

The electronic linguistic atlas of the Aegean island of Lesbos (EDAL)

Angela Ralli¹, Vaso Alexelli², Charalambos Tsimpouris³

¹ University of Patras, Greece - ralli@upatras.gr

² University of Patras, Greece - alexelli@upatras.gr

³ University of Patras, Greece - xtsimpouris@upatras.gr

ABSTRACT

The aim of the paper is to present the electronic linguistic atlas of the Aegean island of Lesbos (EDAL), the first and only electronic linguistic atlas in Greece, the implementation of which has been carried out within the framework of a research program funded by the *General Secretariat for the Aegean and Island Policy*. EDAL deals with the charting of the dialectal variety of Lesbos, an island with a big range of linguistic phenomena that do not only diverge from those of Standard Modern Greek (SMG), but also vary from village to village. Thus, it contributes to the preservation of a rich linguistic heritage which is threatened with extinction. EDAL is available in Greek and English, has been completed by 90%, and users have free access to it from the link <http://lesvos.lmgd.philology.upatras.gr>. It comprises 53 maps corresponding to 53 linguistic phenomena and dialectal words, which are divided into four levels of linguistic analysis, *phonology*, *morphology*, *morphosyntax*, *vocabulary*. The phenomena and dialectal words are depicted on 68 villages with special conventional signs/symbols, depending on the incidence. The material under investigation was drawn from both written sources and oral testimonies based on specifically built questionnaires. EDAL provides information on the number and type of informants who have responded to the questionnaires by area. It is built on Drupal 7, an open source content management system (CMS) that is actively supported by thousands of programmers, is interactive and is based on Google maps. Each entry has its own web page, which gives a description and an example of usage, so that it is accessible to both dialectal and non-dialectal users. It is also accompanied by an audio file, which shows the pronunciation of the material under examination.

KEYWORDS

Linguistic atlas, dialect of Lesbos, morphology, morphosyntax, phonology, vocabulary

EDAL, AN ELECTRONIC ATLAS FOR A GREEK DIALECT

Since the end of the 19th century, many countries have created *linguistic atlases* (see, among others, [4]), most of which are in printed form (the first atlas was produced for French by Gilliéron & Edmond 1902-1912), while recently, an electronic atlas has been built at the Max Planck Institute (Leipzig), the so-called WALS, containing structures and lexical material of 2676 languages of the world ([7]).

With respect to the Greek language, there is no linguistic atlas, in either printed or electronic form, with the exception of a sketchy one which exists on paper only for the Cretan dialect ([5]). In this context, the Electronic Dialectal Atlas of Lesbos (EDAL) - an island with many linguistic phenomena that do not only diverge from Standard Modern Greek (SMG) but also vary from region/village to region/village - is unique. EDAL consists of 53 maps, depicting the variation of 53 linguistic phenomena and dialectal words, which are distributed into four linguistic levels: phonology, morphology, morphosyntax, vocabulary. It excludes phenomena and words of SMG as well as those widespread in all areas of the Lesbian territory (68 villages). For example, *raising* of mid vowels /e/ and /o/ to /i/ and /u/, respectively, in unstressed position (e.g., *ci'ri* > *ce'ri* 'candle', *laθus* > *'laθos* 'mistake'), and *deletion* of the high vowels /i/ and /u/ (e.g., *'çer* > *'çeri* 'hand', *vno* > *vu'no* 'mountain'), also in unstressed position, are not noted on EDAL, since they characterize all Lesbian varieties, Lesbian being part of the broader group of Northern Greek Dialects ([8], [6], [12]) which are distinct from that of the Southern ones with respect to these two phenomena. Moreover, due to lack of homogeneity, EDAL does not cover the speech of the inhabitants of Mytilene, the capital of the island, which is nowadays populated by people originating from several areas of Lesbos as well as from other parts of Greece.

EDAL is available in both Greek and English and the 53 phenomena and dialectal words were drawn from two sources: (a) the oral corpora (primary sources) of the *Laboratory of Modern Greek Dialects* (LMGD) of the University of Patras (www.lmgd.philology.upatras.gr), consisting of recordings of 60-hour narratives, the collection of which was made according to ethnographic methods ([11]); (b) written data (secondary sources) regarding the dialect of Lesbos, including dictionaries, grammars and dialectal texts (see, among others, [1], [2], [9], [13], [10], [12]).

¹ The examples are transcribed according to the characters of the *International Phonetic Alphabet* (IPA, [3]).

All 53 entries were tested by specifically built questionnaires, distributed in the 68 areas under investigation and responded by at least 6 informants per area. The questionnaires contained 3-4 sentences for every phenomenon or dialectal word, which native speakers were asked to recognize or reject acoustically. For instance, for the phonological phenomenon of [t] conversion into [c] before a front high vowel, interviewees of all areas listened to sentences such as: '*Kopsi tu ci'ri na 'fami ku'mat* 'Cut the cheese to eat a little', where [c] of the word *ci'ri* 'cheese' comes from [t] (SMG corresponding word *ti'ri*). All informants were over sixty years old, men and women, with low educational skills and permanent residents of the area under examination, in that they had never left their village to live in another area in or out of Lesbos.

Each map has its own web page, which gives the description of the phenomenon or the dialectal word, an illustrative example of usage, and an audio file demonstrating the dialectal pronunciation. The same page also shows the results collected through the questionnaires, which were previously calculated in per cent (%). Percentages are shown on EDAL via the following conventional signs /symbols (Table 1) in a way that the visitor can be informed about the existence and the percent occurrence of each phenomenon by region.





Symbol	Percentage (%)
	0% - 24%
	25% - 49%
	50% - 74%
	75% - 100%

Table 1: Symbols reflecting the occurrence rates of the phenomena and dialectal words per region.

As can be seen in Figure 1 below, the use of the first person singular ending *-um* of the imperfect tense (e.g. *plal-um* 'I was running' of the dialectal verb *plalo* 'run') appears to exhibit high rates of occurrence (75% - 100%) mainly in southern Lesbos, while its absence or the lowest percentage (blue symbol) are recorded in regions that have accepted many refugees from the opposite coast of Asia Minor (e.g. villages such as Thermi, Nees Kydonies, Filia, etc.) in 1922, following the end of the war between Greece and Turkey, and the exchange of populations between Muslim and Christian Orthodox people impelled by the Lausanne treaty in July 1923.

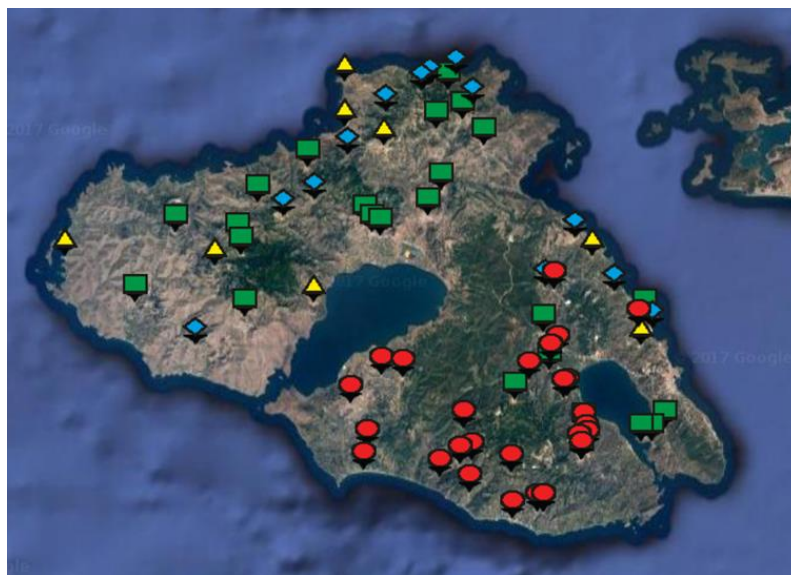


Figure 1: Percentage by region of the occurrence of the *-um* ending of the imperfect.

At the same time, EDAL enables the user to seek out information about the number of speakers who have answered the questionnaire by area. As shown in Figure 2, six people (three men and three women) were surveyed in the village of Pelopi (north-eastern Lesbos) about the use of the *-um* ending, where the percent occurrence of the phenomenon ranges from 50% to 74% (see the green square symbol).



Figure 2: Information regarding the north-western village of Pelopi, its informants and the percent occurrence of the *-um* ending of the imperfect.

Admittedly, EDAL displays a very narrow language coverage compared to WALS. However, it prevails in the following points: (a) it focuses on the dialectal variation of a region, while WALS provides a very limited dialectal information; (b) it draws information from both written and oral sources (recordings of narratives), not only from written ones, as is the case of WALS; (c) phenomena which have synchronically disappeared are not charted on EDAL, since the dialectal variety has been tested and confirmed by native speakers; (d) possible errors are minimized since all researchers conducting the field work are also native speakers of the dialect.

TECHNICAL DETAILS

EDAL has been built on Drupal 7, an open source content management system (CMS) that is actively supported by a live community of thousands of programmers. The Page is fully dynamic and is split in two main parts: frontend, publicly available to all users, and backend, employed by researchers to update existing data, or add new ones. Frontend includes a dynamic webpage for each entry that provides an interactive Google-based map, along with an example of usage so that it is easily comprehended by both dialectal and non-dialectal users. It is also accompanied by an audio file, which shows the pronunciation of the material under examination. Furthermore, for each entry a table is produced for an overall overview of all data regarding a specific entry, along with the number of participating informants. Backend is accessible to researchers and administrators. Researchers can log in using their own username and password and update existing data or add new entries. Data involve available regions on the map, dialectal variations categorized in groups, descriptions and accompanied examples in audio format for each entry. Moreover, administrators can add new users (researchers), if needed, and track extra information within the system's logging diary of events.

Last but not least, it should be stated that the site is SEO friendly and can be crawled by any search engine, like Google and Bing.

ACKNOWLEDGMENTS

EDAL has been built within the framework of the research project "Documentation and cartography of the dialectal varieties of Lesbos". The authors wish to express their sincerest thanks to the *General Secretariat for the Aegean and Island Policy* of the *Hellenic Ministry of Mercantile Marine and Island Policy* whose generous financial support has made possible the realization of EDAL.

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