

Diogenes at 10 years: milestones and morals

Peter Heslin

Digital Classicist Seminar, London

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- **Moral:** Visual markup is evil!

First steps

- A script: `grep` and a bit of scripting: a few lines of context and author.

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First steps

- A script: grep and a bit of scripting: a few lines of context and author.
- Perl for poetry: crude work-title and book and line numbers.
- Rudimentary browser.
- Added beginnings Greek output: Ibycus encoding for Latex.
- Started to get curious about the citation info embedded in the text.

Reverse engineering

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- Originally was decoded in hardware!
- Eureka – every 8KB chunk resets the state.
- Much richer information and suggested the possibility of robust decoding.

Reverse engineering

1998/9

2000

2001/2

2002

2005

2006

2007

Present

Future

Sep 21, 00 0:27	lat0474.txt	Page 1/1
0000000:	ef80 b0b4 b7b4 ffeF 81b0 b0b1 ffeF 82d1	
0000010:	f5e9 eee3 f4ff ef83 c3e9 e3ff 9ff4 ff40	@
0000020:	4040 407b 3150 524f 2050 2e20 5156 494e	@@@ LPRO P. QVILL
0000030:	4354 494f 204f 5241 5449 4f7d 3120 9140	CTIO ORATIO l .@
0000040:	4051 7561 6520 7265 7320 696e 2063 6976	@Quae res in civ
0000050:	6974 6174 6520 6475 6165 2070 6c75 7269	itate duae pluri
0000060:	6d75 6d20 706f 7373 756e 742c 2065 6165	mum possunt, eae
0000070:	2063 6f6e 7472 6120 806e 6f73 2061 6d62	contra .nos amb
0000080:	6165 2066 6163 6975 6e74 2069 6e20 686f	ae faciunt in ho
0000090:	6320 7465 6d70 6f72 652c 2073 756d 6d61	c tempore, summa
00000e0:	2067 7261 7469 6120 6574 2065 6c6f 2d80	gratia et elo-
00000b0:	7175 656e 7469 613b 2071 7561 7275 6d20	quentia; quarum
00000c0:	616c 7465 7261 6d2c 2043 2e20 4171 7569	alteram, C. Acqui
00000d0:	6c69 2c20 7665 7265 6f72 2c20 616c 7465	li, vereor, alte
00000e0:	7261 6d20 6d65 7475 6f2e 2080 456c 6f71	ram metuo. .Eloq
00000f0:	7565 6e74 6961 2051 2e20 486f 7274 656e	uentia Q. Horten
0000100:	7369 206e 6520 6d65 2069 6e20 6469 6365	si ne me in dice
0000110:	6e64 6f20 696d 7065 6469 6174 2c20 6e6f	ndo impediatur, no
0000120:	6e20 806e 6968 696c 2063 6f6d 6d6f 7665	n .nihil commove
0000130:	6f72 2c20 6772 6174 6961 2053 6578 2e20	or, gratia Sex.
0000140:	4e61 6576 6920 6e65 2050 2e20 5175 696e	Naevi ne P. Quin
0000150:	6374 696f 206e 6f63 6561 742c 2090 6964	ctio noceat, .id
0000160:	2076 6572 6f20 6e6f 6e20 6d65 6469 6f63	vero non medioc
0000170:	7269 7465 7220 7065 7274 696d 6573 636f	riter pertimesco

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“Read in all bytes with the sign bit set. This is the ID for the first record. Call a subroutine to decode the ID data. Now read in all bytes with the sign bit unset. This is the text of the first record. Call a subroutine to process the text. Repeat this process for all records in the block, that is, until the ID data contains the end of block marker.”

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- Searching is the more general problem and has had more resources thrown at it: hardware (besides I/O, already at that time 32MB, the size of the largest text, could usually fit in memory) and software (Boyer-Moore).
- I think other software may still do it the wrong way.
- **Moral:** when the corpus is closed, you do better to ignore the spec.

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- Time, genre, etc. info. Probably worth doing, but some more useful than others.
- **Moral:** don't assume that you need to support all features in the spec – some are obsolete (or nearly so) and speed-up hacks.

The Web! (Sort-of)

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- **Moral:** Web was a good choice of interface.

The Web! (Sort-of)

Sample output

Scholia In Homerum, Scholia in Iliadem (scholia vetera)

"*Scholia Graeca in Homeri Iliadem (scholia vetera)*, vols. 1-5, 7", Ed. Erbse, H. Berlin: De Gruyter, 1:1969; 2:1971; 3:1974; 4:1975; 5:1977; 7:1988.

Book of Iliad 1, verse 1g, *line of scholion 1

ex.

<Πηληϊάδεω> παράγωγον. **T^{II}**
Πηληϊάδεω Ἀχιλῆος: οὕτως ἀναγνωστέον δι' ἑνὸς ᾗ
διὰ τὸ μέτρον καὶ διὰ τὸ ἄχος (ὃ ἐστὶ λυπήν) ἐπενεργεῖν τοῖς Ἰλιεῦσιν.
οἱ δὲ παρὰ τὸ μὴ θγειν χειλεσι τροφῆσι? ὄλωσ γὰρ οὐ μετέσχε
γάλακτος. **AT**

Porph.(?)

<Ἀχιλῆος> ὁ Κοτταεὺς Ἀχιλῆος, διὰ τὸ μέτρον ἐν ᾗ
γράφει· καὶ γὰρ τὸ Κάμανδρος ἀντὶ τοῦ Σκάμανδρος γράφασθαι. **A^{im}**
οὐλομένην: τὴν ὀλέσασαν ἢ τὴν ὀλεθρίαν. ὡς ἐπὶ ἰδίους δὲ
ἀλγῶν δυσφημεῖ αὐτήν. ὅρα δὲ τὰς ἐν ἀρχῇ ἀναφωνήσεις, ὅσον ὑπο-
φαίνουσι τὸ πλῆθος τῶν ἱστορηθησομένων, ὡς καὶ ἐν Ὀδυσσεΐ.
b (BCE⁴) T ἔχει δὲ τοὺς γενικωτάτους τῶν τόπων τὸ προσημῶν

ex.

b (BE⁴) T ποσόν, πολλές· ποιόν, „ἰσθίμιος“ οὐσίαν, „ψυ-
χάς“· τόπον, „Ἄϊθι“· χρόνον, „προῖαθεν“ (A 3). **b (BE⁴) TT^f**
ἤμυρια: βητορικὴ ἢ μεταλήψις· παρὸν γὰρ ἦν φάναι·
“ὅς μυρι” Ἀχαιοὺς ἄλγε’ ἔθραεν· ἀλλ’ ὡς φιλέλλην οὐ τῷ ἥρωϊ ἐπάγει
τὴν βλασφημίαν, ἀλλὰ τῷ πάθει. | τὸ δὲ ἦ κατὰ δοτικὴν τινεσ ἥρου-
σαν, οὐκ ὀρθῶς. **b (BCE⁴) T**

ex. | Ariston. (?)

2000 – The Web! (Really)

- Added other encodings, including Unicode – why not?

1998/9

2000

2001/2

2002

2005

2006

2007

Present

Future

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- **Moral:** adding core functionality is good, and so is documentation.

2001/2 – Documentation

- It was at this point that I was sent documentation on binary citation info.

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- **Moral:** someone else's optimization might not be your own.
- **Moral:** it's better to be fast and 98% correct than slow and 99% correct.

New features

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New features

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- Coptic support.
- Added a dedicated HTTP server. initially to allow running on Windows, but was a faster and cleaner solution all around.

2002 – Version 1.0

- Basic features complete, but ...

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- Hard to install.

2005 – OS X

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- Added CPAN directory. Ease of installation and protecting against 3rd-party changes.
- First step in that direction. Moving away from a Unix mentality.
- Still, many users could not fathom starting the server then the client.
- **Moral:** for non-technical users a big, simple bundle is better than having to install many tools.

2006 – Version 2.0

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- A nightmare: buggy and unmaintainable.

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- **Moral:** lots of platform-specific code is not the same as cross-platform code.

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- More code refactoring: sub-modules.

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- New features: marginal line numbering, user-defined corpora.
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- **Moral:** Unless you have slaves, make sure you can cut a release on one machine.

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- **Moral:** let someone else do the porting work!

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- Unicode input.
- **Moral:** it's easier to distribute data than binaries.

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