

ITALIAN DICTIONARIES OF ANCIENT GREEK:
PRINTED BOOKS AND ELECTRONIC TOOLS

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0. Foreword

Since the Roman imperial age in Europe, the tool for translating and understanding Greek was of course the Greek-Latin Lexica. This long period, which continued until the 18th century, produced the monumental *Thesaurus Linguae Graecae* by Stephanus, published in Geneva in 1572. Various revisions and enlargements of this *TLG* advanced as far as the 9-volume edition published in France by Ambroise Firmin Didot, carried out between 1831-1865 in collaboration with some of the best scholars of the age.

Today the acronym *TLG* means something very different: a CD-ROM produced by a large, long-term project at the University of California, Irvine. So, in the everyday language of students and scholars, “*TLG*” is no longer a large lexicon, but a database of Ancient and Byzantine Greek literature, which everybody can utilize and search easily from his desktop.

But in the 19th century (the century which witnessed the wondrous development of scientific philology in Europe), with regard to the tools for understanding and translating Ancient Greek, the place of Latin was gradually assumed by modern languages: Latin was no longer the *normally known* language used to interpret and explain Ancient Greek. Every linguistic region had its own Ancient Greek dictionary, and thus the Greek-Latin lexicon was replaced by the Greek-German, Greek-English, Greek-French, Greek-Italian, and so on.

The transition to Greek-modern language dictionaries was marked by the publication of two major works. The first was the *Handwörterbuch der griechischen Sprache* by Franz Passow, published in Leipzig in 1831 (2 vols.), which was continued and revised up to a

fifth edition (Leipzig 1841-1857, 4 vols.); it was later reprinted several times, and is still in use. A full revision begun by W. Crönert was unfortunately interrupted following the appearance of its first three parts (Göttingen 1912-1914). The second turning-point was the publication of the Greek-English dictionary by Henry George Liddell and Robert Scott, *A Greek-English Lexicon* (Oxford 1843). This work underwent substantive updating through its ninth edition (1940), thanks to Henry Stuart Jones and Roderick McKenzie. It was later provided with a *Supplement* (1968), and revised in 1996. Thus, Passow and *Liddell-Scott-Jones (LSJ)* ushered in the era of Ancient Greek dictionaries in modern national languages. Anatole Bailly's *Dictionnaire Grec-Français* was published in Paris in 1894; its 26th edition, revised in 1963 by L. Séchan and P. Chantraine, is now generally used in France. The large *Diccionario Griego-Español*, directed by Francisco Rodríguez Adrados, has been in progress in Spain since 1980 and has now arrived at the letter *epsilon*.

1. ITALY

The first important dictionary in Italy was that by the Archbishop of South Italy Benedetto Bonazzi (*Dizionario Greco-Italiano, compilato ad uso delle scuole della Badia di Cava dei Tirreni*); it was first edited in 1887, and reissued and reprinted until 1942. Some years later, an Italian translation of Wilhelm Gemoll's lexicon (*Griechisch-deutsches Schul- und Handwörterbuch*, Wien 1908), edited by Domenico Bassi and Emidio Martini, was published (Palermo 1923, 1925²). This work has been republished many times and was reprinted in Florence up until 1983.

But the foremost large-size Greek-Italian dictionary was produced by Lorenzo Rocci, a Jesuit. Rocci was a member of the "Nobile Collegio Mondragone", a Jesuit institution near Rome, where he taught –according to information available from the archives– until 1946. The College was suppressed in 1953 and the building "Villa Mondragone" is now owned by the Second University of Rome, "Tor Vergata". Rocci's dictionary was published by the

Società Editrice Dante Alighieri in three successive editions (1939, 1941 and 1943); the last edition has occasionally been reprinted without alterations up until our day.

An initial attempt to supersede Lorenzo Rocci's dictionary as a school book was made by a team of Italian scholars, who provided an updated translation of H.G. Liddell and R. Scott's *An Intermediate Greek-English Lexicon*, including also supplemental information from *LSJ's editio maior*. This was the *Dizionario illustrato Greco-Italiano*, edited by Q. Cataudella, M. Manfredi, F. Di Benedetto (Florence 1975).

One may also mention the *Vocabolario greco-italiano* by Giovanni La Magna and Alessandro Annaratone, which appeared in 1955 in Milan and was still being reprinted in 1994, when it was reissued with a guide for users (*Il vocabolario di greco: come è fatto e come si usa*). During the 20th century Italy produced a number of other Greek-Italian dictionaries, but only small- scale ones.

The most recent dictionary of Ancient Greek brought out in Italy is my *GI – Vocabolario della Lingua Greca*, edited with the collaboration of Ivan Garofalo and Daniela Manetti, Turin, Loescher Editore (1995¹, 2004²).

2. FRANCO MONTANARI, *GI – VOCABOLARIO DELLA LINGUA GRECA* (CON LA COLLABORAZIONE DI IVAN GAROFALO E DANIELA MANETTI)

GI – Vocabolario della lingua greca was published in September 1995 after almost six years of work carried out by a team of nearly 30 people. A second edition was released in spring 2004; this includes noteworthy improvements to the content as well as a CD-ROM. Moreover, an online electronic tool aims to produce a supplement-in-progress to the major printed dictionaries of Ancient Greek: its name is *PAWAG*, the acronym of *Poorly Attested Words in Ancient Greek*.

Although the *GI* is definitely not a small-size dictionary (as the following data will show) and it is commonly used also for scholarly research (even more in its new edition), it presents several features that ensure its didactic effectiveness and facilitate school practice

(clarity, simplicity, ease of consultation). It is now the most widespread Ancient Greek dictionary employed in secondary schools throughout Italy.

The main data concerning the first edition of *GI*, which was available only in printed form, include the following:

- 2,298 pages, arranged in three columns (about 11,000 characters per page)
- total size: slightly more than 23,000,000 characters.
- approximately 130,000 main entries (roughly 5,000 secondary entries)
- roughly 2,000 authors and 3,600 works considered

Therefore, this dictionary is significantly larger than Rocci's (2,074 pages, about 14,000,000- 15,000,000 characters) and than the Italian version of the *Intermediate* Liddell-Scott (see above: 1,564 pp., roughly 9,000,000 characters). In size, it could almost be compared with *LSJ*, though the latter surely contains more lexicographical material than *GI* (more entries, more examples and phraseology, more linguistic variants and information). This is due to the fact that *LSJ* is a scholarly lexicon, particularly designed for research, while in *GI* the didactic purpose plays an important role and takes up considerable space. (Among other things, *LSJ* has many more abbreviations and shortened forms; the abbreviations are normally much shorter in comparison with *GI*; *LSJ*'s examples are not always accompanied by a translation).

This particular attention to didactic aspects assumes its form in the following content and graphic elements:

- 80 small summaries, on a grey background, of the longest entries: each summary is a “menu of meanings and grammatical government” for main entry words of high complexity (some verbs, nouns, pronouns, conjunctions and prepositions).

- Various graphic devices underline the structure of the meaning of the entry. Arabic numerals and (sometimes) Roman numerals on a black background, capital letters on a black background, lower-case bold letters in a white square; double and single bars; a black lozenge to introduce adverbs at the end of the adjective; a black circle to introduce various forms at the end of the entry (verb paradigms and other inflected forms, variants, etc.).

- Numerous so-called “help-entries” (in Italian, “lemmi-aiuto”), i.e., difficult inflected forms given as headwords with a cross-reference to the main entry.
- Abundant translations (in boldface) of the Greek headword, to help students or anyone engaged in translating a text.
- Examples and phraseology are always followed by the Italian translation.
- Etymological comments (in square brackets) are designed to draw a comparison between Greek and Indo-European-derived languages, to give an explanation of the origin of compounds or derivations, or to show the relationship between word families.
- A great range of authors and works, with a wide chronology from archaic to the late imperial age (up to the 6th century AD and sporadically later), Jewish and Christian literature (from the Old and New Testament up to the 6th century AD and sporadically later), are taken into consideration and utilized extensively.
- Explanations and comments, labels of every kind, grammatical information and so forth are present in abundance, distinguished by the use of italics.
- The headwords of the main entries (in boldface) carry copious prosodic indications over the vowels.

The new edition of *GI* which appeared in 2004 constitutes a considerable enlargement when compared to the first edition. It contains 128 more pages and almost 5,000 new entries (2,426 pages, about 140,000 main entries and roughly 7,000 secondary entries, for a total size of nearly 26,700,000 characters). Also, there are more authors and works cited in the quotations (about 4,000 authors and some 10,000 works were taken into consideration; approximately 1,800 authors and some 4,000 works are actually quoted, in addition to 220 editions of papyri and inscriptions). Moreover, the educational appearance and approach were preserved and increased in noteworthy fashion:

- For the verbs, the paradigm itself is selected and placed in order of moods and tenses at the top of the entry to make it more visible and user friendly. The remaining forms and variants are retained in the final section, which is preceded by the black circle symbol at the end of the entry. This has been quite a substantial task, involving about

15,000 verbs chosen from among nearly 28,400 now included in the dictionary (moreover, some verbs have been added as new entries).

– Some abbreviations have been made unequivocal, or in any case more explicit (e.g. a. => attivo [active]; m. => medio [middle]; p. => passivo [passive]; tr. => trans. = transitivo [transitive]; intr. => intrans. = intransitivo [intransitive]; sup. => superl. = superlativo [superlative]; us. => usato [used]).

– Homographic headwords have been distinguished by the addition of a serial number; this is also better for cross-references.

– Grammatical government has been highlighted by inserting a symbol (a black triangle).

– Brief summaries appearing as a “menu of meanings and grammatical government” have been provided for a further 50 entries selected from among those containing more than 6,000 characters.

– Abbreviated Greek substantivized adjectives and participles have been given in full form and with a specific translation-word.

– In some entries, explicit meanings have been introduced, whereas in the previous version they are missing and replaced by cross-references.

– New cross-references have been introduced, adding more of the so-called “help-entries” for difficult words. This has been done particularly for adverbs, given as full separate entries, even when they are abbreviated.

– Among the almost 5,000 new entries, less than 1,000 are “help-entries,” consisting mainly of adverbs which were sub-entries of adjectives in the previous version.

– Examples and phraseology are always given with full quotations of author, work and passage.

– A general revision of etymological remarks concerning compound and derivative words has been carried out.

The work for the 1st edition was done starting from the original electronic data, prepared using a simple word-processor, and edited partly by hand and partly

electronically. For the second edition, the new text (including the Greek) was supplied by scanning in the files; occasional corrections were made on paper, while the editing was left to the scanning phase.

As regards data management, the goal for the future is to lessen the difficulties inherent in editing and producing the printed and electronic versions of the dictionary, by making modifications ever more automated. This goal is partially achieved through the use of an application that transforms and manages the data using an XML mark-up language.

The parser application reads in the initial file containing dictionary data, which are in a particular format for typesetting and layout. The parser reads in each entry and transforms it together with all its related information.

Specifically, the parser application produces a new file in XML format containing all of the information from the original file plus additional organizational and filtering information. This new file has the advantages of being more “human-readable” and compatible with a wide range of applications.

The parser application can be used as one element in an overall dictionary management system that includes a graphical user interface (GUI) for adding and editing information within the dictionary. The XML output file can be used to generate a printer-ready PDF file, a CD-ROM, web access, or even converted into another format (by running the data through the application again using a different parser plug-in).

The XML format organizes information into a flexible, hierarchical structure – much like that of a dictionary. The structure is divided into entries with all of the related information contained in various subsections between the opening and closing “tags” (i.e., a named subsection of an XML file). Tags can contain “hidden” information pertaining to the use of the tag by an application as well as “content”, which is the information between an opening tag and a closing tag.

These tags and attributes can be used to build a complex, yet human-readable structure that mirrors that of the dictionary. The flexibility of this type of compound structure allows one to continually modify the contents and organization of the dictionary and its entries without affecting the usefulness of its data.

The dictionary can now be filtered in one of three ways:

- A subset: the new dictionary will consist of a selected subset of entries, on the basis of a particular set of authors and works.
- A filter: the new dictionary will consist of each of the entries from the original dictionary, but with only the selected (filtered) parts of each entry.
- A combination of the first two methods.

Thus, the dictionary data can be filtered to create new versions of the dictionary (or related products). Some examples of the uses of these filters might include:

- a beginner's dictionary;
- a dictionary customized for a specific school or university;
- a word database searchable through a web-based interface;
- a CD-ROM, which may link the dictionary with other electronic collections;
- a dictionary containing only the most common subset of the lexicon (an intermediate dictionary);
- a Greek-English (or some other modern language) version of the dictionary: this can be created by filtering out all of the sections of each entry that were originally in Italian and replacing them with their English equivalent.

A noteworthy innovation of the second edition of *GI* consists of an electronic dictionary in CD-ROM format accompanying the printed version; it is worth noting that this has not yet been produced with the above-described technology, which will be applied to future developments. Thanks to the extreme flexibility of computer means, the use of the CD expands the potential of the Dictionary, even if it does not yet supersede the paper-and-ink version.

The *GI* CD-ROM is intended as an easy access tool, appropriate even for those who have little familiarity with computers. It is possible to do a "Simple Search" by typing in a Greek word in the box "Headword" (it is not necessary to reproduce diacritical marks such

as aspirants, accents, and iota subscripts). Any entry that satisfies the search requirements can be displayed with its relevant text *exactly as it is printed in the paper volume*. So this kind of electronic search is really similar to the traditional consultation of a printed dictionary.

The “Advanced Search” allows the user to search specific fields of the entry apart from the headword, including translations (the meanings of the headword), Greek examples, *testamonia* of the examples (authors, works, papyri, and inscriptions), Italian translations of the examples, and etymologies.

There is also the possibility for a full-text search, which can be restricted to the Greek text or the Italian one.

The Boolean operators can be used within any field, permitting one to combine different criteria in order to more precisely define results.

Compared to the printed dictionary, the electronic version proves above all useful concerning elements such as:

- etymologies, in order to gather terms that are etymologically related (word families)
- translations, in order to create files of synonyms and antonyms
- Greek examples, in order to search *syntagmata* and *idiomatic expressions*
- abbreviations, explanations, comments, in order to identify terms belonging to the same technical field (through abbreviations as *mar.*, *mil.*, *giur.*, *med.*, *filos.*, *teatr.* etc.), the vocabulary of a particular author (through the abbreviations for authors and works), a specific period (through abbreviations such as *postom.*, *poster.*, *crist.*), a given dialect (through abbreviations as *att.*, *ion.*, *dor.* etc.), or in order to create syntactic files, which can list e.g. prepositions and conjunctions (through abbreviations such as *prep.* or *congiunz.*) or the Greek expressions for specified complements or propositions (through abbreviations as *strum.*, *caus.*, *temp.*, *consec.*, *ipot.* etc.).

Nevertheless, the use of the paper dictionary proves to be preferable for moving within single entries, above all long and complex ones, or through a series of adjacent entries. In these cases the CD-ROM does not help the looking up “at a glance” and could turn out to be distracting.

3. PAWAG (*POORLY ATTESTED WORDS IN ANCIENT GREEK*)

I will now outline a research project (already in progress) which aims to produce a tool I believe will be the most useful development for Ancient Greek lexicography to date. It combines scholarly competence with information technology and easy web use. The name of this project is *PAWAG*, the acronym for *Poorly Attested Words in Ancient Greek*; it is being carried out as a collaboration between my Department at the University of Genoa (D.AR.FI.CL.ET.) and Loescher Editore, the publishing house of *GI* in Turin.

It forms part of the larger project *ARISTARCHUS* (available online at <http://www.aristarchus.unige.it>), a set of working tools for research and teaching Greek and Latin antiquity (the name *Aristarchus* comes from the learned scholar Aristarchus of Samothrace, who lived around the middle of the second century B.C., not to confuse him with the astronomer, Aristarchus of Samos).

The project *PAWAG* aims to establish a database that can be continually enlarged and updated, admitting corrections and improvements to the entries of the greatest dictionaries (including the notice of ghost-words to be eliminated). Available free online, this is actually a real supplement in progress to the main printed dictionaries of Ancient Greek. Moreover, the almost limitless possibilities for data warehousing in electronic format allow *PAWAG* to gather even that lexicographic material unlikely to find proper space in traditional lexica. This is the case for Ancient Greek words that are either scantily attested (i.e. occurring only rarely), inadequately attested (i.e. characterized by some sort of uncertainty) or in any case problematic, both from a formal and semantic point of view.

The project has set up an international group of partner universities involving the Italian universities of Florence and Pavia-Cremona, as well as Genoa, and the following foreign universities: Aristotle University of Thessaloniki, Universität Freiburg, and Universität Würzburg. Work is carried out on a common database shared by all the participants, so that those working on the project can enter material directly into the online

database. PAWAG's lexicographical structure and its set of reference authors and works are based on the second edition of my *GI - Vocabolario della Lingua Greca*.

In addition to PAWAG, the website ARISTARCHUS currently includes the following:

- *LGGA (Lessico dei Grammatici Greci Antichi)*, a lexicon of Ancient Greek scholars and philologists intended to provide an online reference database for studies relating to the history of ancient philology, grammar, and scholarship in particular.
- *CPhCl (Catalogus Philologorum Classicorum)* provides another reference tool for scholars of Greek and Latin antiquity, above all for studies on the history of classical philology in the modern period. The contents consist of files on personalities active between 1880-1980 (with a chronological connection to the *Philologisches Schriftstellerlexicon* of W. Pökel, Leipzig 1892). This work began and was developed at the University of Pisa some years ago; it is ongoing and made available online through cooperation between the Classics Department of Pisa and my Department of the University of Genoa.
- CIAPh (Centro Italiano dell'Année Philologique) is the Italian editorial office of *L'Année Philologique*, the well known reference bibliography for scholars of Greek and Latin antiquity. This web page, presently under construction, will become a showcase for the Italian office.
- MEDIACLASSICA is a web site for the didactics of Ancient Greek and Latin, carried out by a group of scholars and teachers working in my Department of the University of Genoa in partnership with Loescher Editore in Turin.
- *Scholia Minora in Homerum*: this page is a new entry on the site; it will include a collection of editions and images of papyrus texts containing *Scholia minora* to Homer.