1,620
Vassar.....	1,500	2,400	1,200	1,400	832	1,200	1,400	1,900

110. From comparison of the maximum figures of this table the conclusion might be drawn that the University of Chicago was maintaining a salary level as high as that of other American universities. Much depends, however, upon the distribution between these

extremes. The following table indicates that the distribution in every case comes more nearly to the minimum than to the maximum figures.

TABLE IV

Class	Average Salary
Departmental heads.....	\$2,132
Professional assistants.....	1,305
Non-professional assistants.....	934
Cataloguers.....	1,440

111. With these average salaries comparison should be made of the salaries paid to graduates of New York State Library School. The average salary paid to graduates of this school who have taken the one-year course (in 1922), was \$1,647; to graduates who have taken the two-year course, \$1,786.

112. It should be noted also from Table III that in every case, except departmental heads, the minimum salary is substantially less than that offered by other institutions. This means that the best trained library workers start elsewhere or come here at a financial sacrifice. The salary offered for the beginner is not enough to attract good material to the University of Chicago Library.

113. The general inadequacy of salaries paid to the permanent members of the library staff is indicated by a study of the number of resignations in the course of the year. The following table gives the total regular staff and the number of resignations per year for the last four years for which the figures are available.

TABLE V

Years	Total Staff	Resignations
1918-19.....	96	32
1919-20.....	93	24
1920-21.....	94	29
1921-22.....	91	28



# ON THE LIBRARY COMMISSION

The following table indicates that the distribution in every case comes more nearly to the minimum than to the maximum figures.

TABLE IV

Category	Number	Percentage
Department heads	13	1.3
Professional assistants	130	13.0
Non-professional assistants	814	81.4
Total	957	100.0

112. With these average salaries compared, it should be noted that the salaries paid to graduates of New York State Library School. The average salary paid to graduates of this school who have taken the one-year course (in 1923) was \$2,000; to graduates who have taken the two-year course, \$2,700.

113. It should be noted also from Table III that in every case except department heads, the minimum salary is substantially less than that offered by other institutions. This means that the best trained library workers start elsewhere or come here as a first step. The salary offered for the beginner is not enough to attract good material to the University of Chicago Library.

114. The general inadequacy of salaries paid to the permanent members of the library staff is indicated by a study of the number of resignations in the course of the year. The following table gives the total regular staff and the number of resignations per year for the last five years for which the figures are available.

TABLE V

Year	Total Staff	Resignations
1918-19	101	14
1919-20	103	21
1920-21	104	20
1921-22	101	22
1922-23	107	23

115. It will be seen that the resignations are a substantial part of the total staff. This is due to the fact that the salaries are not high enough to attract and retain the best material. The resignations are a substantial part of the total staff.

# APPENDIX A

THE DEGREES OF CLOSURE OF LIBRARY INTERRELATIONS

TABLE VI

Category	Number	Percentage
Department heads	13	1.3
Professional assistants	130	13.0
Non-professional assistants	814	81.4
Total	957	100.0

116. The following table gives the total regular staff and the number of resignations per year for the last five years for which the figures are available.

TABLE VII

Year	Total Staff	Resignations
1918-19	101	14
1919-20	103	21
1920-21	104	20
1921-22	101	22
1922-23	107	23

117. It will be seen that the resignations are a substantial part of the total staff. This is due to the fact that the salaries are not high enough to attract and retain the best material. The resignations are a substantial part of the total staff.

118. The following table gives the total regular staff and the number of resignations per year for the last five years for which the figures are available.

TABLE VIII

Year	Total Staff	Resignations
1918-19	101	14
1919-20	103	21
1920-21	104	20
1921-22	101	22
1922-23	107	23

119. It will be seen that the resignations are a substantial part of the total staff. This is due to the fact that the salaries are not high enough to attract and retain the best material. The resignations are a substantial part of the total staff.



# APPENDIX A

## THE DEGREES OF CLOSENESS OF LIBRARY INTERRELATIONS

TABLE VI\*

	Divinity	Education	Law	Commerce	S. S. A.	Philosophy	Psychology	Pol. Ec.	Pol. Sci.	History	Sociology	Geography	Greek	Latin	Romance	German	English	Art	Math.	Astronomy	Physics	Chemistry	Geology	Botany	Zoology	Anatomy	Physiology	Ph. Chem.	Pathology	H. and B.	Medical
Divinity School...	5					5	5	5	10	10		5	5					5													
Education.....		5				5	10	5	5	5	5	5	5																		
Law School.....			5				5	5	5	5	5	5																			
Commerce and Administration.....				5			5	70	5		10																				
Social Service Administration.....							5	15	10	40					5	5	5	5	5												5
Philosophy.....						5	5	10	5	10	5	10				5	5	5								5	10				5
Psychology.....						5	5	5	5	10	15	5																			
Political Economy.....						5	5	5	5	10	15	5																			
Political Science.....						5	5	5	5	10	15	5																			
History.....						5	5	5	5	10	15	5																			
Sociology.....						5	5	5	5	10	15	5																			
Geography.....						5	5	5	5	10	15	5																			
Greek.....						5	5	5	5	10	15	5																			
Latin.....						5	5	5	5	10	15	5																			
Romance.....						5	5	5	5	10	15	5																			
German.....						5	5	5	5	10	15	5																			
English.....						5	5	5	5	10	15	5																			
History of Art.....						5	5	5	5	10	15	5																			
Mathematics.....						5	5	5	5	10	15	5																			
Astronomy.....						5	5	5	5	10	15	5																			
Physics.....						5	5	5	5	10	15	5																			
Chemistry.....						5	5	5	5	10	15	5																			
Geology.....						5	5	5	5	10	15	5																			
Botany.....						5	5	5	5	10	15	5																			
Zoology.....						5	5	5	5	10	15	5																			
Anatomy.....						5	5	5	5	10	15	5																			
Physiology.....						5	5	5	5	10	15	5																			
Phys. Chemistry.....						5	5	5	5	10	15	5																			
Pathology.....						5	5	5	5	10	15	5																			
Hygiene and Bact.....						5	5	5	5	10	15	5																			
Medical School.....						5	5	5	5	10	15	5																			

\* The table is on the scale of 100: that is, an entry of 100 would indicate a relationship between two departments, in respect to the use of library books, which would be a virtual identity. A dot indicates a relationship too small to be represented by the figure 5, yet not inconsiderable.

### STATEMENT OF THE METHOD FOLLOWED IN THE PREPARATION OF TABLE VI

Each Department and School was asked to estimate (1) what percentage of the total use of library books by its own instructors and graduate students in the next thirty years is likely to be use of books belonging primarily to each of the other Departments and Schools; and (2) what percentage of the total use of its own books in the next thirty years is likely to be by instructors and graduate students of each of the other Departments and Schools. The highest possible estimate in each case was 50 per cent,



since no Department could suppose that more than half of the use of library books by its own men would be use of books belonging primarily to some one other Department, nor that more than 50 per cent of the total use of its own books would be by men of some one other Department.

The complete set of estimates thus obtained gave potentially four estimates of the extent of each interrelationship. Thus, with regard to the interrelationship of the Departments of Philosophy and Psychology, the Department of Philosophy estimated that 6 per cent of the total use of library books by its own men would be use of psychology books, and that 4 per cent of the use of its own books would be use by psychology men; and the Department of Psychology estimated that 4 per cent of the use of books by its own men would be use of philosophy books, and that 4 per cent of the use of psychology books would be by philosophy men.

These estimates were then studied by three members of the Commission and slightly revised in some cases.

Each set of four (or less) figures thus obtained for each departmental interrelationship was then added. Each resulting sum of four figures ceased to be a percentage figure, but was a magnified index of the extent of the interrelationship of the two departments concerned. The highest figure possible in any one case was 200.

These results were then tabulated in a form similar in general to that of the table submitted herewith, but differing from it in that the Departments and Schools were arranged in the order followed in the official publications of the University.

From that first table the present table was derived by a process involving three modifications. In the first place, the departments and schools are now arranged in an order shown by the figures in the first table itself to be a more logical order so far as library interrelations are concerned. In the second place, figures for the Departments of Household Administration, Comparative Philology, and General Literature are omitted, since these departments, while notable for the very fact that they are closely interrelated with several other departments, are relatively small (so that figures given for them would hardly be of the same order of significance as the figures for other departments) and afford no serious library problems. In the third place, the scale of the figures was reduced by a division by 2—thus making the highest potential figure 100—and the figures themselves were simplified by altering  $2\frac{1}{2}$  and all higher figures to the nearest multiple of 5 ( $2\frac{1}{2}$  being altered to 5,  $7\frac{1}{2}$  to 10, etc.), and 2 and all lower figures to a dot.

The entry for the Divinity School covers not only the work of students registered in that school, but also the work of the relatively small number of students registered under the Faculties of Arts, Literature, and Science in the Departments of Comparative Religion, Oriental Languages, and New Testament.

The entries for the Medical School represent use of books belonging primarily to the clinical departments of the Medical School.

## APPENDIX B

## THE USE OF HARPER BY THE SOCIAL SCIENCE DEPARTMENTS

The following memorandum is prepared to indicate the use that might be made of the Harper Library if it should be made wholly available to the Social Science Departments for other than library and study purposes. It is based on the present needs of these Departments for administrative offices, classrooms, drafting rooms, student conference rooms, a Social Science exhibit, the collections of the Joint Committee on Surveys, and other matters referred to below. It appears from a careful examination of present needs that the Harper building is now entirely adequate for the Social Science Departments, and excepting only provision for classrooms for Junior College classes, will long continue to be adequate. If all undergraduate instruction in the Social Sciences is continued in Harper, it will eventually be difficult to provide adequate classrooms; if the Junior College instruction is carried on elsewhere, the Harper building would seem to be adequate for the use of the Social Science Departments for an indefinite period. This memorandum is drafted on the assumption that Junior College instruction is to be given elsewhere.

1. Administrative offices (6). Assuming that studies in the projected library will be assigned each member of the staff, there remains the necessity of departmental offices, one for each department, Philosophy, History, Sociology, Political Economy, Political Science, and Household Administration.\* Here will be held conferences with graduate and undergraduate students on sequences, registration, and other matters of administration, and here will be kept the files and records of the departments. These offices may also become the editorial offices of the *Journal of Political Economy* and the *American Journal of Sociology*.

2. In connection with these offices should be a common stenographic and secretarial room large enough to provide accommodation for three or four stenographers. Space would be available on the same floor with the administrative offices.

3. Classrooms for graduate and undergraduate instruction (20). During 1922-23, 254 Senior College and Graduate courses were offered in four quarters, an average of sixty-four per quarter, or eleven per hour (six hour day). The greatest number offered in any one quarter was sixty-nine. Conference with the Social Science Departments indicates that it is necessary to plan now for about twenty classrooms to take care of the peak hours. These vary from small rooms seating twenty to large lecture rooms seating one hundred and fifty. Two should be equipped with projection lanterns.

\* The facts presented in this report revealing the interrelations of departments suggest that the Departments of Psychology and Geography and the School of Social Service Administration may eventually be recognized as members of the Social Science group.



4. Seminar rooms, equipped with movable chairs, tables, and some special equipment, as maps, etc. (3). During 1922-23, twenty-seven seminars were offered in four quarters, or an average of seven each quarter, or two each day. Provision should be made for three seminar rooms in Harper (allowing thus for special equipment where necessary), in addition to those in the projected library.

5. Workrooms (6): The Sociology Department, the statistical work of the Political Economy Department, and the co-operative research of the departments on the Research Fund especially require workrooms; in addition the Departments of History and Political Science experience constant need for working space equipped with tables. These needs are increasing rapidly in each case.

The Sociology Department now requires space for six large drafting tables (about 10 feet  $\times$  4 feet), twenty small drafting tables (about 6  $\times$  3), and two drafting tables for professional draftsmen. The statistical work of the Political Economy Department requires space for a considerable number of drafting desks. Workrooms for the general use of all departments should be provided in addition. A storeroom for maps is also desirable.

6. Lantern slide room (1). There should be a darkroom in which photographic reproduction and slide work can be done; and a photostat should be installed.

7. Student conference rooms (6). An increasing amount of time is given in the Social Science Departments to student co-operative investigation, in the course of which it becomes necessary for groups of four or five students to confer with each other and prepare reports. In other cases students form committees for preparation of material to present before model legislative bodies. For such purposes the Sociology Department now needs space for ten student conferences; the Political Science Department needs space for three student conferences; and other departments may develop needs along this line. It is not essential to have individual space for each conference, but not less than six rooms such as those found in the east tower should be devoted to this purpose.

8. Restrooms (2) and toilets. There should be two lounging rooms, one for women and one for men, one of which could be used for social occasions. Present toilet facilities are adequate.

9. General social room with facilities for preparing light refreshments, similar to those found in Classics, and on the second floor of Harper.

10. Storage space for the material gathered by the Joint Committee on Surveys and Studies, and the records of the Chicago Council of Social Agencies, for which the University has assumed responsibility; and office space for its administration.

11. The Society for Social Research. This society is now on a permanent foundation, has already collected certain property, and is engaged in building up a library, for which adequate provision should be made.

12. The headquarters of the National Social Science Research Council, composed at the present time of the American Historical Association, the

American Sociological Society, the American Economic Association, and the American Political Science Association have not yet been fixed, but if space is available are very likely to be at the University of Chicago. Two rooms should be set aside for their use.

13. Social Science exhibit. A social museum is desirable for the purpose of exhibiting illustrative material of various types. This would include maps, charts, models, diagrams, pictures, and collections of manuscripts and material not readily handled in a library. Examples of this are city-planning exhibits, transportation exhibits, ethnological or anthropological exhibits, housing exhibits; any of which would require more space than the ordinary classroom affords. There should also be space for temporary exhibits of various kinds. Examples of significant exhibits in the City Club of Chicago from time to time have been: recreation exhibit, city-property exhibit, budget exhibit. Material for such purposes may be brought together temporarily from various sources, even though the bulk of the material is not in the possession of the University. The community-center exhibit, prepared by the United States government at considerable expense, and loaned to various cities, is an example of the sort of material that cannot be taken care of except in some large room. But this is only an illustration of the sort of thing that is developing in the Social Science group, and is certain in the immediate future to make demands for space, with a growing realization of the importance of this means of instruction.

The main reading-room of Harper is ideally constructed for exhibit purposes. With ample space, with a convenient administration room and additional space available for exhibit purposes in the two adjoining rooms, and storage space in the basement, and with the assurance that the architectural beauty of the room will not be impaired in the slightest, those who favor Plan I feel that a complete solution has been found for the use of the Harper building.

By way of summary the foregoing may be presented in the following list of present needs:

Administrative offices.....	6
Stenographers' Room.....	1
Classrooms.....	20
Seminars.....	3
Workrooms.....	6
Lantern Slide Room.....	1
Student Conference Rooms.....	6
Lounging Rooms.....	2
Social Room.....	1
Society for Social Research.....	1
National Social Science Research Council.....	2
Social Science Exhibit.....	1
Office for same.....	1
Storage space for collections of Joint Committee on Surveys and Studies	



The distribution of these requirements in Harper is suggested tentatively as follows:

*In the basement*, now devoted to stack space:

1. The Collections of the Joint Committee on Surveys and Studies
2. Darkroom for a photostat
3. General storage space, including storage of material for Social Science exhibit not on display

*First Floor:*

1. Nine classrooms, including *Err*
2. The President's Office, which can be converted into two classrooms
3. Office of the Dean of the Faculties, which can be converted into two classrooms

*Second Floor:*

1. Twelve classrooms, one reserved for statistics
2. Kitchenette
3. Women's restroom

*Third Floor:*

1. Social Science exhibit room
2. Office for same
3. Two classrooms if needed, or additional exhibit space (rooms now used for catalogues and for magazines)

*Mezzanine:*

1. Men's smoking-room and toilet (west)
2. Conference room (east)

*Fourth Floor:*

*West*

1. Seminar room
2. Two conference rooms

*East*

1. Seminar room
2. Smoking-room and toilet for men
3. Conference room

*Fifth Floor:*

*West*

1. One seminar room
2. Two drafting rooms
3. Two conference rooms

*East*

1. Five departmental offices and editorial offices
2. Stenographer's room
3. Filing room

*Sixth Floor:*

*West*

1. Drafting rooms and workrooms

*East*

1. Society for Social Research
2. Toilet
3. National Social Science Research Council
4. One departmental office
5. Two rooms unassigned

## APPENDIX C

### THE INTERRELATION OF GRADUATE AND SENIOR COLLEGE WORK

The University now serves three types of students: graduates, Senior College students, and Junior College students. It cannot long continue to serve all three types of students on the present campus. The graduate work must remain on the present campus. One of two solutions is then possible: (1) that the work of the Senior Colleges remain upon the present campus, and the work of the Junior Colleges be moved elsewhere; or (2) that the work of both the Senior and the Junior Colleges be moved elsewhere.

We believe, in view of the considerations stated below, that the first of these alternatives is preferable.

Even at the present time the interrelationship between Senior College and graduate work is closer than the interrelationship between Senior College and Junior College work. That this is the case in the University of Chicago is strikingly shown by the following:

TABLE VIa

TABLE OF REGISTRATIONS IN ARTS, LITERATURE, AND SCIENCE,  
SUMMER, 1911, TO WINTER, 1923  
(In terms of thousands)

	By Graduate Students	By Senior College Students	By Junior College Students
In Graduate courses .....	54	12	.....
In Senior College courses .....	37	51	25
In Junior College courses .....	.....	18	108

From this table the four following inferences may be derived:

1. Graduate courses and Senior College courses are inseparable from the point of view of work of graduate students.
2. The bulk of the work of Senior College students is done in Senior College courses. The work of Senior College students extends, in amounts each less than a quarter of the total, into graduate courses and Junior College courses. The work of Senior College students would not in itself be fundamentally affected (1) by removal from the immediate locale of graduate courses, or (2) by removal from the immediate locale of Junior College courses.
3. The work of Junior College students is done almost wholly in Junior College courses, and would not be fundamentally affected by removal from the immediate locale of Senior College courses.



4. The association of graduate and Senior College work and the separation of Junior College work therefrom is, therefore, preferable to the association of Senior College and Junior College work and their separation from graduate work; since Senior College courses, in which the bulk of the work of Senior College students is done, are inseparable from graduate courses, whereas no such compelling interdependence exists between Senior College courses and Junior College courses.

That a natural break occurs at the end of the Junior College period is further indicated in many ways: by the fact that while many students leave college at the end of the first or second year of college work, those who return for the third year in general finish the fourth year also; by the fact that the educational and disciplinary problems of the first two years are, to a considerable degree, different in character or in acuteness from those of the last two years; by the fact that the instructing staff for the first two years is, as a whole, different from that of the last two years.

The naturalness of this break, foreseen by President Harper, is further evidenced by the increasing development of separate Junior Colleges in Illinois and elsewhere.

Furthermore, it is probable that the sharpness of the break will increase as the years go on.

It seems altogether probable that the co-ordination of elementary, secondary, and collegiate education, the elimination of educational waste, and the re-working of much material for presentation at an earlier age will eventually qualify the student at the age of nineteen or twenty years—that is, at the age at which students now finish Junior College work—to undertake the serious business of life, whether in extracollegiate activity or in preparation for a professional career.

The elimination from the Senior Colleges of work which can be presented at an earlier level will tend to raise the quality of the work of the Senior Colleges and to associate it more and more intimately with the work of the graduate schools.

The establishment of a line of division at this point, it may be noted, would bring American educational practice into conformity with European educational practice. The European practice, resting on centuries of experience, appears to be normal. The American practice, as represented by the traditional four-year college course, appears to be the result of the lack of adequate facilities for secondary education which until recently prevailed in our country.

## APPENDIX D

## NUMBER OF PROFESSORS IN THE HUMANISTIC DEPARTMENTS AND SCHOOLS

TABLE VII

Departments	No. of Full Professors, 1923-24	No. of Associate and Assistant Professors, 1923-24	Estimated No. of Full Professors, 1950-51	Estimated No. of Associate and Assistant Professors, 1950-51
Philosophy.....	3	1	4	5
Psychology.....	1	2	3	4
Political Economy.....	5	1	6	6
Political Science.....	3	1	6	6
History.....	8	5	13	13
Sociology.....	3	3	7	7
Household Administration.....	1	1	1	2
Geography.....	2	5	6	6
Comp. Philology.....	2	0	1	1
Greek.....	2	1	2	2
Latin.....	6	0	4	5
Romance.....	8	5	11	12
German.....	3	2	4	4
English.....	8	9	17	18
General Literature.....	1	1	2	2
History of Art.....	0	1	2	3
Mathematics.....	7	2	7	8
Astronomy.....	1	2	3	3
Divinity School.....	10	8	16	16
School of Education.....	8	16	20	20
Law School.....	6	2	8	8
School of Commerce and Administration.....	0	9	9	9
School of Social Service Administration.....	0	1	2	2

## STATEMENT OF METHOD FOLLOWED IN THE PREPARATION OF TABLE VII

It is fully recognized by the Commission that an estimate of the number of professors in 1950-51 can at best be hardly better than careful guesswork. An estimate was needed, however, for the planning of the number of studies for members of the Faculty. The estimates given in the preceding table were prepared by the following method.

The estimates as to the growth of the student body, contained in Appendix E, which were reached by a procedure more nearly exact than any procedure possible in the present case, indicate that the student body will, in all probability, slightly more than double itself by 1950. It is true that increase in emphasis on research work would indicate a swifter increase in the number of professors than in the number of students; but it is true, on the



other hand, that in many cases professors can without inconvenience handle a somewhat larger number of students than at present. The present total of professors, associate professors, and assistant professors for each Department was, therefore, multiplied by 2. In the cases in which the present ratio of professors to students is lower than the average ratio, the resulting figure was slightly increased; in the cases in which the present ratio of professors to students is higher than the average ratio, the resulting figure was slightly reduced. (Departmental ratios were obtained by comparison of the figures in the first two columns of the present table with figures in Tables VIII and X in Appendix E.) These results were, however, modified in the cases of certain Departments and Schools in which special conditions were known to prevail. The figures thus obtained were, in each case, divided, exactly or approximately, by 2, on the supposition that one half the staff above the rank of instructor would hold the rank of professor, and one half the rank of associate or assistant professor, and the results placed in the last two columns of the table.

The results thus obtained are utilized by the Commission simply as a working basis in planning space for library studies. They represent a reasoned guess as to what the numbers are likely to be in 1950-51; they are not in any sense a statement of opinion as to what they ought to be either as regards totals or distribution.

## APPENDIX E

## NUMBER OF STUDENTS

TABLE VIII

TABLE OF ACTIVE GRADUATE STUDENTS AND REGISTRATIONS OF SENIOR COLLEGE AND JUNIOR COLLEGE STUDENTS IN THE DEPARTMENTS OF ARTS, LITERATURE, AND SCIENCE, 1911-23

	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18*	1918-19*	1919-20	1920-21	1921-22	1922-23
Philosophy												
S†.....	12	14	15	14	14	27	14	17	15	12	14	16
A.....	11	10	13	12	11	12	12	13	15	12	18	20
SCA.....	54	55	61	49	57	66	65	58	118	110	144	126
JCA.....	28	29	32	41	59	51	47	54	102	72	72	91
Psychology												
S.....	19	29	19	16	14	9	4	11	19	16	26	32
A.....	12	10	11	15	14	16	8	8	13	11	12	14
SCA.....	36	36	39	38	46	71	36	41	72	84	92	88
JCA.....	85	86	87	80	85	86	71	68	102	103	113	96
Political Economy												
S.....	13	23	20	16	34	45	36	18	47	40	34	51
A.....	11	19	14	27	28	26	15	12	42	19	16	25
SCA.....	86	75	67	73	85	109	87	49	176	194	171	143
JCA.....	171	100	105	96	135	161	163	153	213	284	272	299
History												
S.....	66	91	71	73	79	88	73	61	97	94	108	137
A.....	33	24	20	32	30	30	25	21	30	30	45	52
SCA.....	134	102	128	166	115	156	152	122	240	246	236	239
JCA.....	253	271	289	320	427	395	313	423	464	448	415	469
Political Science												
S.....	12	18	9	12	13	25	7	6	10	7	7	14
A.....	9	6	10	8	12	13	4	2	4	6	5	9
SCA.....	23	32	35	28	48	50	26	28	45	62	88	77
JCA.....	76	55	52	75	94	126	69	99	84	123	133	164
History of Art												
S.....	6	4	8	1	6	5	3	0	0	5	2	0
A.....	3	2	1	2	2	3	4	0	0	0	0	0
SCA.....	8	13	19	16	12	30	19	0	15	10	0	0
JCA.....	5	7	5	17	6	15	14	0	6	6	0	0
Sociology												
S.....	35	48	36	35	42	40	25	17	26	48	42	49
A.....	28	18	22	21	23	18	13	10	23	19	26	32
SCA.....	107	93	116	92	110	95	76	95	164	171	161	220
JCA.....	22	24	29	26	82	49	57	48	77	117	125	128
Household Administration												
S.....	3	7	4	4	2	6	5	1	2	2	1	2
A.....	3	5	3	2	3	2	3	3	3	2	4	3
SCA.....	19	13	13	9	7	11	8	6	12	13	7	11
JCA.....	13	3	3	2	1	9	5	1	2	1	2	1
Comparative Philology												
S.....	5	2	6	6	13	1	6	3	5	7	5	10
A.....	3	3	1	1	2	1	1	2	1	1	1	3
SCA.....	0	0	1	3	1	0	1	0	2	1	4	2
JCA.....												

\* War years.

† The significance of these letters is explained at the end of the table.



TABLE VIII—Continued

	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18*	1918-19*	1919-20	1920-21	1921-22	1922-23
Greek												
S.....	10	20	6	9	5	2	6	3	10	9	10	8
A.....	11	9	5	10	5	7	5	4	6	6	4	6
SCA.....	15	17	20	15	18	11	13	15	13	18	14	
JCA.....	34	37	24	33	28	32	23	12	22	25	17	33
Latin												
S.....	36	52	46	36	35	44	30	34	26	28	47	26
A.....	12	17	10	14	9	11	10	8	8	7	8	11
SCA.....	31	21	39	24	23	39	20	3	17	10	25	22
JCA.....	75	56	45	65	67	49	39	21	44	45	35	59
Romance												
S.....	25	32	27	32	30	50	65	88	92	108	110	110
A.....	13	15	12	16	21	12	18	17	18	19	22	30
SCA.....	75	84	113	66	70	94	126	118	177	158	162	168
JCA.....	302	272	289	236	230	234	330	394	442	251	247	241
German												
S.....	34	43	41	40	56	45	42	7	8	8	7	13
A.....	15	15	21	22	17	20	11	4	4	5	4	6
SCA.....	79	96	101	88	95	87	48	22	30	52	37	48
JCA.....	241	312	309	269	215	210	97	45	111	134	107	166
English												
S.....	119	126	114	130	121	118	97	90	137	138	146	160
A.....	42	41	48	46	44	45	25	32	44	41	48	56
SCA.....	116	124	179	176	177	261	249	179	342	359	422	483
JCA.....	444	396	453	496	539	589	508	589	816	852	718	804
General Literature												
S.....	2	1	3	6	9	13	10	18	3	5	14	10
A.....	4	5	5	6	6	3	2	3	0	0	1	6
SCA.....	64	78	59	82	49	91	73	74	22	36	27	54
JCA.....	15	14	9	13	13	22	26	20	3	1	1	13
Mathematics												
S.....	77	71	75	59	86	71	50	35	44	72	105	116
A.....	16	32	23	26	28	19	12	9	30	24	35	28
SCA.....	38	30	26	28	38	31	45	59	68	66	65	63
JCA.....	100	102	94	102	124	140	130	291	203	188	171	173
Astronomy												
S.....	3	5	16	18	10	4	10	3	6	7	4	14
A.....	6	7	9	6	6	11	2	4	5	6	10	17
SCA.....	8	12	17	11	11	17	13	16	22	18	26	24
JCA.....	21	19	23	32	28	36	33	60	30	28	23	13
Physics												
S.....	37	31	45	42	43	42	30	15	49	51	63	85
A.....	11	16	16	20	27	21	11	7	22	20	26	28
SCA.....	33	40	51	37	43	53	35	51	82	84	57	62
JCA.....	73	77	81	77	84	112	77	135	155	167	131	140
Chemistry												
S.....	69	81	68	76	112	101	86	57	73	100	107	74
A.....	28	26	36	37	43	43	28	43	58	56	62	75
SCA.....	66	75	89	74	120	126	104	148	208	224	172	146
JCA.....	151	151	172	177	211	209	208	297	286	265	240	249

TABLE VIII—Continued

	1911-12	1912-13	1913-14	1914-15	1915-16	1916-17	1917-18*	1918-19*	1919-20	1920-21	1921-22	1922-23
Geology												
S.....	11	10	9	5	12	9	7	6	7	3	5	7
A.....	23	26	27	33	32	25	7	5	18	16	25	23
SCA.....	37	43	33	38	39	32	35	40	93	106	94	84
JCA.....	121	89	77	70	83	128	122	148	166	147	135	143
Geography												
S.....	14	10	4	13	25	18	12	11	12	12	26	18
A.....	15	3	8	9	13	9	6	7	9	9	13	12
SCA.....	38	27	37	53	48	31	31	45	69	90	103	91
JCA.....	65	64	61	89	107	80	87	69	140	131	154	134
Zoology												
S.....	11	7	4	12	10	15	7	1	6	6	18	17
A.....	8	9	7	5	10	10	6	6	6	8	13	13
SCA.....	35	32	43	33	41	47	55	33	56	87	83	66
JCA.....	65	61	87	103	105	102	93	106	113	110	82	87
Anatomy												
S.....	3	2	3	5	2	6	12	5	7	12	7	10
A.....	5	3	6	2	12	13	6	8	13	12	13	14
SCA.....	52	103	128	115	141	130	135	137	129	162	136	115
JCA.....	33	21	34	39	35	36	31	14	11	7	8	7
Physiology												
S.....							12	9	7	7	13	18
A.....							15	4	6	7	9	11
SCA.....							101	73	72	74	93	68
JCA.....							20	19	48	49	28	24
Physiological Chemistry												
S.....							15	6	8	10	8	14
A.....							14	7	4	5	7	11
SCA.....							48	89	59	52	73	41
JCA.....							9	3	2	0	0	0
Botany												
S.....	29	32	27	41	41	41	40	31	30	36	48	63
A.....	18	17	19	22	27	26	19	11	14	15	19	24
SCA.....	28	30	29	27	31	24	27	21	31	43	56	48
JCA.....	40	34	42	42	36	39	23	21	40	48	62	39
Pathology												
S.....				7	5	6	7	2	4	1	6	8
A.....				3	5	6	4	1	5	5	6	10
SCA.....				18	20	31	31	27	22	31	39	18
JCA.....				1	2	3	2	1	1	0	1	0
Hygiene and Bacteriology												
S.....				6	11	16	11	15	17	19	10	13
A.....				4	11	10	8	8	15	10	10	14
SCA.....				23	38	35	38	63	72	76	62	46
JCA.....				5	3	15	11	—	31	32	11	2



STATEMENT OF THE METHOD FOLLOWED IN THE PREPARATION  
OF TABLE VIII

Each figure in the lines headed S indicates the number of active graduate students in the first term of the Summer Quarter of the year in question (the number of active graduate students being found by the method indicated below).

Each figure in the lines headed A indicates the average number of active graduate students in the Autumn, Winter, and Spring Quarters of the year in question.

Each figure in the lines headed SCA indicates the average number of total registrations by Senior College students in the Autumn, Winter, and Spring Quarters of the year in question.

Each figure in the lines headed JCA indicates the average number of total registrations by Junior College students in the Autumn, Winter, and Spring Quarters of the year in question.

Since the figures headed S and A indicate numbers of students and the figures headed SCA and JCA indicate numbers of registrations, the figures headed S and A should be multiplied by three if it should be desired to compare the amount of work done by graduate students in a given department with the amount of work done by Senior College students and Junior College students in that Department.

The figures do not include registrations by students registered in the professional schools, nor do they include figures for the active graduate students of the Department of Education. The Departments of Comparative Religion, Oriental Languages, and New Testament are practically departments of the Divinity School so far as library use is concerned, and the figures of these departments are therefore omitted. Figures for the Departments of Public Speaking, Military Science, and Physical Culture are also omitted.

The number of Senior College students and Junior College students registered in Summer Quarters is not given. It is in every case much less than the average number for the corresponding Autumn, Winter, and Spring Quarters.

The average figures for the year 1922-23 are based on returns for the Autumn and Winter Quarters only.

The number of active graduate students in a given department in a given quarter was ascertained in the following way. To the number of registrations by graduate students in the graduate courses of the Department in the quarter in question (according to the Quarterly Deans' Reports on file in the Recorder's Office) was added the number (according to the same records) of registrations by graduate students in the Senior College courses of the same Department (since graduate students taking Senior College courses, are, in almost all cases, allowed to count them for graduate credit),

and the total thus found was divided by three. The result thus obtained indicates (with a sufficient degree of accuracy for the purposes of the Library Commission) the number of active graduate students in the Department in the quarter in question: for the active graduate student normally takes three courses at a time. It might be thought that the resulting number would be slightly too small in view of the fact that a few advanced graduate students take less than the full normal complement of courses: but this element of error appears to be offset by the fact that a number of the registrations are by casual students, in reality hardly more than visitors who take an occasional course without reference to work for a degree. The accuracy of the results obtained by this process was checked by examining the list of individual graduate students in the Departments of History and of Romance for the Autumn Quarter, 1922, and studying the individual registrations of each student. The number of students shown by this study to be bona fide active graduate students was practically the same as the number obtained by dividing the total registration by three. In the case of History, the division of registrations by 3 gave 56 as a result, the other method 58. In the case of Romance, the division of registrations by 3 gave 32 as a result, the other method 34.

The phrase "average number of active graduate students in the Autumn, Winter, and Spring Quarters" means the number found, for the year in question, by adding together (a) the number of active graduate students in the Autumn Quarter, (b) the number of active graduate students in the Winter Quarter, and (c) the number of active graduate students in the Spring Quarter, and dividing the result by 3.



TABLE IX

TABLE OF GRADUATE STUDENTS AND REGISTRATIONS OF SENIOR COLLEGE  
STUDENTS IN ARTS, LITERATURE, AND SCIENCE EXPECTED  
IN 1950-51

Department	Active Graduate Students in Normal Quarter	Active Graduate Students in First Term of Summer Quarter	Registrations of Senior College Students in Normal Quarter	Registrations of Senior College Students in First Term of Summer Quarter
Philosophy	39	45	252	126
Psychology	39	60	180	90
Political Economy	69	96	354	177
Political Science	125	150	147	74
History	99	270	528	264
Sociology	69	120	402	201
Household Administration	15	20	36	18
Geography	40	60	177	89
Comparative Philology	6	18	3	2
Greek	12	20	48	24
Latin	20	75	75	38
Romance	54	186	351	176
German	12	30	150	75
English	138	393	792	396
General Literature	12	30	168	84
History of Art	30	75	225	113
Mathematics	78	234	135	68
Astronomy	36	36	51	26
Physics	63	147	162	81
Chemistry	160	344	390	195
Geology	75	24	180	90
Botany	60	117	105	53
Zoölogy	27	30	156	78
Anatomy	27	18	363	182
Physiology	34	44	249	125
Physiological Chemistry	30	40	174	87
Pathology	27	20	78	39
Hygiene	38	52	150	75

STATEMENT OF THE METHOD FOLLOWED IN THE PREPARATION  
OF TABLE IX

In estimating the number of active graduate students in the Graduate Schools of Arts, Literature, and Science expected in a normal quarter of 1950-51, the following method was adopted. The average total number of graduate students in the Graduate Schools of Arts, Literature, and Science for the normal quarters of each year from 1897-98 to 1922-23 was found

from figures furnished by the Recorder's Office to be as follows (the figures for the two war years, 1917-18 and 1918-19, being omitted):

1897-98	286	1910-11	423
1898-99	331	1911-12	445
1899-1900	322	1912-13	444
1900-1901	300	1913-14	466
1901-2	330	1914-15	557
1902-3	342	1915-16	572
1903-4	380	1916-17	551
1904-5	314	1917-18	} ..... War years
1905-6	341	1819-19	
1906-7	346	1919-20	562
1907-8	351	1920-21	512
1908-9	392	1921-22	645
1909-10	399	1922-23	680

Upon the basis of these figures, preliminary predictions for 1950-51 were obtained by a method suggested by Professor J. A. Field and carried out under his direction by Mr. Pearce Shepherd. Equations fitting the figures given were found, by the method of "least squares," for a straight line, parabola, and logarithmic curve as follows:

Straight line:  $y = 246.8894 + 14.1742x$   
 Parabola:  $y = 293.41421 + 4.18566x + .37147x^2$   
 Logarithmic curve:  $\log_{10} y = 2.4392090 + .01395049x$

These equations were then solved for 1950-51 (by substituting  $x=54$ ), with the following results:

Straight line..... 1,012  
 Parabola..... 1,603  
 Logarithmic curve..... 1,558

Of these results the second appeared to the Commission, on the basis of the general prospects for the development of graduate work, to be the most probable. It was then found that the figure chosen, 1,603, was approximately 3 times the average (543) of the figures for the ten years 1911-23 (omitting the two war years). Preliminary predictions for each Department (except the Departments of Household Administration, Comparative Philology, Greek, Latin, German, General Literature, and the History of Art) were then made by ascertaining, from the figures in the lines of Table VIII of this Appendix headed A, the average number of active graduate students in the Department in question for the ten years 1911-23 (omitting the two war years), and multiplying that average by 3 (except that in the



cases of the Departments of Physiology, Physiological Chemistry, Pathology, and Hygiene and Bacteriology a slight modification of the process was made necessary by the fact that figures for those Departments were not available for the full ten years). These figures were then submitted for criticism to the Departments concerned, with a statement of the process by which they had been obtained. Most of the Departments accepted the predictions, but the Departments of Political Science, Astronomy, Chemistry, Geography, Physics, Physiological Chemistry, Pathology, and Hygiene and Bacteriology reported estimates higher than those prepared by the Commission. These estimates were examined by the Commission, and a final estimate was decided on which seemed reasonable in view of all the evidence available. In the case of the Department of Political Science this estimate was, for special reasons, quite unrelated to the ten-year average. In the case of the other Departments just named, this final estimate was about 4 times, instead of 3 times, the ten-year average. In the case of the Departments of Household Administration, Comparative Philology, Greek, Latin, German, General Literature, and the History of Art, the figures for the years 1911-23 were so small and irregular that the process followed for the other Departments did not seem to be appropriate. Each of these seven Departments was given a statement of the figures for the last ten years and asked to frame its own estimate for the year 1950-51. The estimates thus framed were considered by the Commission, and a figure was decided on which seemed reasonable in view of all the evidence available. The figures obtained by this method were entered in the first column of Table IX in the portion of the column devoted to the Departments.

In estimating the number of active graduate students in the Graduate Schools of Arts, Literature, and Science expected in the First Term of the Summer Quarter of 1950-51, an estimate for the Graduate Schools as a whole (omitting the Department of Education) was first found by the same statistical method described in the first paragraph of this statement. The basic figures were as follows:

1900.....516	1911.....786
1901.....670	1912.....900
1902.....532	1913.....833
1903.....569	1914.....871
1904.....587	1915.....1025
1905.....557	1916.....1025
1906.....626	1917 } .....
1907.....626	1918 } .....
1908.....763	1919.....890
1909.....716	1920.....1005
1910.....773	1921.....1163
	1922.....1241

These figures were found by taking the total number of registrations by graduate students in the Summer Quarter concerned, subtracting from each the total number of registrations by graduate students in the Department of Education (the numbers of registrations in all cases being supplied by the Recorder's Office), and dividing the result by 3. Mr. Shepherd's three equations for these figures, when solved for 1950, gave the following results:

Straight line.....	1,953
Parabola.....	2,637
Logarithmic curve.....	3,267

Of these three results, the second appeared to the Commission, on the basis of the general prospects for the development of graduate work, to be the most probable. It was then found that the figure chosen, 2,637, was, roughly, 3 times the average (974) of the figures for the ten years 1911-23 (omitting the two war years). Estimates for each Department were then made by the Commission. In general these estimates were arrived at by multiplying the average for the ten years 1911-23 (omitting the two war years) by 3. In the case of the Departments of Astronomy, Chemistry, Geography, Physiology, Physiological Chemistry, Pathology, and Hygiene, the average was multiplied by 4, instead of by 3. In the case of the Department of Political Science the estimate of 150 was adopted for special reasons. In the case of the Departments of Household Administration, Comparative Philology, Greek, Latin, German, General Literature, and the History of Art, an estimate was framed by the Commission in view of the figures for the ten years 1911-23 (omitting the two war years), and the replies of the Departments in question to the inquiry as to probabilities for the number of students in a normal quarter of 1950-51.

In estimating the number of registrations of Senior College students expected in a normal quarter of 1950-51, an estimate of the attendance in the Senior Colleges as a whole was first found by the same statistical method described in the first paragraph of this statement. The basic figures were as follows:

1896-97.....159	1910-11.....455
1897-98.....194	1911-12.....504
1898-99.....228	1912-13.....521
1899-1900.....231	1913-14.....622
1900-1901.....277	1914-15.....593
1901-2.....303	1915-16.....654
1902-3.....310	1916-17.....779
1903-4.....336	1917-18 } .....
1904-5.....335	1918-19 } .....
1905-6.....432	1919-20.....956
1906-7.....453	1920-21.....1069
1907-8.....463	1921-22.....1131
1908-9.....447	1922-23.....1077
1909-10.....439	



Mr. Shepherd's three equations for these figures, when solved for 1950, gave the following results:

Straight line.....	1,980
Parabola.....	2,924
Logarithmic curve.....	7,021

Of these three results the Commission, on the basis of general prospects for the development of the University, regarded the first as somewhat too low and the second as somewhat too high. The average for the ten years 1911-23 (omitting the two war years) was 791. The figure 2,373, obtained by multiplying this average by 3, and about halfway between the results of the straight line and parabola equations, appeared to be a reasonable estimate and was adopted by the Commission. Estimates for each Department were then made by the Commission. In general the estimate was arrived at by multiplying the average for the ten years 1911-23 (omitting the two war years) by 3; but in the cases of the Departments of German and of the History of Art other estimates were made for special reasons.

In estimating the number of Senior College students in the Colleges of Arts, Literature, and Science in the first term of the Summer Quarter of 1950 the following method was adopted. The attendance of Senior College students in the first term of the Summer Quarter for the years 1911-23 (omitting the two war years) was as follows:

1911.....203	1917 } .... War years
1912.....232	1918 }
1913.....270	1919.....396
1914.....297	1920.....521
1915.....330	1921.....582
1916.....427	1922.....598

The average of these ten figures is 386. The corresponding average for the Autumn, Winter, and Spring Quarters, as has been stated, was 791. We have, therefore, assumed that the registrations of Senior College students in the first term of the summer quarter of 1950 would be one-half the registrations for a normal quarter; and the figures in the fourth column of the table are therefore one-half those in the third column.

TABLE X  
TABLE OF ATTENDANCE IN THE PROFESSIONAL SCHOOLS

	1911- 12	1912- 13	1913- 14	1914- 15	1915- 16	1916- 17	1917- 18*	1918- 19*	1919- 20	1920- 21	1921- 22	1922- 23
Divinity School												
A.....	131	121	137	149	139	148	112	90	119	133	143	157
S.....					218	185		123	151	164	173	170
Education												
GA.....	19	22	29	34	35	46	28	22	52	40	72	85
UA.....	223	266	287	282	381	402	326	231	247	225	266	292
GS.....	66	133	142	206	220	271	238	169	315	325	455	478
US.....					852	1180		770	985	1047	1304	1292
Law												
A.....			202	211	218	262	127	99	295	293	301	322
S.....									183	166	192	197
School of Commerce and Administra- tion												
GA.....										28	48	46
UA.....		86	152	161	167	202	190	281	545	550	527	525
GS.....										20	49	72
US.....		74	156	172	188	206	224	40	56	61	146	133
School of Social Serv- ice Administra- tion												
GA.....										19	18	29
UA.....										23	27	34
GS.....											11	18
US.....											21	22

\* War years.

The letter A, used singly or in the combinations GA and UA, indicates the average number of students in the Autumn, Winter, and Spring Quarters of the year in question.

The letter S, used singly or in the combinations GS and US, indicates the number of students in the first term of the Summer Quarter of the year in question.

The letter G represents a number of graduate students.

The letter U represents a number of undergraduate students.

In the entries for the Divinity School, the figures represent the numbers of students registered in that school plus the (relatively small) numbers of students registered under the Faculties of Arts, Literature, and Science in the Departments of Comparative Religion, Oriental Languages, and New Testament.

In the entries for Education, the figures in the lines headed GS and GA represent graduate students registered under the Faculties of Arts, Literature, and Science in the Department of Education. The figures in the lines headed US and UA represent the numbers of undergraduate students



in the College of Education plus the (relatively small) numbers of students registered in the Senior Colleges and Junior Colleges of Arts, Literature, and Science in the Department of Education.

Numbers of students in the Divinity School and in Education registered under the Faculties of Arts, Literature, and Science are found by dividing by three the total registrations by such students in the Department concerned.

In the entries for the Law School the figures represent the total attendance, including Seniors working exclusively in the Law School.

Figures for the spaces left blank for the Divinity and Law Schools and for Education are not readily available. Figures for the Schools of Commerce and Administration and Social Service Administration are complete.

TABLE XI

TABLE OF STUDENTS IN THE PROFESSIONAL SCHOOLS EXPECTED IN  
1950-51

	In Normal Quarter	In First Term of Summer Quarter
Divinity School.....	320	400
School of Education		
Graduates.....	180	1000
Undergraduates.....	400	1000
Law School.....	500	360
School of Commerce and Administration		
Graduates.....	150	150
Undergraduates.....	600	250
School of Social Service Administration		
Graduates.....	50	40
Undergraduates.....	100	75
Medical School.....	250	250

#### STATEMENT OF THE METHOD FOLLOWED IN THE PREPARATION OF TABLE XI

##### A. THE DIVINITY SCHOOL

*In a normal quarter.*—The figures given in line A of the section for the Divinity School in Table X were reported to the Divinity School and an estimate asked for 1950-51. The School estimated 200 as the number of its own students plus 150 for students in the affiliated Schools. The Commission adopted the figure 320.

*In the Summer Quarter.*—Examination of the figures given in the section for the Divinity School in Table X indicates that the number of students in the Divinity School in a Summer Quarter averages about five-fourths the number in a corresponding normal quarter. The Commission, therefore, adopted in this case the figure 400.

##### B. THE SCHOOL OF EDUCATION

*In a normal quarter.*—(a) Graduate students: As the graduate work of the School of Education is done in the Graduate Schools of Arts, Literature, and Science, the method followed in this case was exactly that followed for the Departments in general as described above in the note to Table IX. The Commission's preliminary estimate was 129. The School's estimate was 180-225. The Commission adopted the figure 180—which is about 4 times, instead of 3 times, the average for the last ten years. (b) Undergraduate students: The figures given in line UA were reported to the School of Education and an estimate asked for 1950-51. The School reported its hope to limit the number of registrants to 400. The Commission adopted this figure.

*In a Summer Quarter.*—(a) Graduate students: The figures given in line GS were reported to the School of Education and an estimate asked for 1950-51. The School reported an increase of 30 per cent in the summer of 1923 over the summer of 1922, and estimated that in 1950-51 the number would be "twice what it is at the present time, and possibly more." The Commission adopted the figure 1,000. (b) Undergraduate students. The figures given in line US were reported to the School and an estimate asked for 1950-51. The School reported its hope to limit the number of registrants to 1,000. The Commission adopted this figure.

##### C. THE LAW SCHOOL

*In a normal quarter.*—The figures given in line A of the section for the Law School in Table X were reported to the Law School and an estimate asked for 1950-51. The School estimated the Autumn Quarter attendance for 1950 at from 600 to 800, but stated that a limitation of attendance to 500 was not improbable. The Commission adopted the figure 500.

*In the Summer Quarter.*—Examination of the figures given in the section for the Law School in Table X indicates that the number of students in a Summer Quarter averages about three-fifths of the number in a normal quarter. The Commission adopted the figure 360 (as being three-fifths of the estimate 600, reported above).

##### D. THE SCHOOL OF COMMERCE AND ADMINISTRATION

*In a normal quarter.*—(a) Graduate students: The figures given in line GA of the section for the School of Commerce and Administration in Table X were reported to the School and an estimate asked for 1950-51. The School's estimate was 300. The Commission adopted the figure 150. (b) Undergraduate students: The figures from line UA were similarly reported. The School's estimate was 600. The Commission adopted this figure.

*In a Summer Quarter.*—(a) Graduate students: There being no sufficient evidence to indicate variation between the number of graduate students



in the Summer Quarter and in a normal quarter, the Commission adopted for the summer the same figure, 150, adopted for the normal quarters. (b) Undergraduate students: In recent years the number of undergraduates in the School of Commerce and Administration in the summer has been much less than in normal quarters. The Commission adopted the figure 250.

#### E. THE SCHOOL OF SOCIAL SERVICE ADMINISTRATION

*In a normal quarter.*—(a) Graduate students: The figures given in line GA of the section for this School were reported to the School, and an estimate asked for 1950-51. The School's estimate was 75 to 100. The Commission adopted the figure 50. (b) Undergraduate students: The figures from line UA were similarly reported. The School's estimate was 100. The Commission adopted this figure.

*In a Summer Quarter.*—(a) Graduate students: Since the figures for the Summer Quarter run somewhat less than in other quarters, the Commission adopted the figure 40. (b) Undergraduate students: For the same reason the Commission adopted the figure 75.

#### F. THE MEDICAL SCHOOL

On the understanding that each class in the Medical School is to be limited to fifty and that the course is to be a four-year course, and in view of the probability that a considerable number of postgraduates will work in the School, the Commission estimated the number of medical students at 250. There appears to be no reason for believing that the number of students in the Summer Quarter will differ from the number of students in a normal quarter

### APPENDIX F

#### NUMBER OF BOOKS

Tables XII-XV show the number of books in the University libraries in May, 1923. The entries in the columns headed "Library of Congress Classification" represent the Library of Congress classifications proper to the several subjects concerned. The books in Harper (except for the special collections in the field of history) are catalogued according to the Library of Congress plan. Many of the books elsewhere are not yet so catalogued. The entries in Table XII in the column headed "Number of Volumes Elsewhere" include many volumes, actually located in the departmental library in question, which fall, or will fall when catalogued according to the Library of Congress plan, into Library of Congress classes other than that proper to the department concerned.

Figures for numbers of volumes (except in the case of the manuscripts in the Manuscript Room in Table XIII) represent not necessarily the actual number of volumes, but the ideal number of volumes for the space actually occupied, figured at eight volumes per linear foot—the generally accepted library rate.

The figures in the column headed "Shelf Frontage Occupied" represent linear feet.

The numbers of volumes and of feet are in every case reduced to the nearest multiple of 100.

TABLE XII

VOLUMES IN CLASSES CORRESPONDING TO THE DEPARTMENTS AND SCHOOLS OF THE UNIVERSITY

	Library of Congress Classification	No. of Vols. in Harper <sup>a</sup>	No. of Vols. Elsewhere	Total	Shelf Frontage Occupied
Philosophy.....	B-BD, BH-BJ	.....	Cl 9,100	9,100	1,100
Psychology.....	BF	.....	Ps 2,500	2,500	300
Political Economy	H-HJ	51,000	.....	51,000	6,400
Political Science..	J-JX	51,500 <sup>b</sup>	.....	51,500	6,400
History.....	C-F	66,200 <sup>c</sup>	.....	66,200	8,300

a. The term "Harper" as here used includes, for convenience, the reading-room of the Social Science group, which is actually in the Law Building.

b. This entry includes the few law books which are in Harper.

c. Including four special collections: Lane Collection, 3,100 volumes; Eckels Collection, 500 volumes; Hodge Collection, 100 volumes; Durrett Collection (MSS), 400 volumes.



TABLE XII—Continued

	Library of Congress Classification	No. of Vols. in Harper	No. of Vols. Elsewhere	Total	Shelf Frontage Occupied
History of Art....	N-NK	.....	Cl 8,300 Cl B 1,200 <sup>d</sup>	9,500	1,200
Sociology.....	GN-GV, HM-HX	14,400	Cl B 5,000 <sup>e</sup>	19,400	2,400
Household Adm..	TX	500	.....	500	100
Comp. Philology..	P, PM	.....	Cl 4,000	4,000	500
Greek.....	PA 1-2000, 3000-6000	.....	Cl 13,400 Cl B 300 <sup>f</sup>	13,700	1,800
Latin.....	PA 2001-3000, 6001-	.....	Cl 15,000 Cl B 300 <sup>f</sup>	15,300	2,000
Romance.....	PB 1-500 <sup>g</sup> , PC, PQ	15,100	.....	15,100	1,900
German.....	PB 1-500, PD 3, 2,	10,200	.....	10,200	1,300
English.....	PF, PT PB 1-500, 3, PB 1001-, PD 2, PE, PR, PS	21,000	.....	21,000	2,600
General Lit.....	PN	5,000	.....	5,000	600
Mathematics.....	QA	.....	Ry 3,900	3,900	500
Astronomy <sup>h</sup> .....	QB	.....	Ry 2,800	2,800	400
Physics.....	QC	.....	Ry 6,500	6,500	800
Chemistry.....	QD	.....	K 7,200	7,200	900
Geology.....	QE	2,600	Ro 30,000	32,600	4,100
Geography.....	G-GF	1,600	Ro 15,000	16,600	2,100
Biology, general..	QH	2,800	Z 22,000 Cl B 2,400 <sup>i</sup>	27,200	3,400
Zoölogy.....	QL	2,100	Z 1,500	3,600	500
Anatomy.....	QM	100	Z 1,500	1,600	200
Physiology.....	QP	400	Z 1,000	1,400	200
Phys. Chemistry and Pharmacol- ogy.....	RS	700	Z 1,000	1,700	200
Botany.....	QK	1,300	Z 2,500	3,800	500
Pathology.....	RB	200	Z 3,000	3,200	400

d. The Arts and Crafts Collection classified on the decimal system in Classics basement.

e. Including two collections in Classics basement: Howard Library, 1,000 volumes; Civics and Philanthropy Collection, 8,000 pamphlets. This latter collection requires about 500 feet of shelf frontage.

f. Remnants of Hirsch-Bernays Collection.

g. That is, one-third of the classification PB 1-500.

h. Not including the books in the Yerkes Observatory Library, for which see Table XIV.

i. A special collection of biology theses in Classics basement. This collection requires about 300 feet of shelf frontage.

TABLE XII—Continued

	Library of Congress Classification	No. of Vols. in Harper	No. of Vols. Elsewhere	Total	Shelf Frontage Occupied
Hygiene and Bacteriology.....	QR	100	Z 2,500 Rick 4,800 <sup>j</sup>	7,400	400
Divinity School...	BL-BX, PG-PL	18,800	Has 23,600 Cl B 17,900 <sup>k</sup>	60,300	7,500
Law School.....	K	.....	Law 48,000	48,000	6,000
Medical School <sup>l</sup> ..	R-RA, RC-RM, RT-RZ	9,300	Cl B 1,500	10,800	1,400
School of Education.....	L-LT	25,000	Ed 37,000	62,000	7,800
School of Commerce and Administration (reading room) <sup>m</sup> .....		3,000	.....	3,000	400
School of Social Service Administration (reading room) <sup>n</sup> .....		600	.....	600	100
Total departmental books in Harper.....		303,500	.....	.....	.....
Total departmental books elsewhere.....		.....	294,700	.....	.....
Total departmental books.....		.....	.....	598,200	.....
Total shelf-frontage.....		.....	.....	.....	69,800

j. The Flüge Collection of 13,000 reprints of articles dealing with Hygiene and Bacteriology. This collection requires about 100 feet of shelf frontage.

k. Including three collections in Classics basement: Books in decimal classification, 6,400 volumes; Remnants of Hirsch-Bernays Collection, 500 volumes; Hammond Library, 11,000 volumes.

l. Certain departments listed above will presumably become departments of the Medical School. The volumes in Classics basement are those of the Billings Library, still boxed.

m. The volumes in the Commerce and Administration reading-room are chiefly of the class HF. They are not counted in the number assigned above to Political Economy.

n. The volumes in the reading-room of the School of Social Service Administration are chiefly of the class HV. They are not counted in the number assigned above to Sociology.



TABLE XIII

## OTHER VOLUMES IN HARPER

	Library of Congress Classification	No. of Vols.	Shelf Frontage Occupied
General works.....	A-AZ	36,500	4,600
Music.....	M-MT	1,300	200
Fiction and juvenile literature.....	PZ	100	negligible
Science, general.....	Q	6,000	700
Agriculture.....	S-SK	12,600	1,600
Technology.....	T-TT	11,100	1,400
Military Science.....	U-UH	2,500	300
Naval Science.....	V-VM	1,300	200
Bibliography.....	Z	9,300	1,200
Rare books.....		2,000	300
Manuscripts in Manuscript Room.....		100	100*
Totals.....		82,800	10,600

\* These manuscripts, since they are displayed, require as much space as 800 ordinary volumes.

TABLE XIV

## OTHER VOLUMES NOT IN HARPER

	Library of Congress Classification	No. of Vols.	Shelf Frontage Occupied
Music books in Classics.....	M-MT	1,200	200
Sheet music in Classics basement*	M-MT	800	100
Unclassified books in Classics basement.....	Miscellaneous	22,400	2,800
Rental Bureau, in Classics.....	Miscellaneous	12,000	1,500
Hitchcock Hall Library.....	Miscellaneous	2,500	300
Rush Medical Library.....	Q-RZ	30,000	3,800
Yerkes Observatory Library.....	QB	5,500	700
Totals.....		74,400	9,400

\* The Huber Collection, containing 20,000 pieces, occupying about as much space as 800 volumes.

TABLE XV

## SUMMARY

	No. of Vols.	Shelf Frontage Occupied
Totals from Table XII.....	598,200	69,800
Totals from Table XIII.....	82,800	10,600
Totals from Table XIV.....	74,400	9,400
Totals for the University.....	755,400	89,800

## GENERAL NOTE SUPPLEMENTARY TO TABLES XII-XV

Tables XII-XV indicate 755,400 as the total number of volumes in the University Libraries. This estimate represents not an actual count, but the ideal number of volumes for the space actually occupied figured at eight volumes per linear foot—the generally accepted library rate.

From examination of the Annual Reports of the Director of the University Libraries, the following facts appear: (1) The total number of catalogued bound volumes in the University Libraries on June 30, 1922, was 646,798; (2) the number of catalogued bound volumes added per year in the last twelve years is about 27,000; (3) the number of uncatalogued bound volumes in the University Libraries on June 30, 1921, was "more than 85,000." Adding these three figures together (and supposing the "more than" to be canceled by the gradual process of cataloguing the uncatalogued volumes) we have 758,798 as the approximate number of bound volumes now in the libraries.

This means that in the University of Chicago Libraries the total actual number of bound volumes is approximately equal to the ideal number of volumes for the space actually occupied at the rate of eight volumes per linear foot. (The rate of eight volumes per linear foot is ordinarily supposed to account for both bound volumes and pamphlets. The bulk of the pamphlets belonging to the University, estimated as numbering 200,000+ on June 30, 1921, is then actually so small as to be offset by an apparent failure of the bound volumes in our library to reach quite the average library size.)



TABLE XVI

TABLE OF BOOK PURCHASE COSTS, 1911-20  
(Figures represent dollars)

	1911- 12	1912- 13	1913- 14	1914- 15	1915- 16	1916- 17	1917- 18	1918- 19	1919- 20
Divinity School.....	1,585	1,385	1,796	1,248	1,572	1,344	1,069	1,437	1,970
Education.....	1,274	1,172	1,751	2,033	1,660	1,472	1,848	2,158	2,973
Law.....	3,652	3,037	3,881	4,611	4,133	4,424	2,846	2,616	2,546
Commerce and Adminis- tration.....	110	349	544	597	1,107	1,794	1,285	1,084	1,341
Philosophy.....	301	286	373	346	260	174	307	311	184
Psychology.....	244	297	211	252	258	191	202	292	210
Political Economy.....	711	810	923	978	454	673	571	643	1,048
Political Science.....	733	538	341	468	640	415	309	238	601
History.....	2,647	1,983	2,009	2,012	1,901	2,320	2,640	2,756	4,438
Sociology.....	890	744	1,017	734	477	576	662	684	749
Geography.....	211	248	380	332	312	305	253	217	239
Comparative Philology...	467	468	523	246	197	158	132	213	309
Greek.....	534	496	628	293	182	129	75	168	205
Latin.....	829	740	569	369	127	11	86	123	259
Romance.....	688	1,000	976	551	442	1,105	882	521	1,141
German.....	357	335	389	524	391	176	249	296	275
English.....	964	647	1,118	864	1,132	860	1,223	1,895	2,660
American Literature*						2,060	2,276	2,825	2,920
General Lit.†.....	52	5	444	339	626	344	216	1,113	573
History of Art.....	268	227	236	408	212	375	380	174	923
Mathematics.....	415	484	514	306	213	154	131	190	115
Astronomy.....	166	112	262	66	78	63	45	67	36
Physics.....	390	274	376	264	345	154	290	275	200
Chemistry.....	369	382	376	408	446	243	498	379	414
Geology.....	495	632	618	455	521	301	241	518	290
Botany.....	410	330	537	397	485	390	344	528	189
Zoölogy.....	693	695	890	583	407	290	268	780	643
Anatomy.....	739	510	944	523	587	219	237	861	291
Physiology.....	395	293	491	272	143	260	160	345	218
Physiological Chemistry.	147	115	191	246	184	74	66	274	61
Pathology.....	276	229	337	158	221	113	100	167	39
Hygiene and Bacteriology	230	195	281	173	176	148	123	242	123
General Library.....	2,683	5,489	2,234	2,640	1,502	1,906	2,460	3,521	2,575
Hitchcock.....	62	80	73	137	72	93	114	76	59
Yerkes.....	309	220	369	276	763	351	724	308	225

\* Purchases on the William Vaughn Moody fund.

† All entries for General Literature, except those for the first two years, \$1.00 in the third year, and \$10.00 in the fourth year, represent purchase of Celtic books.

# STATEMENT OF THE METHOD FOLLOWED IN THE PREPARATION OF TABLE XVI

The preceding table is based upon a detailed statement prepared by Miss Nichols and upon a letter of Mr. Hanson to the Vice-Chairman dated June 7, 1923. These documents, and a detailed statement of the method followed in preparing the present table, are filed with the Vice-Chairman's copy of the Report.

The table includes the cost of periodicals. It does not include the cost of binding.

The figures for the years 1913-14 through 1918-19 are, in most cases, exact; in a few cases, approximation has been necessary, since the library accounts do not precisely correspond to the departmental organization. For the years 1911-13 and 1919-20 approximation has been necessary throughout, but the approximation may be regarded as very close indeed. Figures for corresponding entries for 1920-21 and 1921-22 are not available, as the Library in 1920 ceased keeping a record of purchase costs by Departments.

The School of Social Service Administration and the Department of Household Administration do not appear in the table. Purchase of books by the School of Social Service Administration began only in 1920-21. The library accounts show no entries for the Department of Household Administration (which utilizes books of other Departments).

## GENERAL NOTE SUPPLEMENTARY TO TABLE XVI

It appears from the Annual Reports of the Director of the University Libraries that the total number of catalogued bound volumes added in the period 1911-20 was 249,433; and from the statement of purchase costs prepared for the Commission and utilized as a basis for Table XVI, that the total purchase costs for the period 1911-20 were \$234,751.59.

This means, roughly speaking, that for each dollar spent in purchase a volume is added to the library. (The actual purchase cost per book of books actually purchased is, of course, considerably more than \$1.00: the figures for the total numbers of bound volumes added year by year cover volumes added by exchange or by gift, as well as volumes added by purchase. It may be noted also that the cost of binding is not here under consideration.)

This being the case, it follows that Table XVI may also be used as an approximately correct Table of Additions of Volumes according to Departments for the same period, the figures being understood to represent volumes instead of dollars. The only change necessary is that about five-eighths of the amount assigned on the basis of purchase cost to Commerce and Administration should, on the basis of volumes added, be assigned to Political Economy. (The purchase costs were charged to the Departments from which the orders originated: books are classified according to their



content; not according to the Departments from which the orders originate. It therefore happens frequently that a book may be shelved elsewhere than among the books of the Department from which the order originates. In general the instances of such cross-shelvings will cancel each other; but in the case of Commerce and Administration they will not, since the only books differentiated as Commerce and Administration books are the 3,000 volumes in the Commerce and Administration reading-room, the other books utilized by Commerce and Administration being chiefly those classified as in the field of Political Economy.)

The table would gain in exactness by the combination of the figures for closely allied departments. For instance, the sums of the figures for Botany, Zoölogy, Anatomy, Physiology, Physiological Chemistry, Pathology, and Hygiene would be more nearly exact than the figures for any one of these Departments are likely to be. But for present purposes, the figures as given are sufficiently exact, and it seems preferable to defer the combination of results to a later stage in our planning. (It may seem strange that no better method of constructing a table of additions of volumes according to Departments has been found; but the records of the Library do not appear to afford data for any better method. Prior to 1920-21 records were kept showing the accessions of bound volumes by subjects; and the Vice-Chairman has a conspectus of these records for the period 1911-20 prepared by Miss Nichols. But in these records the subject classification is, in many instances, quite at variance with the departmental classification; and nearly half of all books are assigned to the General Library. Beginning with 1920-21, the records have been kept in such a way as to show accessions according to Library of Congress classes. Data as to departmental distribution could be worked out with some labor on this basis; but would in any case cover only two years. Beginning with 1920, the Library ceased to keep a record of purchase costs by Departments.)

TABLE XVII

TABLE OF ESTIMATES OF STACK SPACE REQUIRED IN 1950-51

	A Present No. of Vols.	B First Estimated Average No. of Vols. to Be Added per Year in the Period 1923-50	C Revised Estimated Average No. of Vols. to Be Added per Year in the Period 1923-50	D Estimated No. of Vols. in 1950-51	E Estimated Shelf Frontage Required in 1950-51 (Figures Represent Linear Feet)	F Estimated Cubic Stack Space Required in 1950-51 (Figures Represent Cubic Feet)
Divinity School.....	60,300	1,490	2,235	120,645	22,621	72,387
Education.....	62,000	2,360	3,540	157,580	29,546	94,548
Law School.....	48,000	2,000	3,000	129,000	24,188	77,400
Commerce and Adminis- tration <sup>a</sup> .....	10,000	1,250	1,875	60,625	11,367	36,375
Social Service Adminis- tration <sup>b</sup> .....	1,300	450	675	19,525	3,661	11,715
Philosophy.....	9,100	282	423	20,521	3,848	12,313
Psychology.....	2,500	333	500	16,000	3,000	9,600
Political Economy <sup>a</sup> ....	44,000	1,200	1,800	92,600	17,363	55,560
Political Science.....	51,500	1,500	2,250	112,250	21,047	67,350
History.....	66,200	3,500	5,250	207,950	38,991	124,770
Sociology <sup>b</sup> .....	18,700	726	1,089	48,103	9,019	28,862
Geography.....	16,600	350	525	30,775	5,770	18,465
Comparative Philology.	4,000	300	450	16,150	3,028	9,690
Greek.....	13,700	300	450	25,850	4,847	15,510
Latin.....	15,300	346	519	29,313	5,497	17,588
Romance.....	15,100	812	1,218	47,986	8,997	28,792
German.....	10,200	332	498	23,646	4,434	14,188
English.....	21,000	4,000	6,000	183,000	34,313	109,800
General Literature.....	5,000	412	618	21,686	4,066	13,012
History of Art.....	9,500	600	900	33,800	6,338	20,280

a. The main library stocks of the School of Commerce and Administration and the Department of Political Economy fall almost entirely within the same Library of Congress classes (H-HJ) and are shelved together. In Table XII, this entire stock, totaling 51,000 volumes, is credited to Political Economy. In the present table, 7,000 of these 51,000 volumes are credited to Commerce and Administration, and the rest to Political Economy. To the 7,000 volumes just mentioned are added the 3,000 kept in the special reading-room of the School of Commerce and Administration.

b. The main library stocks of the School of Social Service Administration and the Department of Sociology fall almost entirely within the same Library of Congress classes (GN-GV, and HM-HX) and are shelved together. In Table XII, this entire stock, totaling 19,400 volumes, is credited to Sociology. In the present table, 700 of these 19,400 are credited to the School of Social Service Administration, and the rest to Sociology. To the 700 volumes just mentioned are added the 600 kept in the special reading-room of the School of Social Service Administration.



TABLE XVII—Continued

	A Present No. of Vols.	B First Estimated Average No. of Vols. to Be Added per Year in the Period 1923-50	C Revised Estimated Average No. of Vols. to Be Added per Year in the Period 1923-50	D Estimated No. of Vols. in 1950-51	E Estimated Shelf Frontage Required in 1950-51 (Figures Represent Linear Feet)	F Estimated Cubic Stack Space Required in 1950-51 (Figures Represent Cubic Feet)
Mathematics.....	3,900	300	450	16,050	3,009	9,630
Astronomy.....	2,800	125	188	7,876	1,477	4,726
Physics.....	6,500	285	428	18,056	3,386	10,834
Chemistry.....	7,200	450	675	25,425	4,767	15,255
Geology.....	32,600	600	900	56,900	10,669	34,140
Botany <sup>c</sup> .....	8,300	400	600	24,500	4,594	14,700
Zoölogy.....	10,400	583	875	34,025	6,380	20,415
Anatomy.....	7,800	546	819	29,913	5,609	17,948
Physiology.....	4,800	286	429	16,383	3,072	9,830
Physiological Chemistry	3,400	150	225	9,475	1,777	5,685
Pathology.....	5,500	182	273	12,871	2,413	7,723
Hygiene and Bacteriol- ogy.....	9,700	188	282	17,314	3,246	10,388
Medical School <sup>d</sup> .....	10,800	1,000	1,500	51,300	9,619	30,780
General Library <sup>e</sup> .....	107,700	2,780	4,170	220,290	41,304	132,174

<sup>c</sup>. In Table XII, 27,200 volumes are credited to "Biology, General." In the present table these 27,200 are divided among the several Departments concerned in a ratio corresponding to the ratio of the average annual increases of these Departments.

<sup>d</sup>. The estimate of 1,000 as the average number of volumes to be added per year for the Medical School was prepared by Professor J. F. Norton in consultation with other members of the Biological Departments.

<sup>e</sup>. The figure 107,700 combines the total number of volumes listed in Table XIII, the first three items listed in Table XIV, and the 500 volumes credited in Table XII to Household Administration. In the present table these 500 volumes are credited to the General Library, and no entry is made for Household Administration, which utilizes books of numerous other Departments.

#### STATEMENT OF THE METHOD FOLLOWED IN THE PREPARATION OF TABLE XVII

The figures in Column A are taken from the next to last column in Table XII (except as noted in the Notes appended to the present table).

The figures in Column B are derived as follows: (1) From the preceding General Note Supplementary to Table XVI it appears that the figures given in that table may be read as indicating the number of volumes added by the several Departments in the years 1911-12 to 1919-20. (2) Upon this basis the average number of volumes added per year by each School or Department in the period 1911-20 was found. (3) Each School

or Department was asked whether the average thus obtained was likely to remain the average number of volumes to be added per year in the period 1923-50. (4) In the case of Schools or Departments assenting to this estimate, the average thus obtained was added in Column B. (5) In the case of Schools or Departments dissenting from this estimate, the reasons for dissent and the departmental estimates were considered, and there was entered in Column B a figure representing the estimate of the Commission after consideration of the statements of the Department in question.

The figures arrived at in Column B were, however, based upon the assumption that expenditures for books would be on the whole in the next twenty-five years at about the same rate as during the last ten years. But that rate will probably be very materially increased for two reasons: first, because the general rate of expenditure for books ought to be materially increased (see Section XIII of this Report); and second, because, if library facilities such as are called for by the present Report are provided it is altogether likely that large gifts of and for books will come to the University. It would seem reasonable to suppose that the increase in the rate of expenditure plus the increase in the number and size of gifts may increase the general average of books added per year for the next twenty-five years by 50 per cent. (This figure, as may be seen by referring to Section XIII of this Report, would still leave our annual expenditure below that of Harvard.) We have, therefore, given in Column C revised estimates in which the figures given in Column B are increased by 50 per cent.

The figures in Column D represent those in Column A plus twenty-seven times those in Column C—twenty-seven being the number of years intervening between the year 1922-23 and the year 1950-51.

The figures in Column E represent those of Column D divided by 8 (on the generally recognized library principle that on the average eight volumes placed side by side will occupy 1 foot of shelf frontage) and multiplied by  $\frac{3}{2}$  (on the generally recognized library principle that proper economy in the shelving of books requires—in order to obviate the frequent moving of large masses of books, and other effects of crowding—an actual shelving space, for a given number of books,  $1\frac{1}{2}$  times as great as the shelving space physically necessary to support these books).

The figures in Column F represent those of Column B multiplied by  $\frac{2}{3}$  (Mr. Henry reports that the actual ratio of cubic space to the number of volumes in a typical section of the Harper stacks is 377 to 1,000: we have increased that rate very slightly in order to allow for space for automatic elevators and for increased space for stairways), and multiplied by  $\frac{3}{2}$  (for the reasons indicated in the preceding paragraph). The present table does not contain estimates for the Department of Household Administration (see the last of the notes appended to the Table), nor for the Rental Bureau, the Hitchcock Hall Library, the Rush Medical Library, and the Yerkes Observatory Library.



## APPENDIX G

## MEMORANDUM REGARDING THE OFFICE OF LIBRARIAN

By J. C. M. Hanson

The recommendations contained in Section XII are not entirely clear. By "Director" may be meant a librarian, with rank of professor and a member of the academic faculty, a man of broad and mature scholarship, vitally interested in the furtherance of research, whose life-work is and has been in the field of library science and bibliography, whose chief work shall be the development and upbuilding of the bibliographic resources and source material of the Libraries, selection of the staff, supervision and direction of its work, and the endeavor in every way possible to advance the efficiency of the Libraries for research purposes.

Further, that there shall be associated with the Director a man skilled in library technique, one who can relieve the Director of much of that minor detail so inseparable from the mere physical administration of a large library; supervise administrative, financial, time, and staff records; make recommendations for new equipment; attend to necessary repairs; advise on binding, book orders, and the like; thus leaving the Director free for the larger tasks connected with correspondence and representation, selection of books and the development of library resources through consultation with members of the different departments, directing the most difficult reference and bibliographic work, conducting staff meetings, and acting as counselor and guide to members of the staff. The Director and his assistant are both to give all their time and strength to library service.

If this is what the Commission has in mind, I believe that its recommendations will receive the approval and commendation of those best qualified to judge.

If, on the other hand, the Commission has in mind a Director whose life-work is and has been in some field of knowledge other than library science and bibliography and who is to give only a part of his time to the supervision of the Libraries, to continue perhaps as teacher and investigator in his chosen field, then the Commission must expect severe criticism of the policy here laid down.

The Commission will appreciate, I am sure, that if I attempt here to forecast some of the objections likely to be offered, it is solely because I wish to give the best advice of which I am capable, not because I have any personal or selfish ends in view. My chances of being in active service when the plans of the Commission have reached a stage where they can be realized are almost nil.

Before attempting to enumerate the objections to the recommendations contained in Section XII, it may be well to state that the situation

during the past thirteen years is quite different from what it will be should the report of the Commission be accepted and carried out. The conditions under which the University Libraries have operated, and are still operating, made it very important that the Director of the Libraries should be a man who had grown up with the University and had been in the closest possible touch with its policies and traditions. The University was exceptionally fortunate in having the right man for this place. It is doubtful if anyone else could have carried the many burdens placed on the shoulders of the Director during that difficult period of transition from an old to a new régime, 1910-23. It must be borne in mind, however, that the situation should be very different later on, particularly if the plans of the Commission are carried out.

Some of the objections to the policies outlined in Section XII, as these paragraphs are likely to be construed by most readers, are the following:

1. The report intimates that a librarian may not be as vitally interested in the encouragement of research as one actively engaged in teaching. The answer sure to be made to this is: No member of the Faculties should be more alive to the needs of research, or more interested in the furtherance and development of means for research, than the librarian. It is his life-work to build up the collections intrusted to his care and to make them available for use. No one has a better opportunity than he to study and observe the needs of the different departments from the point of view of books and bibliographic research. No one should be more alert to see and seize opportunities for improving the book resources, or more keenly interested in securing the best source material, not only in one but in all lines of investigation fostered by the University.

2. The deliberate adoption of the policy that the University Librarian shall always be a subordinate to the Director, who shall be a member of the teaching staff, not specially trained for library service, will bar all men of the highest rank from seriously considering a position at the University of Chicago.

3. Critics will say that the policy recommended seems to be based on an assumption that America will never be able to produce or secure again men of the type and caliber of a Justin Winsor, a Dr. Billings, a Dr. Poole, a Charles A. Cutter, an Antonio Panizzi, a Richard Garnett, an Otto Hartwig, a Dziatzko, a Leopold De Lisle, a Biagi, an Ihrle, to mention only a few of the host of names which come to one's mind.

4. It means that the controversy that raged in Europe, particularly in Germany, throughout the greater part of the nineteenth century and that seems there to have been settled for all time—the question as to whether the university librarianship was merely to be a "nebenamt" for a professor, or to be a position on the faculty, requiring a man fully trained in library science and giving to the position his entire time and strength—is to be ignored.



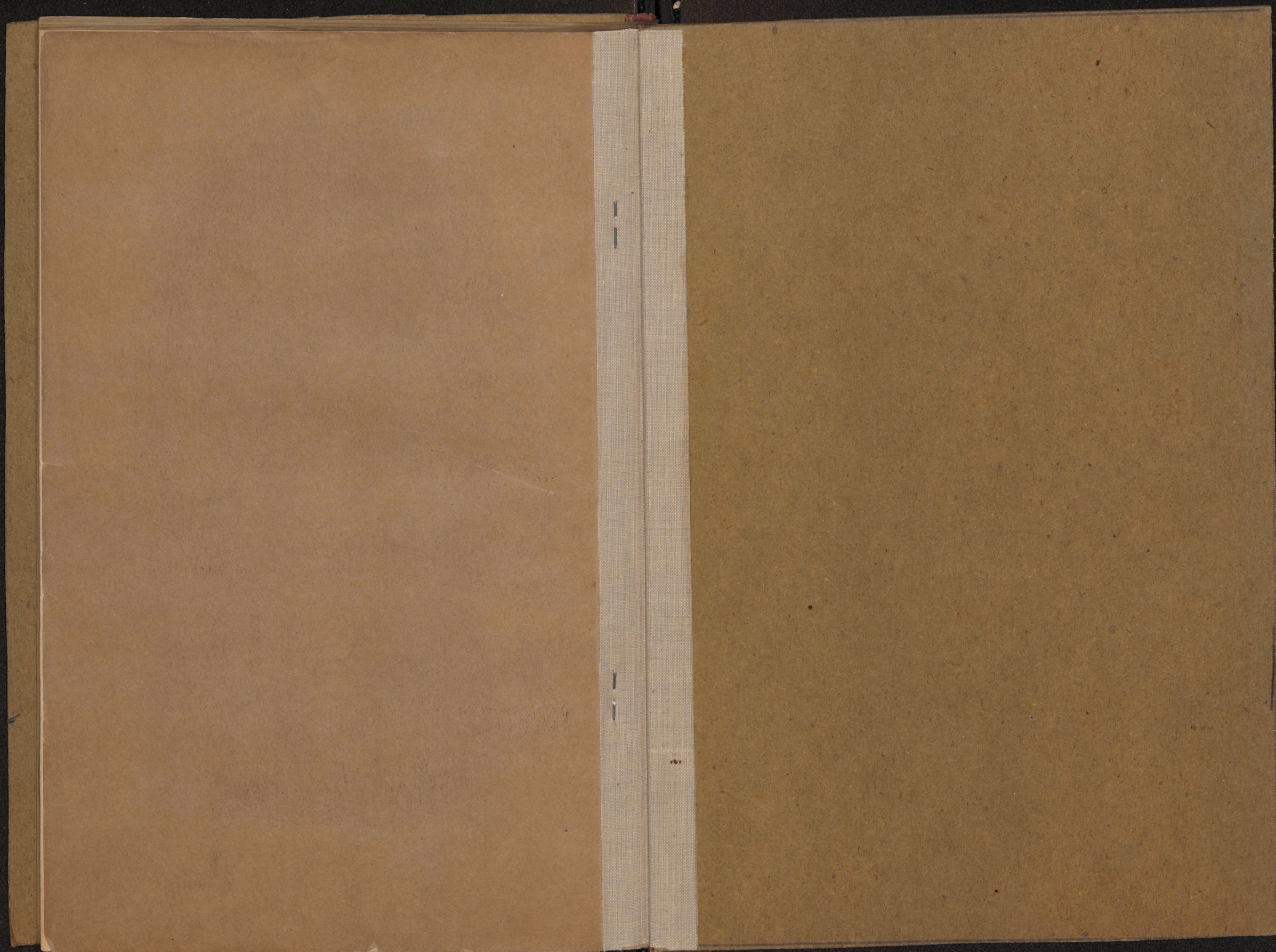
Critics will say that periodicals like *Serapeum* and *Zentralblatt für Bibliothekswesen* and books like Graesel, *Bibliothekshehre* (Anhang I. Von Bibliothekarischen Berufe); Anton Klette's *Die Selbstständigkeit des Bibliothekarischen Berufes*, in which the development and results of the above-mentioned controversy may be studied in detail, are all available in the University of Chicago Library, but must have escaped the attention of the Commission.

5. It will be pointed out that experience here and abroad has proved that it is very seldom that a man can be a teacher and a librarian at the same time and be equally successful in both occupations. As a rule, one of two things happens: we have a teacher and no librarian, or the professor becomes a librarian and ceases to be a teacher. The administration of a large library requires the entire man and all his strength.

The above are a few of the objections likely to be raised to this section of the report.

It is with much hesitation that I submit the foregoing observations, but I am sure that the Commission will accept them in the same spirit in which they are offered. The report, when it appears, will attract the attention of librarians and university administrators all over the world. It is not unlikely that it may come to be looked upon as one of the most important statements of the kind ever issued. For that reason, I have taken the liberty of calling special attention to what I believe to be its weakest point. Section XII should be restudied with special reference to the history of the university librarian's position as it has developed in European and the great majority of American universities.







Office of the Chancellor  
Return 502 Adams



*From the desk of*

DR. LOWELL T. COGGESHALL

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