## **English 442 Exercise Four** Shakespeare in Code: Sonnet Conversion

Part 4: Algorithms

The Aim You've done various kinds of conversions of the same sonnet. Now, it's time to try building it from scratch! In this exercise, your task is to create a "program" (a set of instructions) that will build a version of the sonnet when it's executed. In keeping with the "physical" objects we've been making up until now, let's add in an extra element: once you've created the program, write it down, and build a selfcontained box that contains: 1) raw materials to build the sonnet, and 2) the instructions on note cards. Think of it like one of those self-contained craft kits, recipe boxes or Fluxus boxes.

> Once the box is complete, you should be able to give it to someone else, and they should be able to build a version of the sonnet from the items in the box.

## *The Text* Sonnet #12 from Shakespeare:

- When I do count the clock that tells the time.
- And see the brave day sunk in hideous night;
- When I behold the violet past prime,
- And sable curls all silver'd o'er with white: 04
- When lofty trees I see barren of leaves
- Which erst from heat did canopy the herd,
- And summer's green all girded up in sheaves
- Borne on the bier with white and bristly beard,
- Then of thy beauty do I question make,
- That thou among the wastes of time must go,
- 11
- Since sweets and beauties do themselves forsake
- 12 And die as fast as they see others grow;
- And nothing 'gainst Time's scythe can make defence 13
- Save breed, to brave him when he takes thee hence. 14

## The "input" setup. All together: Task Step 1:

- Reread the poem and look at how it's structured.
- Think about a basic program: it's a set of instructions that tell you how to make something happen; a kind of recipe that cooks with information instead of cake ②. So, your task is to create a set of instructions or a "recipe" that will help a third party to "build" a sonnet from scratch.
- If you know anything about very basic programs, you'll know they have some interesting features. They're not just a list of instructions 1 > 2 > 3 etc. Instead, they are economical: if a task has to be repeated more than once, it's listed only once. Then, you use a "counter" to keep track of how many times the instruction has been executed. When the counter hits the right number, the program moves on to another task.
- Look at the parts of the poem that are patterned and/or repeat, and decide how you're going to write a set of instructions to build the sonnet.
- Hint: remember flow charts? They're great...
- Make a list of possible "ingredients" to build the sonnet.

## Come up with the "output" solution yourselves, in pairs. Task Step 2:

Next Week & Bring in all your materials and start writing your instruction cards and building Following your recipe box.