IMAGE AS MARKUP

Adding Semantics to Manuscript Images

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BACKGROUND

- *img2xml* project
  - funded by NEH startup grant (began June 1, 2009)
  - uses SVG tracing of text on a manuscript page as a basis for linking page images to transcriptions, annotations, etc.
  - goal: produce a web publishing environment that uses an Open Source / Open Standards stack to integrate the display of text / annotation / image
    - Test case: the diary of a 19th century UNC student, James Dusenbery (early 1840s)

The Knight of the golden crest.

The banner waved on the castle walls,
Mid the shouts of a trusty band,
When a knight returned to his princely halls,
From the wars of the holy land.
His lady left her harp, and stood,
To gaze on the smiling west,
Whence came a dark steed, from the distant wood,
With her knight of the golden crest.

The silken harp, her true knight displayed,
Which in earlier days she wove,
When he breathed his vows in the twilight shade,
And was blest with her maiden love.
She welcomed her lord with accents bland,
And the harp to her lips she pressed,
And thought of the time when she gave her hand,
To the knight of the golden crest.

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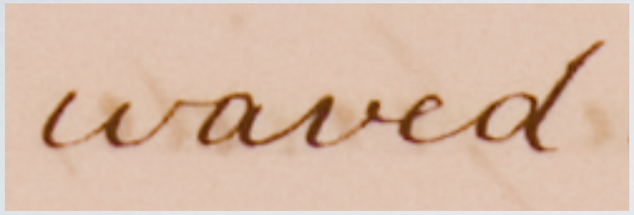
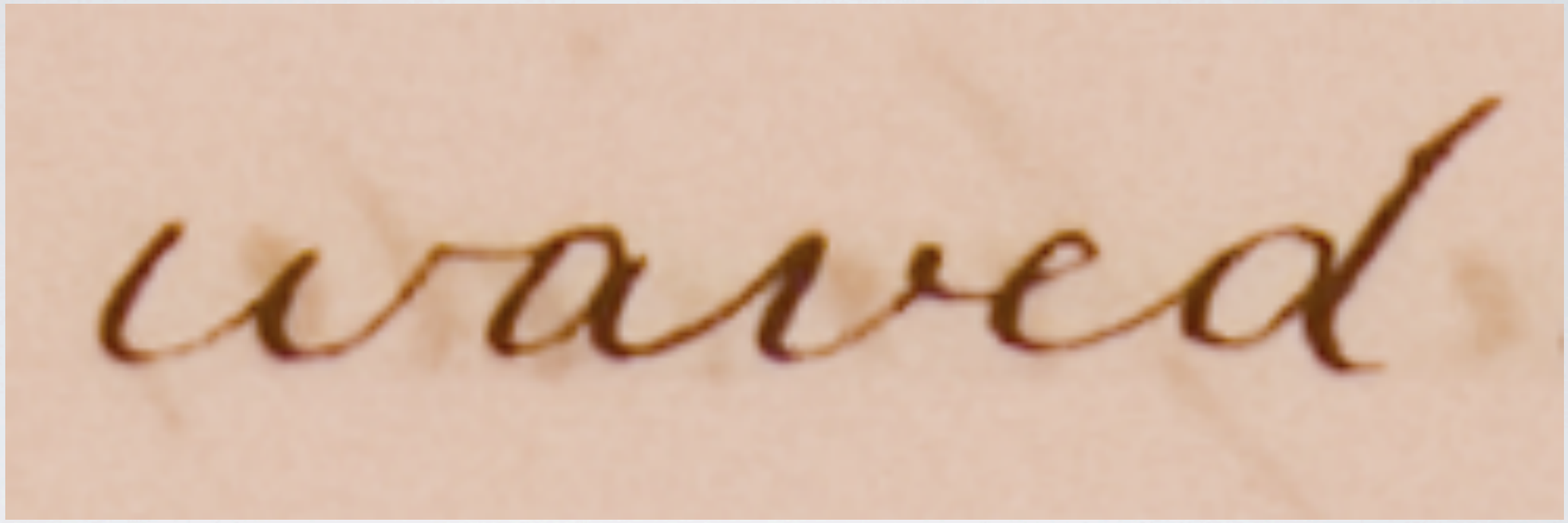
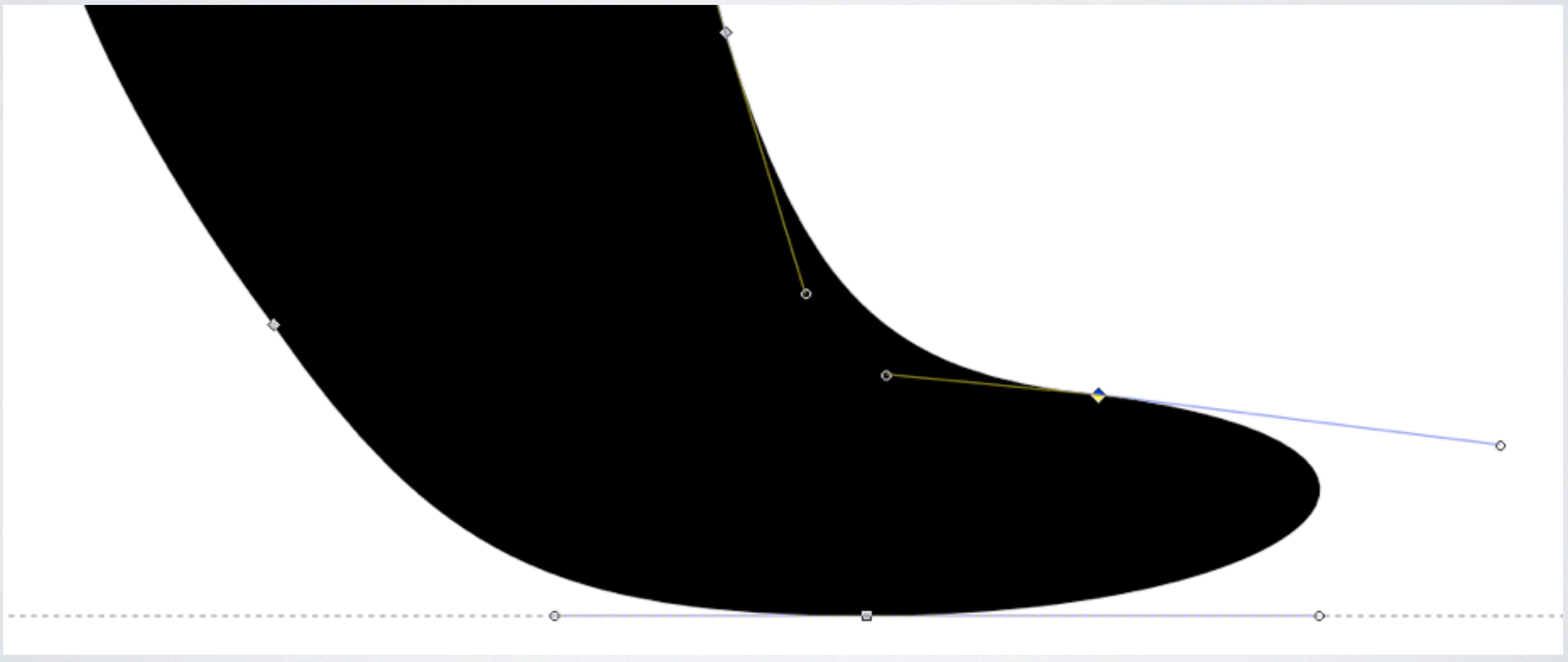
raster



zoomed (raster)

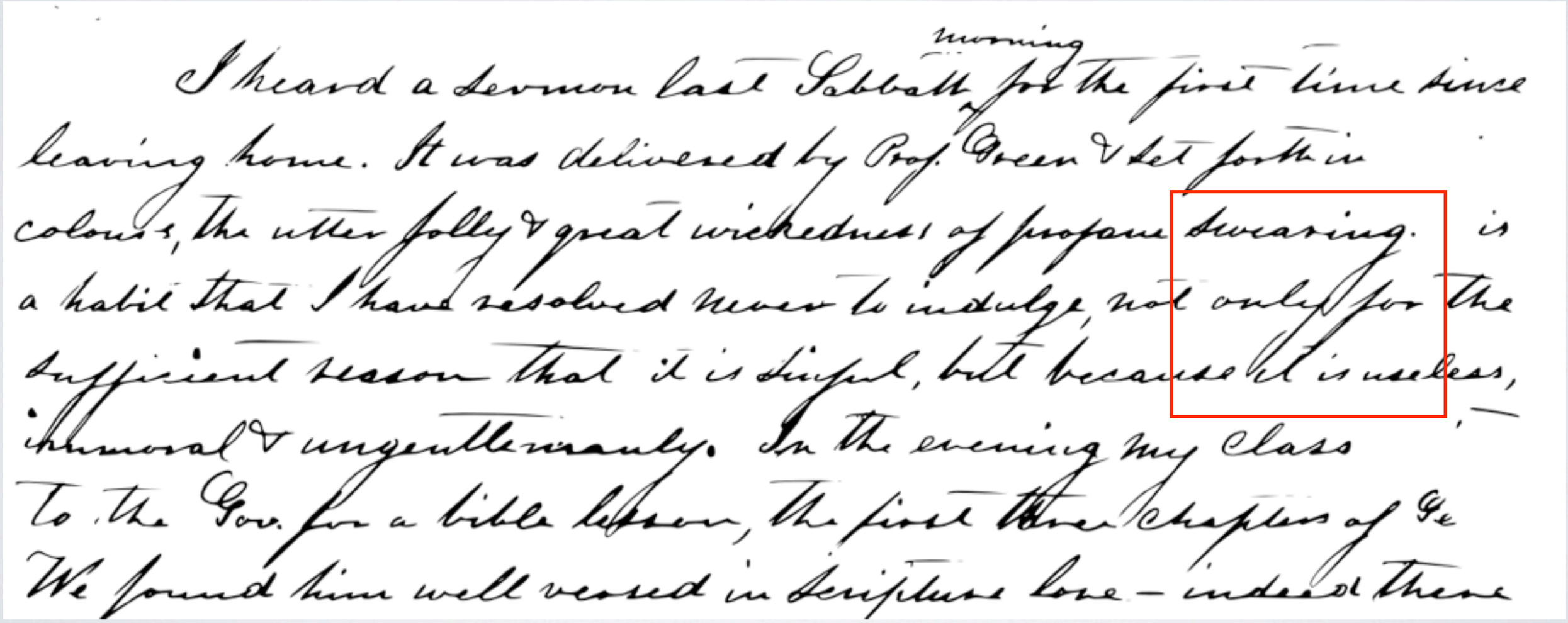


vector



- In the SVG, "words" consist of combinations of shapes.
- The relationship between shapes is based entirely on their position.
- If we wish to enable the alignment of the image and, e.g. a transcription, then the relationships in the SVG must be made explicit.

- "OHCO" could be done, using groups (<svg:g>), but is a non-starter:



I heard a sermon last Sabbath morning for the first time since leaving home. It was delivered by Prof. Green & set forth in colours, the utter folly & great wickedness of profane swearing. is a habit that I have resolved never to indulge, not only for the sufficient reason that it is sinful, but because it is useless, immoral & ungentlemanly. In the evening my Class To the Gov. for a bible lesson, the first three Chapters of Ge We found him well versed in Scripture lore – indeed there

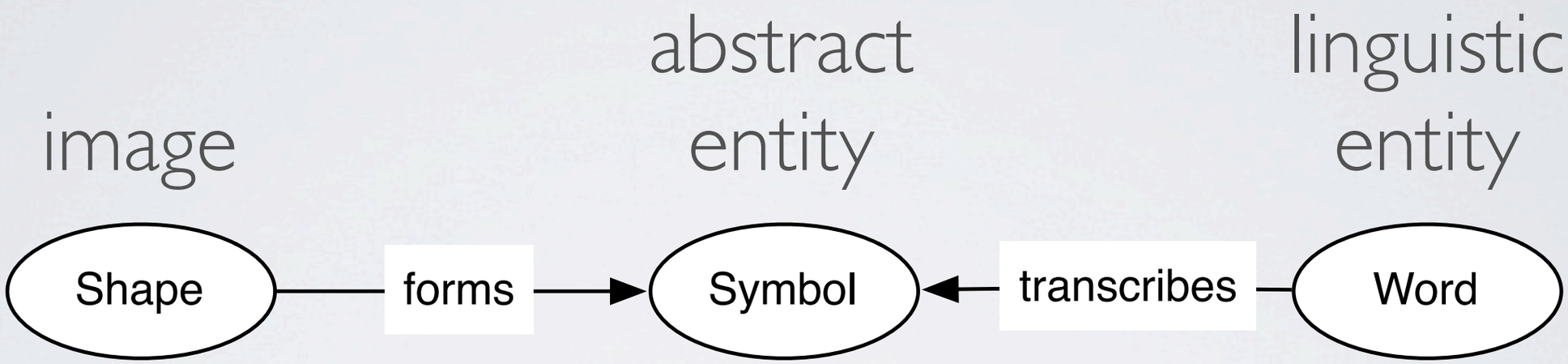
- Drucker & McGann (from *Images as the Text: Pictographs and Pictographic Logic*):

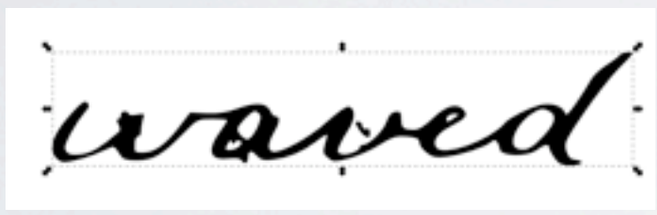
"Take for example the placement of signs into columns, into directional orientation with respect to each other and their order of reading, or the use of the graphic surface -- stone, papyrus, clay, paper, bark, or whatever -- as a space in which that order is articulated: all these involve conventions whose structure is rarely given attention as a set of formal principles. These conventions can be described as elements of a pictographic logic. Diagrammatic in nature, they are founded on two fundamental principles: the description of an entity and the articulation of relations among entities. These principles, critical to writing systems, pictographic and otherwise, also underlie the structure of graphs and logical diagrams of various kinds. Furthermore, they can be used to make explicit the logical structure of inscribed or printed texts in their embodied, visual terms."

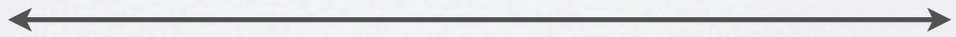
I'M BAD AT THEORY

- My training as a Classicist made me suspicious of it.
- A decade spent as a software engineer makes me jump immediately towards articulating problems and solving them.
- SO: What I think about this may be completely missing the point...
- BUT, Drucker & McGann have a point: there is a visual logic to the written page, and it is one that is often elided in the practical things we do when digitizing texts.

THE DESCRIPTION OF AN ENTITY







“waved”

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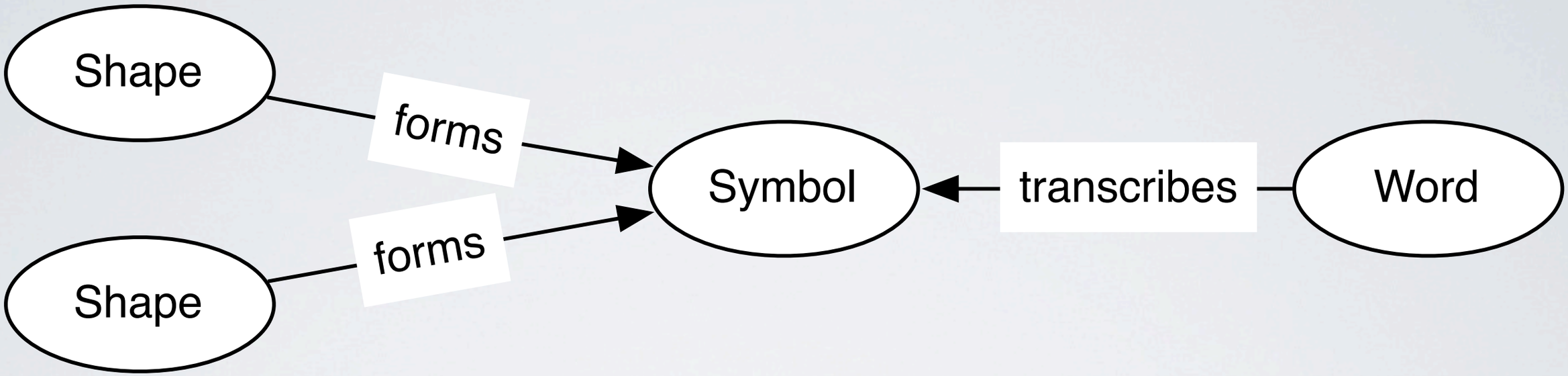

“utter”

THE ARTICULATION OF RELATIONSHIPS AMONG ENTITIES

<I>The banner waved on the castle walls,</I>

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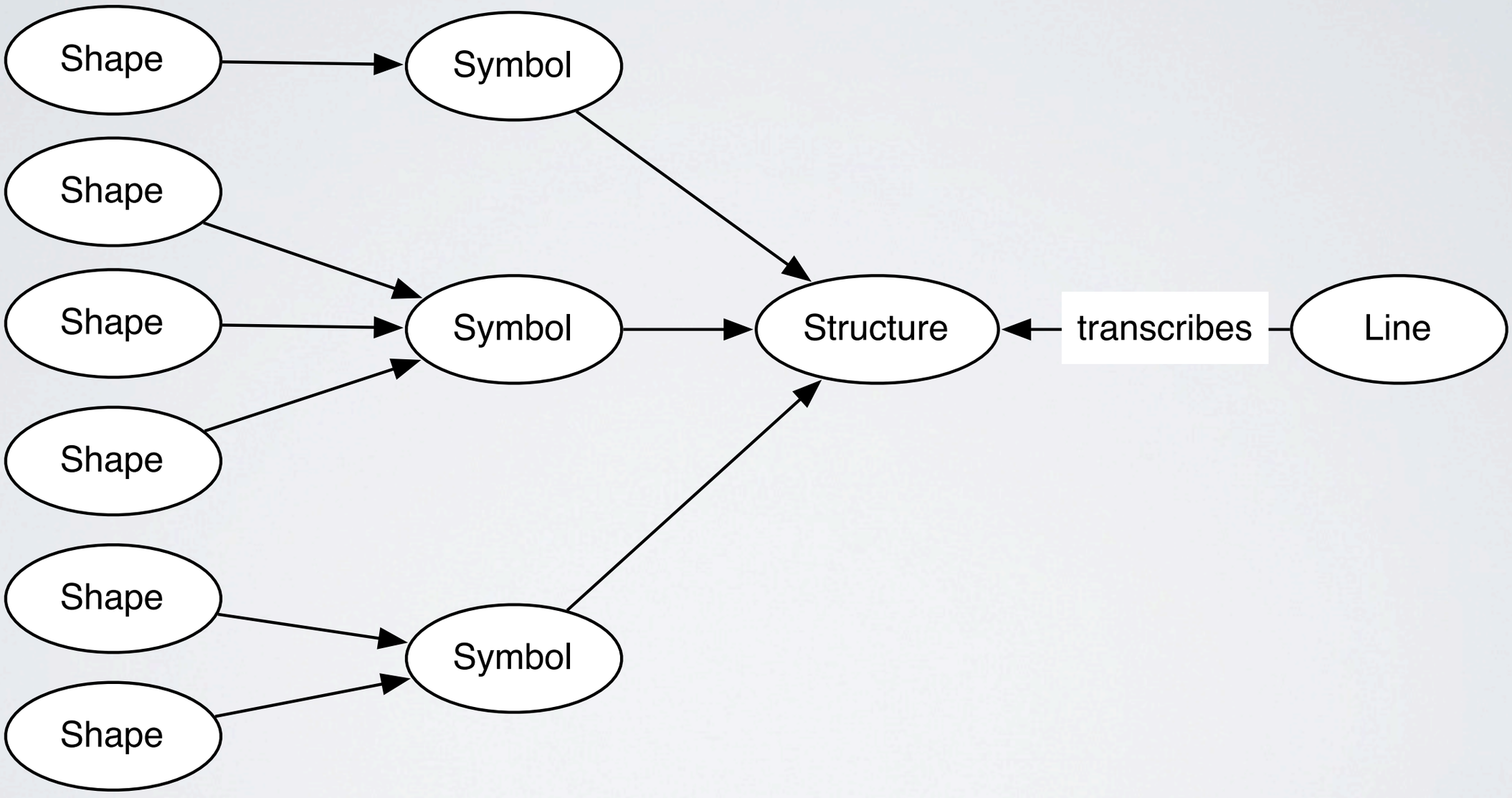

CONCLUSIONS

- The act of reading seduces us from attending to the presentational logic of the text (Drucker & McGann).

- From a practical standpoint, you can do all kinds of useful things with an XML sketch of a text.

- Need a machine-actionable language to articulate the relationships—RDF seems a natural fit.
  - If you add ids to the SVG and transcribe/annotate with TEI, then there will be URIs for everything you want to point to.

img2xml: http://github.com/hcayless/img2xml/tree/master

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