

ekdosis

A LuaL^AT_EX package for multilingual critical editions: highlighting of borrowings,
circulation of ideas and parallel writings

Robert Alessi

robert.alessi@cnrs.fr

CNRS, Paris, The Sorbonne

ÖAW International Exploratory Workshop — Coding and
Encoding

New Approaches to the Study of Syriac and Arabic Translations
of the Greek Scientific and Philosophical Texts

CNRS
Sorbonne Université
Panthéon-Sorbonne
EPHE
Collège de France



Orient & Méditerranée

Médecine grecque et littérature technique

Outline

What is ekdosis about?

General Framework

Additional *and optional* Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

Outline

What is ekdosis about?

General Framework

Additional *and optional* Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

Outline

What is ekdosis about?

General Framework

Additional and optional Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

ekdosis for Lua^{LATEX}

Technicalities. ekdosis is:—

1. Written in T_EX, L^AT_EX3 and Lua.
2. Designed for multilingual critical editions, either LTR or RTL, with TEI xml output.
3. Database oriented.

Context:—

1. A joint project between the French CNRS (R. Alessi, Paris) and the German BAW (I. Grimm-Stadelmann, Munich) on the scientific controversies about medical education which took place in the Greek, Arabic and Byzantine worlds (s. III-xv A.D.)
2. Possible interaction between ekdosis and other packages: arabluatex for Arabic and other semitic languages or icite for indices and references. (*Note that using those is by no means compulsory.*)

Outline

What is ekdosis about?

General Framework

Additional and optional Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

Already published (CTAN)

- `icite` for bibliography, references and automatically generated *indices locorum citatorum*: <https://ctan.org/pkg/icite>
- `arabluatex` for generating Arabic writing from an ASCII input scheme. The output can be set in different modes of vocalization or romanized to any accepted standard (DMG, LOC and Arabica are currently supported):
<https://ctan.org/pkg/arabluatex>

Already published (CTAN)

- icite for bibliography, references and automatically generated *indices locorum citatorum*: <https://ctan.org/pkg/icite>
- arabluatex for generating Arabic writing from an ASCII input scheme. The output can be set in different modes of vocalization or romanized to any accepted standard (DMG, LOC and Arabica are currently supported):
<https://ctan.org/pkg/arabluatex>

Input wa-mAta istisqA'aN qabla 'an yutimma kitAba-hu fI

nu^gUmi 'l-samA'i

ومَاتَ أَسْتِسْقَاءً قَبْلَ أَنْ يَتَمَّ كِتابَهُ فِي نُجُومِ السَّمَاءِ

voc وَمَاتَ اسْتِسْقَاءً قَبْلَ أَنْ يُتَمَّ كِتابَهُ فِي نُجُومِ السَّمَاءِ

novoc ومات استسقاء قبل أن يتم كتابه في نجوم السماء

trans *wa-māta 'stisqā'an qabla 'an yutimma kitāba-hu fī nuğumi 's-samā'i*

And many other possibilities, such as ‘classic’ *maddah* (،ومَاتَ أَسْتِسْقَاءً)،

assimilation rules (، قبلَ أَنْ يَتَمَّ، *qabla 'ay yutimma*), &c.

Outline

What is ekdosis about?

General Framework

Additional and optional Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

Encoding with ekdosis: basic examples (1/2)

LAT^EX Input

```
I saw my friend
2 \app{
3   \lem[wit=A1]{Peter}
4   \rdg[wit=B]{John}
5 }
6 at the station yesterday.
```

PDF output 1 I saw my friend Peter at the station yesterday.

1 Peter A¹: John B

TEI output

```
<p>I saw my friend
2 <app>
3   <lem wit="#A1">Peter</lem>
4   <rdg wit="#B">John</rdg>
5 </app>at the station yesterday.</p>
```

Encoding with ekdosis: basic examples (2/2)

LATeX Input

```
I saw my  
1 \app{  
2   \lem[nolem, wit=B]{friend}  
3   \rdg[alt={\emph{ante} friend \emph{add.} dear}, wit=A1]{dear friend}}  
4 \app{  
5   \lem[wit=A1]{Peter}  
6   \rdg[wit=B]{John}}  
7 at the station yesterday.
```

PDF output 1 I saw my friend Peter at the station yesterday.

1 ante friend add. dear A¹ 1 Peter A¹: John B

TEI output

```
<p>I saw my  
1 <app>  
2   <lem wit="#B">friend</lem>  
3   <rdg wit="#A1">dear friend</rdg>  
4 </app>  
6 <app>  
7   <lem wit="#A1">Peter</lem>  
8   <rdg wit="#B">John</rdg>  
9 </app>at the station yesterday.</p>
```

Composing the apparatus criticus freely

Apparatus criticus

1 pre Peter post prewit A¹ postwit A¹: John B

Apparatus criticus

1 ante friend add. dear A¹

```
1 \lem[nolem, alt, wit={}, pre={}, post={}, prewit={}, postwit={}]{}  
2 \rdg[alt, wit={}, pre={}, post={}, prewit={}, postwit={}]{}{}
```

Outline

What is ekdosis about?

General Framework

Additional *and optional* Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

Outline

What is ekdosis about?

General Framework

Additional *and optional* Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

Test case

- Base text: Ibn 'Abī 'Uṣaybi'ah, *'Uyūn al-'anbā' fī ṭabaqāt al-'atibbā'*, c. 7 (ed. Müller, 1882–4).

Test case

- Base text: Ibn 'Abī 'Uṣaybi'ah, *'Uyūn al-'anbā' fī ṭabaqāt al-'atibbā'*, c. 7 (ed. Müller, 1882–4).
- Ms. Şehid Ali Paşa 1923 (a. 773/1372):—

الإسْلَامُ
الْمُرْسَلُ

فِي طَبَعَاتِ الْأَطْبَاءِ الَّذِينَ كَانُوا يَنْتَهِيُ إِلَيْهِمْ أَوْلَ ظَهُورُ الْإِسْلَامِ مِنْ أَطْبَاءِ الْأَعْرَابِ وَغَيْرِهِمْ
 الْجَزْرُ ثُبُّونَ كَلْدَةِ السَّقْفِ هُولِيرُثُ بْنُ كَلْدَةِ بْنِ عُصْرَوْ بْنِ عَلَاجِ السَّقْفِ وَشَقْفٌ مِنْ بَقَامِ عَادِ
 وَكَانَ الْحَرْثُ مِنَ الظَّاهِيفِ وَسَافَرَ إِلَيْ الْمَلَادِ وَتَعَلَّمَ الْأَطْبَابَ بِنَاجِيَةِ فَارِسٍ وَمِنْ أَهْلِ حِدْرِيَّةِ سَابُورِ
 وَتَمَرَّزَ هَنَالِكَ وَعَرَفَ الدَّاءَ وَالْمَدَوَاءَ وَكَانَ يَصْرُبُ بِالْعُودِ تَعْلُمُ ذَلِكَ ابْنَاصَبَارِسُ وَالْمَرْمَنِ
 وَبَلَى الْحَرْثُ إِلَيْ رَسُولِ اللَّهِ صَلَّعَ وَسَلَّمَ وَإِلَيْ بَكْرٍ وَعَمَّارٍ وَعَثَمَانَ وَعَلَى بْنِ أَبِي طَالِبٍ وَمَعْوِيَّةِ

LATEX file (preamble)

```
1 \documentclass{book}
2
3 \usepackage[export]{arabluatex}
4 \usepackage[teiexport]{ekdosis}
5
6 \SetEndApparatus{.}
7 \DeclareApparatus{testium}[bhook=\textsc{Test.}]
8 \DeclareApparatus{default}
9
10 \DeclareWitness{S}{S}{Şehid Ali Paşa MS 1923}[origDate={a. 773/1372}]
11 \DeclareHand{S1sl}{S}{S\textsuperscript{1sl}}[Emendationes uel
12 adnotationes scribae ipsius]
13 \DeclareWitness{Jul}{\icite{IbnJuljul}}{}
14 \DeclareScholar{Mul}{Müller}
15
16 \begin{document}
```

LATEX file (body 1/3)

```
1 \begin{ekdosis}
2   \begin{arab}
3     \arbcolor[red]{\uc{al-.h_ari_tu} bnu kaladaTa 'l-_taqafiyu}}
4     \app{
5       \lem[wit=S, alt=\arb{huwa \uc{'l-.h_ari_tu}... \uc{'AdiN}}]{huwa
6         \uc{'l-.h_ari_tu} bnu kaladaTa bni `amriNU bni `ilA^giN
7         'l-_taqafiyu} wa-\uc{_taqIfuN} min baqAyA \uc{'AdiN}}
8       \rdg[wit=Mul, alt=\LR{om.}]{}}
9     }
10    wa-kAna
11    \app{
12      \lem[wit=S]{\uc{'l-.h_ari_tu}}
13      \rdg[wit=Mul, alt=\LR{om.}]{}}
14    } mina \uc{'l-.tA'ifi} wa-sAfara
15    \app{
16      \lem[wit=S]{'l-bilAda}
17      \rdg[wit=Mul]{fI 'l-bilAdi}
18    }
19    \note[type=testium,labelb=7.2, labele=7.4,
20      lem=\arb{wa-ta`allama... `an-hum}]{\LR{Cf. \icite[54.1--5]{IbnJuljul}}}%
```

LATEX file (body 2/3)

```
1 \app{
2   \lem[wit={S, Mul}]{wa-ta`allama}
3   \rdg[wit=Jul]{wa-kAna qad ta`allama}
4 }
5 'l-.tibba bi-nA.hiyaTi \uc{fArisa}
6 \app{
7   \lem[wit=S]{wa-min 'ahli \uc{^gundaysAbUra}}
8   \rdg[wit=Mul, alt=\LR{om.}]{}
9   \rdg[wit=Jul]{wa-\uc{'l-yamani}}
10 }
11 wa-tamarrana hunAka wa-`arafa 'l-dA'a
12 \app{
13   \lem[wit={S, Mul}]{wa-'l-dawA'a}
14   \rdg[wit=Jul, alt=\LR{om.}]{}
15 } wa-kAna ya.dribu
16 \app{
17   \lem[wit={S, Mul}]{bi-'l-`Udi}
18   \rdg[wit=Jul]{'l-`Uda}
19 } ta`allama _d_alika
20 'ay.daN bi-\uc{fArisa} wa-\uc{'l-yamani}.
```

LATEX file (body 3/3)

```
1 \app{
2   \lem[post=\LR{supra}, wit={S, Mul}]{wa-baqiya}
3   \rdg[wit=SisI, alt=\LR{add. \arb[novoc]{tr"ah min} ut
4     uid.}]{wa-baqiya}
5 }
6 \app{
7   \lem[wit=S]{\uc{'l-.h_ari_tu}}
8   \rdg[wit={Mul, Jul}, alt=\LR{om.}]{}
9 }
10 'ayAma \uc{rasUli 'l-l_ahi} \arbmark{salam}
11 wa-'ayAma \uc{'abI bakriN} wa-\uc{'umara} wa-\uc{'u_tmAna}
12 wa-\uc{'aliyyi bni 'abI .tAlibiN} wa-\uc{mu'_awiyaTa} ra.diya
13 \uc{'l-l_ahu} `an-hum...\LR{\linelabel{7-4}}
14 \end{arab}
15 \end{ekdosis}
```

PDF output

Siglum

S Şehid Ali Paşa MS 1923

a. 773/1372

S^{1sl} = emendationes uel adnotaciones scribae
ipsius supra lineam

الْحَرْثُ بْنُ كَلَدَةَ التَّقْفِيُّ هُوَ الْحَرْثُ بْنُ كَلَدَةَ بْنِ عَمْرُو بْنِ عَلَاجَ التَّقْفِيُّ وَتَقَيْفُ مِنْ بَقَايَا عَادَ وَكَانَ الْحَرْثُ مِنَ
 1 الطَّائِفَ وَسَافَرَ إِلَيْهِ وَتَعَلَّمَ الْطَّبَّ بِنَاحِيَةِ فَارِسَ وَمِنْ أَهْلِ جَنْدِيَسَابُورِ وَمَرَنَ هُنَاكَ وَعَرَفَ الدَّاءَ وَالدَّوَاءَ وَكَانَ
 2 يَصْرِيبُ بِالْعُودِ تَعَلَّمَ ذَلِكَ أَيْضًا بِفَارِسَ وَالْيَمَنِ. وَيَقِيَ الْحَرْثُ أَيَّامَ رَسُولِ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ
 3 وَعَلَيْهِ بْنُ أَبِي طَالِبٍ وَمَعْوِيَةَ رَضِيَ اللَّهُ عَنْهُمْ...
 4

TEST. 2-4 [وَتَعَلَّمَ... عَنْهُ] Cf. Ibn Ğulgul, *Tabaqāt*, 54.1–5.

وَكَانَ قَدْ [S Müller] فِي الْبَلَادِ [S Müller] 1 هُوَ الْحَرْثُ... عَادَ [S Müller] 2 [S Müller] هُوَ الْحَرْثُ... عَادَ [S Müller]
 [S Müller] 3 [S Müller] 4 [S Müller] 5 [S Müller] 6 [S Müller] 7 [S Müller] 8 [S Müller] 9 [S Müller] 10 [S Müller] 11 [S Müller] 12 [S Müller] 13 [S Müller] 14 [S Müller] 15 [S Müller] 16 [S Müller] 17 [S Müller] 18 [S Müller] 19 [S Müller] 20 [S Müller] 21 [S Müller] 22 [S Müller] 23 [S Müller] 24 [S Müller] 25 [S Müller] 26 [S Müller] 27 [S Müller] 28 [S Müller] 29 [S Müller] 30 [S Müller] 31 [S Müller] 32 [S Müller] 33 [S Müller] 34 [S Müller] 35 [S Müller] 36 [S Müller] 37 [S Müller] 38 [S Müller] 39 [S Müller] 40 [S Müller] 41 [S Müller] 42 [S Müller] 43 [S Müller] 44 [S Müller] 45 [S Müller] 46 [S Müller] 47 [S Müller] 48 [S Müller] 49 [S Müller] 50 [S Müller] 51 [S Müller] 52 [S Müller] 53 [S Müller] 54 [S Müller] 55 [S Müller] 56 [S Müller] 57 [S Müller] 58 [S Müller] 59 [S Müller] 60 [S Müller] 61 [S Müller] 62 [S Müller] 63 [S Müller] 64 [S Müller] 65 [S Müller] 66 [S Müller] 67 [S Müller] 68 [S Müller] 69 [S Müller] 70 [S Müller] 71 [S Müller] 72 [S Müller] 73 [S Müller] 74 [S Müller] 75 [S Müller] 76 [S Müller] 77 [S Müller] 78 [S Müller] 79 [S Müller] 80 [S Müller] 81 [S Müller] 82 [S Müller] 83 [S Müller] 84 [S Müller] 85 [S Müller] 86 [S Müller] 87 [S Müller] 88 [S Müller] 89 [S Müller] 90 [S Müller] 91 [S Müller] 92 [S Müller] 93 [S Müller] 94 [S Müller] 95 [S Müller] 96 [S Müller] 97 [S Müller] 98 [S Müller] 99 [S Müller] 100 [S Müller] 101 [S Müller] 102 [S Müller] 103 [S Müller] 104 [S Müller] 105 [S Müller] 106 [S Müller] 107 [S Müller] 108 [S Müller] 109 [S Müller] 110 [S Müller] 111 [S Müller] 112 [S Müller] 113 [S Müller] 114 [S Müller] 115 [S Müller] 116 [S Müller] 117 [S Müller] 118 [S Müller] 119 [S Müller] 120 [S Müller] 121 [S Müller] 122 [S Müller] 123 [S Müller] 124 [S Müller] 125 [S Müller] 126 [S Müller] 127 [S Müller] 128 [S Müller] 129 [S Müller] 130 [S Müller] 131 [S Müller] 132 [S Müller] 133 [S Müller] 134 [S Müller] 135 [S Müller] 136 [S Müller] 137 [S Müller] 138 [S Müller] 139 [S Müller] 140 [S Müller] 141 [S Müller] 142 [S Müller] 143 [S Müller] 144 [S Müller] 145 [S Müller] 146 [S Müller] 147 [S Müller] 148 [S Müller] 149 [S Müller] 150 [S Müller] 151 [S Müller] 152 [S Müller] 153 [S Müller] 154 [S Müller] 155 [S Müller] 156 [S Müller] 157 [S Müller] 158 [S Müller] 159 [S Müller] 160 [S Müller] 161 [S Müller] 162 [S Müller] 163 [S Müller] 164 [S Müller] 165 [S Müller] 166 [S Müller] 167 [S Müller] 168 [S Müller] 169 [S Müller] 170 [S Müller] 171 [S Müller] 172 [S Müller] 173 [S Müller] 174 [S Müller] 175 [S Müller] 176 [S Müller] 177 [S Müller] 178 [S Müller] 179 [S Müller] 180 [S Müller] 181 [S Müller] 182 [S Müller] 183 [S Müller] 184 [S Müller] 185 [S Müller] 186 [S Müller] 187 [S Müller] 188 [S Müller] 189 [S Müller] 190 [S Müller] 191 [S Müller] 192 [S Müller] 193 [S Müller] 194 [S Müller] 195 [S Müller] 196 [S Müller] 197 [S Müller] 198 [S Müller] 199 [S Müller] 200 [S Müller] 201 [S Müller] 202 [S Müller] 203 [S Müller] 204 [S Müller] 205 [S Müller] 206 [S Müller] 207 [S Müller] 208 [S Müller] 209 [S Müller] 210 [S Müller] 211 [S Müller] 212 [S Müller] 213 [S Müller] 214 [S Müller] 215 [S Müller] 216 [S Müller] 217 [S Müller] 218 [S Müller] 219 [S Müller] 220 [S Müller] 221 [S Müller] 222 [S Müller] 223 [S Müller] 224 [S Müller] 225 [S Müller] 226 [S Müller] 227 [S Müller] 228 [S Müller] 229 [S Müller] 230 [S Müller] 231 [S Müller] 232 [S Müller] 233 [S Müller] 234 [S Müller] 235 [S Müller] 236 [S Müller] 237 [S Müller] 238 [S Müller] 239 [S Müller] 240 [S Müller] 241 [S Müller] 242 [S Müller] 243 [S Müller] 244 [S Müller] 245 [S Müller] 246 [S Müller] 247 [S Müller] 248 [S Müller] 249 [S Müller] 250 [S Müller] 251 [S Müller] 252 [S Müller] 253 [S Müller] 254 [S Müller] 255 [S Müller] 256 [S Müller] 257 [S Müller] 258 [S Müller] 259 [S Müller] 260 [S Müller] 261 [S Müller] 262 [S Müller] 263 [S Müller] 264 [S Müller] 265 [S Müller] 266 [S Müller] 267 [S Müller] 268 [S Müller] 269 [S Müller] 270 [S Müller] 271 [S Müller] 272 [S Müller] 273 [S Müller] 274 [S Müller] 275 [S Müller] 276 [S Müller] 277 [S Müller] 278 [S Müller] 279 [S Müller] 280 [S Müller] 281 [S Müller] 282 [S Müller] 283 [S Müller] 284 [S Müller] 285 [S Müller] 286 [S Müller] 287 [S Müller] 288 [S Müller] 289 [S Müller] 290 [S Müller] 291 [S Müller] 292 [S Müller] 293 [S Müller] 294 [S Müller] 295 [S Müller] 296 [S Müller] 297 [S Müller] 298 [S Müller] 299 [S Müller] 300 [S Müller]

TEI xml output 1/6

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <TEI xmlns="http://www.tei-c.org/ns/1.0">
3   <teiHeader>
4     <fileDesc>
5       <titleStmt>
6         <title>
7           <!-- Title -->
8         </title>
9         <respStmt>
10        <resp>
11          <!-- Edited by -->
12        </resp>
13        <name>
14          <!-- Name -->
15        </name>
16      </respStmt>
17    </titleStmt>
18    <publicationStmt>
19      <distributor>
20        <!-- Distributor name -->
21      </distributor>
```

TEI xml output 2/6

```
22 </publicationStmt>
23 <sourceDesc>
24   <listWit>
25     <witness xml:id="S">
26       <abbr type="siglum">S</abbr>Şehid Ali Paşa MS 1923
27     <msDesc>
28       <msIdentifier />
29     <physDesc>
30       <handDesc hands="1">
31         <handNote xml:id="S1sl">
32           <abbr type="siglum">S
33             <hi rend="sup">1sl</hi></abbr>
34             <p>Emendationes uel adnotaciones scribae
35               ipsius supra lineam</p>
36         </handNote>
37       </handDesc>
38     </physDesc>
39     <history>
40       <origin>
41         <origDate>a. 773/1372</origDate>
42       </origin>
43     </history>
```

TEI xml output 3/6

```
44      </msDesc></witness>
45      <witness xml:id="Jul">
46          <abbr type="siglum">
47              <name>Ibn Ğulğul</name>
48          </abbr>
49          <bibl>
50              <author>Ibn Ğulğul</author>
51              <title>Tabaqât al-‘atibbâ’ wa-l-hukamâ’</title>
52              <editor>Fu’at Sayyid</editor>
53              <pubPlace>Cairo</pubPlace>
54              <date when="1955">1955</date>
55          </bibl>
56      </witness>
57  </listWit>
58  </sourceDesc>
59 </fileDesc>
60 <encodingDesc>
61     <variantEncoding method="parallel-segmentation"
62     location="internal" />
63 </encodingDesc>
64 </teiHeader>
65 <text>
```

TEI xml output 4/6

```
66 <body>
67   <p xml:lang="arb">
68     الحُرثُ بْنُ كَلَدَةَ التَّقْفِيُّ
69   <app>
70     <lem wit="#S">هُوَ الحُرثُ بْنُ كَلَدَةَ بْنُ عَمْرُو بْنُ عَادٍ
71       عِلَاجُ التَّقْفِيِّ وَتَقْيِيفُ مِنْ بَقَايَا عَادٍ</lem>
72     <rdg wit="#Mul"></rdg>
73   </app>
74   <app>
75     الحُرثُ
76     <lem wit="#S">الْحُرثُ</lem>
77     <rdg wit="#Mul"></rdg>
78   </app>
79   <app>
80     الْبِلَادُ
81     <lem wit="#S">الْبِلَادُ</lem>
82     <rdg wit="#Mul">في الْبِلَادِ</rdg>
83   </app>
```

TEI xml output 5/6

```
82 <anchor xml:id="#7.2" />
83 <app>
84   <lem wit="#S #Mul">وَتَلَمَّ١</lem>
85   <note type="testium" target="#range(right(7.2),left(7.4))" xml:lang="en">
86     Cf. <author>IbnJuljul</author>
87     <biblScope>54.1-5</biblScope>
88   </note>
89   <rdg wit="#Jul">وَكَانَ قَدْ تَلَمَّ٢</rdg>
90 </app> الطِّبُّ بِنَاحِيَةِ فَارِسَ
91 <app>
92   <lem wit="#S">وَمِنْ أَهْلِ جُنْدِيْسَابُورَ٣</lem>
93   <rdg wit="#Mul"></rdg>
94   <rdg wit="#Jul">وَالْيَنِ٤</rdg>
95 </app> وَمَرَنْ هَنَاكَ وَعَرَفَ الدَّاءَ
96 <app>
97   <lem wit="#S #Mul">وَالدَّوَاءَ٥</lem>
98   <rdg wit="#Jul"></rdg>
99 </app> وَكَانَ يَضْرِبُ٦
```

TEI xml output 6/6

```
101 <app>
102   <lem wit="#S #Mul">بِالْعُودِ</lem>
103   <rdg wit="#Jul">الْعُودَ</rdg>
104   تَعْلَمُ ذَلِكَ أَيْضًا بِفَارَسٍ وَالْيَمِّينِ.
105 <app>
106   <lem wit="#S #Mul">وَبَقِيَّ</lem>
107   <rdg wit="#S1sl">وَبَقِيَّ</rdg>
108 </app>
109 <app>
110   <lem wit="#S">الْحِرْثُ</lem>
111   <rdg wit="#Mul #Jul"></rdg>
112   <app>أَيَّامَ رَسُولِ اللَّهِ
113   صَلَعَمْ وَأَيَّامَ أَبِي بَكْرٍ وَعُمَرَ وَعُثْمَانَ وَعَلَيِّ بْنِ أَبِي طَالِبٍ وَمَعْوِيَّةَ
114   رَضِيَ اللَّهُ عَنْهُمْ...
115   <anchor xml:id="7.4" />
116 </p>
117 </body>
118 </text>
119 </TEI>
```

Outline

What is ekdosis about?

General Framework

Additional *and optional* Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

LATEX file

```
1 \begin{alignment}[tcols=2, % meaning: two columns...
2                     lcols=1, % ... one of which is to be on the left-hand page
3                     texts=translation; text,
4                     apparatus=text, % col `text' has an apparatus
5                     segmentation=auto] % insert automatically incremented xml:ids
6
7 \begin{translation}
8   \begin{segment}
9     \textbf{\prname{al-.h_ari_t ibn kaladaT{} al-_taqafiyy}}:--- [...]
10    \end{segment}
11  \end{translation}
12 \begin{text}
13   \begin{arab}
14     \begin{segment}
15       \prname{al-.h_ari_tu bnu kaladaTa 'l-_taqafiyyu}
16       \app{\lem[wit=S, alt=\arb{huwa \prname{'l-.h_ari_tu}... \prname{`AdiN}}]{huwa
17         \prname{'l-.h_ari_tu bnu kaladaTa bni `amriNU bni `ilA^giN 'l-_taqafiyyu
18         \prname{_taqIfuN} min baqAyA \prname{`AdiN}}}
19       \rdg[wit=Mul, alt=om.]{}}
20     \end{segment}
21   \end{arab}
22 \end{text}
23 \end{alignment}
```

PDF output

Siglum

S Şehid Ali Paşa MS 1923

a. 773/1372

^{S^{1sl}} = emendationes uel adnotaciones scribae ipsius supra lineam

al-Hārit ibn Kaladah at-Taqafī:— al-Hārit ibn Kaladah ibn 'Amr ibn 'Ilāg at-Taqafī. The tribe of Taqif comes from what is left of the 'Ad. al-Hārit was a native of at-Ta'if; he travelled extensively and learned medicine in Persia and from the people of Ġundaysābūr, where he became accustomed <to it> and learned the diseases and the remedies. He played the lute, which he had also learned in Persia and Yemen. al-Hārit lived in the days of the Prophet of God, may God bless him and give him peace, of 'Abū Bakr, 'Umar, 'Utmān, 'Ali ibn Tālib and Mu'awiyah, may God look upon them kindly.

الْحَرْثُ بْنُ كَلَدَةَ التَّقَفِيُّ هُوَ الْحَرْثُ بْنُ كَلَدَةَ بْنُ عَبْرُو بْنُ عَلَاجَ التَّقَفِيِّ وَتَهْبِيفُ مِنْ بَقَائِيَا عَادَ وَكَانَ الْحَرْثُ مِنَ الطَّائِفِ وَسَافَرَ فِي الْأَلَادَ وَتَعَلَّمَ الطَّبَبَ بِنَاحِيَةَ فَارَسَ وَمِنْ أَهْلِ جُندِيَسَابُورِ وَمِنْ هَنَّا كَانَ وَعَرَفَ الدَّاءَ وَالدَّوَاءَ وَكَانَ يَصْرُبُ بِالْعُودِ تَعَلَّمَ ذَلِكَ أَيْضًا فِي فَارَسَ وَالْيَمَنِ. وَبَيْنِ الْحَرْثِ أَيَّامَ رَسُولِ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ وَأَيَّامَ أَيْنِي وَعَمَرَ وَعُثْمَانَ وَعَلَيِّ بْنِ أَيِّي طَالِبٍ وَمَعْوِيَةَ رَجِيِّي اللَّهُ عَنْهُمْ...

Test. 3–6 [وَعَلَيِّ... عَنْهُ] Cf. Ibn Ğulgul, *Tabaqāt*, 54.1–5.

الْحَرْثُ 1–2 S] om. Müller 2 هُوَ الْحَرْثُ... عَادَ 3 وَكَانَ قَدْ تَعَلَّمَ [S Müller 4 وَتَعَلَّمَ في الْأَلَادَ S] Ibnu Ğulgul 5 supra S Müller add. S^{1sl} ut uid. S] om. Müller Ibnu Ğulgul 6

TEI xml output

```
1 <div xml:id="div-translation" xml:lang="en" type="section">
2   <p>
3     <seg xml:id="translation_1">
4       <name>al-Ḥarīt ibn Kaladah at-Taqqafī</name>:--- [...]
5     </seg>
6   </p>
7 </div>
8 <div xml:id="div-text" xml:lang="arb" type="section">
9   <p xml:lang="arb">
10    <seg xml:id="text_1">
11      آلْحَرِثُ بْنُ كَلَدَةَ التَّقْفِيُّ
12      <app>
13        <lem wit="#S">هُوَ الْحَرِثُ بْنُ كَلَدَةَ بْنِ عَمِّرُو بْنِ عَلَيِّ التَّقْفِيُّ وَثَقِيفٌ مِنْ بَقَائِيَّا عَادٍ</lem>
14        <rdg wit="#Mul"></rdg>
15      </app>
16    </seg>
17  </p>
18 </div>
19 <linkGrp type="alignment" domains="#div-translation #div-text">
20   <link target="#translation_1 #text_1"/>
21 </linkGrp>
```

Outline

What is ekdosis about?

General Framework

Additional *and optional* Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

LATEX file

```
1 \begin{alignment}[tcols=2, % meaning: two columns...
2                     lcols=1, % ... one of which is to be on the left-hand page
3                     texts={alBarr, alQifti},
4                     apparatus=alQifti, % col `alQifti' has an apparatus
5                     segmentation=noauto] % manually incremented xml:ids
6
7 \begin{alBarr}
8     [Arabic text]
9 \begin{segment}[xmlid="albarr-1" corresp="alqifti-1"]
10    mAta fI 'awwali 'l-'islAmi [more Arabic text]
11 \end{segment}
12 \end{alBarr}
13 \begin{alQifti}
14     \begin{arab}
15         [Arabic text]
16         \begin{segment}[xmlid="alqifti-1" corresp="albarr-1"]
17             mAta \prname{'l-.h_ari_tu bnu kaladaTa}fI 'awwali 'l-'islAmi [more Arabic text]
18         \end{segment}
19         [more Arabic text]
20     \end{arab}
21 \end{alQifti}
22 \end{alignment}
```

PDF output

Conspectus siglorum

B Berlin 10054

V Wien 1062

a. 1171/1758

Ibn 'Abd
al-Barr,
393

(الْحَرْثُ بْنُ الْحَرْثِ بْنُ كَلَدَةَ الشَّفَقِيِّ. كَانَ أَبُوهُ طَبِيبًا فِي الْعَرَبِ حَكِيمًا، وَهُوَ مِنْ الْمُؤْلَفَةِ قَلْوَبِهِمْ، مَعْدُودٌ فِيهِمْ، وَكَانَ مِنْ أَشْرَفِ قَوْمِهِ، وَأَمَّا أَبُوهُ الْحَرْثِ بْنِ كَلَدَةَ فَسَمِّاتَ فِي أَوَّلِ إِسْلَامِهِ، وَلَمْ يَصْحِ إِسْلَامُهُ.
وَرُوِيَ أَنَّ رَسُولَ اللَّهِ ﷺ أَمَرَ سَعْدَ بْنَ أَبِي وَقَاصِ
أَنْ يَاَتِيهِ وَيَعْوِصُهُ فِي مَرَضٍ نَزَّلَ بِهِ، فَدَلَّ ذَلِكَ عَلَى
أَنَّهُ جَاءَ أَنْ يُشَارِرَ أَهْلَ الْكُفَّرِ فِي الطِّبِّ إِذَا كَانُوا مِنْ
أَهْلِهِ، وَاللَّهُ أَعْلَمُ.

Ibn
al-Qiftī,
126.15-20

قال أبو عمر: ومات الحarth بن كلدة في أول الإسلام، ولم يصح إسلامه قال وأمر رسول الله ﷺ سعد بن أبي وقاص بـأن يأتيه ويعوصه في مرض تزال به فيدل أنه جاء أن يشاور أهل الكفر في الطب إذ كان من أهله والله أعلم و كان الحarth بن كلدة يضرب العود تعلم ذلك أيضا بغيره واليدين وبقي إلى زمان معروفة فقال له معروفة ما الطب يا حarth فقال الأزم يا معروفة يعني الجميع

V الْكُفَّرُ V لَا يَأْسَ [جَاءَ 4 B أَبُوهُ عَمَرٌ [أَبُوهُ عَمَرٌ 1
Fَسَأَلَ [فَقَالَ 7 V إِذَا كَانُوا لِإِذْ كَانَ 5

TEI xml output

```
1 <div xml:id="div-alBarr" xml:lang="arb" type="section">
2   <p>
3     [Arabic text]
4     <seg xml:id="albarr-1">
5       مَاتَ فِي أُولِ الْإِسْلَامِ [more Arabic text]
6     </seg>
7   </p>
8 </div>
9 <div xml:id="div-alQifti" xml:lang="arb" type="section">
10  <p xml:lang="arb">
11    [Arabic text]
12    <seg xml:id="alqifti-1">
13      مَاتَ الْحَارِثُ بْنُ كَلَدَةَ فِي أُولِ الْإِسْلَامِ [more Arabic text]
14    </seg>
15    [more Arabic text]
16  </p>
17 </div>
18 <linkGrp type="alignment" domains="#div-alBarr #div-alQifti">
19   <link target="#albarr-1 #alqifti-1"/>
20 </linkGrp>
```

Outline

What is ekdosis about?

General Framework

Additional *and optional* Software

ekdosis: Basic Examples

ekdosis in action

Editing One Single Text

Text and Translation

Parallel Writings and/or Borrowings

Concluding Remarks

ekdosis development status

Apparatus criticus, exporting to TEI **Stable.**

ekdosis development status

Apparatus criticus, exporting to TEI **Stable**.

Text and translation **Stable**.

ekdosis development status

Apparatus criticus, exporting to TEI **Stable**.

Text and translation **Stable**.

Segmentation **Beta-testing** (being tested on long texts—several hundred pages).

ekdosis development status

Apparatus criticus, exporting to TEI **Stable**.

Text and translation **Stable**.

Segmentation **Beta-testing** (being tested on long texts—several hundred pages).

Documentation Yet to be written...

Thank you

Many thanks for your attention!

Do not hesitate to write to me if you are interested or if you have any suggestions to make.

Robert Alessi (robert.alessi@cnrs.fr)
CNRS, Paris (The Sorbonne)