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# SCIAMVS

SOURCES AND COMMENTARIES IN EXACT SCIENCES

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## Style Sheet

Since we do not have dedicated copy-editors, if your paper is accepted for publication we may ask your help in arranging your paper in our house style. This style sheet includes some instructions for working with (Xe)LaTeX, and a few for Word users.

### I General Grammar, Spelling, Punctuation

For English prose style, *SCIAMVS* will generally follow American (Chicago) conventions. Specifically, unless otherwise specified in this style sheet, *SCIAMVS* will follow *Webster's Third New International Dictionary*, unabridged, for spelling, hyphenation, etc., and *The Chicago Manual of Style*, 15th ed., for punctuation, prose style, etc.

#### I.1 Punctuation

1. A comma will be used to separate items in a series of three or more:

...red, white, and blue...

but NOT

... red, white and blue ...

2. Commas and periods will appear inside quotation marks:

like "this," and "this."

but NOT

"this", or "this".

3. Double quotation marks will be used:

- to set off a quotation run into the text, or around words or phrases taken from another source,
- as so-called “scare quotes”—that is, around words used in an ironic sense, if that sense might elude the reader, to imply that a particular expression is not necessarily how the author would have worded a concept, or to imply skepticism or disagreement—for example, five villages were subjected to “pacification,”
- around words and terms used in a special sense on their first occurrence in the paper (unless italics are being used for this purpose)—as say, the word “science,” or the term “chymistry,”
- around titles of short works, such as songs, short stories, short poems, chapters, and so on,

but NOT around a quotation that will be set off in block form from the text.

4. Single quotation marks will be used for quotation marks that occur inside double quotation marks.

5. Interpolations by author or editor within quoted material will be enclosed in brackets rather than parentheses.

6. Superscript footnote numbers in text follow all forms of punctuation (including a closing parenthesis) except for an em-dash. Please do not include footnote marks in headings.

7. Parentheses should be used in most cases for the inclusion of parenthetical information. Square brackets should be reserved for editorial additions to source texts or translations—see also, I.1.5, above.

## **I.2 Hyphens and prefixes**

Where possible hyphens should be avoided. Words that are found in common American usage with and without hyphens will be written solid.

1. Compound nouns in common use will be spelled solid:

baseline, battlefield, blueprint, booksellers, breastplates, caretakers, checkbook, clock-maker, coffeehouse, deathbed, foothold, glassmakers, gunpowder, headache, house-builders, mapmakers, marketplace, metalworkers, officeholders, printmakers, school-boys, schoolmaster, shipbuilding, shopkeeper, shopkeeping, sickroom, stepfather, team-work, timekeeper, timekeeping, touchstones, troublemakers, waterworks, workshop, workplace, worldview, and so on

2. Compound nouns formed from a noun and a gerund, from two nouns, or from a noun and an adjective will generally be spelled as two words, not hyphenated:

atlas makers, book printing, calendar making, chart makers, decision makers, decision making, fact gathering, information gathering, instrument makers, land masses, lens grinders, letter writing, middle class, record keeping, sea charts, subject matter, website, working class

But there may be some exceptions such as:

air-pump, astronomer-mathematician, cease-fire, half-century, hunter-gatherers, know-how, knowledge-claims, metal-smelters, nation-states, physician-professor, physico-mathematics, prince-astronomer, scientist-author, surgeon-apothecaries, system-builder

3. Compound adjectives will generally be hyphenated if they precede the noun:

16th-century design, court-sponsored academies, hard-headed materialism, well-established observations, warm-blooded animals, late 20th-century scientists, early 16th-century pure mathematics, 19th- and 20th-century science, purpose-built libraries, family-structured world, home-based workshops, two-headed goat, sixteen-year period, hand-held gunpowder weaponry, alcohol-free tavern, face-to-face interactions, university-educated naturalists, present-day Brazil, geometrical-optical model, three-body problem, mean-speed theorem, instrument-making industry, angle-measuring instruments, odd-number rule, law-governed system

4. Words with the following prefixes will generally be spelled solid and not hyphenated:

anti, co, counter, extra, inter, intra, macro, micro, multi, non, over, post, pre, pro, pseudo, psycho, re, semi, socio, sub, trans

5. Hyphens will not be used with unambiguous combinations:

early modern period, high school yearbook, highly detailed reportage, historically specific resources, socially prominent women, newly invented printing press, widely imitated models, poorly developed communications, newly discovered curves, astronomically based chronologies

6. Hyphens can be used where closing up the word might lead to confusion in meaning or pronunciation or where the closed-up word would be cumbersome:

co-opting, physico-geometrical, physico-mathematical, pro-union, re-create

7. The hyphen after the prefix will be retained when the second element begins with a capital letter or a number:

anti-Aristotelianism, non-Aristotelianism, non-Catholic, non-European, non-Jesuit, pan-European, pre-Newtonian, pre-Socratic

8. Words with the prefix “self” will be hyphenated:

self-validating, self-supported, self-serving

### **I.3 Dashes**

1. The en-dash will be used for ranges:

124–156, May–September, 9th–10th century

2. The em-dash may be used for a parenthetical passage or a pause before a final passage, etc. The usage will follow contemporary American (Chicago) style—no spaces, and no adjacent punctuation.

...jurors reached a unanimous verdict—guilty; found in ancient mathematical texts—as we will see below; in Late Antiquity—almost certainly in the 6th century—this practice developed into...

but NOT

... One ingredient,—(but only one among many) has been too much Mathematics ...

### **I.4 Capitalization**

1. When a passage following a colon is a complete sentence, the first word will be capitalized.

...the following question: When do numerical problem-solving methods amount to algebra?

2. References in the text to proper parts of the text itself will be capitalized:

Section III, Equation (6), Table 3, Figure 7

3. The title(s) of the paper, sections, and subsections will be capitalized.
4. In the transliteration of Arabic titles and names, the first word that is not the definite article is capitalized: *al-Fihrist*, NOT *Al-fihrist*. The *a* of the definite article is capitalized according to the usage of English prose.

### **I.5 That and which**

The use of these pronouns will follow American conventions. “That” will be used with a restrictive clause; “which” will be used with a nonrestrictive clause and set off by commas:

- ...he stopped the first car that contained two people in order...
- ...he stopped the first car, which contained two people, because...

or

- ...he proposed the only amendment that concerned wage rates, believing...
- ...he proposed the only amendment, which concerned wage rates, due to...

### **I.6 Gender**

1. If you use gendered pronouns in situations that refer to individuals that could be of either gender, either switch back and forth between the genders or simply choose one of the two—do NOT use “they” for singular, “he/she,” “(s)he,” and so on.
2. The use of the feminine pronoun will be avoided in reference to ships, countries, etc.:

- ...France, its people...

### **I.7 Abbreviations**

1. Generally the abbreviations i.e., e.g., etc., and vs. will be retained in quoted materials, parentheses, tables, and notes, but will be written out in text as “that is,” “for example,” “and so forth,” and “versus” or another suitable phrase.
2. Common abbreviations spelled with capital letters will be set with no period or space between letters: USSR, PhD, BS, etc.
3. Capitals will be used for temporal abbreviations: CE, BCE, AH, AM, PM.
4. Possessive abbreviations will be set with an apostrophe and lower case “s”; plurals with a closed-up “s”:

the MP's briefcase; many PhDs

5. Units of measure will generally be spelled out in the text, but may be abbreviated in notes and tables. Such abbreviations will be identical in the singular and plural.
6. Personal initials are spaced in prose (but closed in the bibliography):

As G. R. Toomer (1984) shows, we can take...

7. See also Section V.1, below.

## II URLs

In the text, footnotes, and references, URLs should be written in the same font as the main text, with no hyperlinking. (If you are using Word or some other program that automatically sets URLs in a special format, please turn this option off.) They should look like:

`http://plato.stanford.edu/archives/fall_2011/entries/kilvington`

In (Xe)LaTeX this is input as:

```
http://\linebreak[0]plato.stanford.edu/\linebreak[0]archives/\linebreak[0]
fall{\textunderscore}2011/\linebreak[0]entries/\linebreak[0]kilvington/
```

Notice the use of `\linebreak[0]` and `{\textunderscore}`.

## III Numerals and Ranges

1. In normal prose, cardinal numbers up to and including twenty will be spelled out in the text; numbers of 21 or more will be given in numerals:

nineteen cents; six-month period; 265 years ago; 4,066 feet

but numerals will be used for numbers under twenty when being compared with numbers over twenty:

...of 19 colleges, fewer than 25 were...; ...the number of universities jumped from 18 to more than 100...

2. Very large approximate figures given in even hundreds, thousands, or millions

will be spelled out or given in words and figures. (Use of US, or UK, notation will be specified for values over one billion):

forty thousand listeners; fifteen-hundred-word essay; 4.5 million years; 3 billion (US billion)

3. In mathematical, or technical, discussions, numerals may be used for numbers of twenty or less.

4. In English prose, ordinal numbers are written with no special formatting: 25th, mid-4th century, 99th—NOT, 20<sup>th</sup>, 11<sup>th</sup> century, 83<sup>th</sup>...

5. Ranges should be given in full, with no ellipsis, separated by an en-dash:

253–254, 1893–1892; mid-4th–mid-3rd century BCE, 17th–18th century

but NOT

278-9, 1372-3

6. In English prose, commas will be used in numbers of four digits or more (except page numbers): 1,500, NOT 1500. In tables, or other mathematical contexts, such commas may be omitted.

7. In the decimal system, the integer and fractional part of a number will be separated by a period.

8. In the sexagesimal system, our preference is the following two conventions: (1) when the absolute value of the number is undecidable on the basis of the evidence—such as many Babylonian mathematical texts—all of the places should be separated by periods, whereas (2) when the absolute value of the number is known—such as many Babylonian astronomical texts—the integer part should be separated from the fractional part by a semicolon, and the other places separated by a comma.

For example, for a number in which the absolute value is known:

2,0;20,22,13,20 or 19;55,33,20

whereas for a number in the pure floating-point system:

2.0.2.35.33.20 or 31.32.52.30

## IV Dates

1. The basic calendar for *SCIAMVS* papers is the Gregorian calendar denoted with the BCE/CE system. The dating system, or calendar, of the historical, or cultural, context of the paper may also be used—for example, the year of the Hijri, or the Chinese, or Japanese, imperial year, and so on—but these should also be accompanied with a date in the BCE/CE system. If the paper concerns a Christian context, the BC/AD notation may be used.
2. Specific dates should be written out, so as to avoid confusion among the various systems for ordering the day, month and year numbers: February 3, 1930—NOT 02/03/1930.
3. The ordinal number of centuries are given as numerals, not written out: 2nd century, late 13th century, 19th century—NOT fourth century, eighteenth century, and so on.

## V The Structure of a *SCIAMVS* Paper

The actual structure of any *SCIAMVS* paper is, ultimately, at the discretion of the author, but here we offer some guidelines.

**Abstract:** Every paper must be accompanied with an abstract of less than 200 words.

**Introduction:** There should be an introduction, setting out the historical context of the text being studied, as well as discussion of the historical sources from which the text is produced. Any other material that the author thinks is appropriate can be included here.

**Text and translation:** Most *SCIAMVS* papers will focus on a critical edition. All of the manuscript sources should be discussed, either directly before the edition, or in the introduction. In a *SCIAMVS* paper, the critical text should not appear as an appendix. It is preferable, although not absolutely essential, that a translation—preferably into English—accompany the edition.

**Commentary:** A commentary may either follow the text and translation, or be interjected into the translation. The choice between these two approaches is the author's, but there should be no possibility of confusing what belongs to the original source, and what is the author's interjected commentary. A commentary may also be omitted if sufficient discussion of the goal and approach of the source is provided in the introduction.

**Appendixes:** Any appendixes, which are of course optional, should follow all other material, but proceed the bibliography.



**Acknowledgments:** If there are any acknowledgments, they should be kept to less than 200 words, and should immediately proceed the bibliographic material.

**References:** The references should include the following material: (1) an optional section disambiguating any commonly used abbreviations, (2) a section listing all historical sources mentioned in the paper (manuscripts, tablets, material evidence, and so on), and (3) a section listing all modern material mentioned in the paper (modern scholarship, printed material, online resources, and so on). The appropriate names for these sections may vary from paper to paper and should be decided by the author.

If your paper is accepted for publication, you will be asked to supply a biographical blurb of less than 200 words, beginning with your name. Any titles, and so on, should be included in the prose, not affixed to your name.

## V.1 Citations and References

1. *SCIAMVS* uses the author-date system of *The Chicago Manual of Style*, 15th ed., for citations. For those using (Xe)LaTeX, the following code—which is already in our templates—must be placed in the preamble:

```
\usepackage{natbib}
\bibpunct{{(}{)}}{;}{x}{}{,}
```

The entries of the bibliography must, then, all have the following format—where **Name** and **Date** are the variables of the actual citation and **cite\_label** is your arbitrary label for this reference:

```
\bibitem[Name(Date)]{cite_label}
```

We can also add a secondary citation style following **(Date)**, which can then be called in with `\cite*`. This can be used to call in a full name, or a possessive form of the name, for which usage see below.

The in-text references can take two basic forms:

- (1) The citation is included parenthetically at the end of the sentence, or phrase. (In (Xe)LaTeX, this is done with `\citep[xxx]{cite_label}`. For long lists of citations, it is sometimes useful to use `\citealp[xxx]{cite_label}`, which returns the citation with no parenthesis.)

Extended square root tables are less common, such as W 1923–366 which is broken but contains an additional 8 square roots up to  $\text{sq.rt.}(1.14.49) = 1.07$  (Neugebauer

and Sachs 1945, 34); ... since it does not use equant circles and instead incorporates a separate deferent circle for each planet on its single main plate (Price 1955, 125–127, 188–196); Both the months and the eclipses’ invisibility are confirmed by modern calculation (Huber and De Meis 2004, 190).

NOT in mid-phrase, as in

...tablet CBS 29.13.21 (Neugebauer and Sachs 1945, 13) is another reciprocal table...; ... the true author of the *Semissa* (Pedersen 1983, 43) was not Profatius, but rather Peter of Saint-Omer.

- (a) For two authors, join the last names with “and”:

(Smith and Alvarez 2016)

- (b) For three authors, divide with commas and “and”:

(Smith, Lee, and Alvarez 2016)

- (c) For four or more authors, use et al:

(Smith et al. 2016)

- (d) If one author did substantially less work and is referred to using “with” in the references, this author’s name should not appear in the in-text citation.

(Heiberg 1972) NOT (Heiberg with Stamatis 1972)

- (e) If an author has published multiple works in the same year, alphabetize the titles in the reference list and then add a, b,c, etc. to the year:

(Smith 2016c)

- (f) To cite specific page(s), add a comma and the page number(s)

(Smith 2016, 21–23)

- (g) To cite a footnote, add a comma after the page number and add “n.” followed by the footnote number:

(Smith 2016, 21, n. 45)

- (h) To cite more than one reference in a single in-text citation, separate the references by semicolons. If the works are by the same author, use just the year and separate with a comma.:

(Smith 2016, 12–14, 2013, 37; Lee 2015, 78)

- (2) The author’s name can appear as a word in the sentence, in which case, the year, and any other information will appear in parentheses. (In (Xe)LaTeX, this is done with `\citep[xx]{cite_label}`.)

Galal Shawqi (1984) published a preliminary survey of Arabic mathematical works; ... E. von Weiher (1998) could at the time provide only a transliteration; Price (1955, 129) suggested that the Merton equatorium ...

but NOT

...concur with both (Friberg, 1981) and Britton, Proust and Shnider (Britton et al 2001) on...; as shown in (Powicke 1931, 68, 80), the same object ...;

In general, the parenthetical reference should not be a grammatical component of the sentence. Hence, if it is necessary to speak directly of the modern study itself, the sentence should be written in such a way as to accommodate this without using the citation itself as part of the prose. Note that this is contrary to the practice in mathematical research publications.

- (3) The author’s name can also appear with given name, initials, in the possessive form, and so on, such as

... Clemens Thaer (1942, 199) showed that...; ... C. Thaer (1942, 199) argued that...; ... Thaer’s (1942, 199) claim that...

In (Xe)LaTeX this is done by placing the alternate form following `(Date)` in the bibliographic entry and then calling it in with `\cite*`. For example, if we have `\bibitem[Thaer(1942)Thaer's]{thaer_1942}` in the bibliography, `\citet*[199]{thaer_1942}` prints “Thaer’s (1942, 199)”. Unfortunately, we can only have one secondary form per document.

2. The numbers following the comma in a citation will be assumed to be page numbers, but other numbers may also be included, such as volume numbers, folio

or footnote numbers, and so on. For example, (Heath 1921, II.341, n. 2) denotes the second volume of Heath’s 1921 work, page 341, footnote 2. If the citation denotes folio numbers, this should be denoted with “f.” or “ff.” For multivolume works that are paginated continuously, such as Neugebauer’s *HAMA*, the volume number need not be included, unless the reference is to a page of the introduction, etc., which is not part of the continuous pagination.

3. Footnotes should be used for discursive material that, for whatever reason, cannot be accommodated in the main text. A footnote should not simply contain a citation—such a note should be changed to an in-text citation.

## V.2 The Bibliography

Please use the style formats below for bibliographic entries. Please look closely at the type and placement of the punctuation, and of the capitalization. The capitalization of non-English language titles follows the practice of the original language. For transliterated titles the first word is capitalized and the following words are in lower case. (For Arabic transliterations, the first word that is not the definite article is capitalized: *al-Fihrist*, NOT *Al-fihrist*.)

Since the focus of *SCIAMVS* is on primary sources, we ask that you list in the References section all manuscripts, papyri, tablets, and so on. Even in the case that all of the original sources are discussed in detail in the paper itself, we ask you to list them here again, so that they can be easily found.

It is not necessary to reference the sources with sigla, but this may serve as a convenient way to refer to them in the paper itself. In the case of a large number of sources—such as papyri or tablets—giving each source a siglum is probably not desirable. If standard critical editions exist, using the sigla from these editions may be recommended.

1. Personal initials follow the family name—following a comma, irregardless of the practice of the originating language—and do not include a space:

Mikami, Y.; Heiberg, J.L.

2. Two or more authors or editors of the same work are separated by a comma, but no “and”:

Smith, D.E., Mikami, Y., ...

3. If one or more of the authors or editors is referred to by “with” on the title page, or did substantially less work, this is denoted by “with” in the references:

Heiberg, J.L., with Stamatis, E.S., 1972...

In such cases, the corresponding in-text reference should only include the first author's name (Heiberg 1972).

4. All authors' names are listed in the bibliography.
5. A critical edition is referenced by its modern editor, not the author of the original work. A non-critical edition, or printing in which the editor is unknown, may be referred to by the author, if known, or by the publishing house, etc.
6. The publisher of a book, etc., is not listed.
7. If more than one place name is given for a book, only the first is listed.
8. The title of a journal is written out in full—not abbreviated. (There are many online resources for completing the abbreviated references in the older literature.)
9. Bibliographic entries in non-Roman based scripts should be given in transliteration, with English (or primary language) translation. Optionally, the source language citation, in the original characters, can also be included following this.
10. For multivolume works that are paginated continuously, such as Neugebauer's *HAMA*, the number of volumes, tomes, etc., need not be listed.
11. See below for examples of bibliographic entries.

## References

### *Abbreviations*

If you cite by abbreviations repeatedly in your paper, the abbreviations should be disambiguated here.

### *Original Sources*

Greek papyri: P.Berol. inv. 21310; P.Gen. 3.121; P.Mich. 15.686; P.Harrauer 3; MPER N.S. 15.152–157; P.Mich. 3.147; P.Berol.inv. 21303, T.Varie 4–5; MPER N.S. 15.159–171.

Late Babylonian Tablets: BM 35525; BM 34050; BM 35070 + 45699.

**a:** Florence, Biblioteca Medicea Laurenziana, Plut. 28.1. 14th century.

**A:** Istanbul, Aya Sofya, 4830, ff. 2v–52v & 275r. 626 AH (1228–1226 CE).

**Tm:** Tehran, Malik, 3586. 345 AH (954 CE).

### *Modern Scholarship*

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- Thaer, C., 1942. “Euklids Data in arabischer Fassung,” *Hermes* 77, 197–205.
- Ver Eecke, P., 1960. *Les Œuvres Complètes d’Archimède*, Paris.