CLAIMS:

1. A method for fabricating an object using a computer-controlled apparatus, the apparatus having a fabrication head for selectively fabricating material and a build area for receiving the fabricated material, at least one of the fabrication head and build area being movable relative to each other and the fabrication head being selectively operable to fabricate the material responsive to computer instructions, the method comprising the steps of:

   receiving, by the apparatus, computer instructions relating to the object geometry; and

   moving at least one of the fabrication head and the build area, and selectively operating the fabrication head, to fabricate two beads of the material in the build area adjacent to and abutting each other, each of the beads corresponding with a respective portion of the object geometry and having non-uniform thickness such that the two beads have interlocking complementary geometry,

   wherein fabricating each bead further comprises adjusting a thickness dimension of the bead simultaneously with moving the at least one of the fabrication head and the build area.

2. The method for fabricating an object according to claim 1, wherein adjusting the thickness of one of the beads further comprises the step of forming a protrusion extending from the bead, and adjusting the thickness of the other bead further comprises the step of forming a recess dimensioned to at least partially receive the protrusion.

3. The method for fabricating an object according to claim 1, wherein adjusting the thickness of one of the beads further comprises the step forming a first projection extending vertically from the bead, and wherein fabricating the bead further comprises adjusting a width of the bead to form a second projection extending horizontally from the bead.

4. The method for fabricating an object according to claim 1, wherein the step of fabricating the two beads further comprises fabricating one of the beads overlaying and extending at an angle to the other bead.

5. The method for fabricating an object according to claim 1, wherein the step of fabricating one of the beads further comprises fabricating two separate portions of the bead spaced apart from each other to define a cavity therebetween, and the step of fabricating the other bead further comprises increasing the thickness dimension so that the bead extends into the cavity.

6. The method for fabricating an object according to claim 0, wherein the build area further comprises a planar surface and the step of fabricating the two beads further comprises simultaneously moving the fabrication head parallel and perpendicular relative to the planar surface.

7. The method for fabricating an object according to claim 6, wherein the step of fabricating the two beads further comprises simultaneously moving the fabrication head at a constant speed, varying a distance between the fabrication head and the planar surface, and varying a volumetric rate of the material being fabricated.

8. The method for fabricating an object according to claim 6, wherein the step of fabricating the two beads further comprises simultaneously moving the fabrication head at a variable speed, varying a distance between the fabrication head and the planar surface, and maintaining a volumetric rate of the material being fabricated at a constant.

9. The method for fabricating an object according to claim 6, wherein the fabrication head further comprises an array of fabrication nozzles adapted to fabricate material, at least one nozzle in the array being movable relative to the fabrication head, and wherein the step of fabricating the two beads further comprises moving at least one nozzle to be spaced further from the planar surface than an adjacent nozzle.

10. The method for fabricating an object according to claim 6, wherein the fabrication head further comprises an array of fabrication nozzles adapted to fabricate material, at least one nozzle in the array being rotatable relative to the fabrication head, and wherein the step of fabricating the two beads further comprises rotating at least one nozzle to be at angle to the planar surface.