

short code for a long s > taco hoekwater

Short code for a long s

Taco Hoekwater

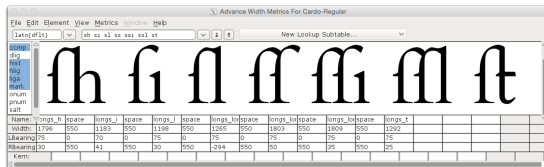
Introduction

In the next column, you see the first page of the content of 'The Art of Cookery, made Plain and Easy' by Hannah Glasse (The 43rd page in the Google Books scan of the 1774 edition, which can be viewed and downloaded from https://books.google.nl/books?id=xJdAAAAIAAJ&source=gbs_navlinks_s).

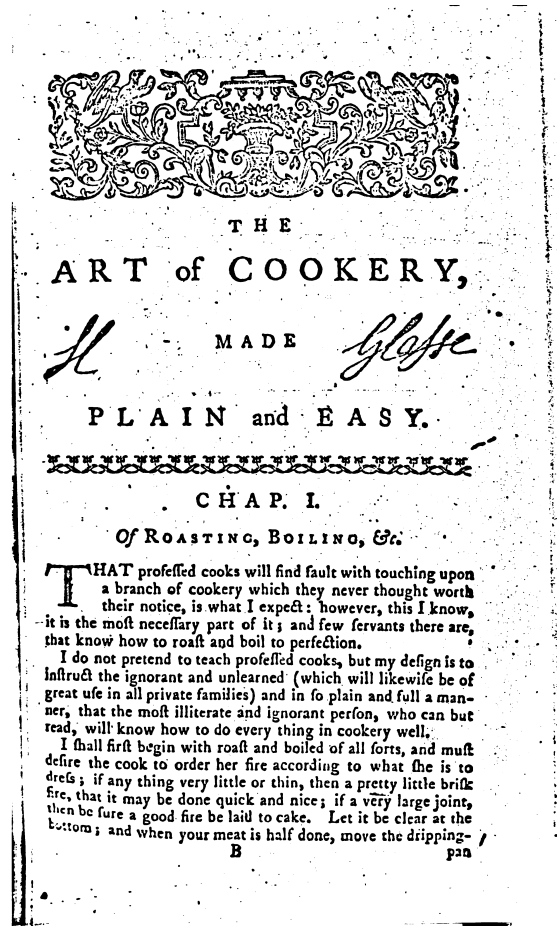
For the ConTeXt meeting in Bassenge, I was trying to create a faithful reproduction of the typesetting of this book. In the 18th century, the use of the 'long s' was still abundant (its popularity started declining around the start of the 19th century).

Because of the ascender, many fonts not only had the 'long s' shape itself but also ligatures for combining with following letters like 'i' and 'l'. Very similar to the ligatures for 'f', in fact.

For my reproduction effort, I decided on the font family 'Cardo' (<https://www.google.com/fonts/specimen/Cardo>). This is not a large font family (it has only three members: regular, bold and italic) but I only needed regular and italic versions so that was fine. More importantly it had not only the 'long s' glyph (accessed via the hist OpenType lookup feature), but also it had a fairly long list of relevant ligatures, accessed via the hlig lookup:



A small test made it clear that the font has an appropriate 'look and feel' as well. Happy with my font choice, a typescript for the Cardo family was simple enough to write.



The only interesting thing in the typescript definition is the \definefontfeature to trigger the required OpenType replacements.

```
\definefontfeature
[art]
[default]
[script=latn,hist=yes,
hlig=yes,dlig=yes]
```

So, everything seemed to be fine. But as it turns out, there was a bug in the OpenType lookup. In my version of the font, it replaced *all* the occurrences of 's' in the input source into the long form, even the ones at the end of a word!

Lua to the rescue

At this point, I could have gone through the document to replace many of my keyed-in s characters with Unicode long s characters [char 383] but keying in those is fairly tedious. Another solution would have been to complain to the font vendor. But it is simple to do the required replacements in Lua code within ConT_EXt.

The rule for replacing 's' with 'long s' in English language text is: when an alphabetic character follows, do the replacement, otherwise don't.

A short lua function decides if a luatex glyph node is an alphabetic character in English [lua code blocks should be wrapped in `\startluacode...\stopluacode`]:

```
local glyph = node.id('glyph')
function isalpha(t)
  if t and t.id == glyph then
    if t.char >= utf.byte('A') and
       t.char <= utf.byte('Z') then
      return true
    end
    if t.char >= utf.byte('a') and
       t.char <= utf.byte('z') then
      return true
    end
  end
  return false
end
```

Now we can use `isalpha(node)` in a test. The actual code in the next function is again very simple, but it needs to be recursive to deal with `\hbox` nodes inside the list of nodes to be processed.

```
local hlist = node.id('hlist')
function long_s(h)
  for t in node.traverse(h) do
    if t.id == hlist then
      long_s(t.list)
    end
    if t.id == glyph then
```

```
      if t.char == utf.byte('s') and
         isalpha(t.next) then
        t.char = utf.char(383)
      end
    end
  end
  return h
end
```

Having done that, this can be integrated with ConT_EXt's node processing like this:

```
nodes.tasks.prependaction
  ("processors", "characters", "long_s")
```

Result:

1 Of Roasting, Boiling, &c.

That professed cooks will find fault with touching upon a branch of cookery which they never though worth their notice, is what I expect : however, this I know, it is the most necessary part of it ; and few fervants there are, that know how to roast and boil to perfection.

I do not pretend to teach professed cooks, but my design is to instruct the ignored and unlearned (which will likewise be of great use in all private families) and in so plain a full a manner, that the most illiterate and ignorant person, who can but read, will know how to do every thing in cookery well.

I shall first begin with roast and boiled of all sorts, and most desire the cook to order her fire according to what she is to dress ; if any thing very little or thin, then a pretty little brisk fire, that it may be done quick and nice ; if a very large joint, the be sure a good fire be laid to cake. Let it be clear at the bottom ; and when your meat is half done, move the dripping-pan and spit a little from the fire, and stir up a good