Genesis of Greek

Notes

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PIE voiced aspirated stops become PG voiceless aspirated stops.

$$\overset{\text{G}^{(w)h}}{\begin{bmatrix} + \text{ cons} \\ - \text{ cont} \\ + \text{ s.g.} \\ + \text{ voi} \end{bmatrix}} \rightarrow \overset{\text{C}^{(w)h}}{\begin{bmatrix} - \text{ voi} \end{bmatrix}}$$

```
inventory <- c("dʰugh₂ter-", "sroˈbʰeyoh₂", "ˈh₂eǵrom", "ˈtreyes",
               "h₂ster-", "h₂enh₁mos", "ˈseptm̥")
inventory <- gsub("(d)(ʰ|ʷʰ|ʰʷ)", "t\\2", inventory, perl = T)
inventory <- gsub("(b)(ʰ|ʷʰ|ʰʷ)", "p\\2", inventory, perl = T)
inventory <- gsub("(g)(ʰ|ʷʰ|ʰʷ)", "k\\2", inventory, perl = T)
```

PIE *s becomes PG *h at the beginning of a word or intervocalically

$$*s \rightarrow *h \ / \ \left\{ \begin{array}{l} \#\_V \\ V\_V \end{array} \right.$$

PIE intervocalic *y is elided.

```
inventory <- gsub("(a|e|i|o|u)y(a|e|i|o|u)", "\\1\\2", inventory, perl = T)
```

$$*y \rightarrow \emptyset \ / \ V\_V$$

Word initial shenanigans concerning PIE *y that have no solid explanation

$$*s \rightarrow *h \ / \ \begin{cases} \#\_V \\ V\_V \end{cases}$$

PIE word final *m becomes PG *n

```
inventory <- gsub("m$", "n", inventory, perl = T)
```

$$\overset{*m}{\begin{bmatrix} + \text{ cons} \\ - \text{ son} \\ + \text{ lab} \\ - \text{ cor} \\ + \text{ nas} \end{bmatrix}} \rightarrow \overset{*n}{\begin{bmatrix} - \text{ lab} \\ + \text{ cor} \end{bmatrix}} \ / \ \_\#$$

PIE word-initial *h_1, *h_2, and *h_3 become PG *e, *a, and *o respectively.

```r
inventory <- gsub("^h₁", "e", inventory, perl = T)
inventory <- gsub("^h₂", "a", inventory, perl = T)
inventory <- gsub("^h₃", "o", inventory, perl = T)
```

$$*h_1 \rightarrow *e \;/\; \#\_$$

$$*h_2 \rightarrow *a \;/\; \#\_$$

$$*h_3 \rightarrow *o \;/\; \#\_$$

PIE interconsonantal laryngeals show the same reflexes as the word-initial.

```r
inventory <- gsub("(t|tʰ|d|s|p|pʰ|b|k|kʰ|g|h|m|n|l|r)h₁(t|tʰ|d|s|p|pʰ|b|k|kʰ|g|h|m|n|l|r)",
                  "\\1e\\2", inventory, perl = T)
inventory <- gsub("(t|tʰ|d|s|p|pʰ|b|k|kʰ|g|h|m|n|l|r)h₂(t|tʰ|d|s|p|pʰ|b|k|kʰ|g|h|m|n|l|r)",
                  "\\1a\\2", inventory, perl = T)
inventory <- gsub("(t|tʰ|d|s|p|pʰ|b|k|kʰ|g|h|m|n|l|r)h₃(t|tʰ|d|s|p|pʰ|b|k|kʰ|g|h|m|n|l|r)",
                  "\\1o\\2", inventory, perl = T)
```

$$*h_1 \rightarrow *e \;/\; C\_C$$

$$*h_2 \rightarrow *a \;/\; C\_C$$

$$*h_3 \rightarrow *o \;/\; C\_C$$

PIE syllabic *m and *n may have become PG *a by this time.

```r
inventory <- gsub('(m̥|n̥)', 'a', inventory, perl = T)
```

$$
\overset{\text{*m̥ *n̥}}{\begin{bmatrix} +\text{ cons} \\ -\text{ son} \\ +\text{ syl} \\ \alpha\text{ lab} \\ \beta\text{ cor} \\ +\text{ nas} \end{bmatrix}} \rightarrow \overset{\text{*a}}{\begin{bmatrix} -\text{ con} \\ -\text{ high} \\ +\text{ low} \\ -\text{ front} \\ -\text{ back} \\ -\text{ rnd} \end{bmatrix}}
$$