

THE NEUGEBAUER MICROFORM INDEX OF THE EXACT SCIENCES

The Neugebauer Index of the Exact Sciences was compiled over some 50 years, beginning about 1930, by Otto Neugebauer and used extensively in his research. It was compiled for his *personal* use and its contents were always verified before publication. Those who consult this Index should understand that it is an archival document intended only to serve as a guide for others in their research: the Index will not be updated and it is not an authoritative reference work.

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A Note concerning the Digital Version of the Index

The numbers mentioned in the User Guide are the card numbers found above each frame of the microfilm and, thus, above each digital image of that frame. An effort was made to keep the number of the digital image (TIFF file) of the frame in agreement with the frame (or card) number, and overall this was successful. There is, however, a slight slippage in the TIFF file numbers of a few of the images. Accordingly, we suggest that you treat the TIFF file numbers as a first approximation when using the Guide to locate cards of interest to you, and that you open the TIFF files and check the frame numbers to reach your target.

USER GUIDE

This Index is arranged by subject and is concerned primarily with astronomy in Antiquity and the Middle Ages in the civilizations of Egypt, Mesopotamia, Classical Greece and Rome, Islam, Byzantium, Medieval Europe, India, and the Far East; other subjects are included to a lesser degree.

The first 2164 cards contain a bibliography arranged alphabetically by the author's last name, which is intended to give full bibliographical information for items cited in abbreviated form elsewhere in the Index. Immediately following this bibliography are a few cards that set forth the main subject-groups: this list, together with a list of the subgroups and their arrangement, appears in Appendix 1. (Appendix 2 presents a selected concordance of card-numbers with the corresponding groups or subgroups.) Moreover, throughout the Index one may find at the beginning of each subject-group a card listing its subgroups, where each subgroup begins with a card labeling it.

Note that the main groups are prefixed by the letter Q. Specialized bibliographies in alphabetical order appear in subgroup H of each main group, and technical terms arranged in alphabetical order appear in subgroup M of each main group. At the end of the main file there is an earlier set of cards arranged according to a different system, summarized in Appendix 2 (see cards 23984-26002).

APPENDIX 1

MAIN GROUPS

1. General
2. Egypt (including Coptic)
 - 2a. Ethiopia
 - 2b. Pre-Islamic Arabia
3. Babylonia
4. Hittites, Syria, Asia Minor, until about -700
5. Jews before Hellenism
6. Greeks, Romans; writings in Greek including Byzantium; writings in Latin excluding the Middle Ages
7. Elam, Persia before Islam
8. India
 - 8a. Central Asia, Mongols
9. China, Japan, Pacific Islands, Siam
10. Maya
11. Africa; ≠ Egypt, ≠ Ethiopia
12. Islam (Arabic and Persian)
 - 12a. Hebrew and Syriac, beginning with the Hellenistic Period
 - 12b. Mandaeans
 - 12c. Manicheans
 - 12d. Armenians
13. Middle Ages in Europe including Kepler but excluding Byzantium and Islamic countries
14. Modern development
15. Idiocies

ASTRONOMY SUBGROUPS

Rules for Subgroups

Main classification A, B, . . .

Subgroups α , β , . . . same meaning for all groups A, B, . . .

Subgroups 1, 2, . . . might vary in different groups; list given on first card of
Greek-letter-subgroup

Subgroups 2, b, . . . individual division of subgroups 1, 2, . . . ; list given on
first card of number-subgroup

A. General

α . Texts

β . Bibliography

γ . General discussion

δ . Relations with neighbors

ϵ . Political and cultural history in general

B. Cosmogony, religious theory, mythology

C. Constellations, zodiac, celestial maps

α . General

β . Special stars and constellations (\neq zodiac), Novae, Milky Way

γ . Zodiac, decans, lunar mansions

δ . Star-catalogues

ϵ . Celestial maps; globes

ζ . Colors of stars; magnitude; size and structure

η . Artistic representation of constellations

D. Calendar

α . General

β . Intercalations

γ . Calendaric Tables

δ . Division and epoch of day; hours, degrees

E. Clocks

- α. General
- β. Sundials, analemma
- γ. Waterclocks, mechanical clocks

F. Theoretical astronomy

- α. General
- β. Rising and setting of stars
- ββ. Size and distance of celestial bodies ≠ Sun, Moon; parallax
- γ. Theory of Sun and Moon

- 1) Texts, tables
- 2) General discussion
- 3) Length of year, equinoxes and solstices, seasons
- 4) Obliquity of ecliptic
- 5) Length of daylight, rising-times, climata
- 6) Equation of time
- 7) Solar latitude
- 8) Lunar latitude
- 9) Parallax of Sun and Moon
- 10) Size, distance, diameter of Sun and Moon
- 11) Solar velocity, apogee, theory of solar motion
- 12) Theory of lunar motion
- 13) Visibility of crescent
- 14) Lunisolar cycles, epact (cf. also Db)

δ. Eclipses, occultations, etc.

- 1) General theory, tables
- 2) Special solar and lunar eclipses
- 3) Occultations by the Moon

ε. Planets

- 1) General aspects of planetary theory, arrangement
- 2) Periods, distances, apogee, epicyclic parameters, elongation, latitude, parallax, diameter
- 3) Special phenomena, phases, conjunctions, transits

- [F. ε.] 4) Mathematical theory
 - 5) Planetaria
- ζ. Mathematical methods, spherics, trigonometry
- G. Astrology, magic, omina, divination, etc.
 - α. General bibliography
 - 1) Bibliography
 - 2) Texts
 - 3) Ancient authors
 - 4) Modern authors
 - β. Alleged and real history of astrology, place of origin
 - γ. Pro and con astrology
 - δ. Astrological geography
 - ε. Astrological medicine, ages of life
 - ζ. Special astrological doctrines; 'Great Year'
 - η. Special horoscopes
 - θ. Magic, gematria, etc., geomantics
 - ι. Lucky and unlucky days
 - κ. Alchemy
 - λ. Artistic representations
- H. Biographies, writings
- I. Chronology, eras
- K. Instruments (≠ clocks), observatories
 - α. General
 - β. Astrolabe, planisphere
 - γ. Other instruments (≠ astrolabe)
 - δ. Observatories, schools
- L. Geography, measurement of Earth, maps, navigation
 - α. General
 - β. Shape and size of Earth
 - γ. Geographical latitude, clima
 - δ. Geographical longitude
 - ε. Maps, famous cities

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- [L.] ζ. Navigation
 - η. Special regions, rivers, mountains
 - θ. Geographical coordinates of special places
 - ι. Travel, exploration
- M. Terminology
- N. Orientation
- O. Optics, refraction
- P. Accuracy of observation
- Q. Varia, astronomy and civilization
- R. Meteorology, geophysics, tides
- S. Comets, meteors, aurorae, etc.

APPENDIX 2

CONCORDANCE

<u>Reference</u> <u>in Index</u>	<u>Exposure</u> <u>Number</u>	<u>Contents</u>
Author Index		
A-L	1-1123 (fin)	
M-Z	1124-2164 (fin)	
Q1,A	2165	
Q1,F	3116	
Q1,G	3475	
Q1,L	4344	
Q1,S	4554	
Q2,A	4568	Egypt
Q2,N	5140	
Q2a,G	5375	
Q3,A	5508	
Q3,H	5896	
Q4,A	6056	
Q5	6072	
Q6	6155	
Q6,A	6156	
Q6,B	6347	
Q6,B (fin)	6414	
Q6,F	6415	
Q6,G	7570	
Q6,Gθ (fin)	8066	
Q6,C	8067	
Q6,E (fin)	9035	

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Q6,H	9036	
Q6,H“A”	9037	
Q6,H“D”	9698	
Q6,H“F”	9989	
Q6,H“I/J”	10467	
Q6,H“N”	10801	
Q6,H“Ptolemy”	11211	subgroups listed
Q6,H“T”	11720	
Q6,H	12000	end of alphabet
Q6,I	12001	subgroups listed
Q6,M	12520	subgroups listed in Greek alphabetical order
Q6,Mβ1	12555	Greek terms in alphabetical order
Q6,M“ζ”	13040	
Q6,M“π”	13437	
Q6,M	13867	end of Greek terms in alphabetical order
Q6,Mβ2	13868	
Q6,Mγ	13937	Latin terms in alphabetical order
Q6,Mγ	14360	end of Latin terms in alphabetical order
Q6,Mδ	14361	inverse glossary to Latin
Q6,θ	14634	
Q6,P	14707	
Q6,P	14722	list of observations (complete for <i>Almagest</i>)
Q7	14990	
Q8	15183	India
Q8,I	16207	subgroups listed
Q9	16512	
Q11	16703	
Q12	16713	
Q12,D	16995	
Q12,G	17586	
Q12,H	17672	

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Q12,H“K”	18319	
Q12,H“R”	18618	
Q12,I	18887	subgroups listed
Q12,Mß	19204	Arabic and Persian terms
Q12,θ	19474	
Q12a	19523	
Q12a,I	20203	
Q12b	20293	
Q13	20402	
Q13,F	20929	
Q13,G	21575	
Q13,H	21652	
Q13,H“H”	22146	
Q13,H“M”	22344	
Q13,I	22714	subgroups listed
Q13,M	22984	
Q14	23210	modern developments beginning with Newton
Q14,K	23833	
Q15	23876	
Q15 (fin)	23983	

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CONCORDANCE: OLDER SYSTEM

<u>Reference</u> <u>in Index</u>	<u>Exposure</u> <u>Number</u>	<u>Contents</u>
H	23984	History of mathematics
P	24013	Egyptian mathematics
P (fin)	24102	
H3	24103	Babylonia
H5	24125	Jews
H6	24133	Greeks and Romans
H7	24488	Elam, Persia, India
H9	24560	China, Japan
H12	24571	Arabs
H16 = Z	24666	numbers
H17	25101	terminology
	25188	engineering in antiquity
	25522	philology
	25664	medicine (history)
	25678	metrology
	25964	metrology (fin)
	25971	Persians
	26002	END of Neugebauer Index