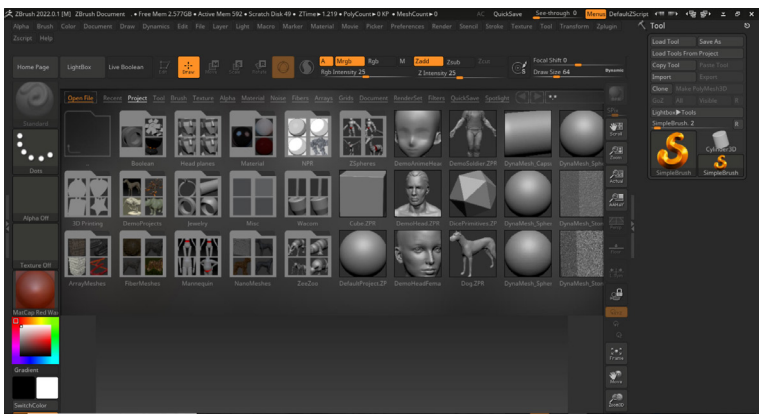
Chapter 1

Exploring ZBrush Interface



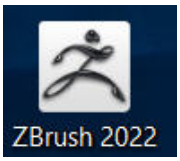


Figure 1-1 *Starting ZBrush 2022 by choosing the icon from desktop*

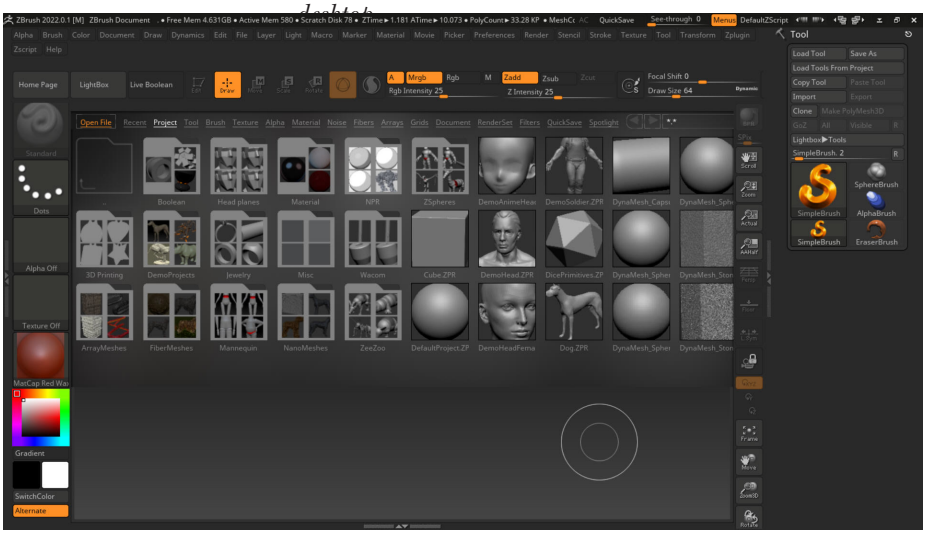


Figure 1-2 *The default ZBrush 2022 interface*

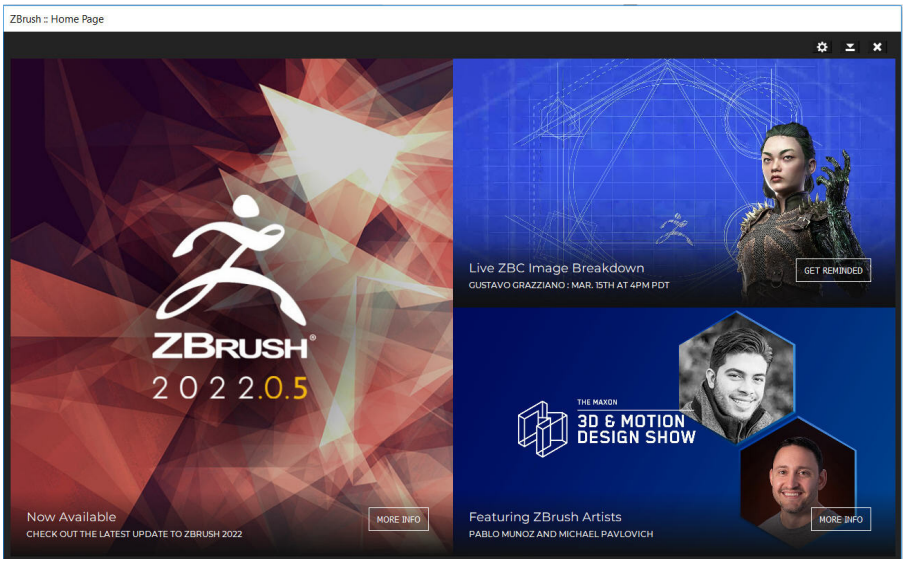


Figure 1-3 *The* ***ZBrush : Home Page*** *window*

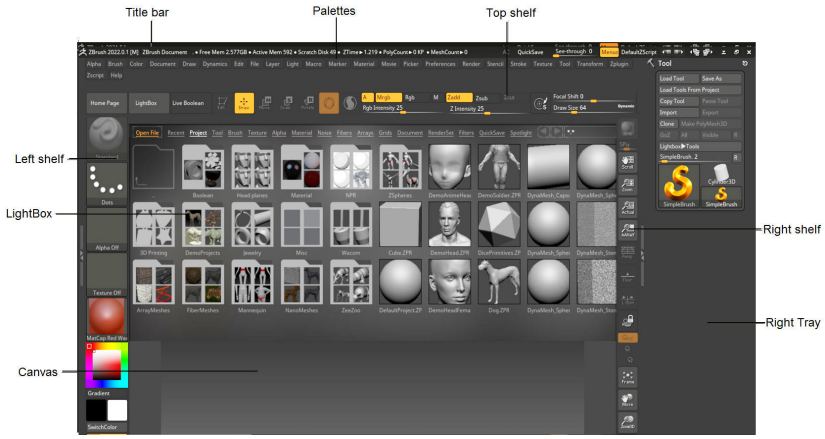


Figure 1-4 *Various components of the ZBrush 2022 interface displayed*



Figure 1-5 *Partial view of the Title bar*

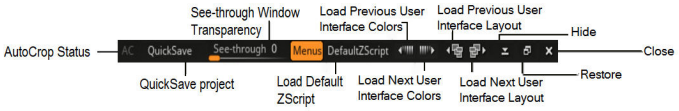


Figure 1-6 *Partial view of the title bar (right side)*

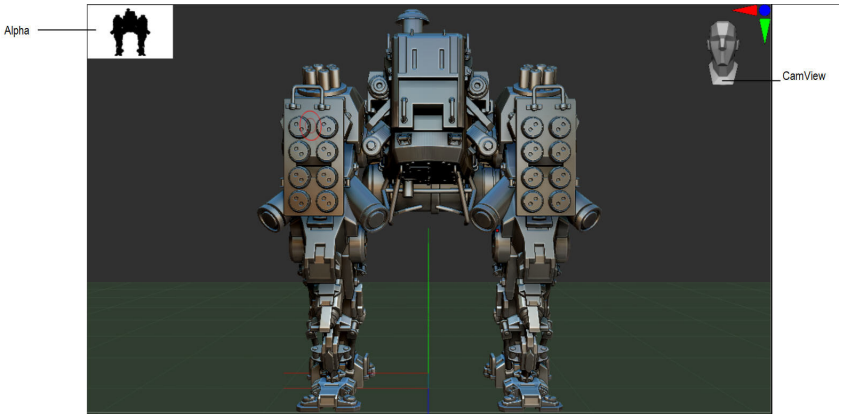


Figure 1-7 *The Alpha and CamView in the canvas*

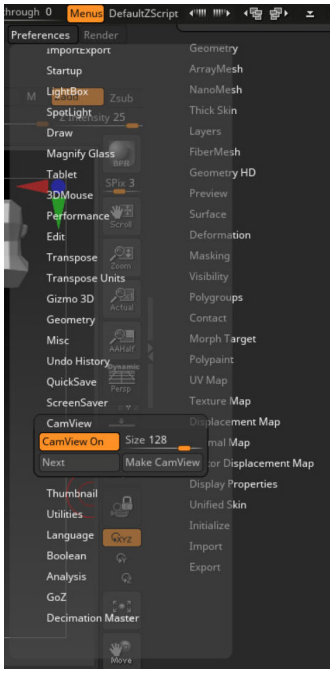


Figure 1-8 *The* ***CamView*** *subpalette in the* ***Preferences*** *palette*

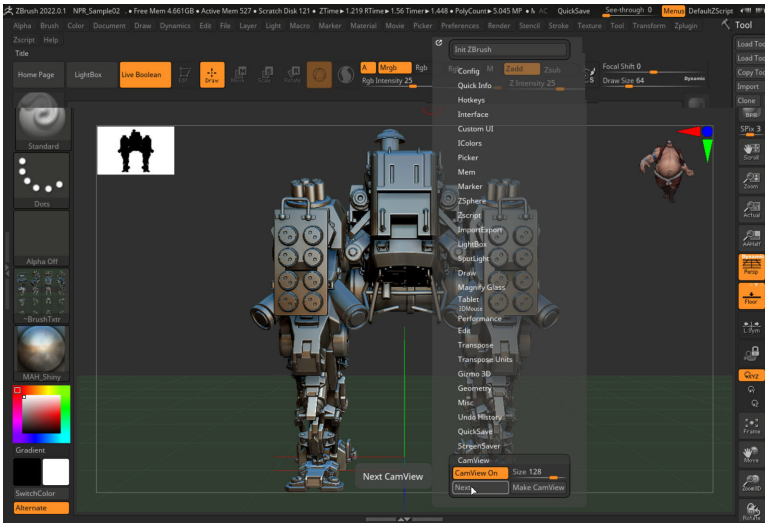


Figure 1-9 *The CamView icon changed*

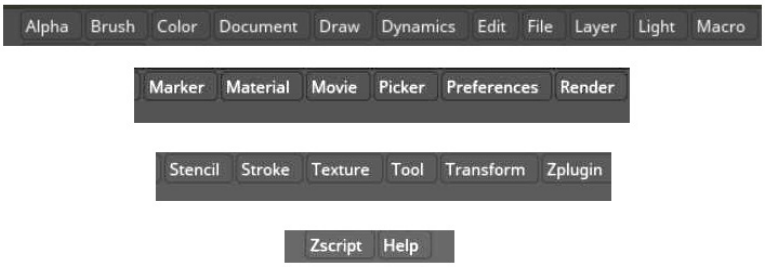


Figure 1-10 *The palettes*



Figure 1-11 *The* ***Make St*** *button in the* ***Transfer*** *subpalette*

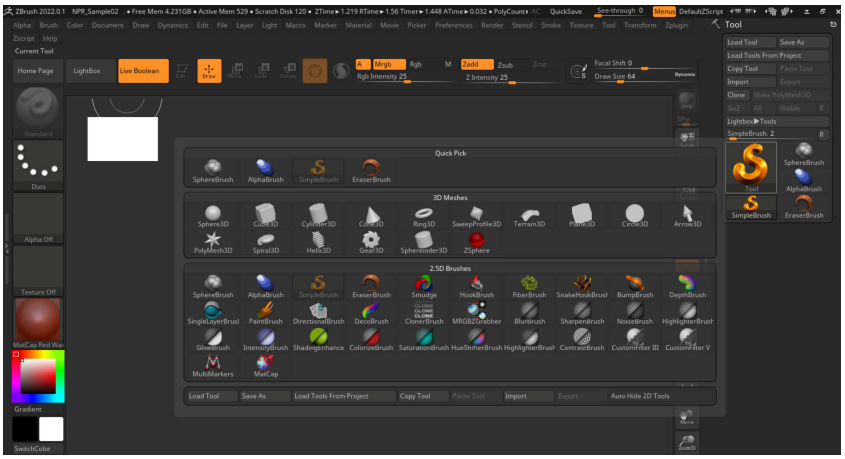


Figure 1-12 *The flyout displayed on choosing the Current Tool button from the* ***Tool*** *palette*



Figure 1-13 *The top shelf*

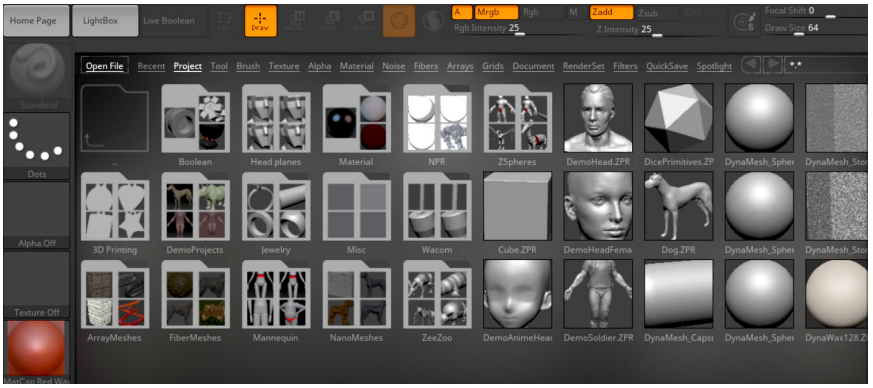


Figure 1-14 *The* ***LightBox*** *browser*

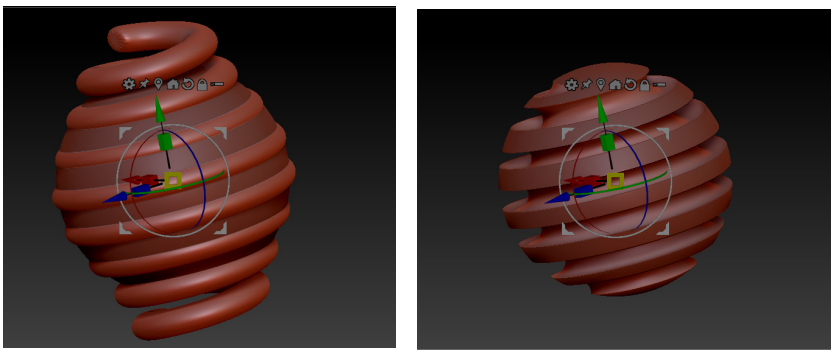


Figure 1-15 *The live boolean operation*

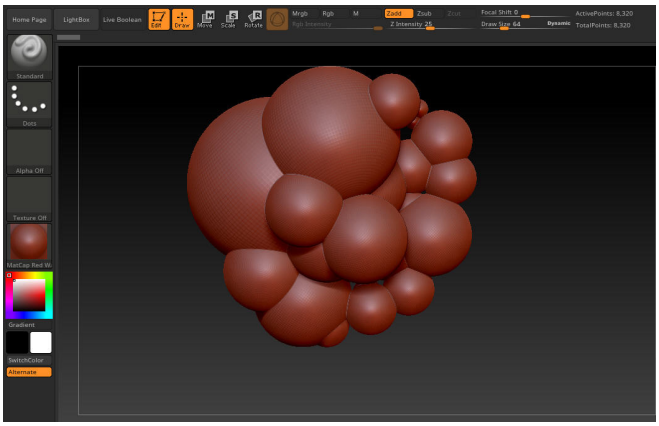


Figure 1-16 *Copies of the 3D objects placed in the canvas*

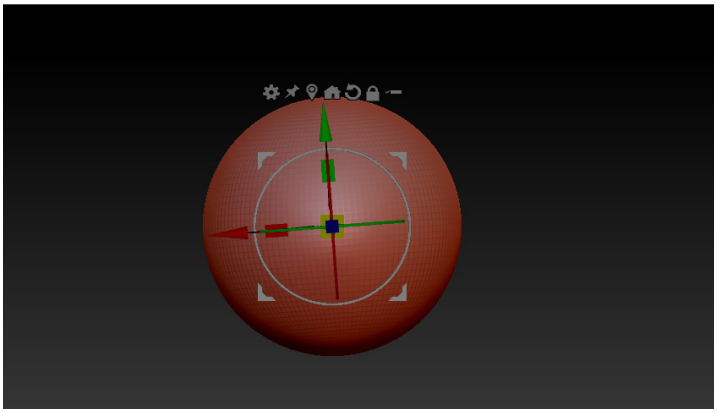


Figure 1-17 *Gizmo displayed on choosing the* ***Move*** *button*

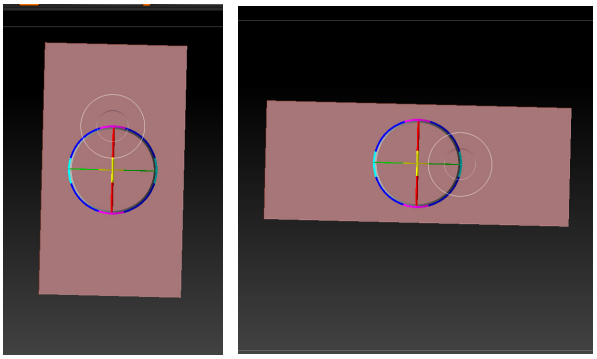


Figure 1-18 *The vertical and horizontal scaling using gyro*

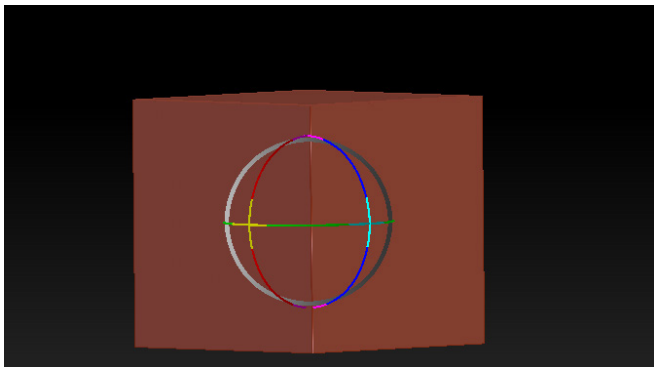


Figure 1-19 *Rotating the object using gyro*

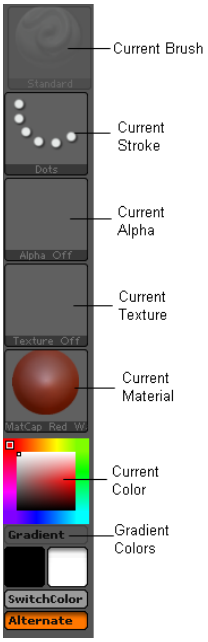


Figure 1-20 *The left shelf*



Figure 1-21 *The flyout displayed on choosing the Current Brush button*



Figure 1-22 *The flyout displayed on choosing the Current Stroke button*



Figure 1-23 *The flyout displayed on choosing the Current Alpha button*



Figure 1-24 *The flyout displayed on choosing the Current Texture button*



Figure 1-25 *A flyout displayed on choosing the Current Material button*

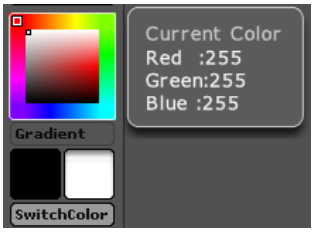


Figure 1-26 *The RGB value of a color displayed*



Figure 1-27 *The right shelf*

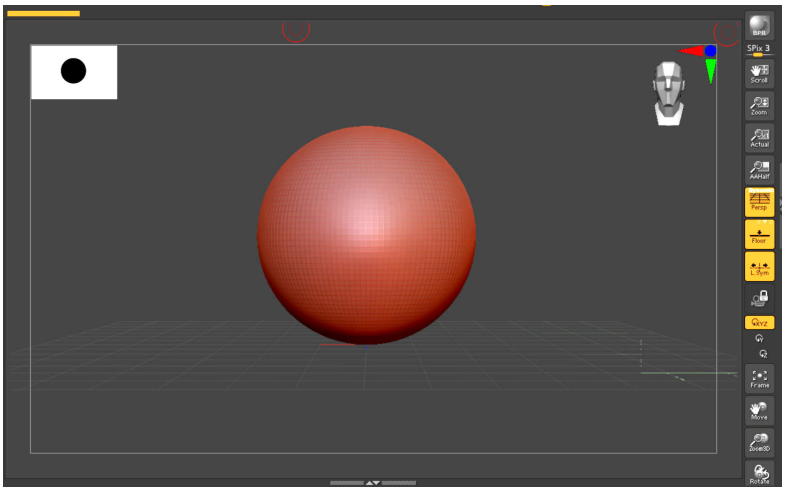


Figure 1-28 *Floor grid activated in all the axes*

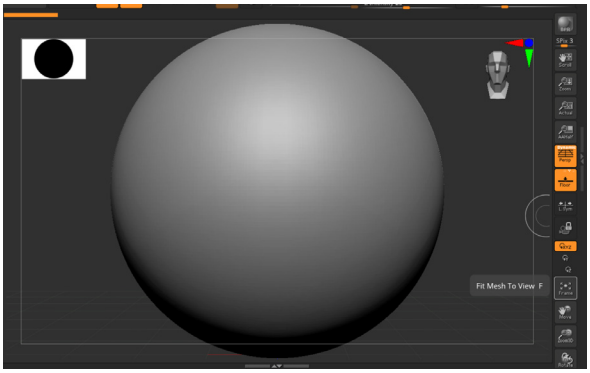


Figure 1-29 *The object fitted into the canvas*

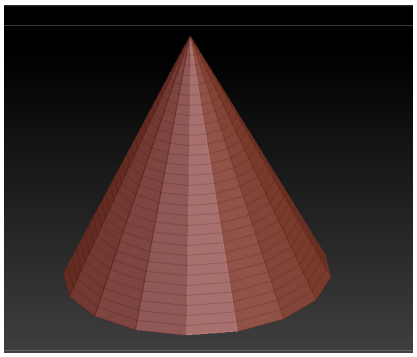


Figure 1-30 *The polygon edges of a 3D object*



Figure 1-31 *Transparency created in the subtools*



Figure 1-32 *Color in transparent subtools displayed*

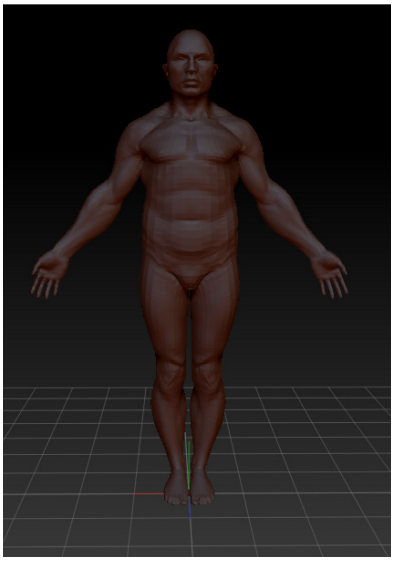


Figure 1-33 *The selected subtool displayed*



Figure 1-34 *The subtools separated from the model*

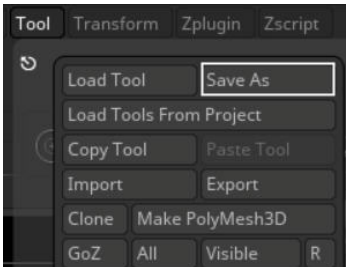


Figure 1-35 *The* ***Save As*** *button in the* ***Tool*** *palette*

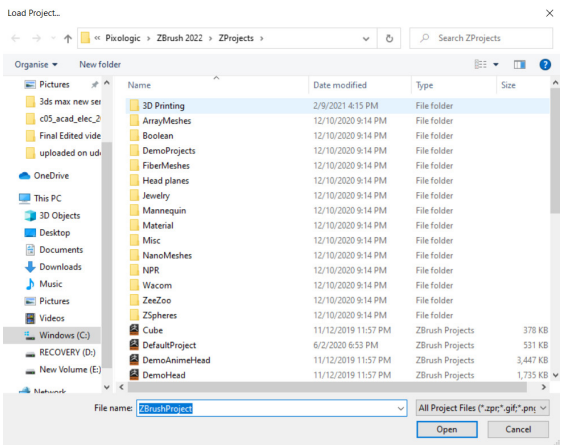


Figure 1-36 *The* ***Load Project*** *dialog box*

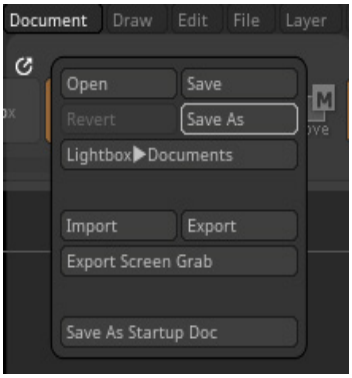


Figure 1-37 *The* ***Save As*** *button in the* ***Document*** *palette*

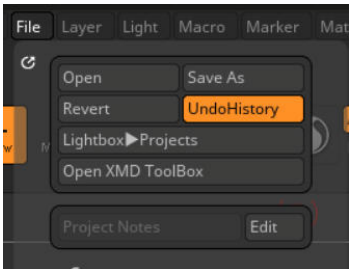


Figure 1-38 *The* ***Save As*** *button in the* ***File*** *palette*

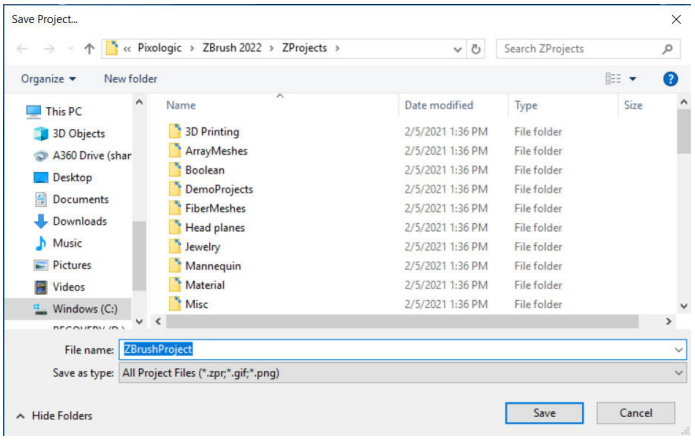


Figure 1-39 *The* ***Save Project*** *dialog box*

Chapter 2

Sculpting Brushes



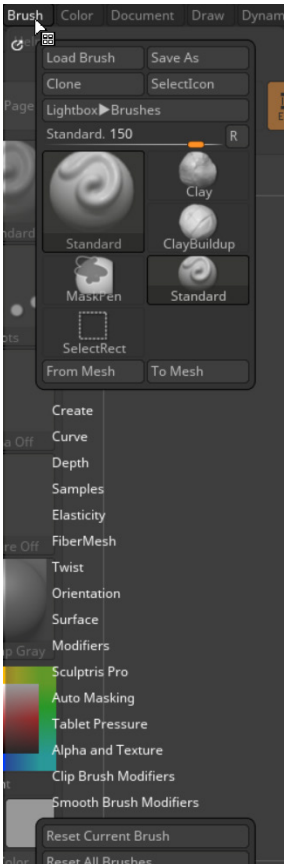


Figure 2-1 *Partial view of the* ***Brush*** *palette in the top shelf*

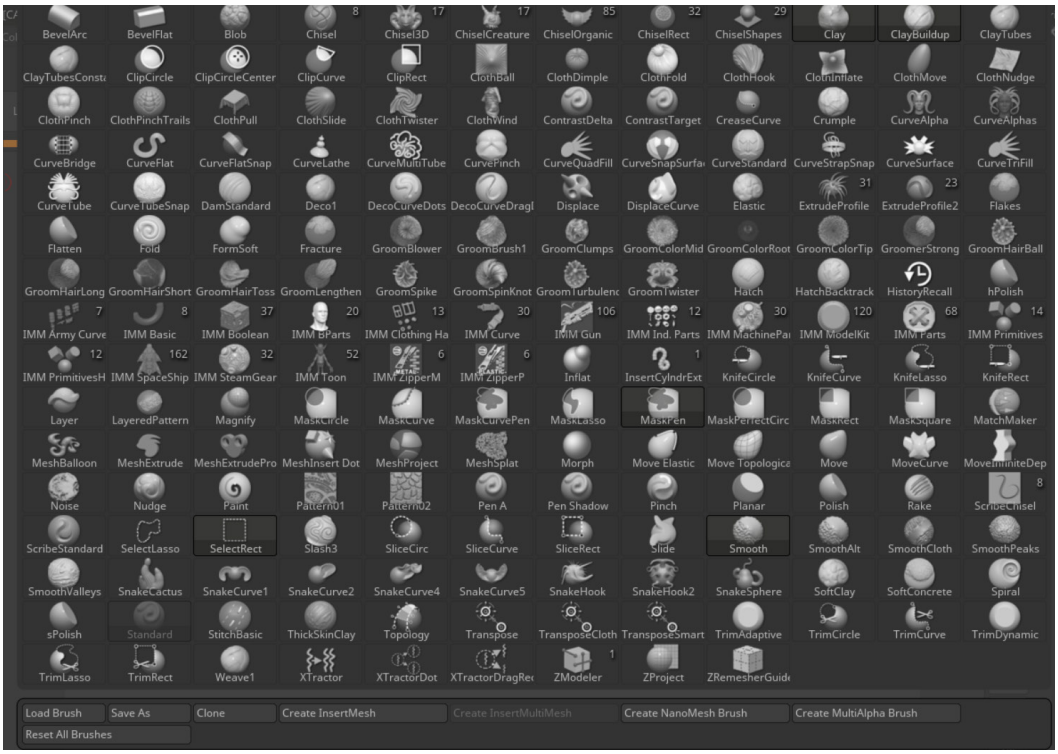


Figure 2-2 *The brushes accessed from the left shelf on choosing the Current Brush button*



Figure 2-3 *The different brush settings in the top shelf*



Figure 2-4 *Message box displayed on using a brush on a 3D primitive object*

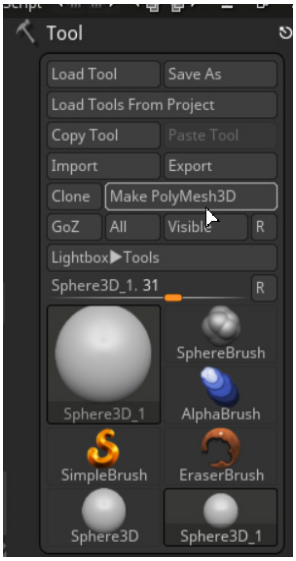


Figure 2-5 *The* ***Make PolyMesh3D*** *button in the* ***Tool*** *palette*



Figure 2-6 *Flyout displayed on choosing the Current Tool button*

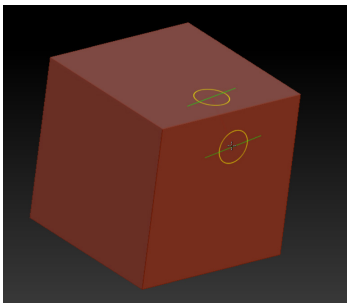


Figure 2-7 *Clicking on the mesh at both sides of the edge*

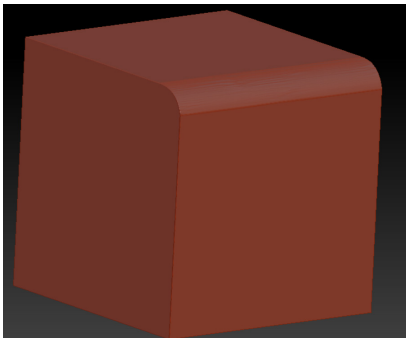


Figure 2-8 *Arc bevel shape created across the edge*

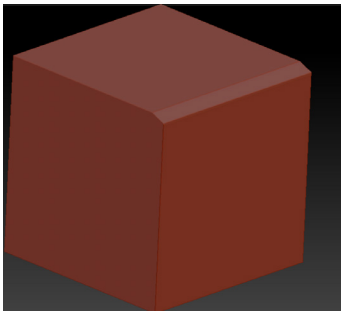


Figure 2-9 *Flat bevel shape created across the edge*

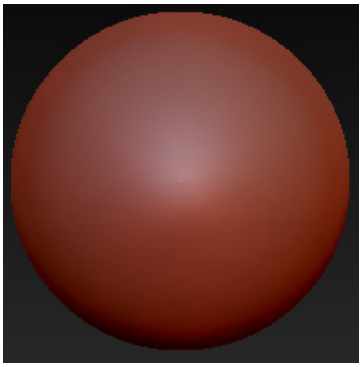


Figure 2-10 *The sphere smoothened*

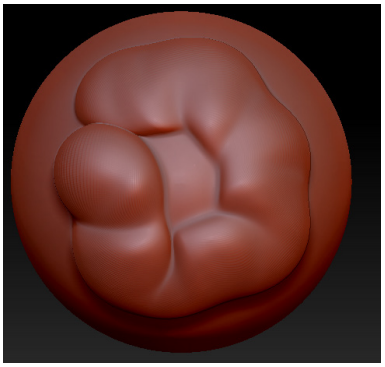


Figure 2-11 *Shape of the sphere modified using the* ***Blob*** *brush*

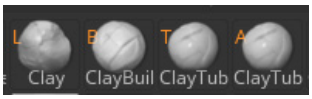


Figure 2-12 *The clay brushes*

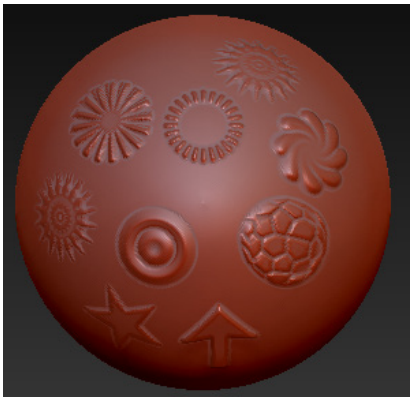


Figure 2-13 *Patterns created using different alphas*

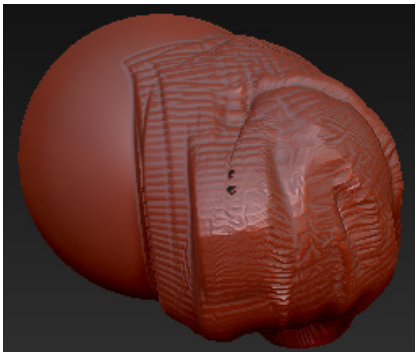


Figure 2-14 *Volume of the sphere increased using the* ***ClayBuildup*** *brush*

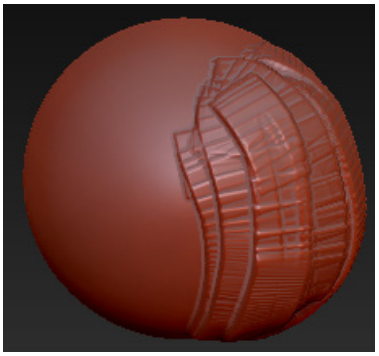


Figure 2-15 *Volume of the sphere increased using the* ***ClayTubes*** *brush*



Figure 2-16 *Creating folds using cloth brushes in the scene*



Figure 2-17 *The* ***Cloth*** *brushes*



Figure 2-18 *The* ***DemoSoldier.ZTL*** *file*



Figure 2-19 *Sculpting both hands of the shirt by using the* ***ClothBall*** *brush*

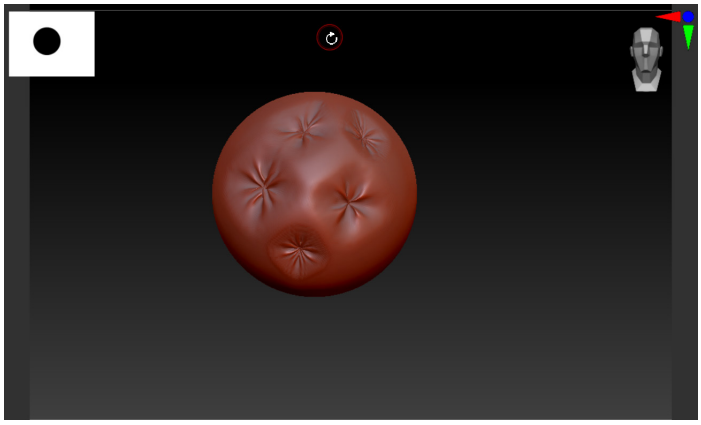


Figure 2-20 *The modified sphere using the* ***ClothDimple*** *brush*

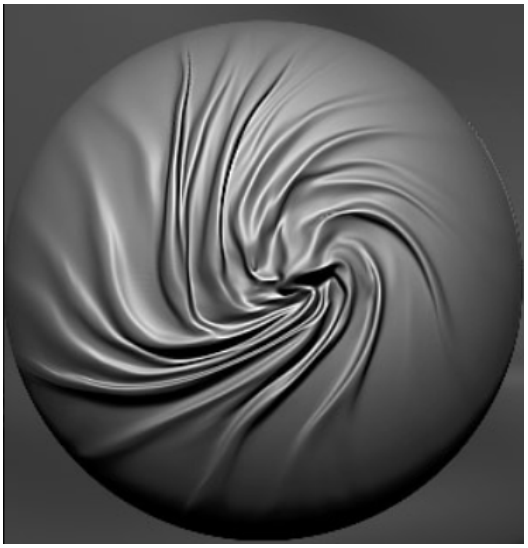


Figure 2-21 *The sculpted object using the* ***ClothFold*** *brush*

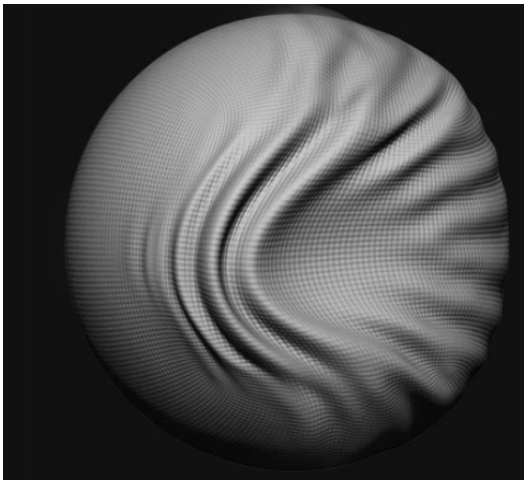


Figure 2-22 *The sculpted object using the* ***ClothHook*** *brush*

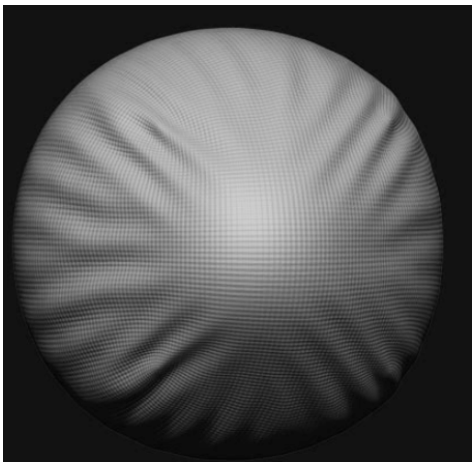


Figure 2-23 *The sculpted object using the* ***ClothInflate*** *brush*

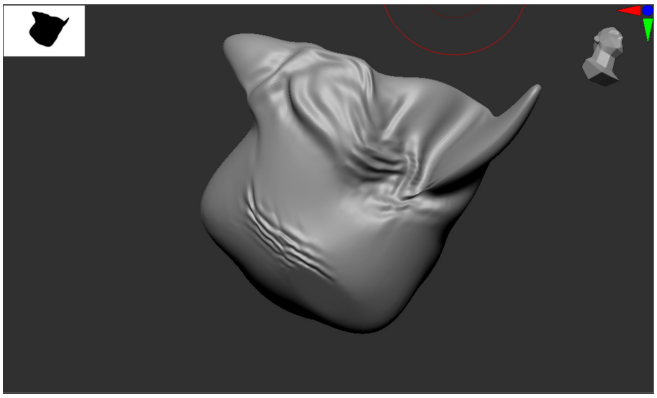


Figure 2-24 *The sculpted object using the* ***ClothMove*** *brush*

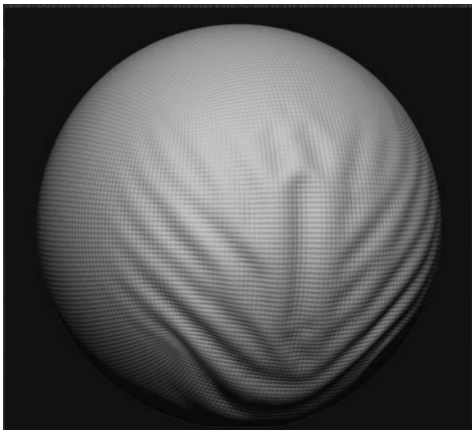


Figure 2-25 *The sculpted object using the* ***ClothNudge*** *brush*

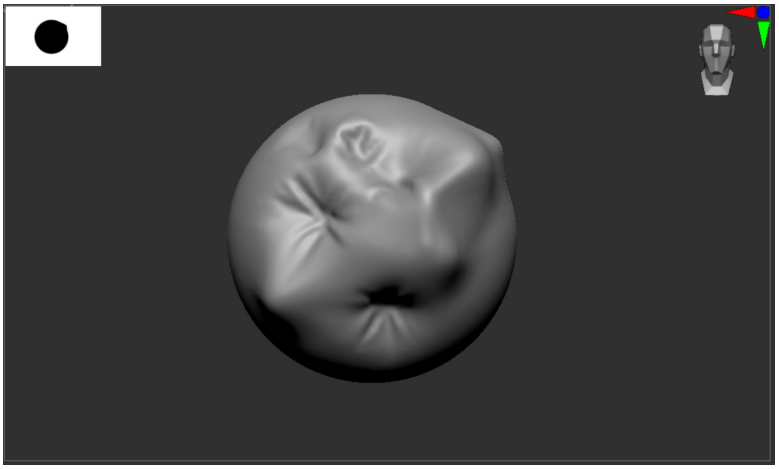


Figure 2-26 *The sculpted object using the* ***ClothPinch*** *brush*



Figure 2-27 *The sculpted object using the* ***ClothPinchTrail*** *brush*

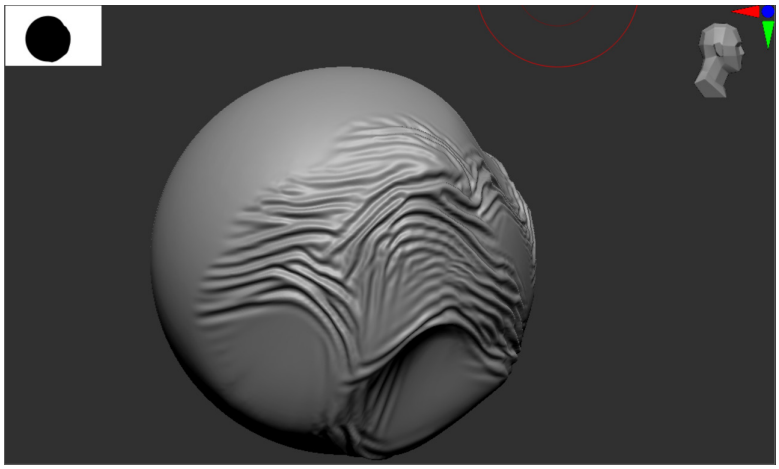


Figure 2-28 *The sculpted object using the* ***ClothPull*** *brush*

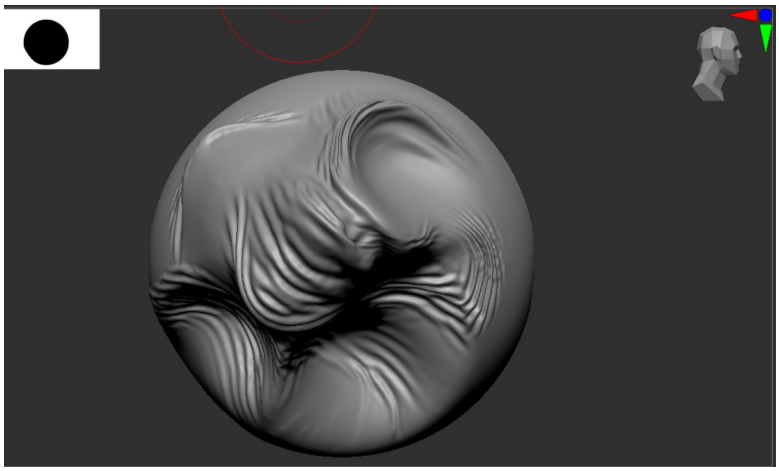


Figure 2-29 *The sculpted object using the* ***ClothSlide*** *brush*

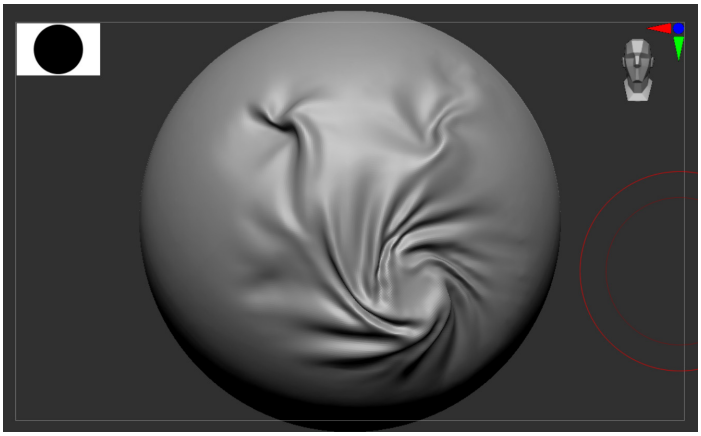


Figure 2-30 *The sculpted object using the* ***ClothTwister*** *brush*

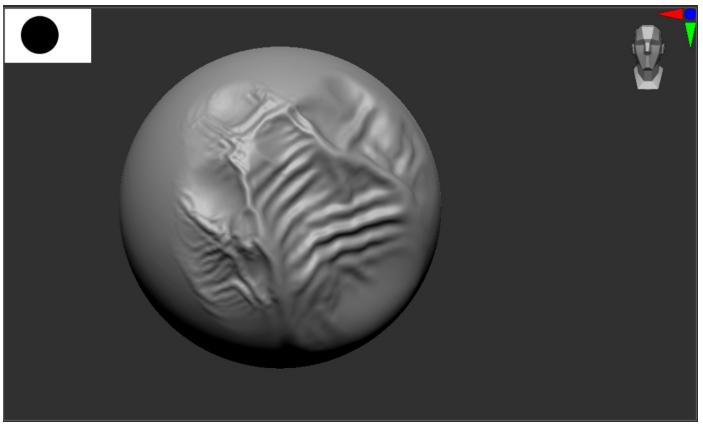


Figure 2-31 *The sculpted object using the* ***ClothWind*** *brush*

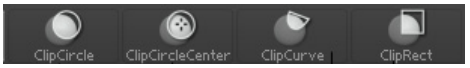


Figure 2-32 *The* ***Clip*** *brushes*

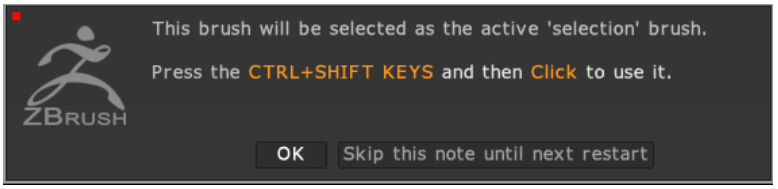


Figure 2-33 *The message box displayed on choosing the* ***ClipCircle*** *brush*

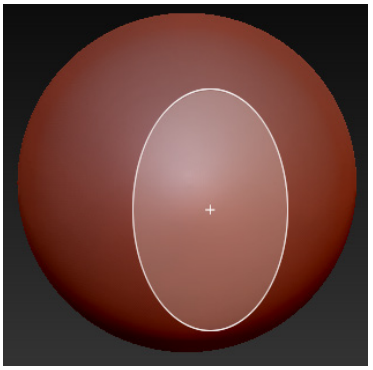


Figure 2-34 *A elliptical marquee selection displayed*

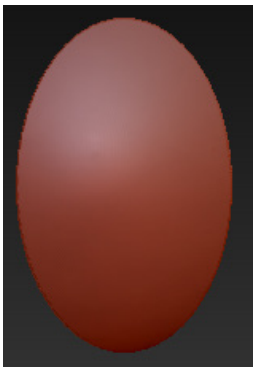


Figure 2-35 *The shape of the sphere modified*

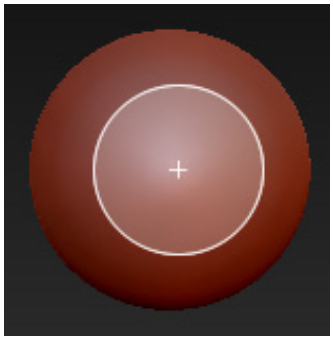


Figure 2-36 *A circular marquee selection displayed*

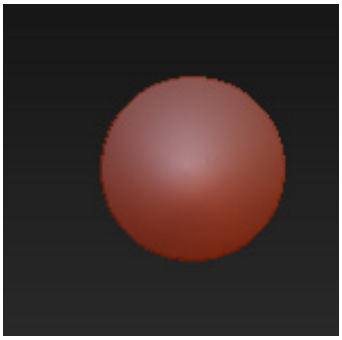


Figure 2-37 *The shape of the sphere modified*

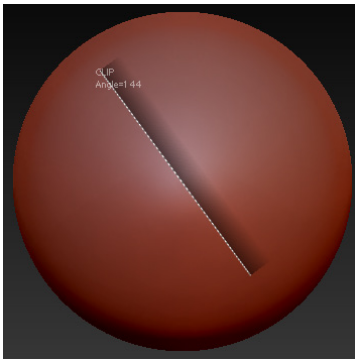


Figure 2-38 *A straight line displayed on the surface of the sphere*



Figure 2-39 *Shape modified by using the* ***ClipCurve*** *brush*

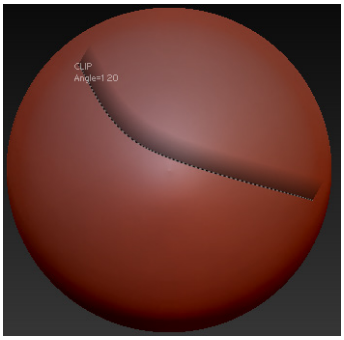


Figure 2-40 *A curved line displayed on the surface of the sphere*

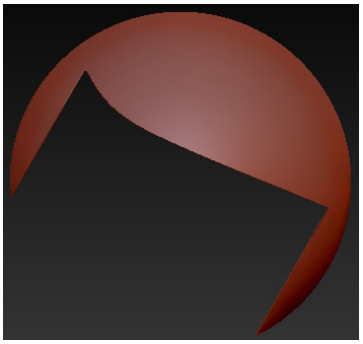


Figure 2-41 *Shape modified by using the* ***ClipCurve*** *brush along with ALT*

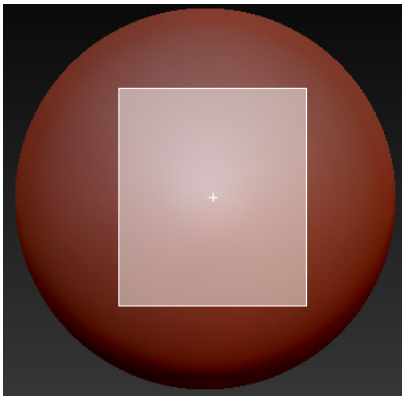


Figure 2-42 *A rectangular marquee selection displayed*

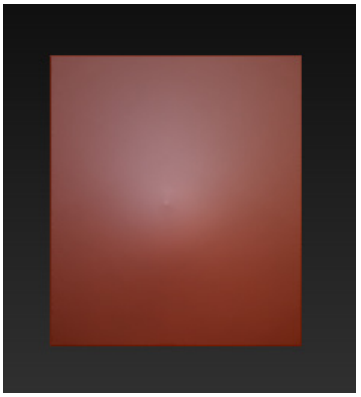


Figure 2-43 *The shape of the sphere modified*

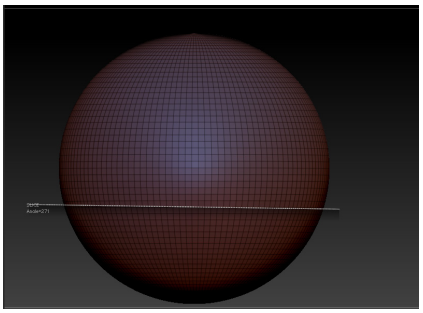


Figure 2-44 *A straight line with grey area*

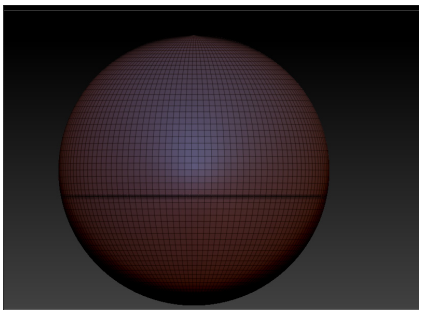


Figure 2-45 *The creased edge created on the sphere*

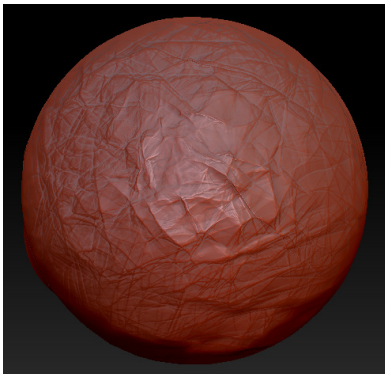


Figure 2-46 *A pattern created using the* ***Crumple*** *brush*



Figure 2-47 *The Curve brushes*

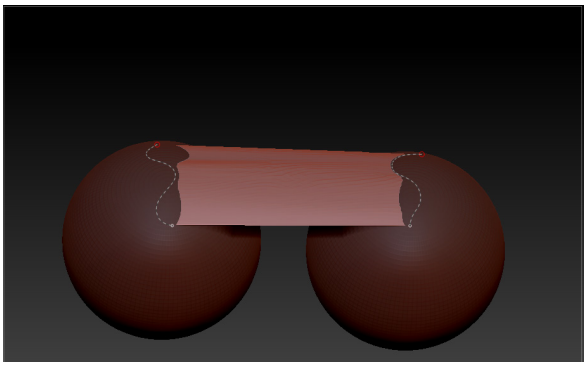


Figure 2-48 *The bridge geometry created between two curves*

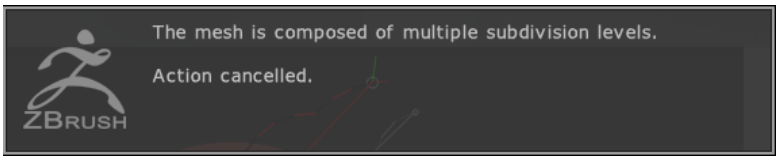


Figure 2-49 *The message box displayed on using the* ***CurveLathe*** *brush on a subdivided mesh*

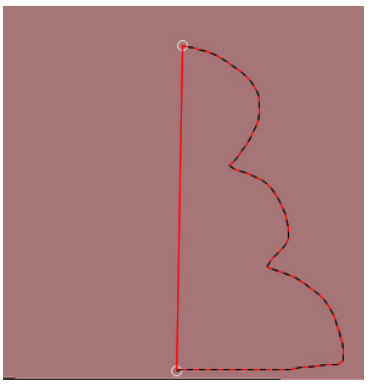


Figure 2-50 *A profile curve created on the surface of plane*



Figure 2-51 *A new mesh created along the profile curve*

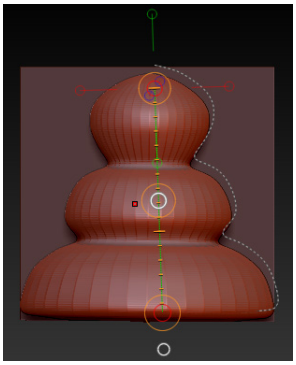


Figure 2-52 *A line with three circles displayed*

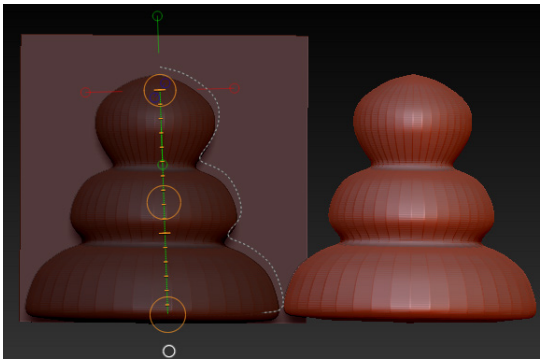


Figure 2-53 *The duplicate copy of the mesh created*

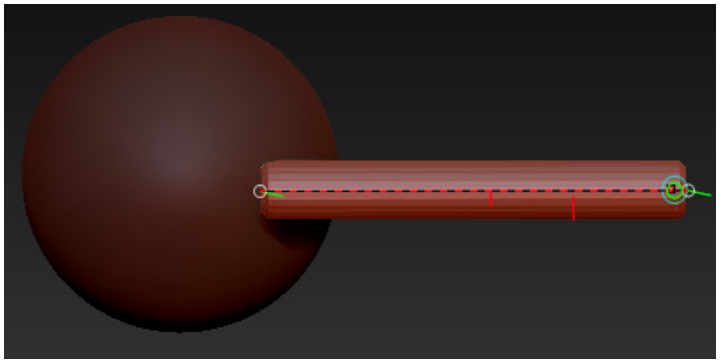


Figure 2-54 *A tube created along the straight line*

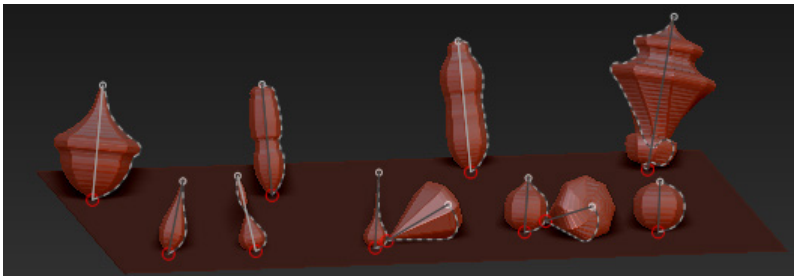


Figure 2-55 *Multiple shapes created on the surface of a plane*

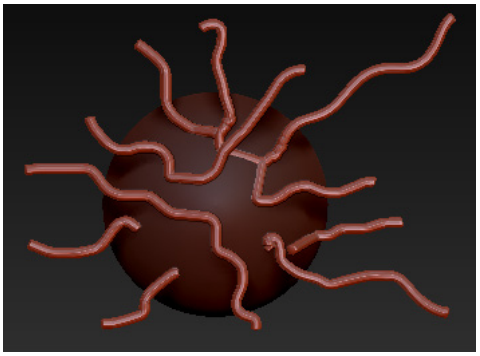


Figure 2-56 *Multiple tubes created on the surface of a sphere*

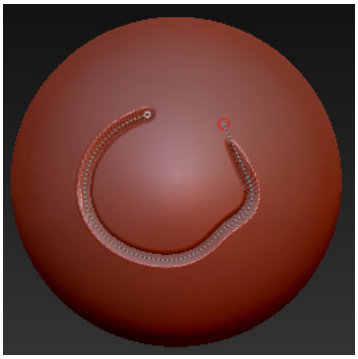


Figure 2-57 *The polygons pinched along the path*

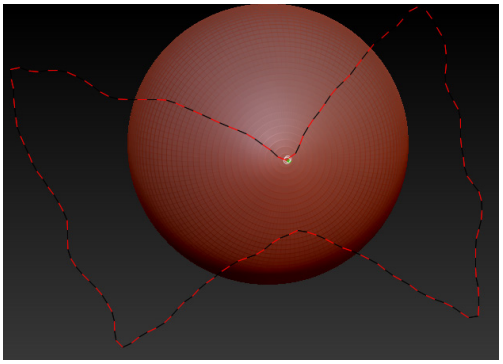


Figure 2-58 *An outline drawn on the surface of the sphere*

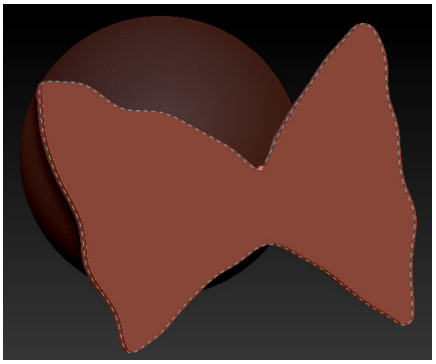


Figure 2-59 *A planar mesh created on the surface of the sphere*

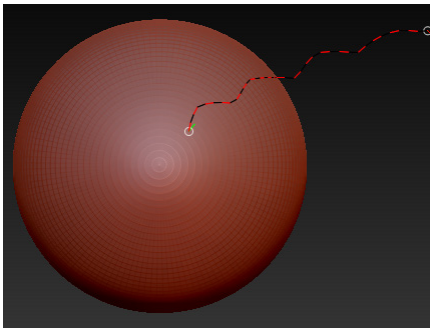


Figure 2-60 *A curve drawn on the surface of the sphere*

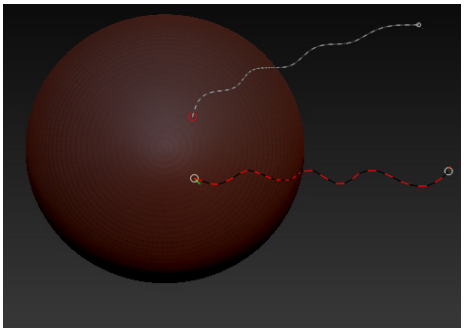


Figure 2-61 *Second curve drawn below the curve drawn previously*

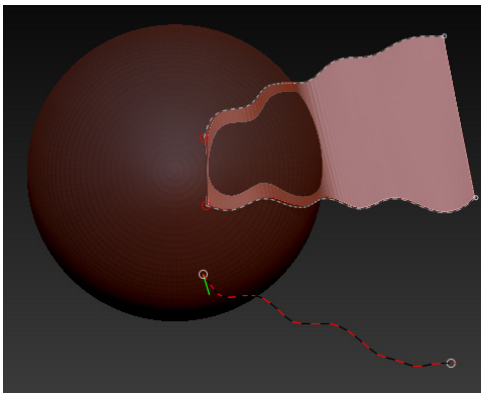


Figure 2-62 *Third curve drawn below the second curve*

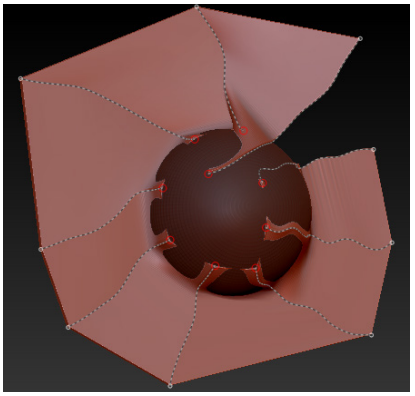


Figure 2-63 *A surface created using the* ***CurveSnapSurface*** *brush*

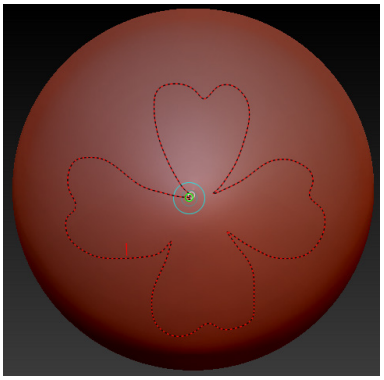


Figure 2-64 *A path created on the surface of the sphere*

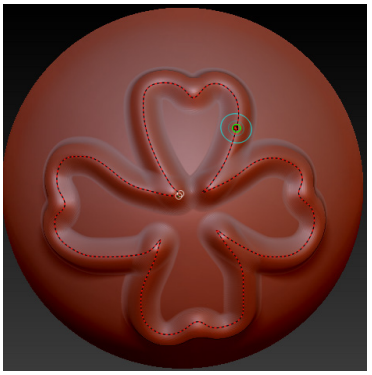


Figure 2-65 *The depth created along the path*

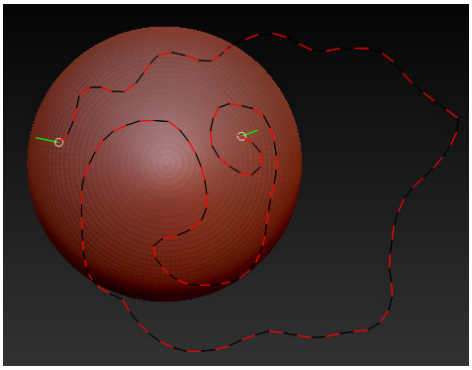


Figure 2-66 *A curve created on the surface of the sphere*

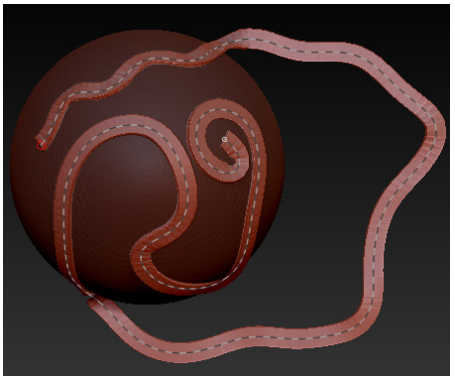


Figure 2-67 *A surface resembling a ribbon created along the curve*

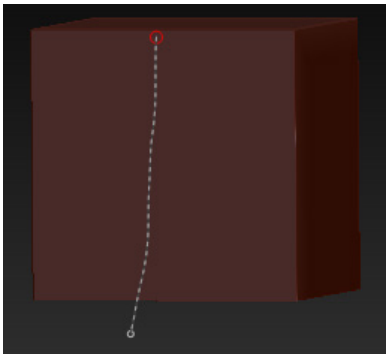


Figure 2-68 *A curve drawn on the surface of the cube*

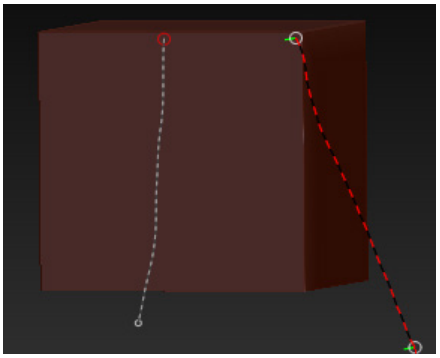


Figure 2-69 *Second curve drawn on the right side of the curve drawn previously*

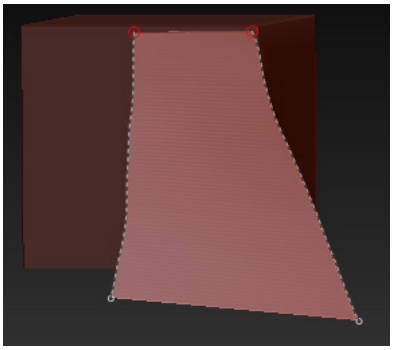


Figure 2-70 *The two curves snapped*

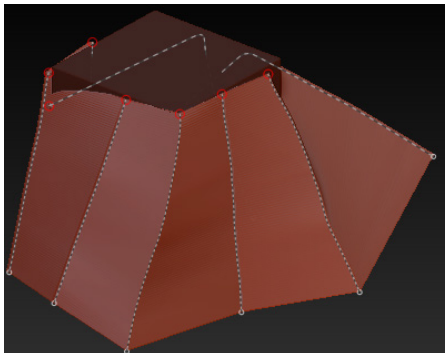


Figure 2-71 *A new mesh created on the surface of the cube*

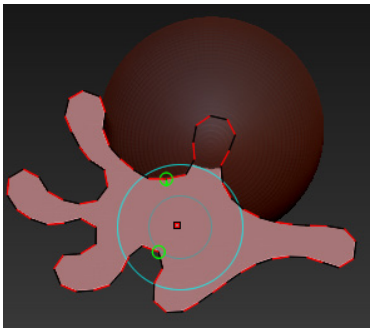


Figure 2-72 *A planar surface created using the* ***CurveTriFill*** *brush*

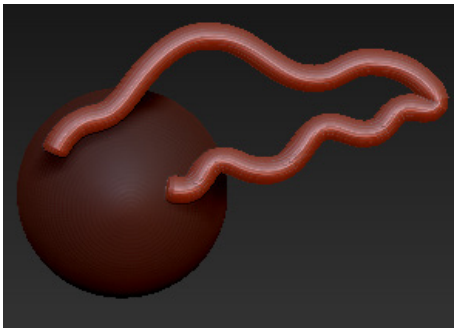


Figure 2-73 *A curved tube created using the* ***CurveTube*** *brush*

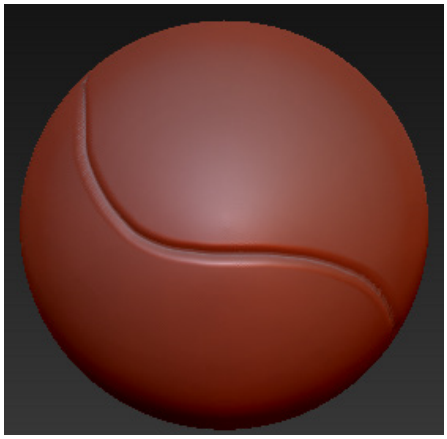


Figure 2-74 *A seam created in the sphere using the* ***Dam_Standard*** *brush*

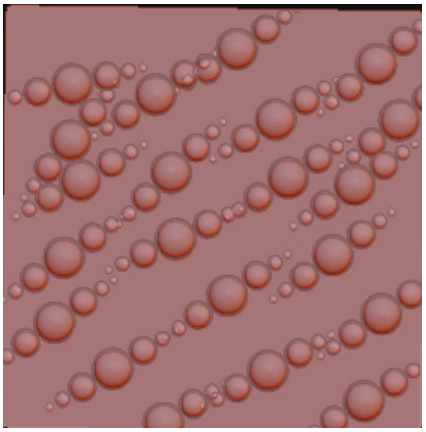


Figure 2-75 *A pattern created on the surface of a plane using the* ***Deco1*** *brush*

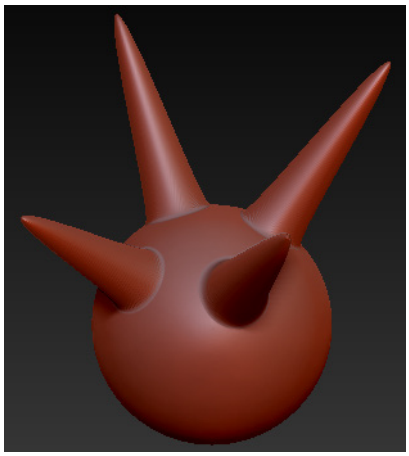


Figure 2-76 *The polygons pulled out using the* ***Displace*** *brush*

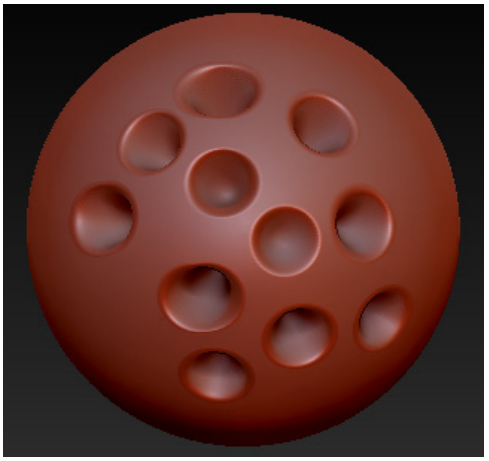


Figure 2-77 *The polygons pushed in using the* ***Displace*** *brush*

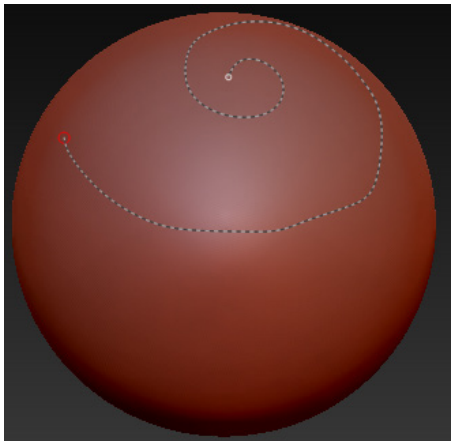


Figure 2-78 *The path curve created on the surface of the sphere*

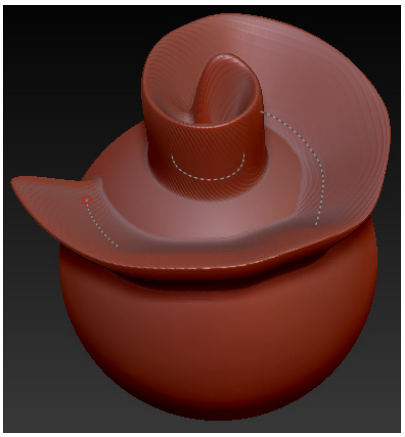


Figure 2-79 *The polygons pulled out along the path curve*



Figure 2-80 *The original shape of the sphere maintained*

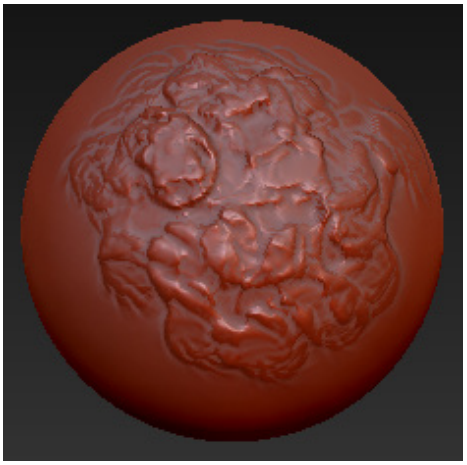


Figure 2-81 *Flakes created on the surface of a sphere*

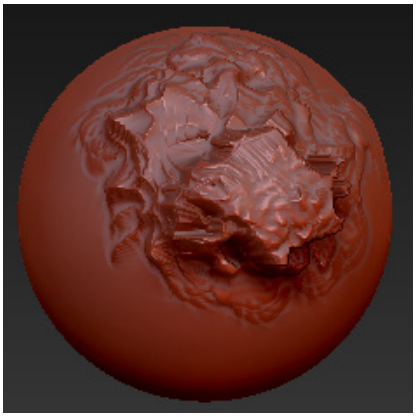


Figure 2-82 *Flakes created on the surface of a sphere using the* ***Flakes*** *brush*

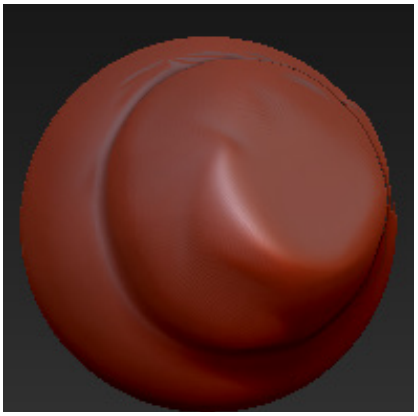


Figure 2-83 *The surface of the sphere flattened using the* ***Flatten*** *brush*

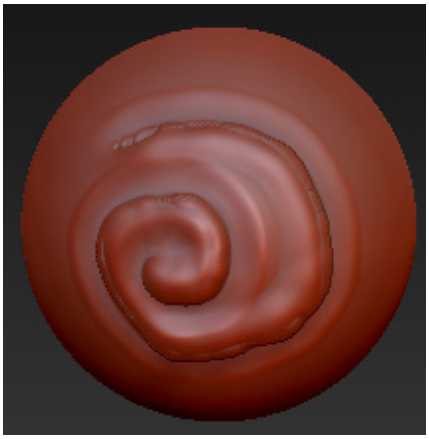


Figure 2-84 *Folds created on the surface of a sphere*



Figure 2-85 *The Groom brushes*

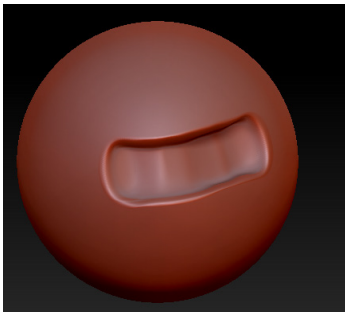


Figure 2-86 *Surface of the sphere modified by using the* ***hPolish*** *brush*

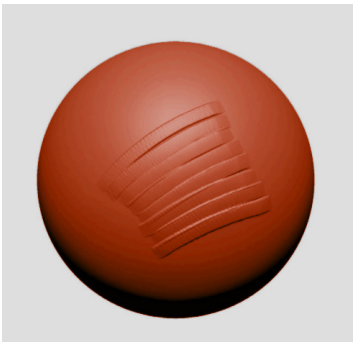


Figure 2-87 *Surface of the sphere modified by using the* ***Hatch*** *brush*

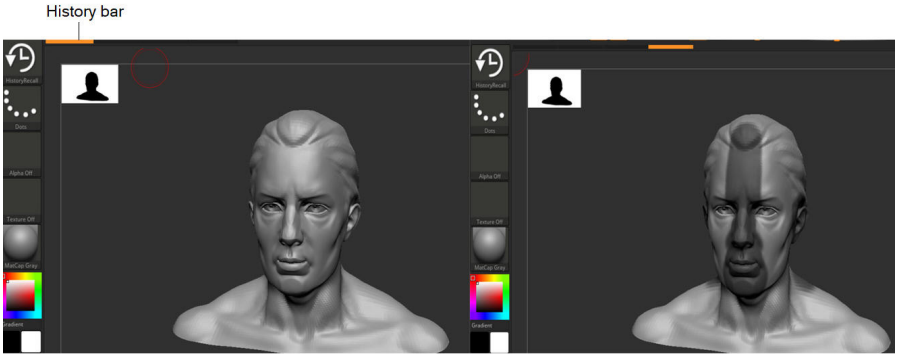


Figure 2-88 *Using the* ***HistoryRecall*** *brush*

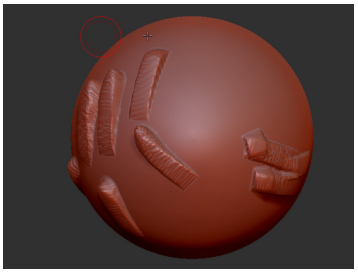


Figure 2-89 *Surface of the sphere modified by using the* ***HatchBacktrack*** *brush*

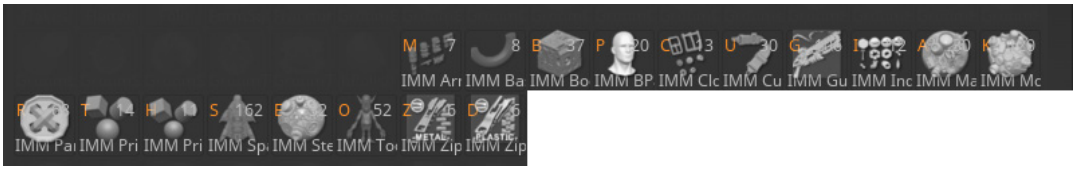


Figure 2-90 *The IMM brushes*

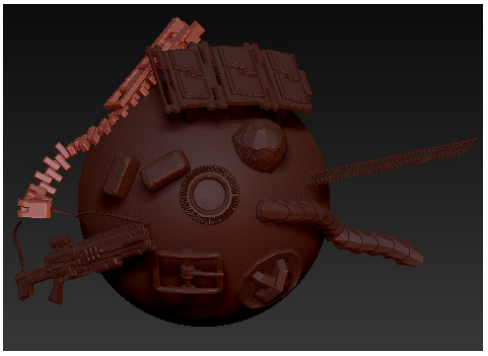


Figure 2-91 *Different objects inserted into a sphere using IMM brushes*

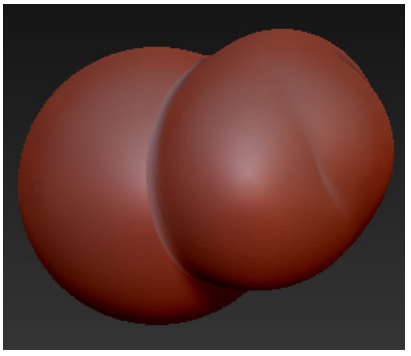


Figure 2-92 *Surface of the sphere expanded by using the* ***Inflat*** *brush*

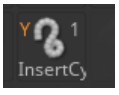


Figure 2-93 a
The Insert brushes

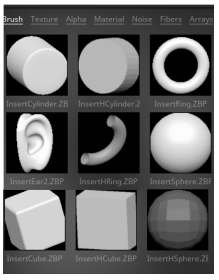


Figure 2-93 b *The Insert brushes in the* ***Brush*** *tab of the* ***LightBox*** *browser*

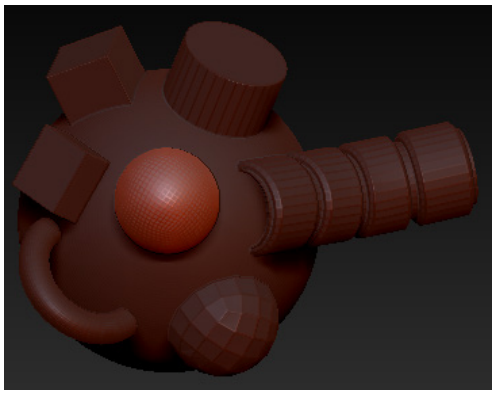


Figure 2-94 *Different shapes inserted into a sphere using the insert brushes*

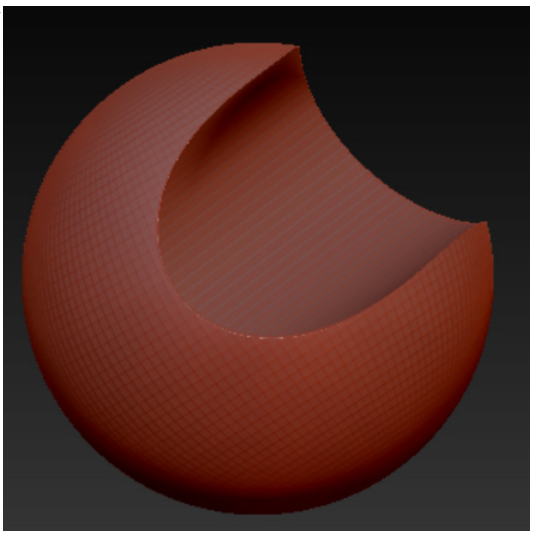


Figure 2-95 *Cut created using the* ***KnifeCircle*** *brush*

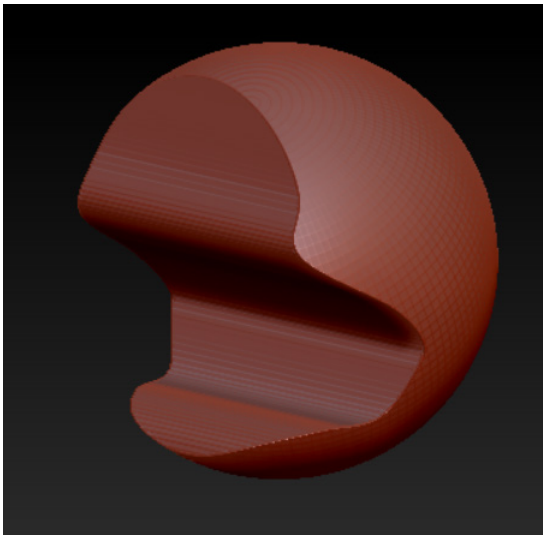


Figure 2-96 *Cut created using the* ***KnifeCurve*** *brush*

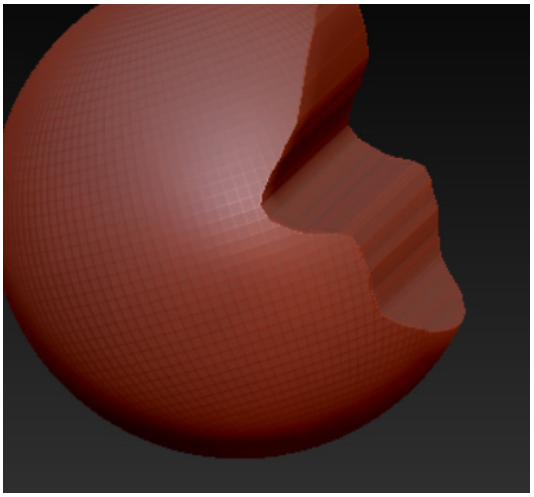


Figure 2-97 *Cut created using the* ***KnifeLasso*** *brush*

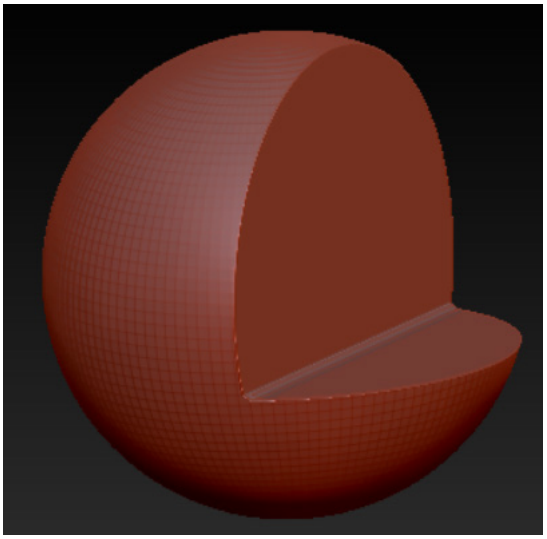


Figure 2-98 *Cut created using the* ***KnifeRect*** *brush*

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Figure 2-99 *Constant displacement created using the* ***Layer*** *brush*

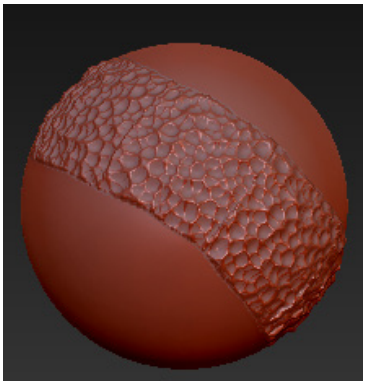


Figure 2-100 *A pattern created using the* ***LayeredPattern*** *brush*

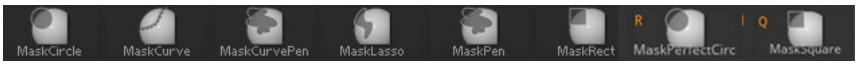


Figure 2-101 *The mask brushes*

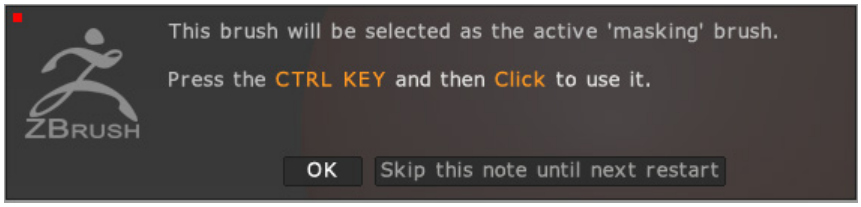


Figure 2-102 *The message box displayed on choosing the* ***MaskCircle*** *brush*

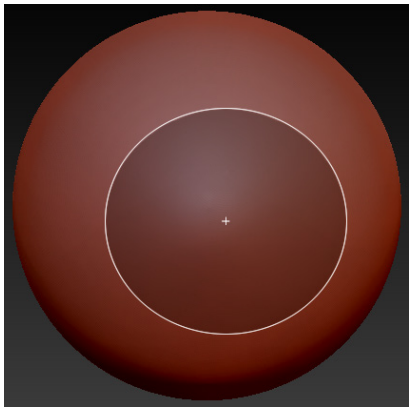


Figure 2-103 *A circular marquee selection displayed*

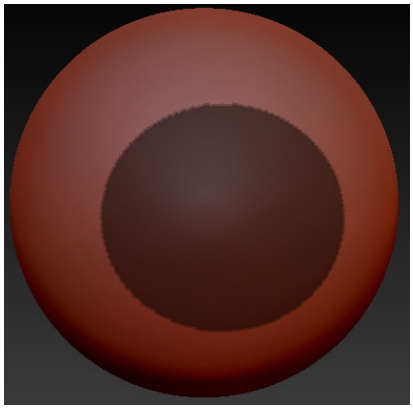


Figure 2-104 *A circular mask created on the surface of the sphere*

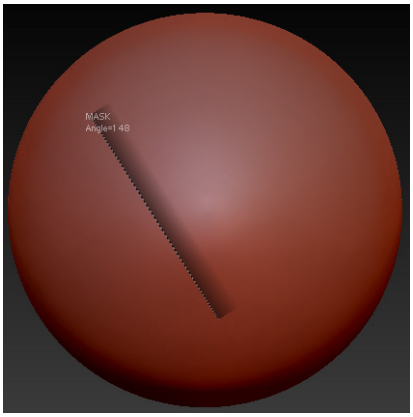


Figure 2-105 *A straight line displayed on the surface of the sphere*

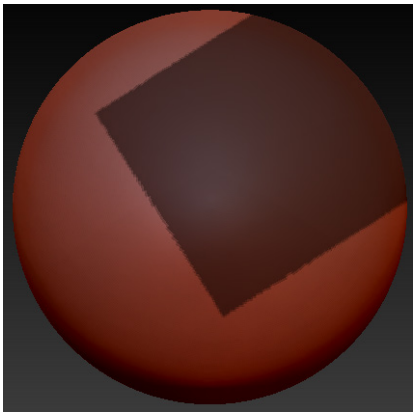


Figure 2-106 *A mask created on the surface of the sphere*

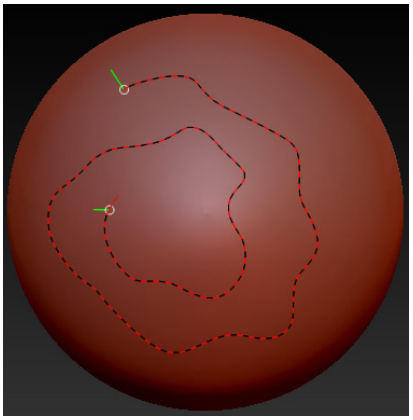


Figure 2-107 *A path curve created on the surface of the sphere*

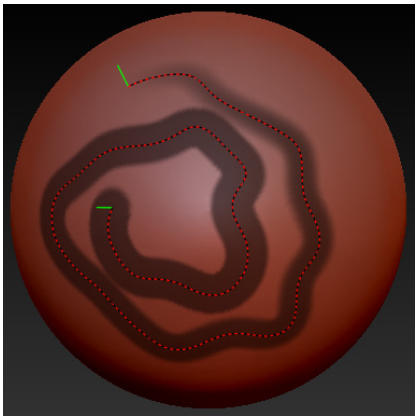


Figure 2-108 *A mask created along the path curve*

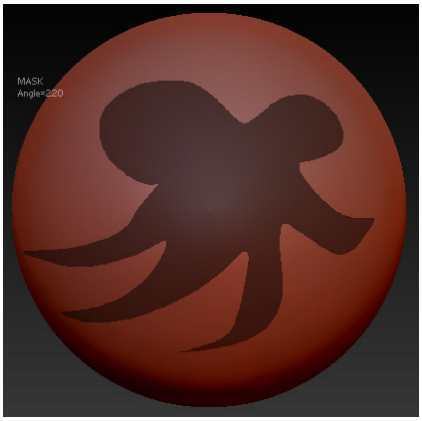


Figure 2-109 *A freeform mask created using the mask overlay*



Figure 2-110 *A mask drawn with freehand using the* ***MaskPen*** *brush*



Figure 2-111 *A mask created using the* ***MaskPen*** *brush*

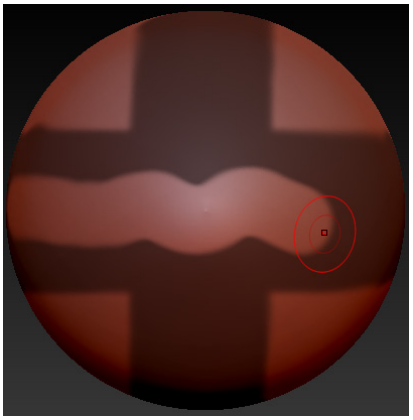


Figure 2-112 *An area of the mask removed*

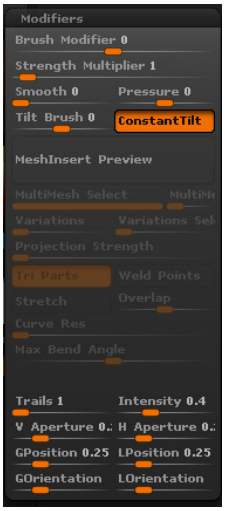


Figure 2-113 *The* ***Modifiers*** *subpalette in the* ***Brush*** *palette*



Figure 2-114 *The flyout displayed on choosing the* ***MeshInsert Preview*** *button*

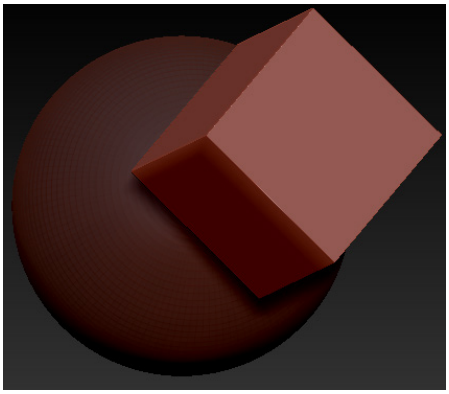


Figure 2-115 *A cube created on the surface of the sphere*

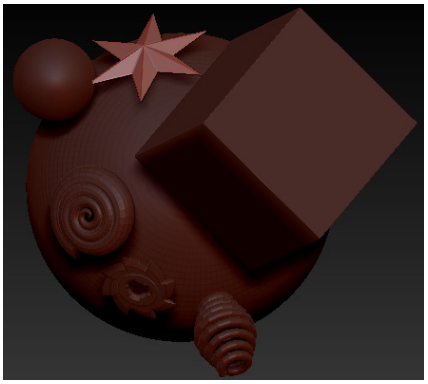


Figure 2-116 *Different types of primitives inserted on the surface of the sphere*

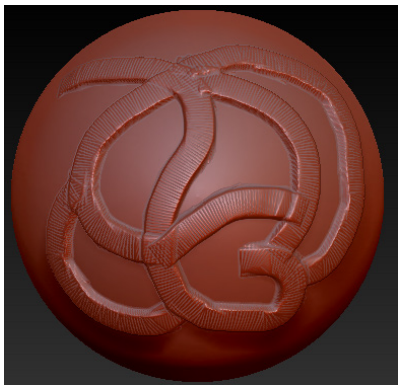


Figure 2-117 *A pattern created using the* ***ClayBuildup*** *brush*



Figure 2-118 *The* ***Morph Target*** *subpalette in the* ***Tool*** *palette*

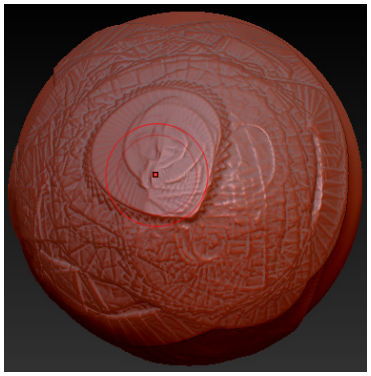


Figure 2-119 *A pattern created on the existing pattern*

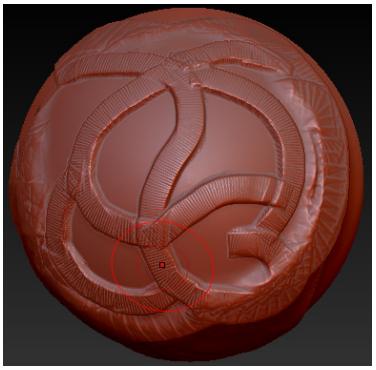


Figure 2-120 *Cursor dragged on the surface of the sphere*



Figure 2-121 *The Move brushes*

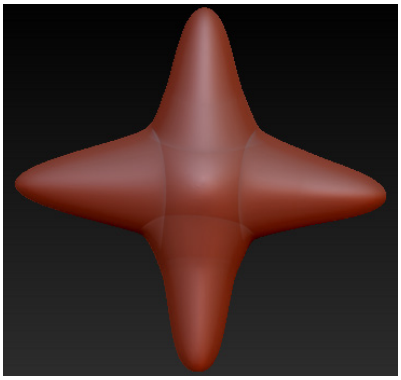


Figure 2-122 *Shape of the sphere modified using the* ***Move*** *brush*

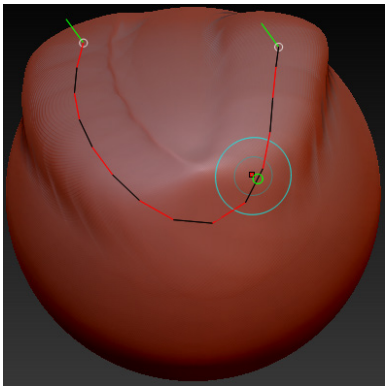


Figure 2-123 *The polygons moved along the path curve*

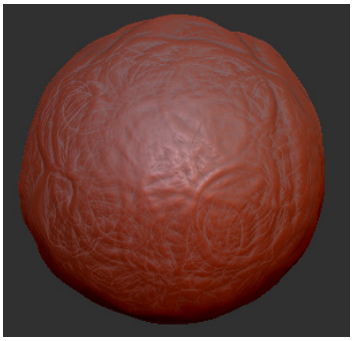


Figure 2-124 *Fractal noise added using the* ***Noise*** *brush*

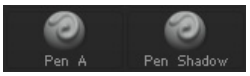


Figure 2-125 *The pen brushes*

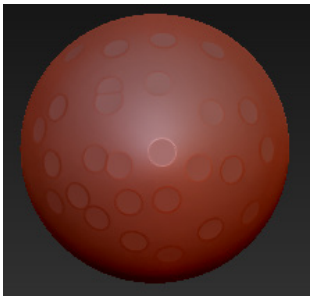


Figure 2-126 *The surface of the sphere flattened*



Figure 2-127 *Scratches created on the surface of a sphere*



Figure 2-128 *The Scribe brushes*

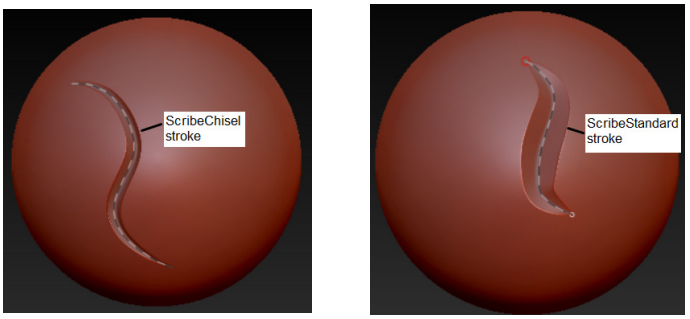


Figure 2-129 *Strokes created using the* ***ScribeChisel*** *and* ***ScribeStandard*** *brushes*

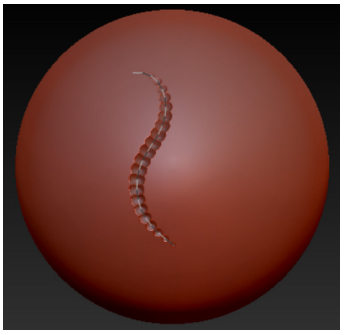


Figure 2-130 *Strokes changed by changing the value in the* ***SubSteps*** *spinner*

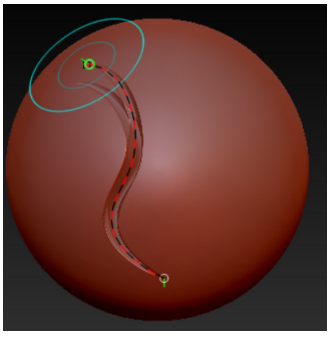


Figure 2-131 *Dragging the red circle*

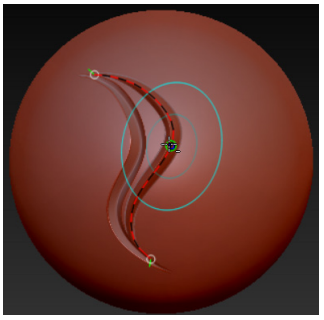


Figure 2-132 *Clicking in between the curve and dragging*

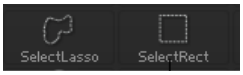


Figure 2-133 *The select brushes*

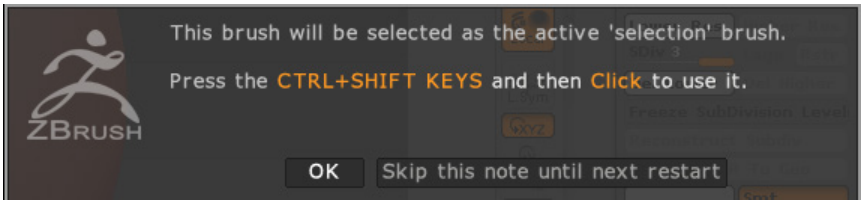


Figure 2-134 *The message box displayed on choosing the* ***SelectLasso*** *brush*

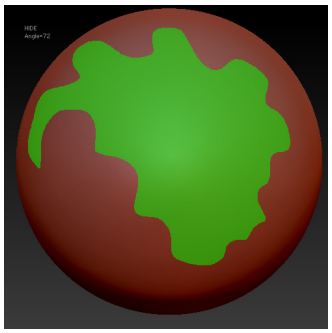


Figure 2-135 *Green selection mask displayed on the surface*



Figure 2-136 *The selected area displayed in the canvas*

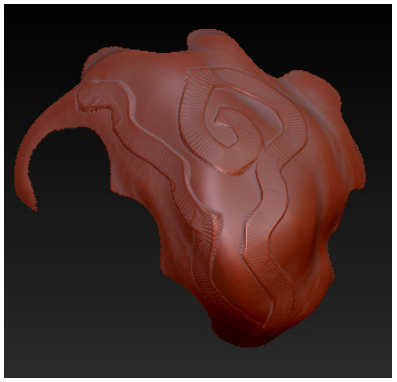


Figure 2-137 *The selected area sculpted using different brushes*

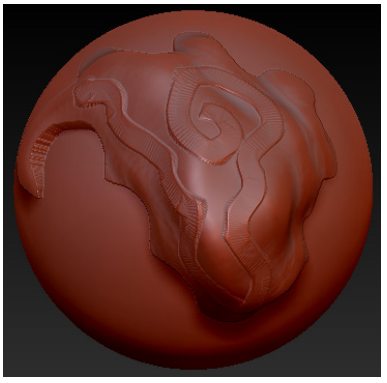


Figure 2-138 *The complete sphere displayed in the canvas*

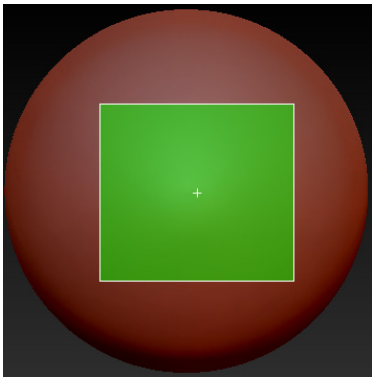


Figure 2-139 *The green colored rectangular selection displayed*

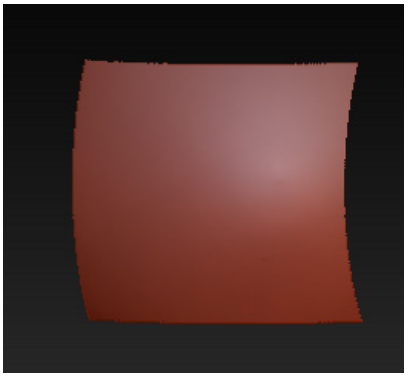


Figure 2-140 *The selected area of the sphere displayed in the canvas*



Figure 2-141 *Pattern produced using the* ***Slash3*** *brush*



Figure 2-142 *Pattern produced using the* ***Slash3*** *brush*



Figure 2-143 *The slice brushes*

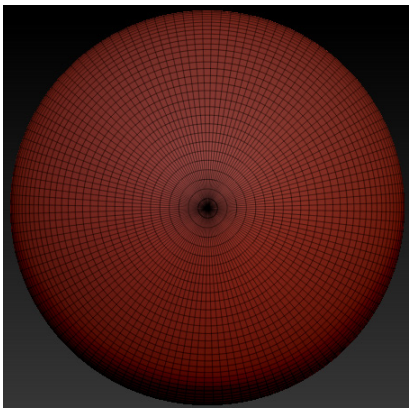


Figure 2-144 *The polygons of the sphere displayed*

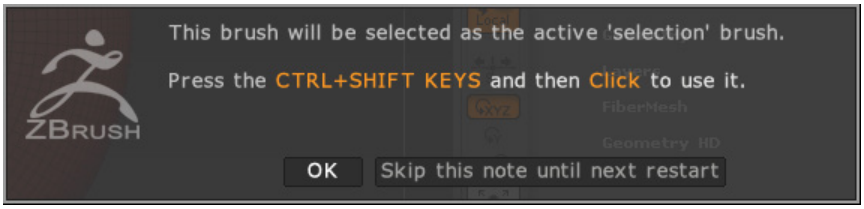


Figure 2-145 *The message box displayed on choosing the* ***SliceCirc*** *button*

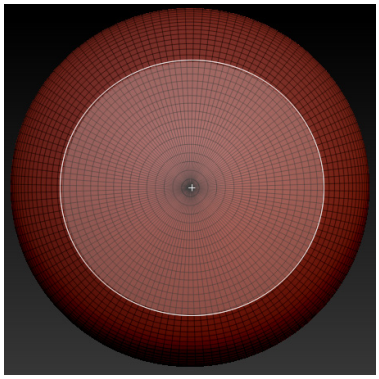


Figure 2-146 *A circular selection mask displayed on the sphere*

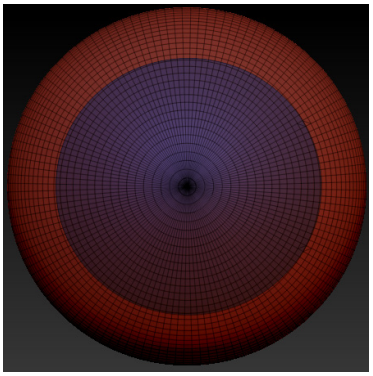


Figure 2-147 *The selected area of the mask separated from the sphere*

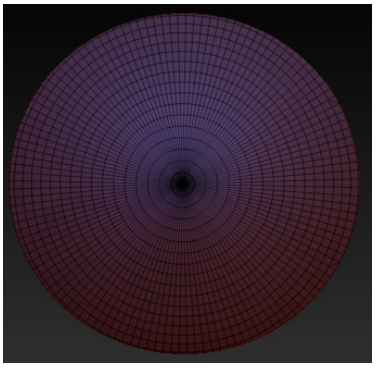


Figure 2-148 *The selected area displayed in the canvas*

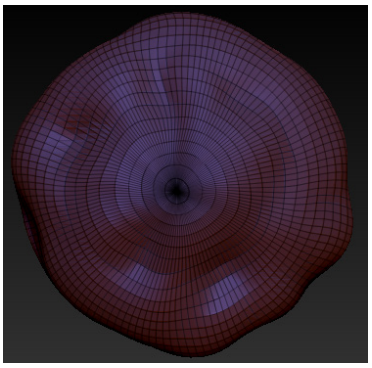


Figure 2-149 *The selected area sculpted using the* ***Standard*** *brush*

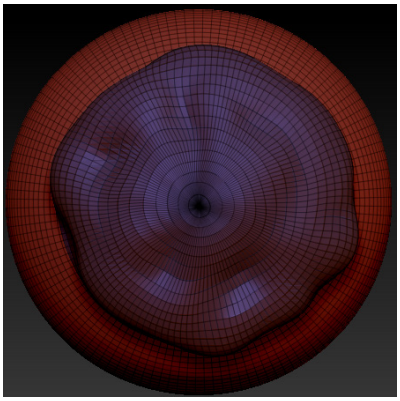


Figure 2-150 *The complete sphere displayed in the canvas*

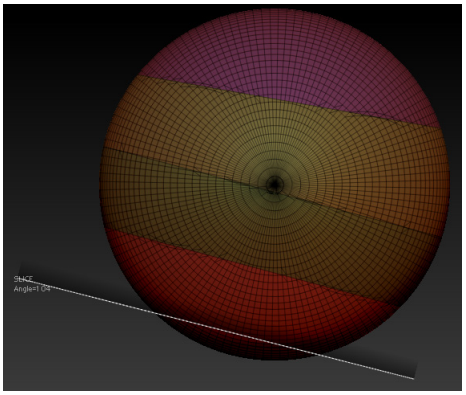


Figure 2-151 *The sphere divided into different parts using the* ***SliceCurve*** *brush*

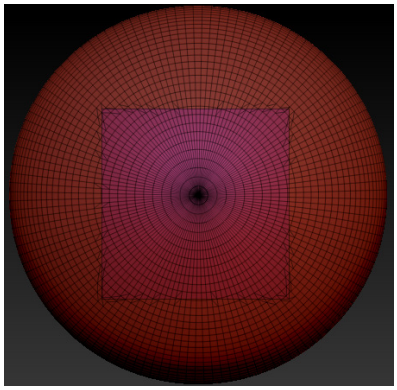


Figure 2-152 *A rectangular selection area created on the surface of sphere*

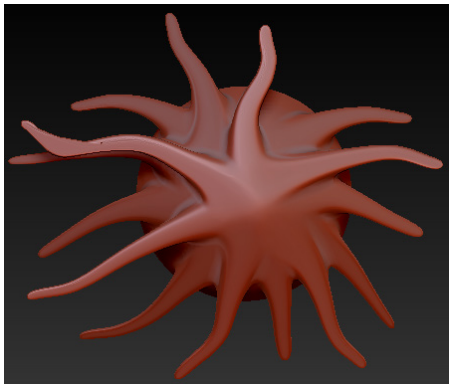


Figure 2-153 *The polygons slid outward using the* ***Slide*** *brush*

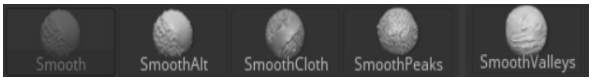


Figure 2-154 *The Smooth brushes*

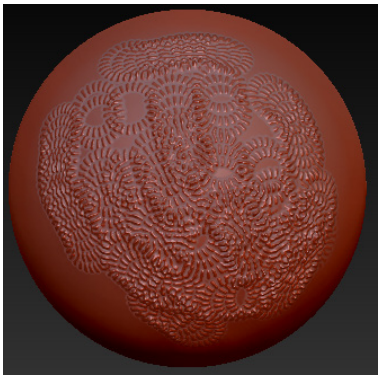


Figure 2-155 *Pattern created using the* ***Standard*** *brush*

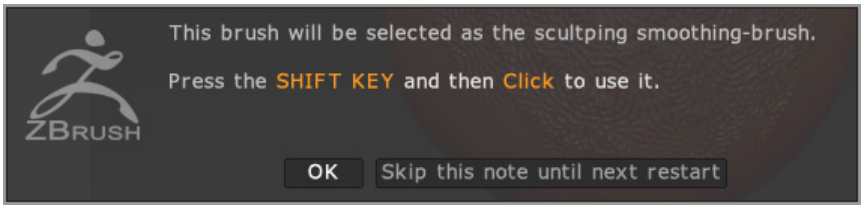


Figure 2-156 *The message box displayed on choosing the* ***Smooth*** *brush*



Figure 2-157 *The surface smoothened using the* ***Smooth*** *brush*

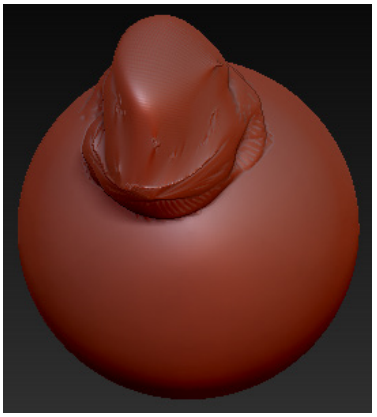


Figure 2-158 *Peak smoothened using the* ***SmoothPeaks*** *brush*

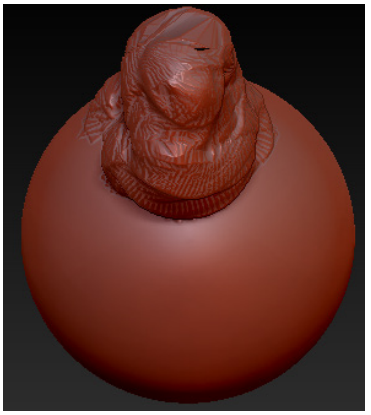


Figure 2-159 *Peak created using the* ***ClayBuildup*** *brush*

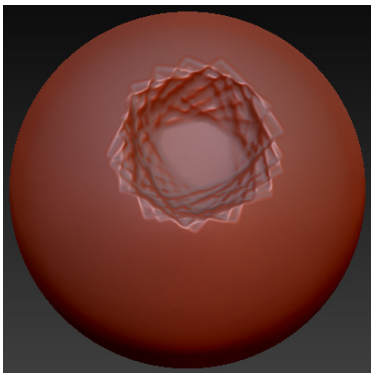


Figure 2-160 *Cavity created using the* ***ClayBuildup*** *brush*

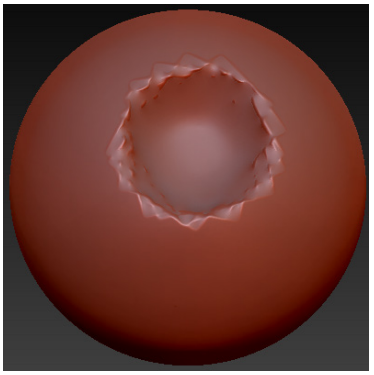


Figure 2-161 *Cavity smoothened using the* ***SmoothValleys*** *brush*

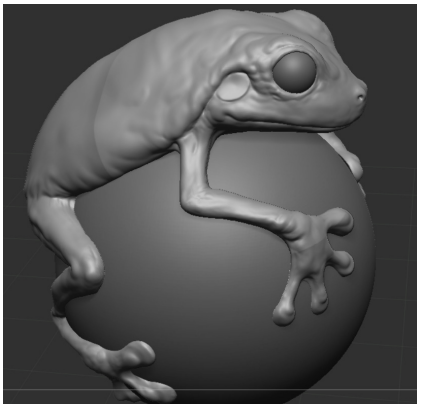


Figure 2-162 *The DemoTreeFrog model before using the* ***SmoothAlt*** *brush*

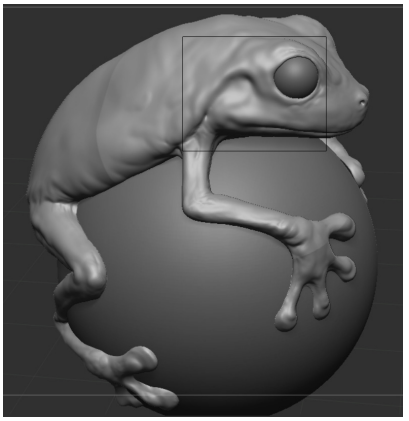


Figure 2-163 *The DemoTreeFrog model after using the* ***SmoothAlt*** *brush in the marked area*

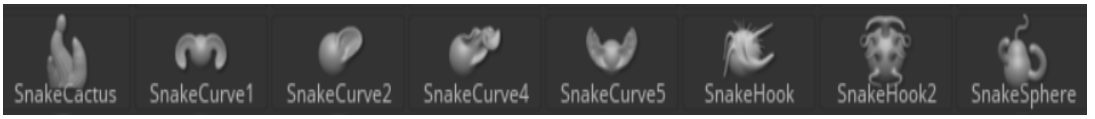


Figure 2-164 *The snake brushes*

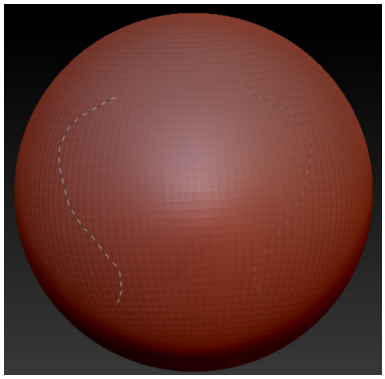


Figure 2-165 *Curve drawn using the* ***SnakeCurve1*** *brush*

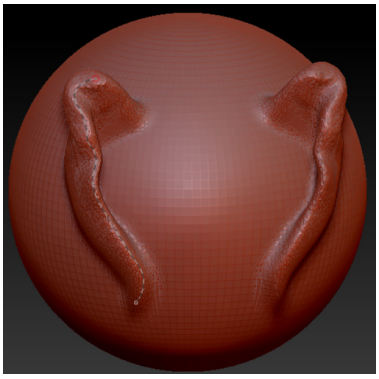


Figure 2-166 *Shape created after pulling the drawn curve*

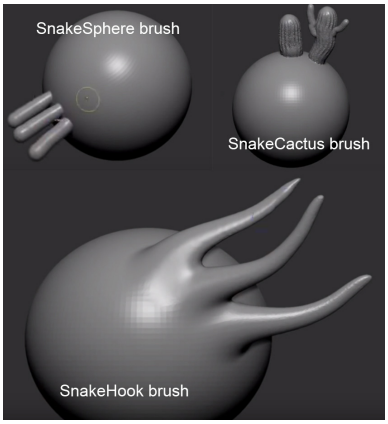


Figure 2-167 *Strands pulled out using the Snake brushes*

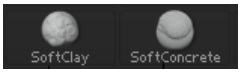


Figure 2-168 *The soft brushes*



Figure 2-169 *Rectangular alpha added using the* ***SoftClay*** *brush*

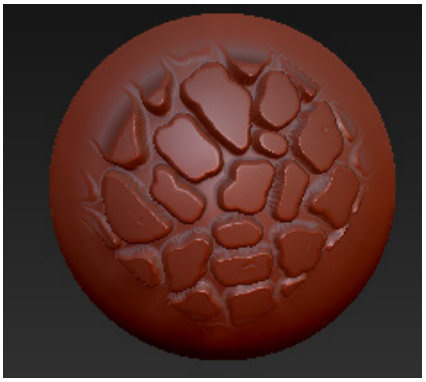


Figure 2-170 *A stone like alpha added using the* ***SoftConcrete*** *brush*



Figure 2-171 *Twisted displacement produced by using the* ***Spiral*** *brush*



Figure 2-172 *A sphere sculpted by the* ***Standard*** *brush*

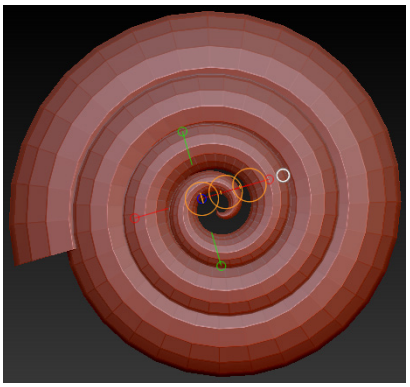


Figure 2-173 *Action line displayed on the spiral*

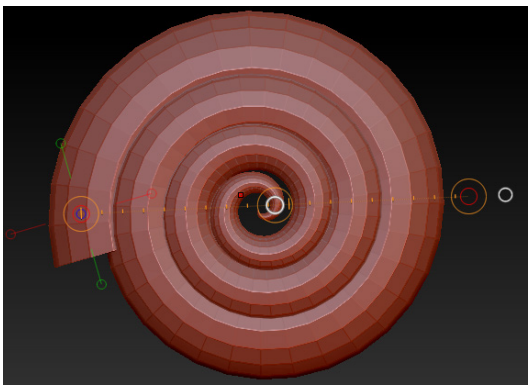


Figure 2-174 *Size of the action line increased*

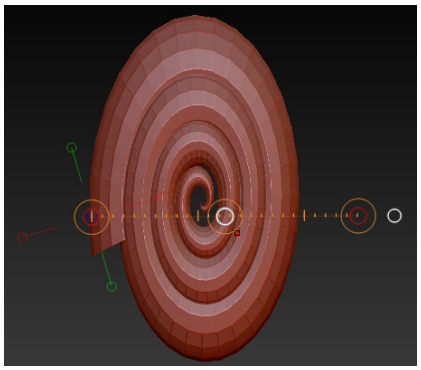


Figure 2-175 *Spiral scaled up vertically*

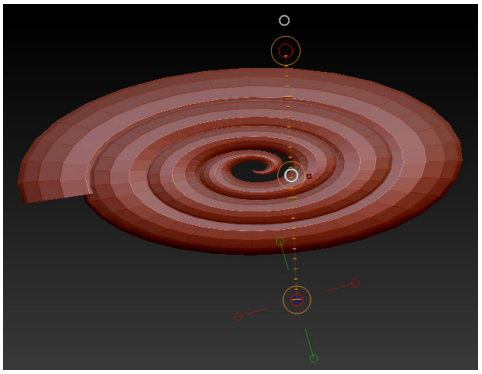


Figure 2-176 *Spiral scaled up horizontally*

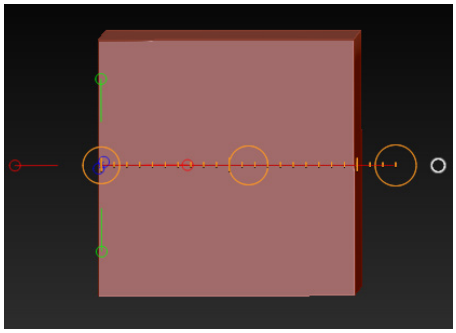


Figure 2-177 *Action line displayed on the spiral*

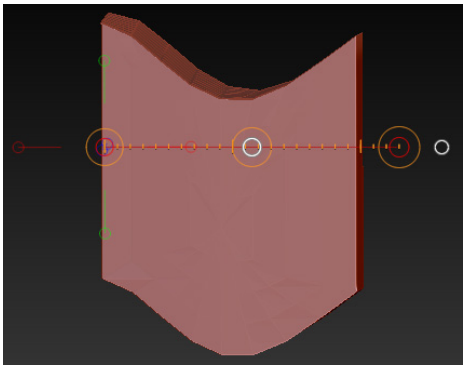


Figure 2-178 *Surface of the cube bent using the* ***Transpose*** *brush*



Figure 2-179 *Model of the dog created in the canvas*

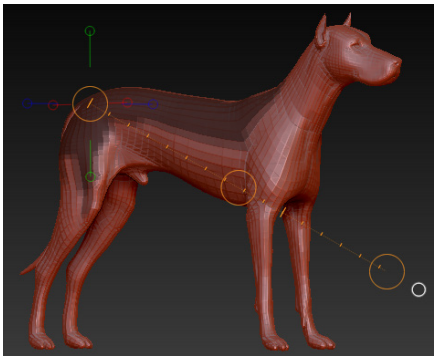


Figure 2-180 *Mask created on the top area of the model*

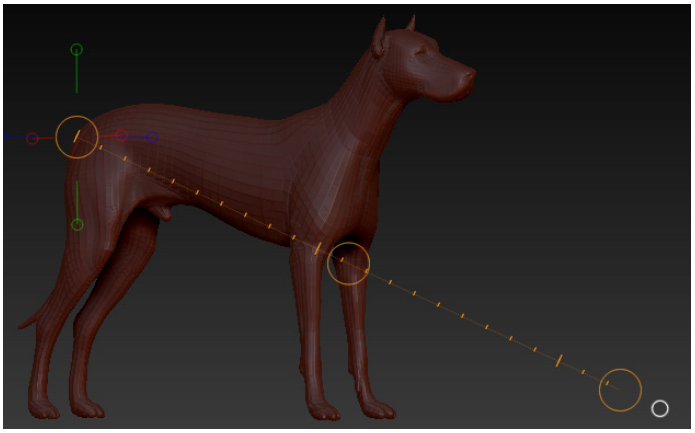


Figure 2-181 *Mask created on the entire surface of the model*

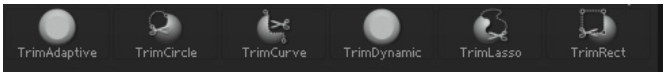


Figure 2-182 *The Trim brushes*

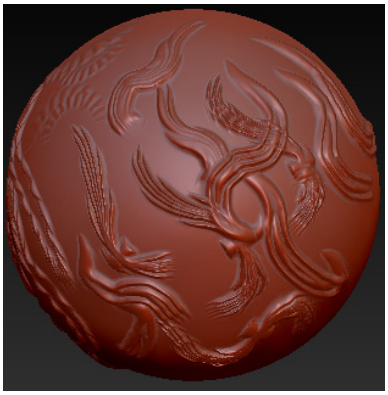


Figure 2-183 *Different patterns created using the* ***Weave1*** *brush*



Figure 2-184 *Choosing the* ***ZModeler*** *brush from the flyout*

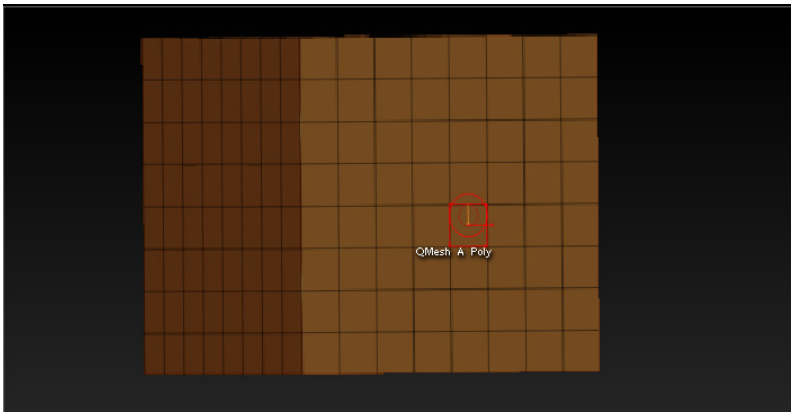


Figure 2-185 *The highlighted area of the primitive*



Figure 2-186 *The* ***ZMODELER*** *window*

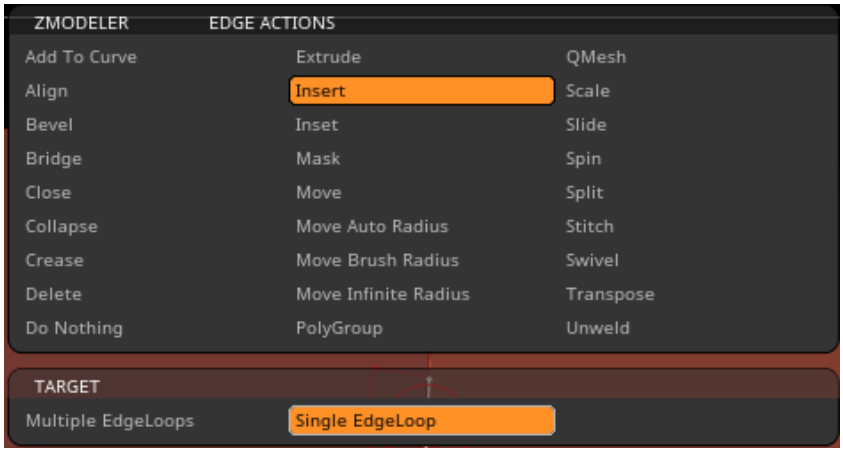


Figure 2-187 *The* ***ZMODELER*** *window with options corresponding to edge*

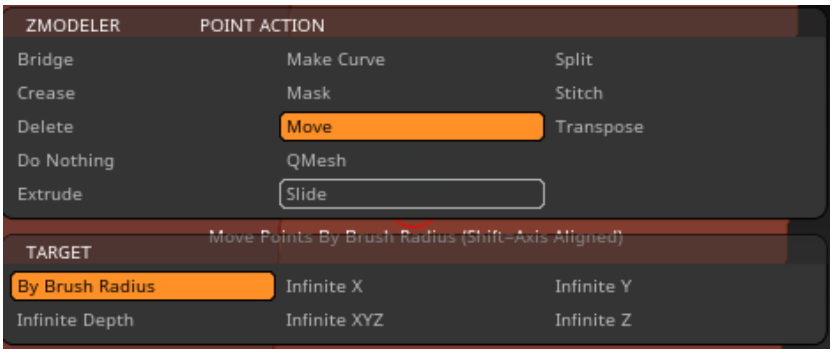
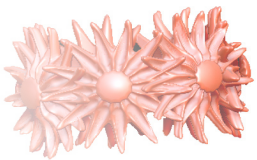


Figure 2-188 *The* ***ZMODELER*** *window with options corresponding to point*

Chapter 3

Introduction to Digital Sculpting





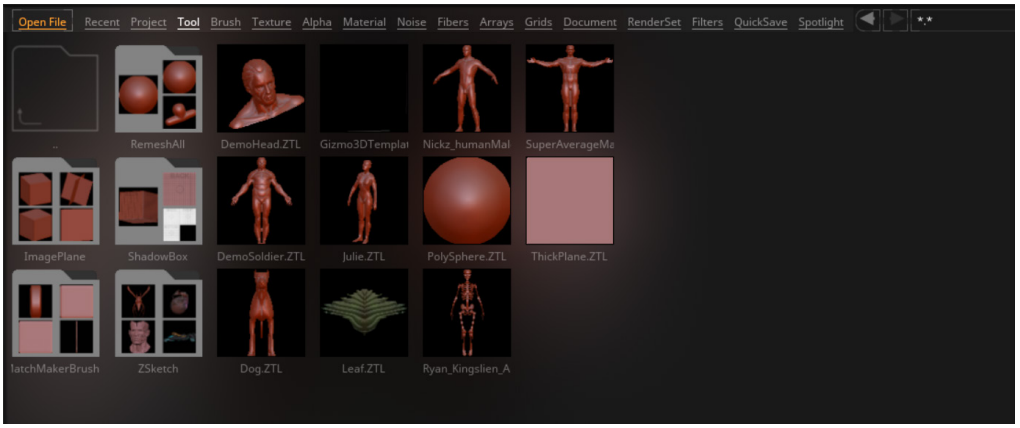


Figure 3-1 *The* ***LightBox*** *browser*

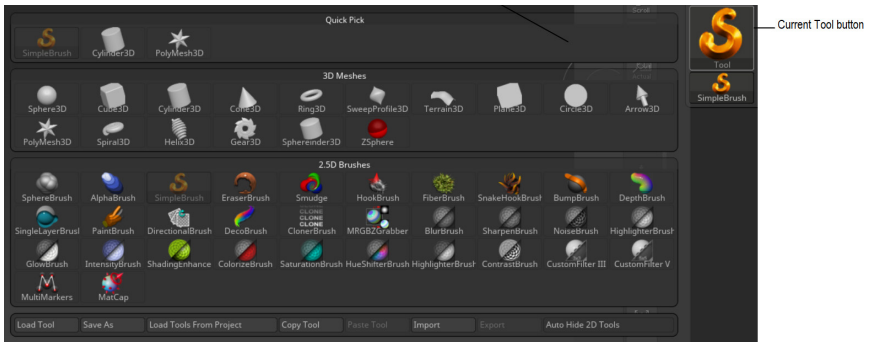


Figure 3-2 *The primitives accessed through the flyout*



Figure 3-3 *The* ***Activate Symmetry*** *button in the* ***Transform*** *palette*

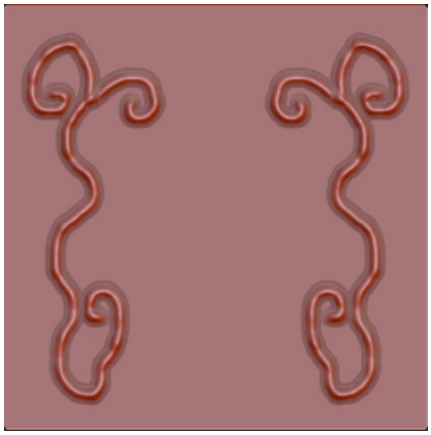


Figure 3-4 *Pattern drawn with the symmetry activated along X axis*

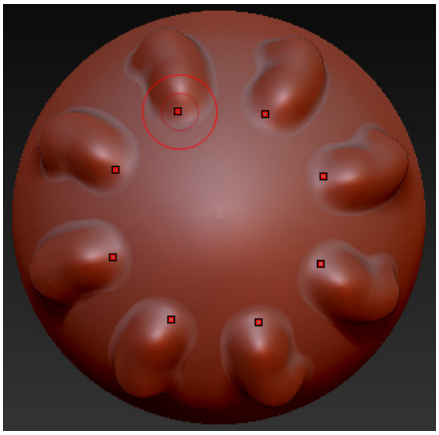


Figure 3-5 *Radial pattern drawn with the symmetry activated along Z axis*

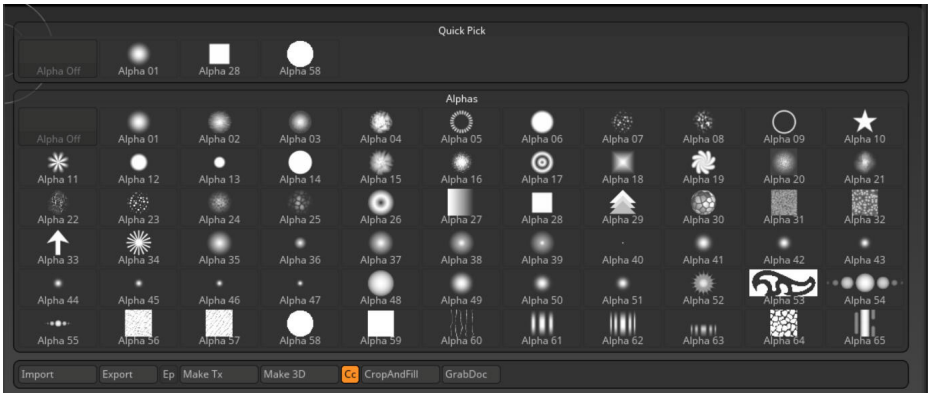


Figure 3-6 *The alpha patterns*

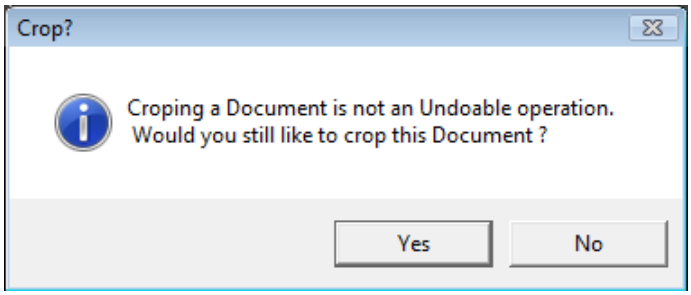


Figure 3-7 *The warning message displayed on choosing the* ***CropAndFill*** *button*

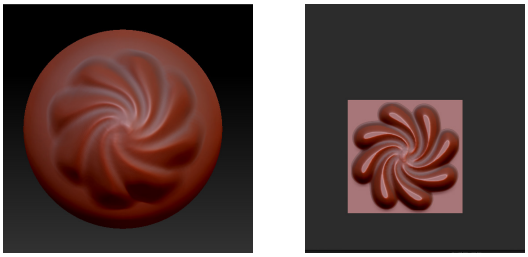


Figure 3-8 *Object cropped by using the* ***CropAndFill*** *button*

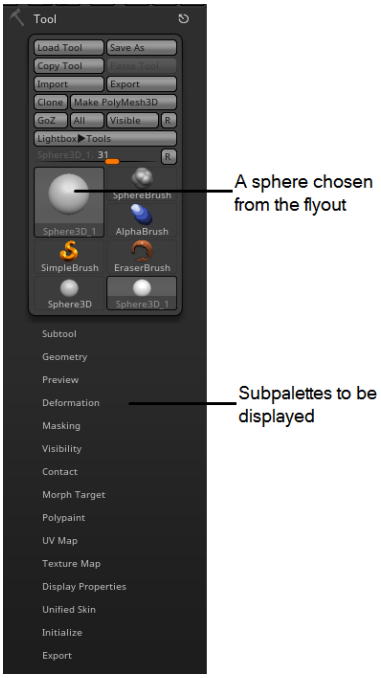


Figure 3-9 *Subpalettes displayed on choosing a primitive*

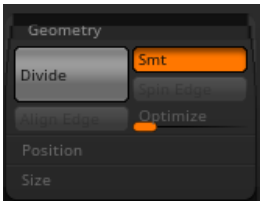


Figure 3-10 *The* ***Geometry*** *subpalette displayed on creating a primitive model*

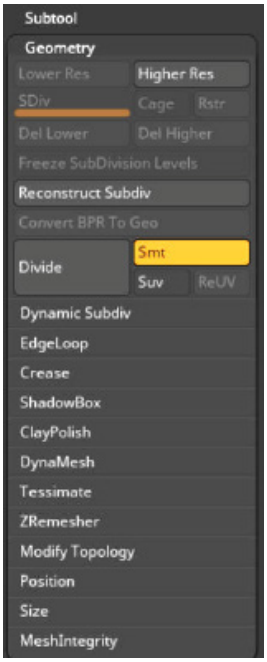


Figure 3-11 *The* ***Geometry*** *subpalette displayed on converting a primitive model into a polymesh*

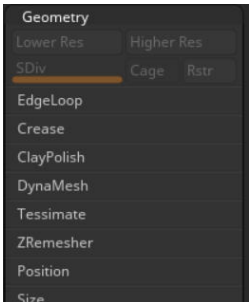


Figure 3-12 *The* ***Geometry*** *subpalette displayed on creating a ZSphere*

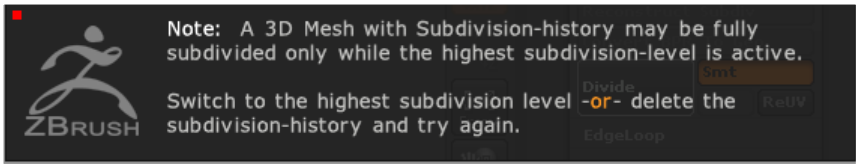


Figure 3-13 *A message box displayed when the* ***SDiv*** *slider is not at its highest subdivision level*

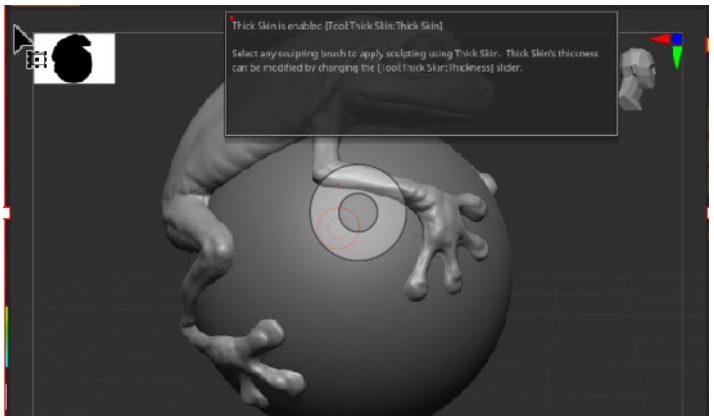


Figure 3-14 *The* ***DemoTreeFrog.ZPR model***

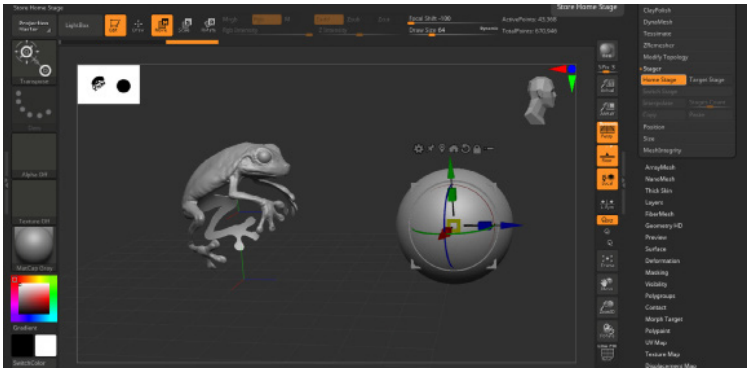


Figure 3-15 *Setting the home position of the* ***MatCap Sphere*** *model*

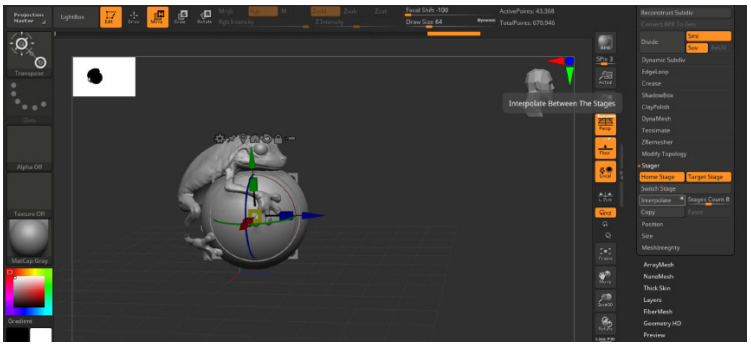


Figure 3-16 *Setting the target position of the* ***MatCap Sphere*** *model*

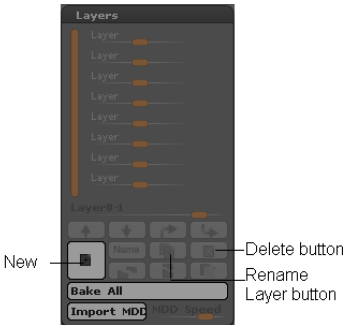


Figure 3-17 *The* ***Layers*** *subpalette*

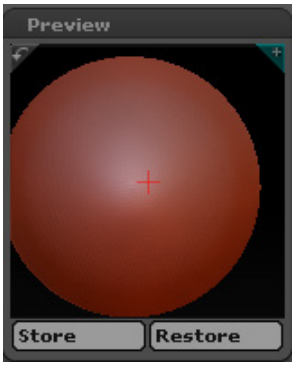


Figure 3-18 *The preview area in the* ***Preview*** *subpalette*



Figure 3-19 *The* ***Surface*** *subpalette*

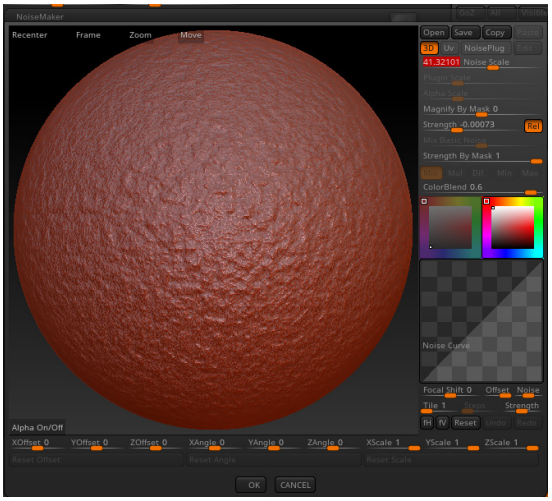


Figure 3-20 *The* ***NoiseMaker*** *window*



Figure 3-21 *The* ***Deformation*** *subpalette*

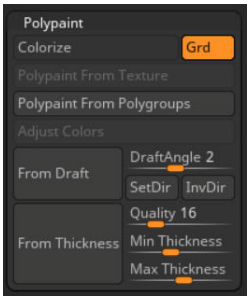


Figure 3-22 *The* ***Polypaint*** *subpalette*



Figure 3-23 *The* ***Make Unified Skin*** *button in the* ***Unified Skin*** *subpalette*

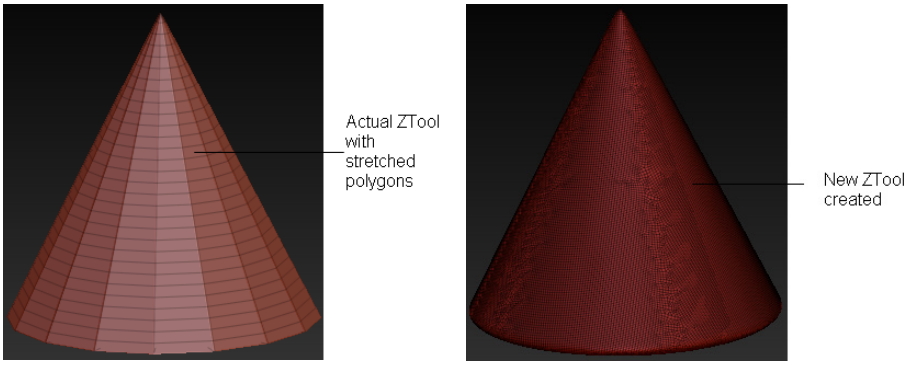


Figure 3-24 *The ZTool created after choosing the* ***Make Unified Skin*** *button*



Figure 3-25 *The* ***Initialize*** *subpalette*



Figure 3-26 *The* ***Export*** *subpalette*

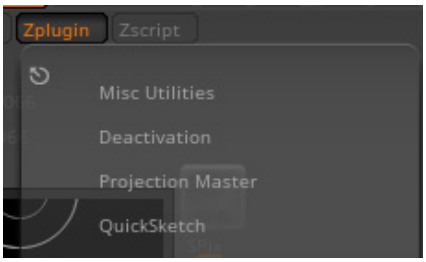


Figure 3-27 *The* ***Projection Master*** *button in the* ***Zplugin*** *palette*



Figure 3-28 *The* ***Projection Master*** *dialog box*

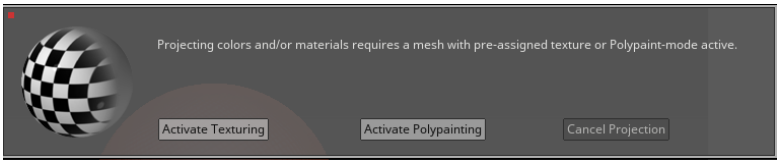


Figure 3-29 *Message box displayed on choosing the* ***DROP NOW*** *button*



Figure 3-30 *Colors painted on the 2D illustration*



Figure 3-31 *The* ***PICKUP NOW*** *button in the* ***Projection Master*** *dialog box*



Figure 3-32 *The 2.5D illustration of the model painted*



Figure 3-33 *Shading applied on the visible portion of the model*



Figure 3-34 *The flyout displayed*

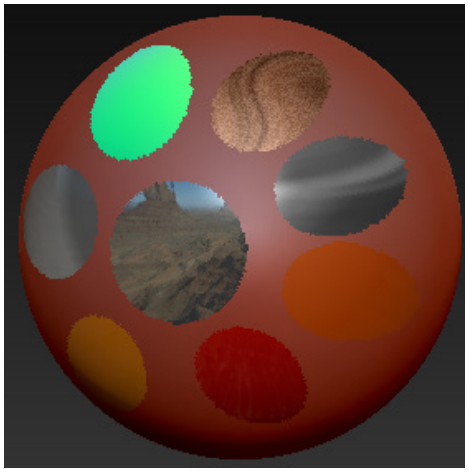


Figure 3-35 *The 3D model with painted materials*

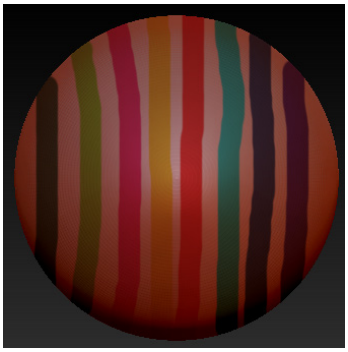


Figure 3-36 *Different colors painted on the 2D illustration*

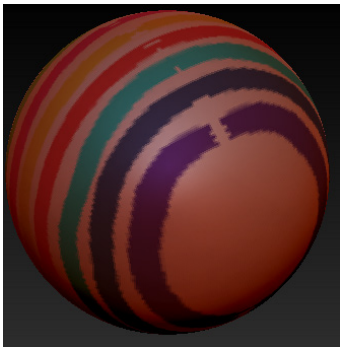


Figure 3-37 *Painted colors replicated on the backside of the sphere*

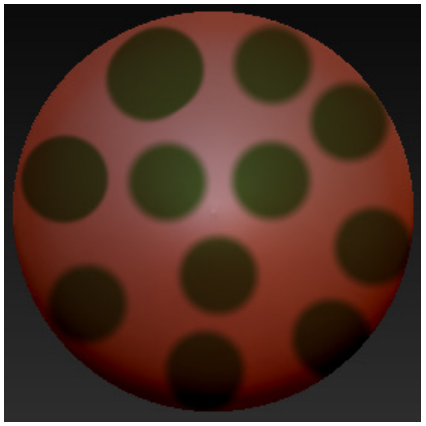


Figure 3-38 *The 2D illustration of a sphere painted with the* ***Fade*** *check box selected*

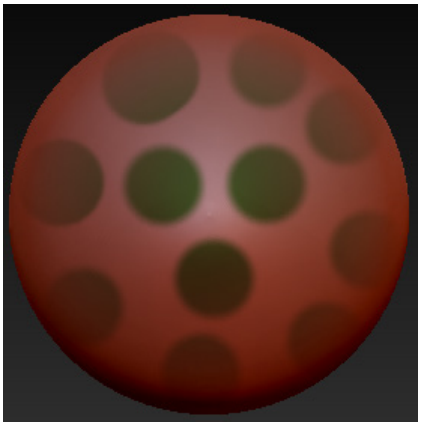


Figure 3-39 *Effect after selecting the* ***Fade*** *check box on the sphere*



Figure 3-40 *New stroke types added in the Stroke flyout*

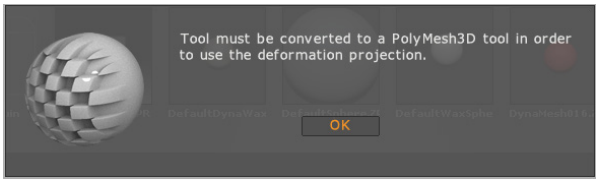


Figure 3-41 *The message displayed on selecting the* ***Deformation*** *check box for a primitive object*

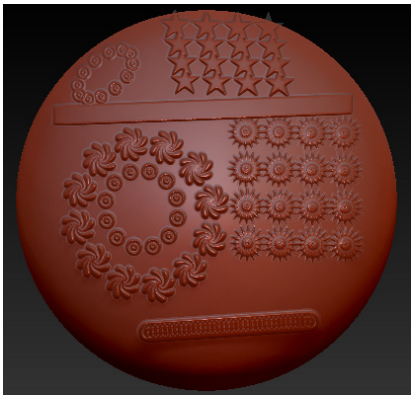


Figure 3-42 *Different patterns created using different strokes and alphas*

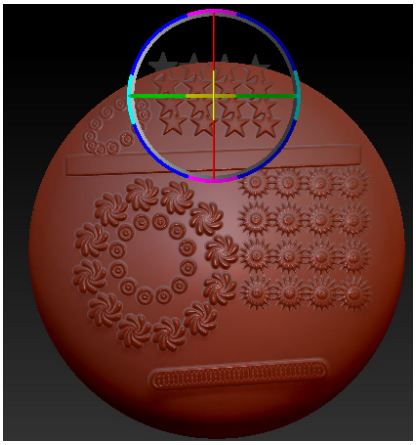


Figure 3-43 *Moving a pattern toward left*



Figure 3-44 *The 2.5D brushes in the* ***Tool*** *flyout*

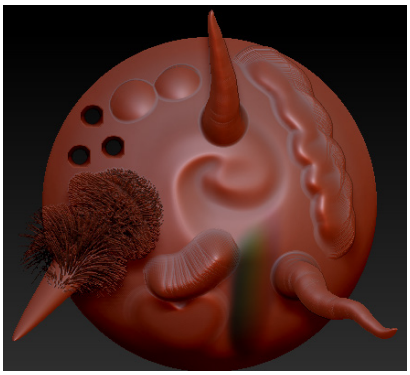


Figure 3-45 *Different types of sculpting done by using different 2.5D brushes*

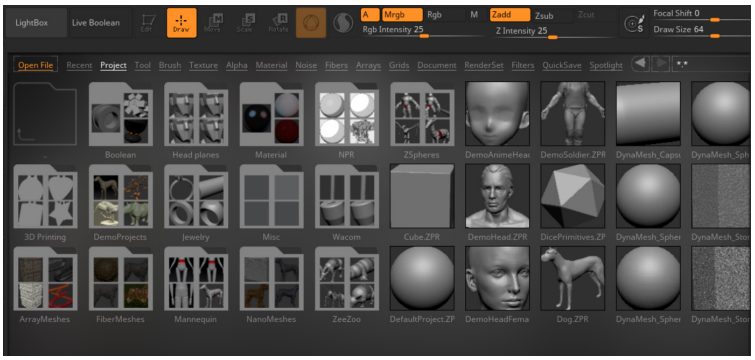


Figure 3-46 *The* ***LightBox*** *browser displayed*

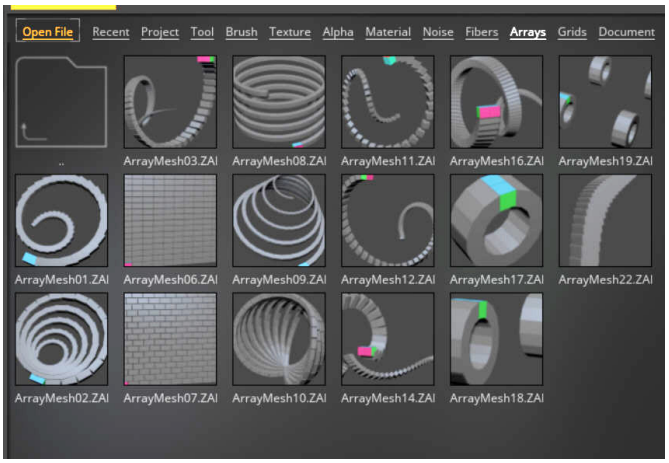


Figure 3-47 *The array presets displayed*

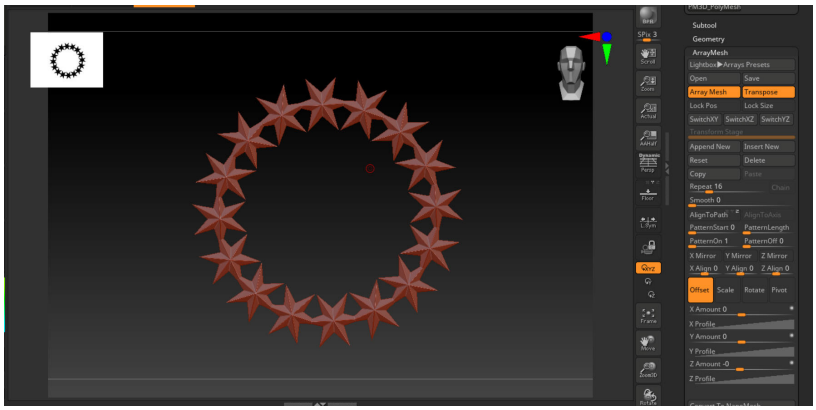


Figure 3-48 *Setting the attributes of array*

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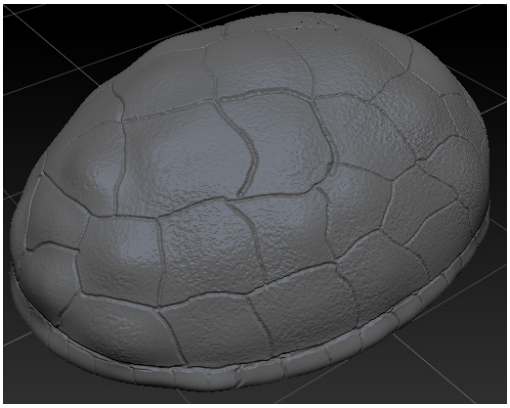


Figure 3-49 *The turtle shell*

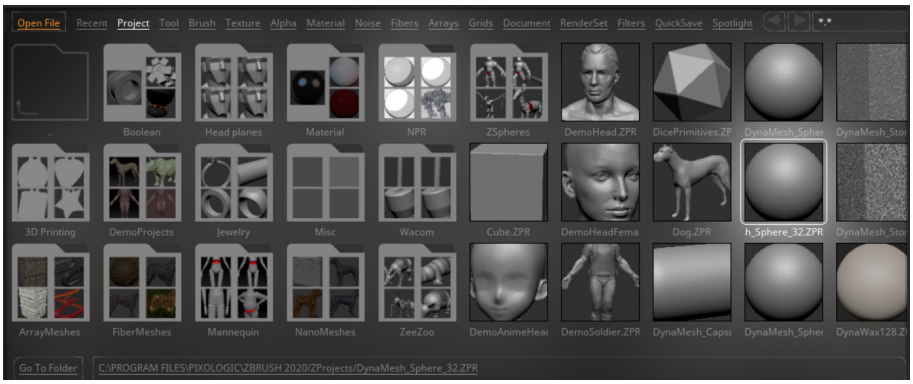


Figure 3-50 *The* ***DynaMesh_Sphere_32.ZPR*** *file chosen from the* ***LightBox*** *browser*

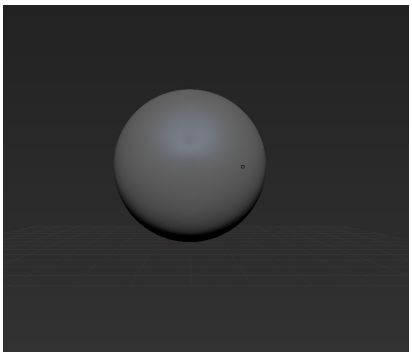


Figure 3-51 *The* ***DynaMesh_Sphere_32*** *model created on the canvas*

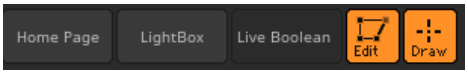


Figure 3-52 *The* ***LightBox*** *button in the top shelf*



Figure 3-53 *Choosing the* ***ClipRect*** *brush from the flyout*

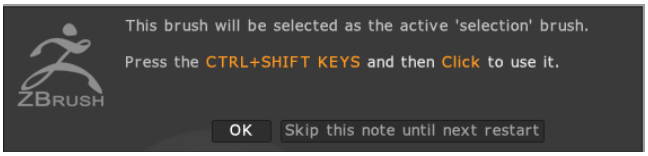


Figure 3-54 *Message box displayed on choosing the* ***ClipRect*** *brush*

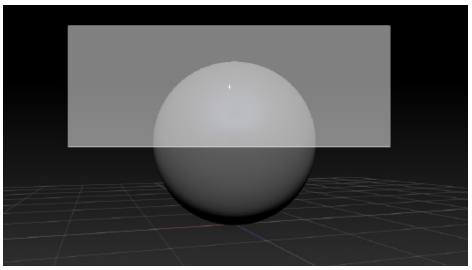


Figure 3-55 *Upper part of sphere selected using the marquee selection*

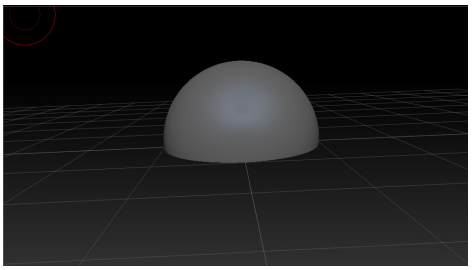


Figure 3-56 *Lower half of the sphere deleted*



Figure 3-57 *The* ***Deformation*** *subpalette expanded*



Figure 3-58 *The* ***x*** *and* ***y*** *options deactivated*

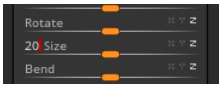


Figure 3-59 *Value entered in the edit box*

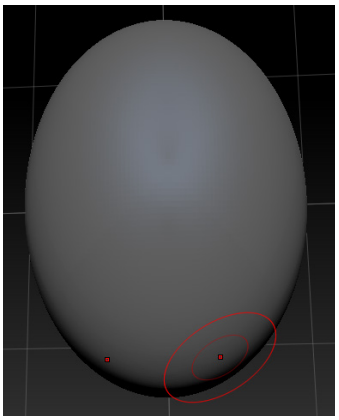


Figure 3-60 *Top view of the turtle shell*

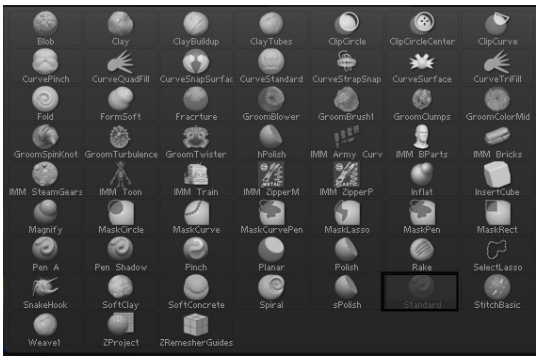


Figure 3-61 *The **Standard** brush chosen from the flyout*

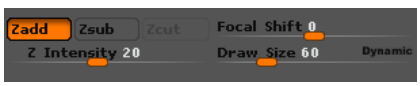


Figure 3-62 *Settings for the **Standard** brush for adding depth*

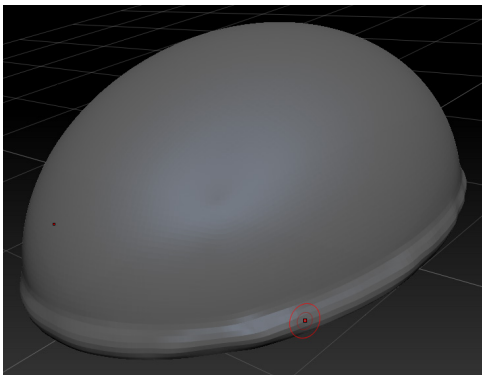


Figure 3-63 *Depth added to the lower part of the turtle shell using the **Standard** brush*

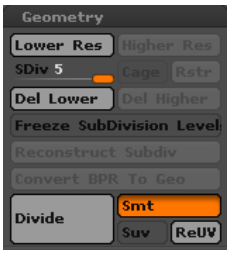


Figure 3-64 *Choosing the **Divide** button from the **Geometry** subpalette*



Figure 3-65 *Settings for the* ***Standard*** *brush for creating pattern*

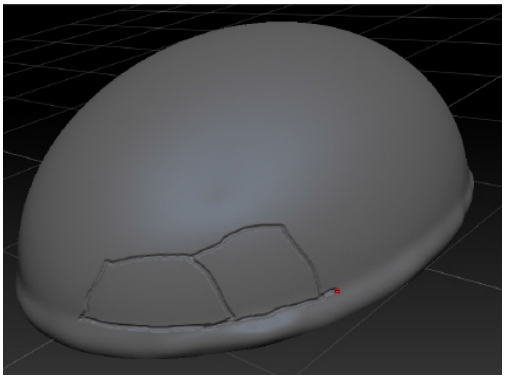


Figure 3-66 *A pattern created on the upper part of the turtle shell using the* ***Standard*** *brush*

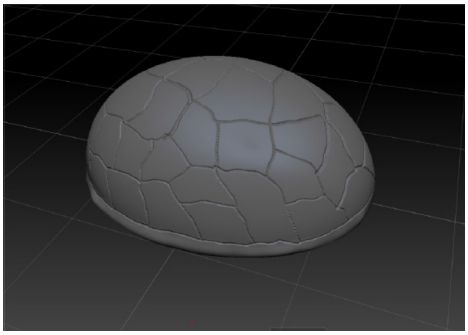


Figure 3-67 *Pattern created on the entire upper part of the turtle shell*

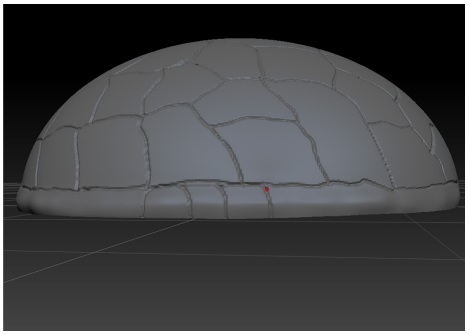


Figure 3-68 *Pattern created on the lower part of the turtle shell using the* ***Standard*** *brush*

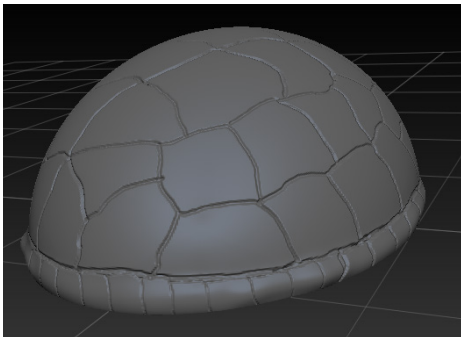


Figure 3-69 *Pattern created on the entire lower part of the turtle shell*

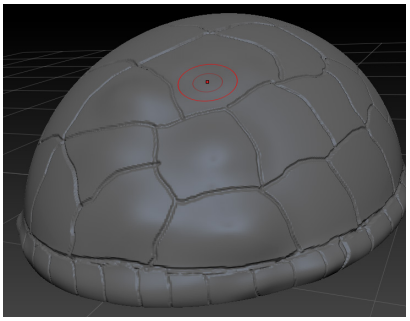


Figure 3-70 *Depth added to the pattern using the* ***Standard*** *brush*

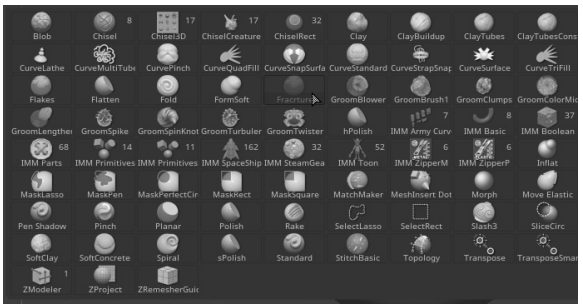


Figure 3-71 *The* ***Fracture*** *brush chosen*

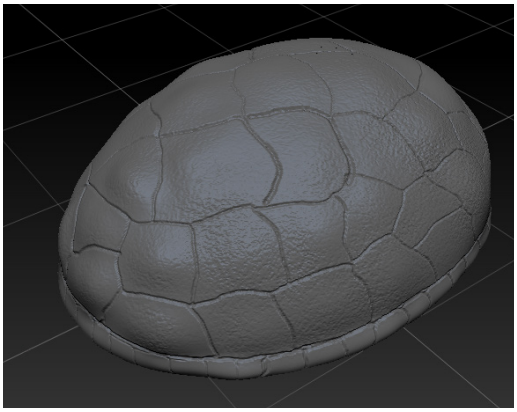


Figure 3-72 *The final output*

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Figure 3-73 *The flower vase*



Figure 3-74 ***Cylinder3D*** *chosen from the flyout*

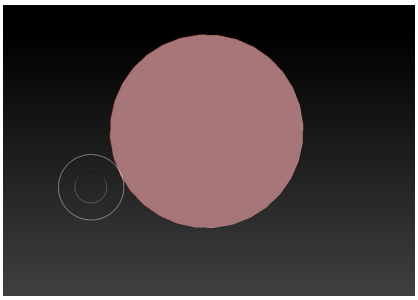


Figure 3-75 *The cylinder created in the canvas*

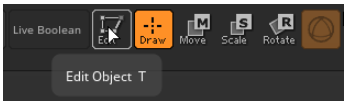


Figure 3-76 *The* ***Edit*** *button chosen from the top shelf*

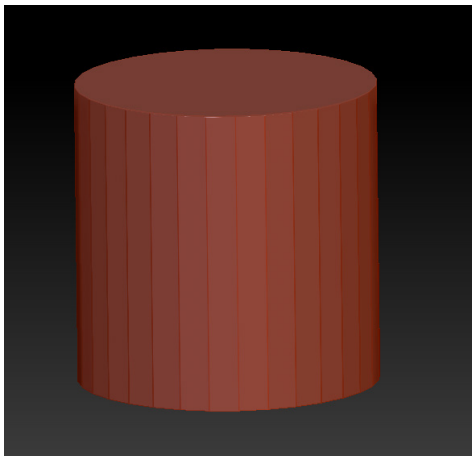


Figure 3-77 *The cylinder rotated*



Figure 3-78 *The* ***Make PolyMesh3D*** *button chosen from the* ***Tool*** *palette*

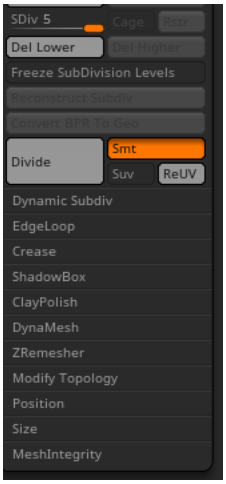


Figure 3-79 *Choosing the* ***Divide*** *button from the* ***Geometry*** *subpalette*

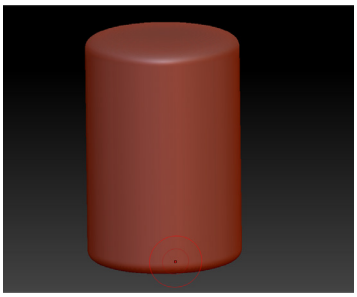


Figure 3-80 *Height of the cylinder increased*



Figure 3-81 *The* ***Activate Symmetry*** *button chosen in the* ***Transform*** *palette*

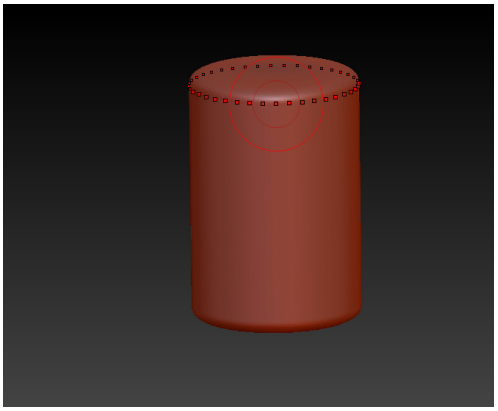


Figure 3-82 *Radial symmetry activated in the Y-axis*

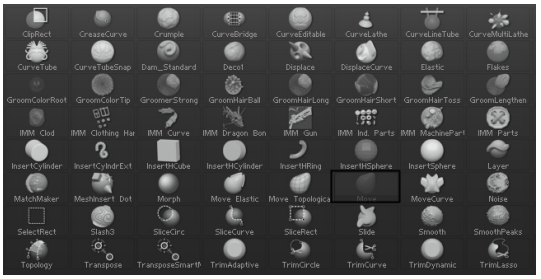


Figure 3-83 *The* ***Move*** *brush chosen*



Figure 3-84 *The value of the* ***Draw Size*** *slider set to* ***450***



Figure 3-85 *Top area of the cylinder dragged upward*



Figure 3-86 *Neck of the flower vase formed by using the* ***Move*** *brush*

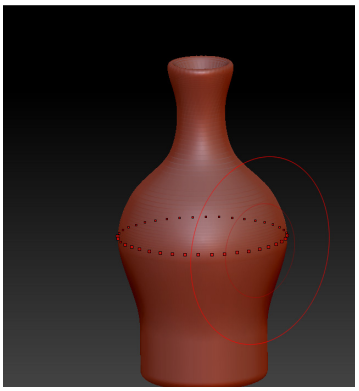


Figure 3-87 *Round shape given to the flower vase*



Figure 3-88 *Shape of the flower vase refined by using the* ***Move*** *brush*



Figure 3-89 *The* ***Alpha 28*** *alpha image chosen from the flyout*

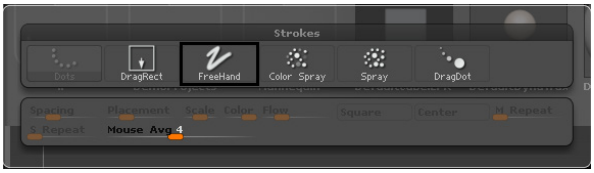


Figure 3-90 *The* ***FreeHand*** *stroke chosen from the flyout*



Figure 3-91 *Pattern created on the neck area*



Figure 3-92 *Pattern created on the other parts of the flower vase*

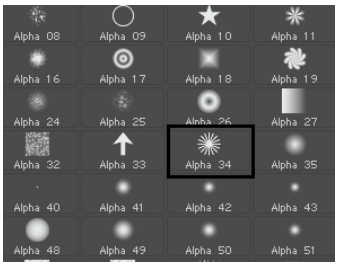


Figure 3-93 ***Alpha 34*** *chosen from the Alpha palette*



Figure 3-94 *The pattern created using* ***Alpha 34***

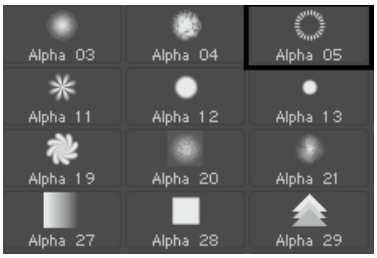


Figure 3-95 ***Alpha 05*** *chosen from the flyout*



Figure 3-96 *The pattern created using* ***Alpha 05***



Figure 3-97 *The final model of the flower vase*

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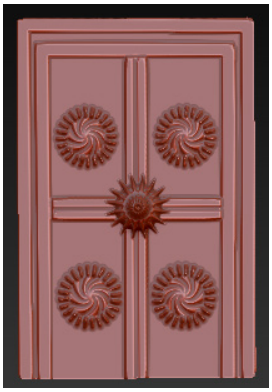


Figure 3-98 *Final model of the door*

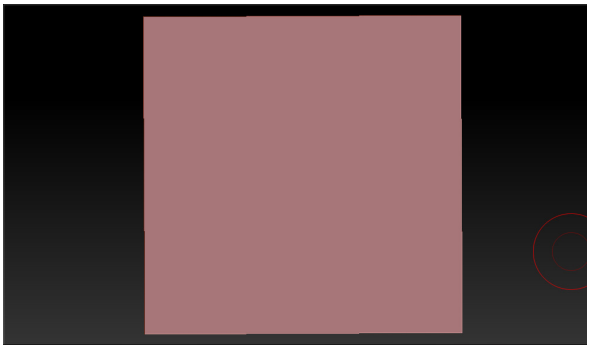


Figure 3-99 *The* ***Plane3D*** *primitive created on the canvas*



Figure 3-100 *The value of* ***H Radius*** *slider changed to* ***66***

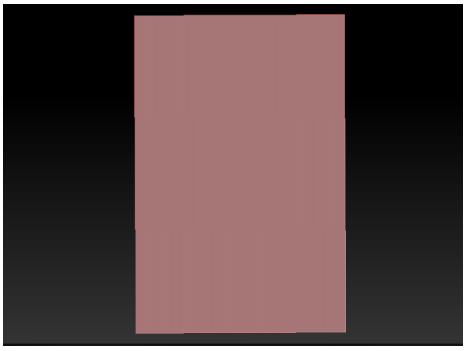


Figure 3-101 *Shape of the plane changed*



Figure 3-102 *The* ***Deformation*** *check box selected*

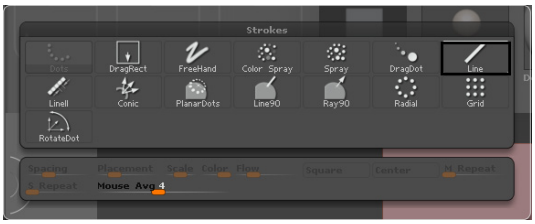


Figure 3-103 *The* ***Line*** *stroke chosen in the flyout*



Figure 3-104 *Line drawn on the left side of the door*

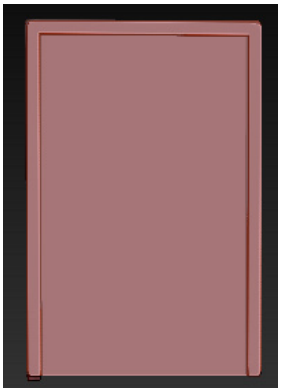


Figure 3-105 *Frame created for the door*

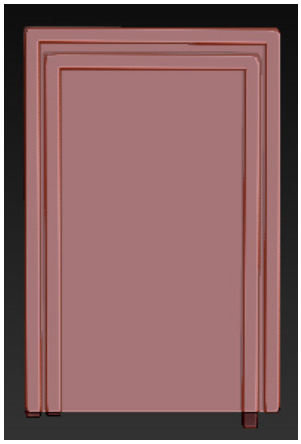


Figure 3-106 *Another frame created for the door*

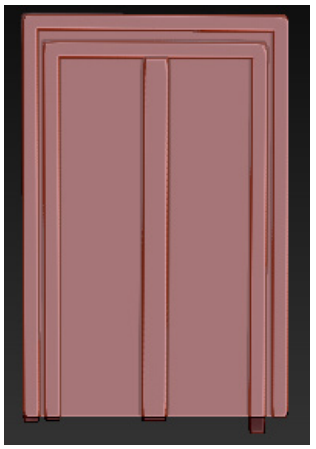


Figure 3-107 *A vertical partition created in the middle of the door*

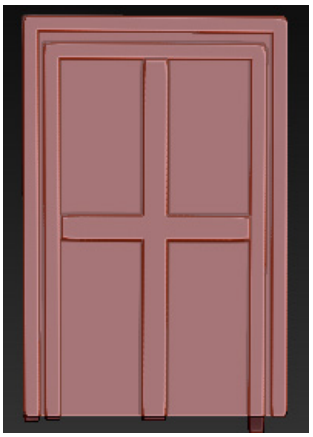


Figure 3-108 *A horizontal partition created in the middle of the door*

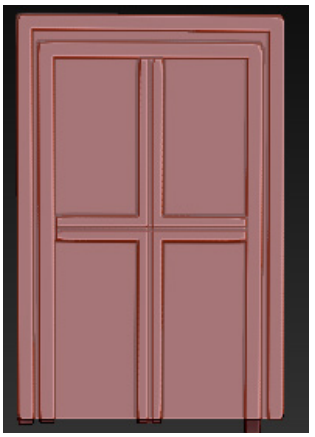


Figure 3-109 *Vertical and horizontal lines created on the partitions*

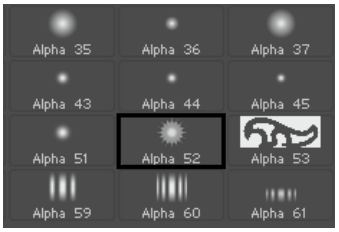


Figure 3-110 ***Alpha 52*** *chosen in the flyout*

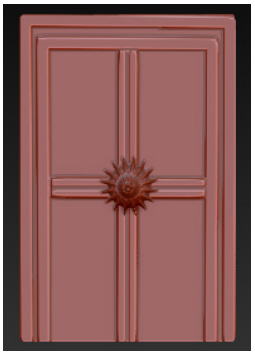


Figure 3-111 *Knob created for the door*

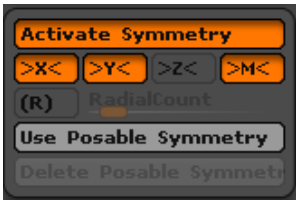


Figure 3-112 *Symmetry activated along X and Y axes*



Figure 3-113 ***Alpha 19*** *applied to the door panels*



Figure 3-114 *Final model of the door*

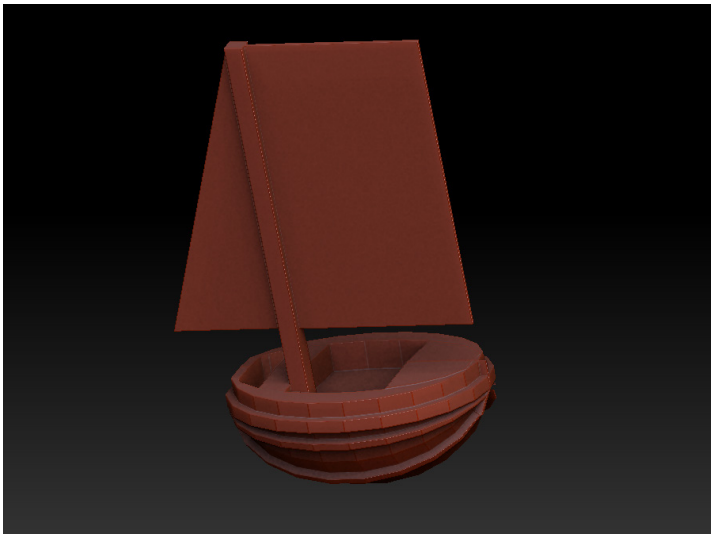


Figure 3-115 *The boat model*

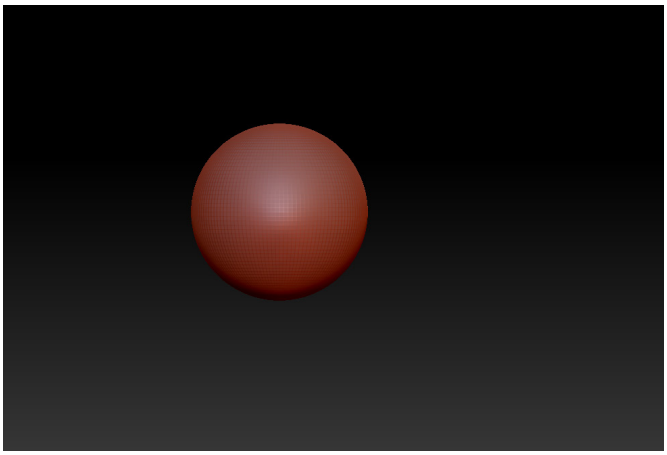


Figure 3-116 *The* ***Sphere3D*** *primitive created in the canvas*

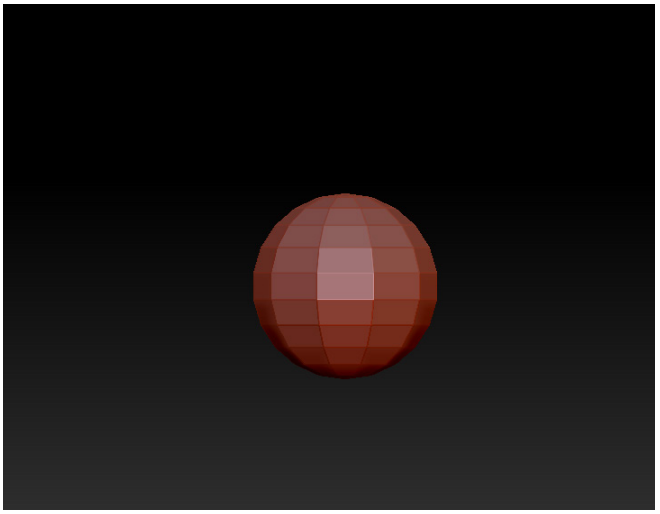


Figure 3-117 *Shape of the sphere changed*

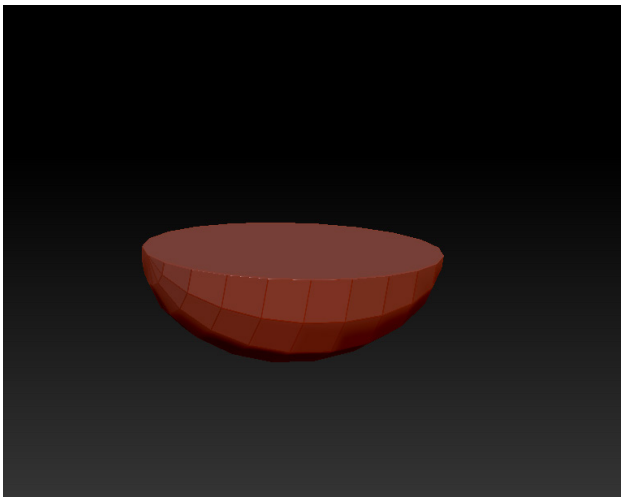


Figure 3-118 *Shape of the sphere changed*

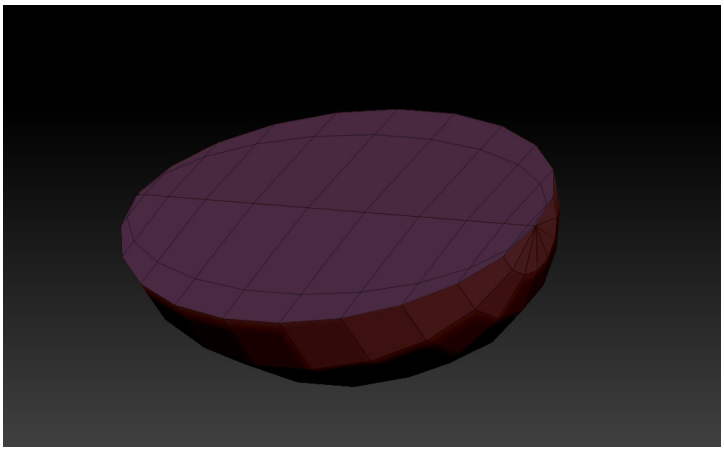


Figure 3-119 *The edge loop created*

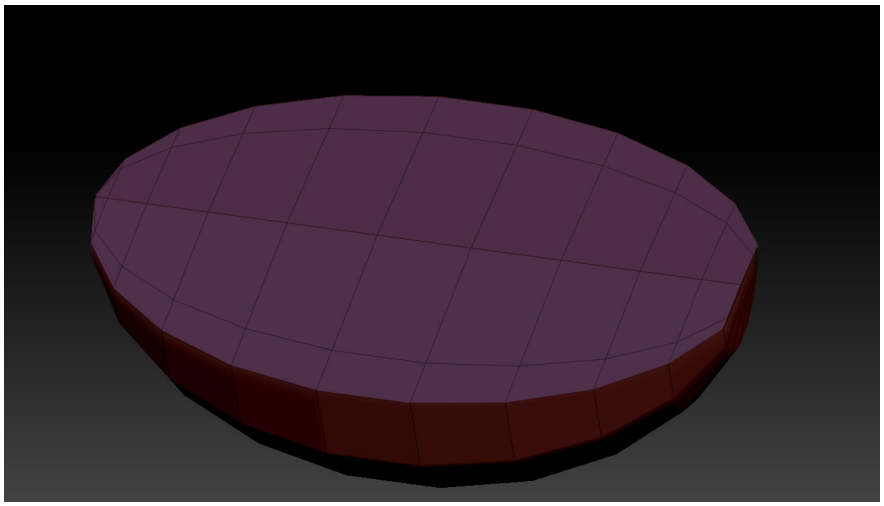


Figure 3-120 *The point deleted*

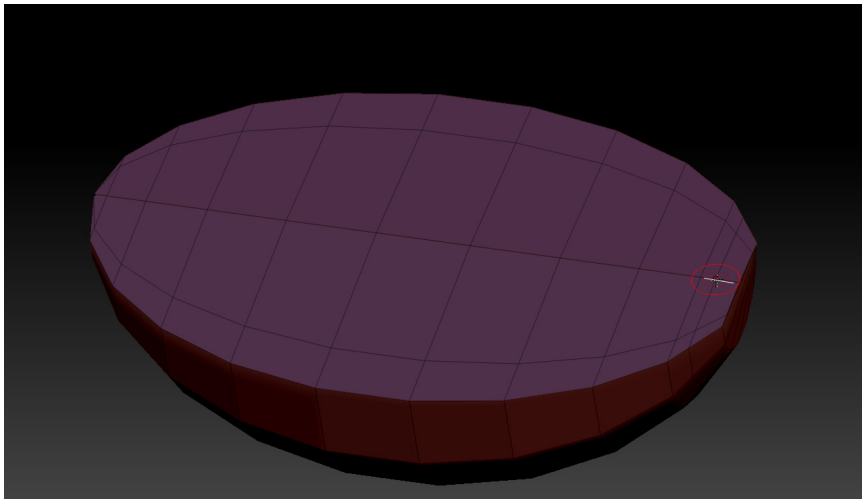


Figure 3-121 *The edge loop created*

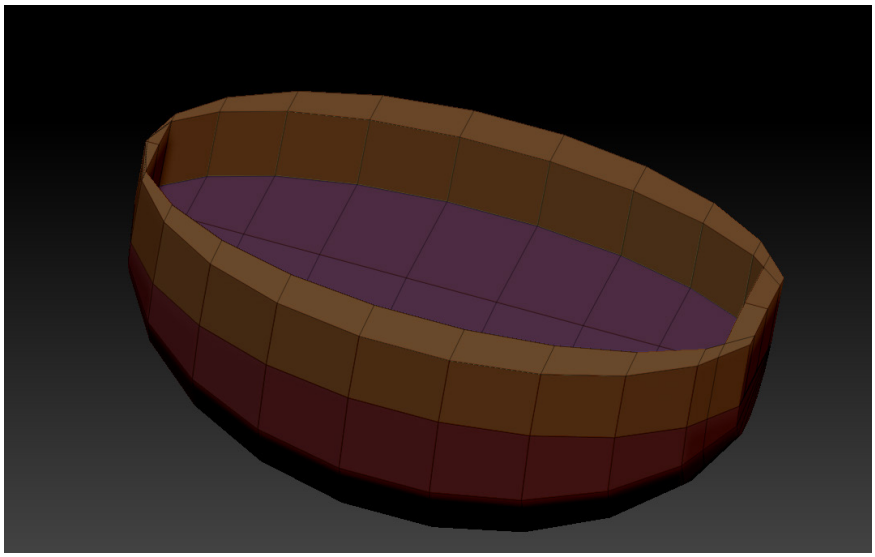


Figure 3-122 *The extruded polygon*

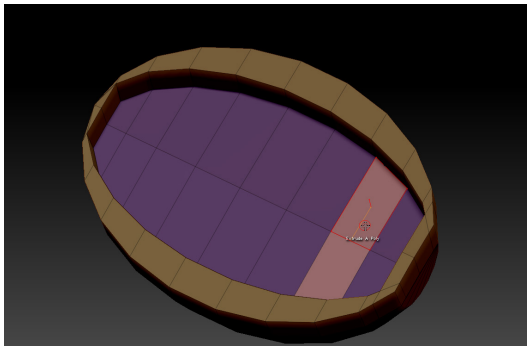


Figure 3-123 *The selected polygons*

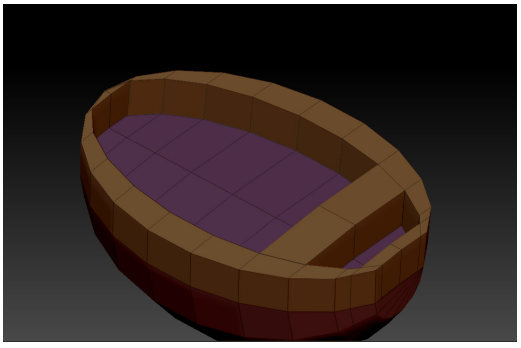


Figure 3-124 *The polygons extruded*

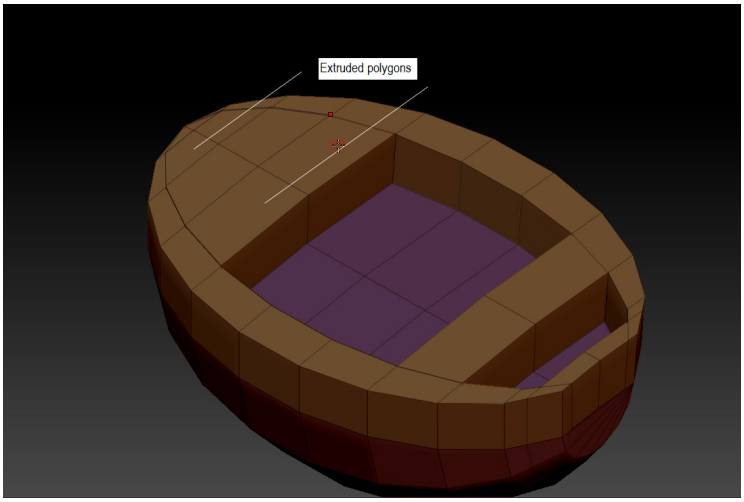


Figure 3-125 *The extruded polygons*

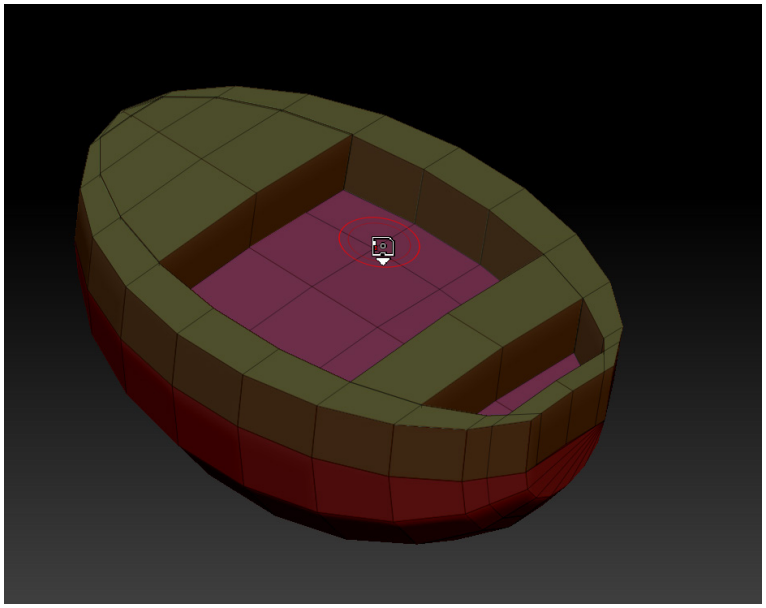


Figure 3-126 *The edge loop added*

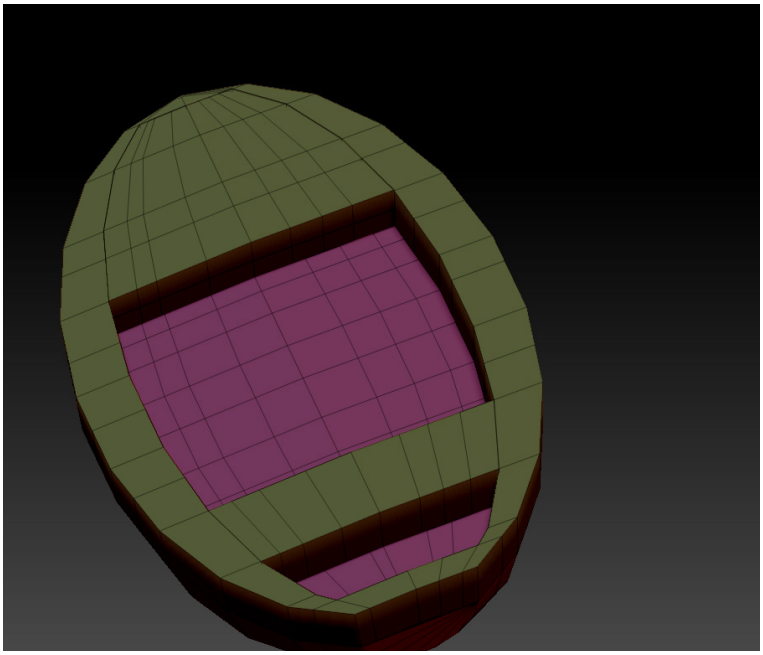


Figure 3-127 *The edge loops created*

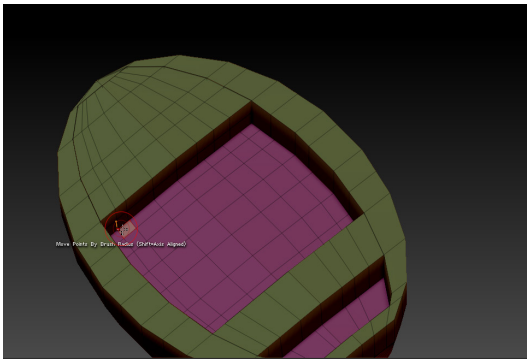


Figure 3-128 *Selected polygon*

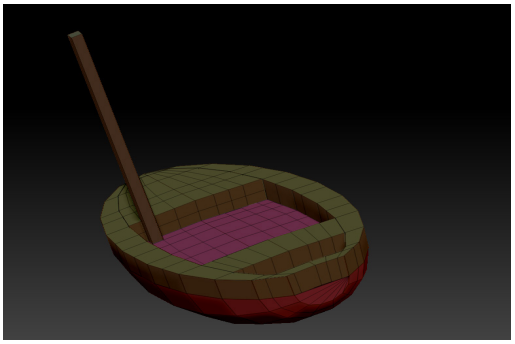


Figure 3-129 *The extruded polygon*

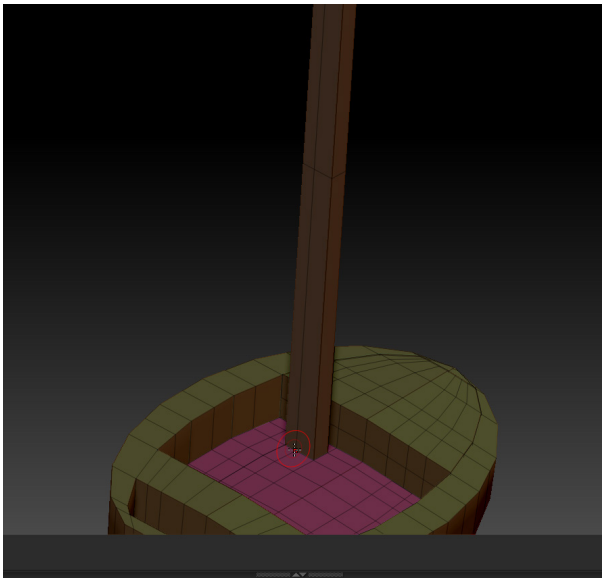


Figure 3-130 *The edge loop added*

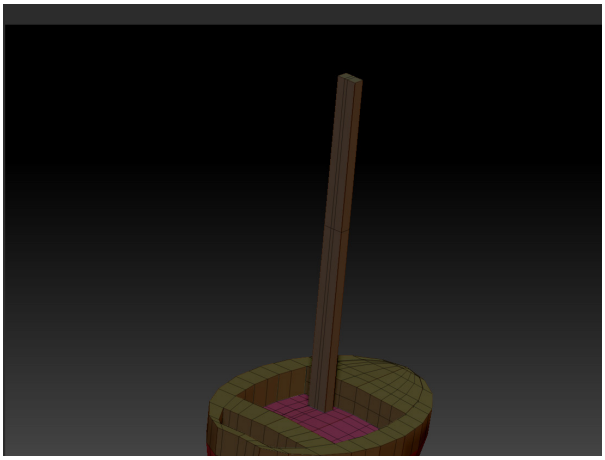


Figure 3-131 *Added edge loops*

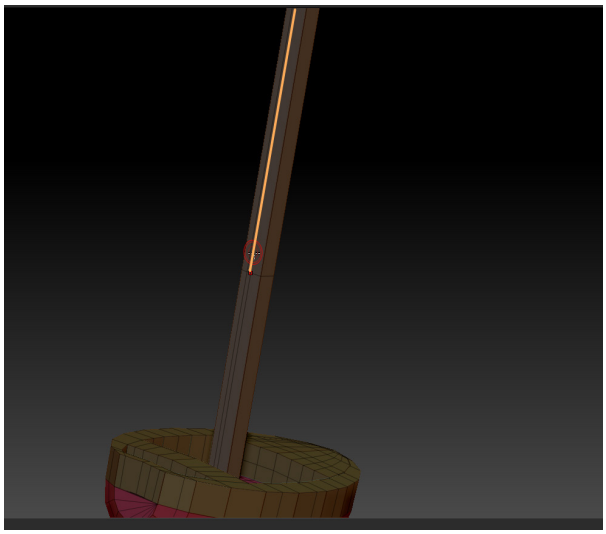


Figure 3-132 *Selected polygon*

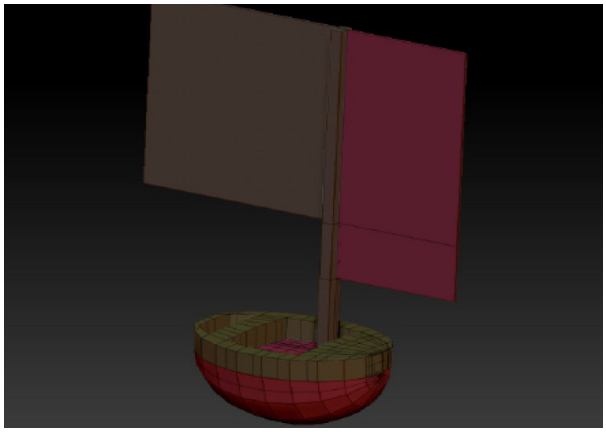


Figure 3-133 *Polygons extruded*

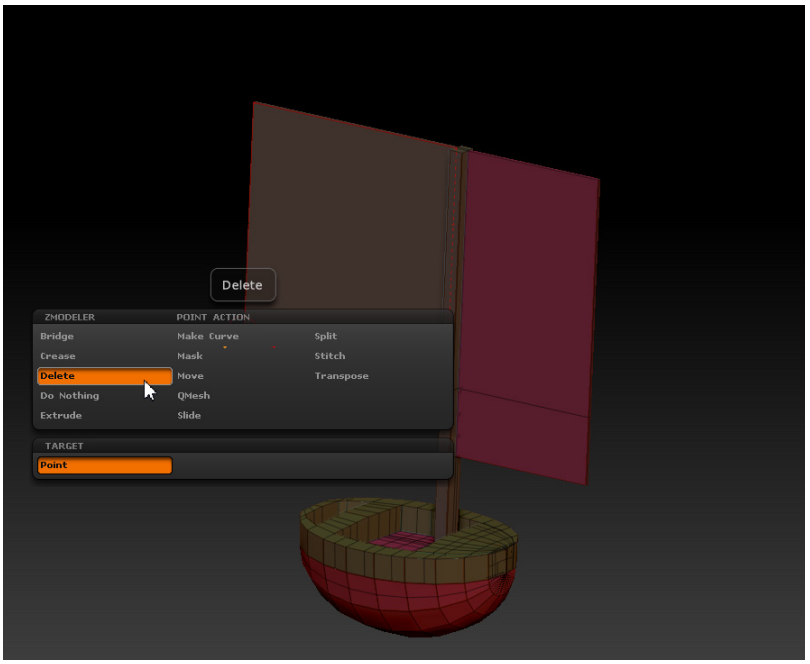


Figure 3-134 *Choosing the* ***Delete*** *option*

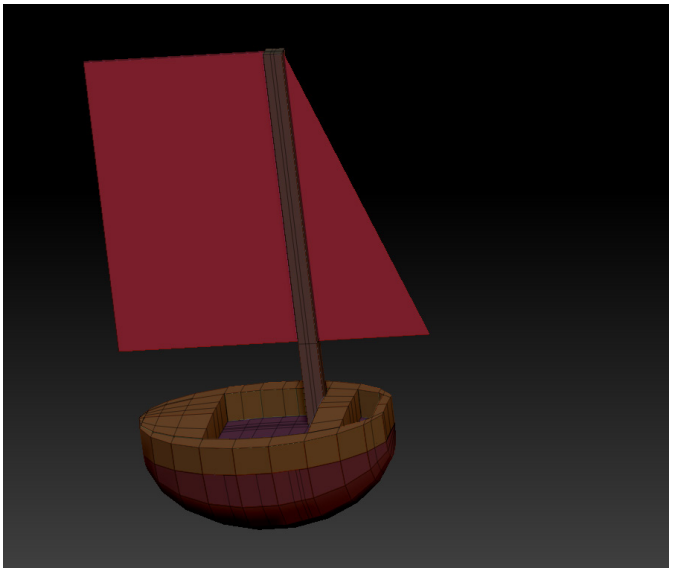


Figure 3-135 *Deleted points*

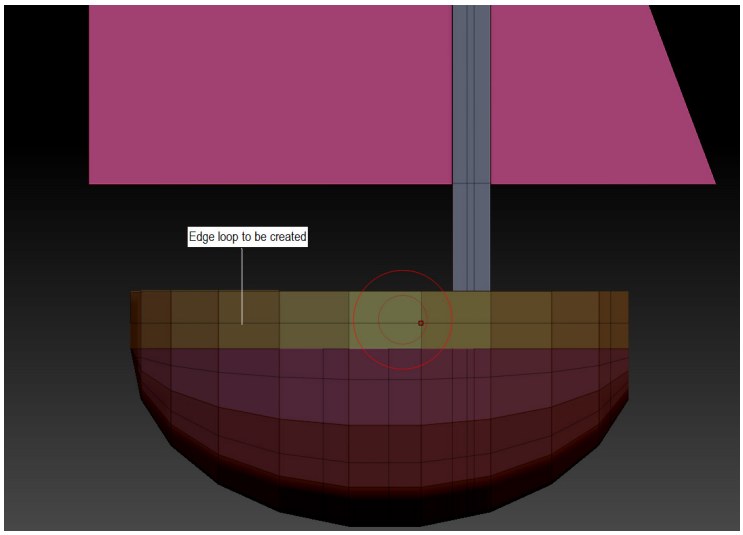


Figure 3-136 *Edge loop created*

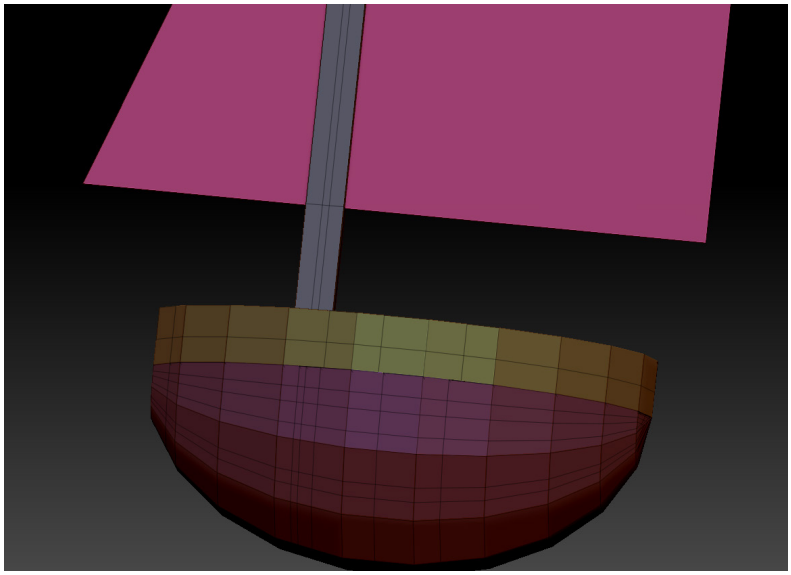


Figure 3-137 *The edge loops added*

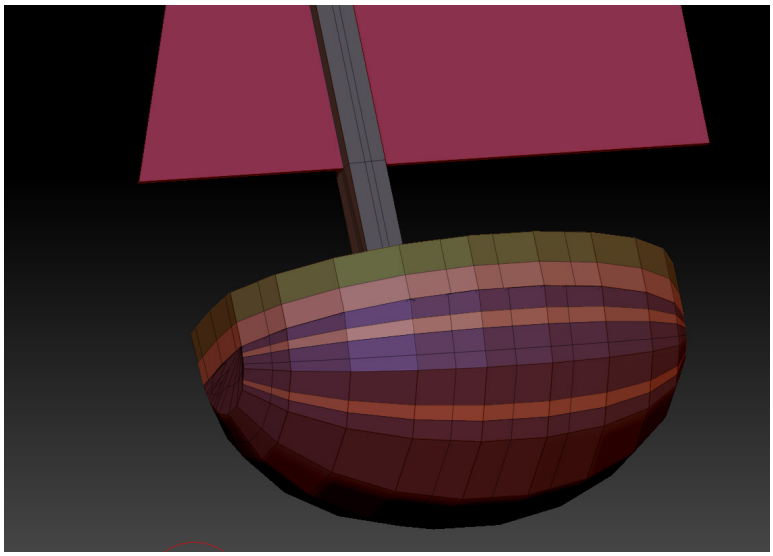


Figure 3-138 *The edges added*



Figure 3-139 *The polygons extruded*

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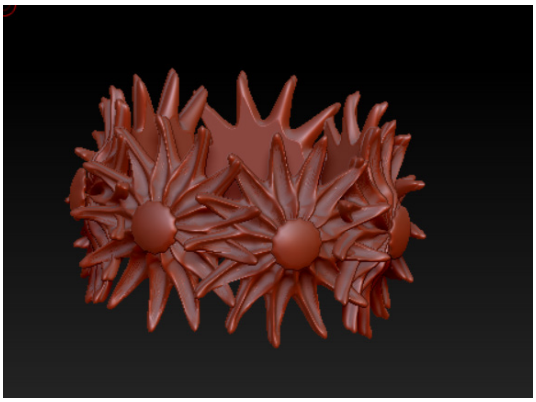


Figure 3-140 *The finger ring*

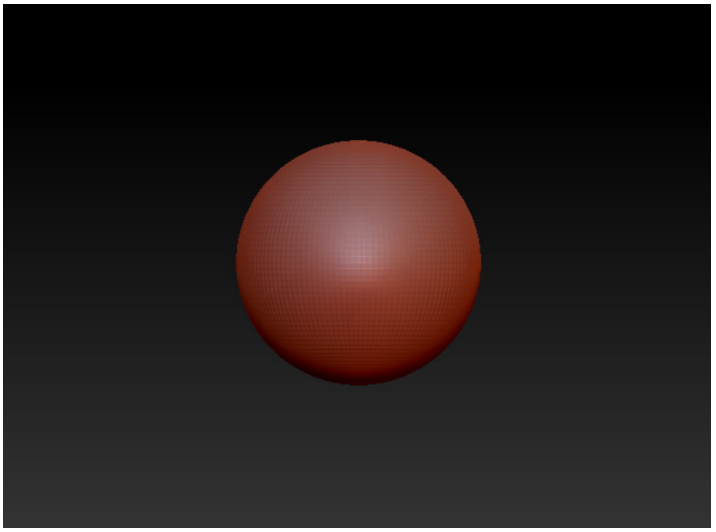


Figure 3-141 *Sphere created in the canvas*



Figure 3-142 *The* ***Activate Symmetry*** *button chosen in the* ***Transform*** *palette*

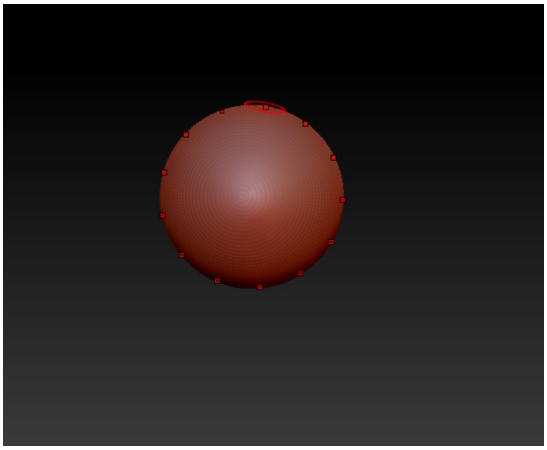


Figure 3-143 *Radial symmetry activated along the Z-axis*



Figure 3-144 *The* ***Snakehook*** *brush chosen*



Figure 3-145 *The value of the* ***Draw Size*** *slider set to* ***160***

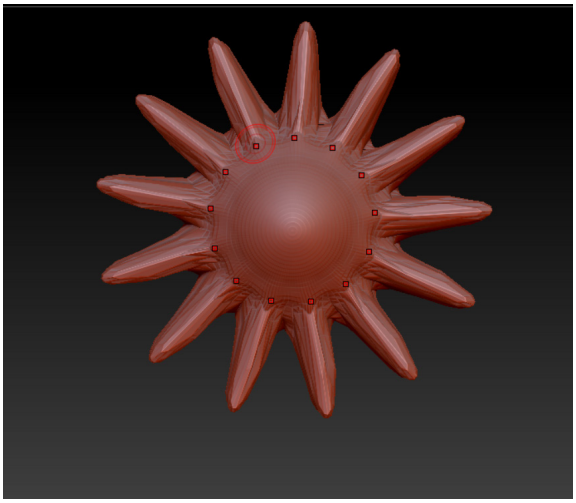


Figure 3-146 *Dragging the cursor outward*

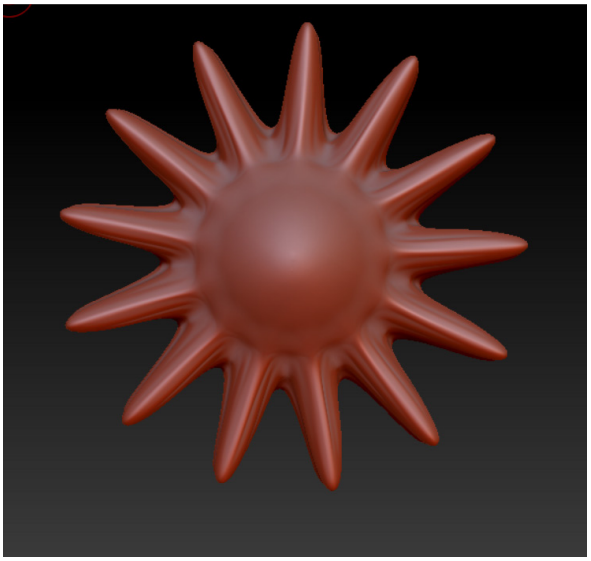


Figure 3-147 *Shape of the flower smoothened*

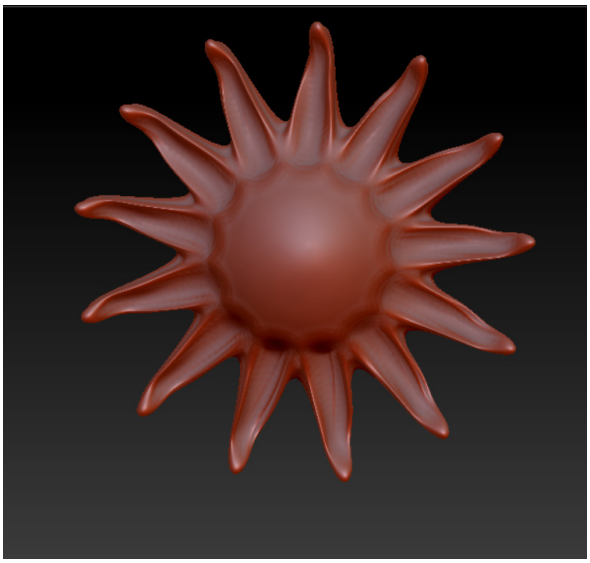


Figure 3-148 *Dragging the cursor twice in outward direction to form a shape*

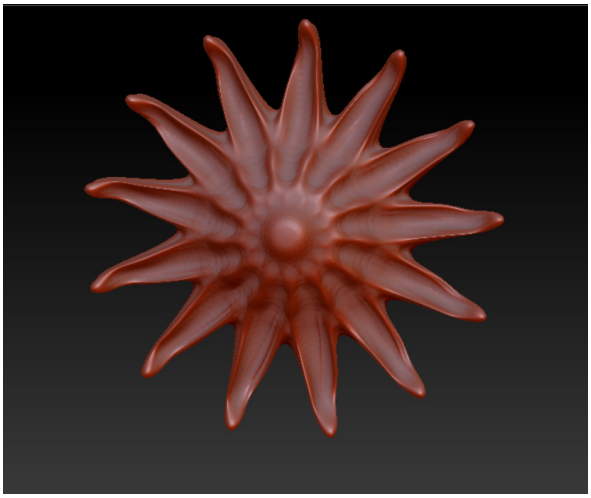


Figure 3-149 *Dragging the cursor twice in inward direction to form a shape*

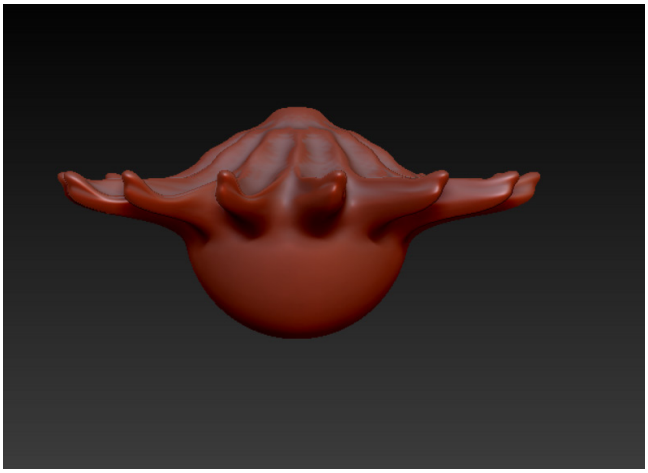


Figure 3-150 *Flower rotated and standing vertical*

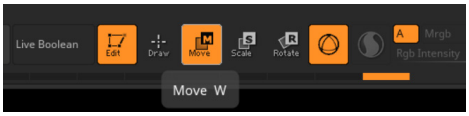


Figure 3-151 *The* ***Move*** *button chosen*

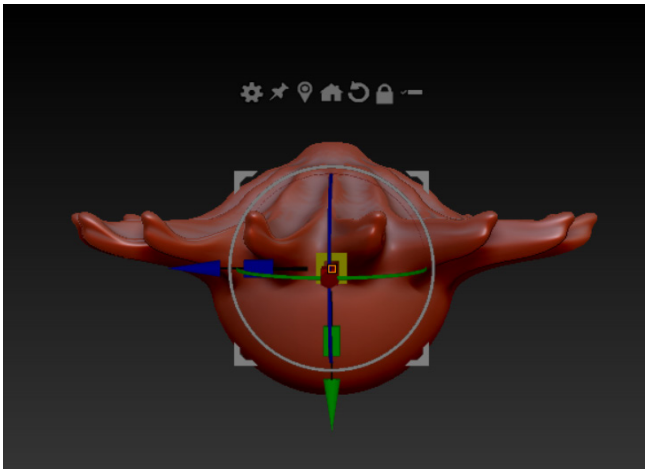


Figure 3-152 *The gyro displayed*

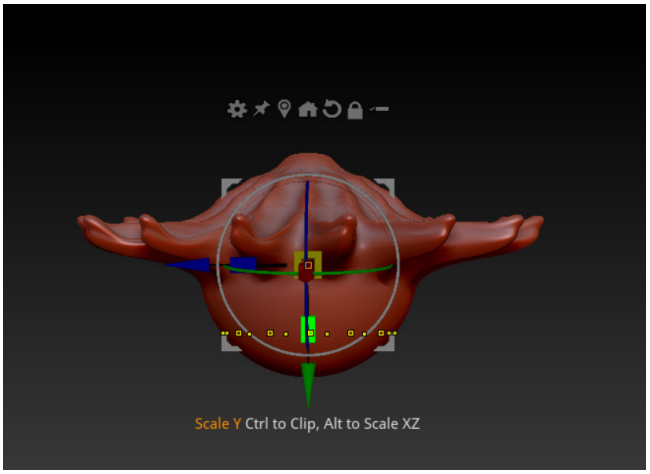


Figure 3-153 *The green symbol of gyro highlighted*

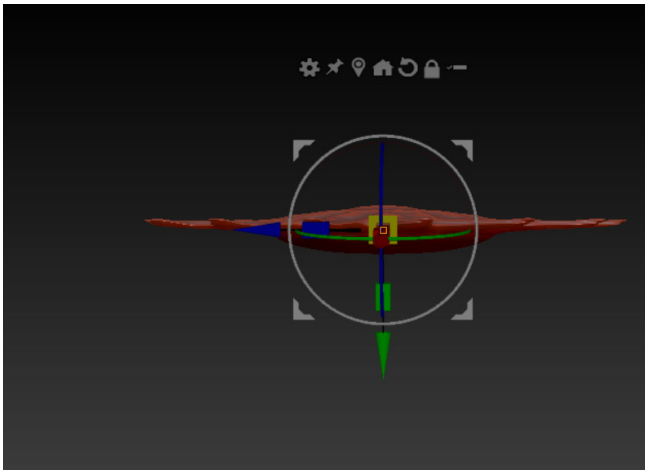


Figure 3-154 *Unwanted area hidden*

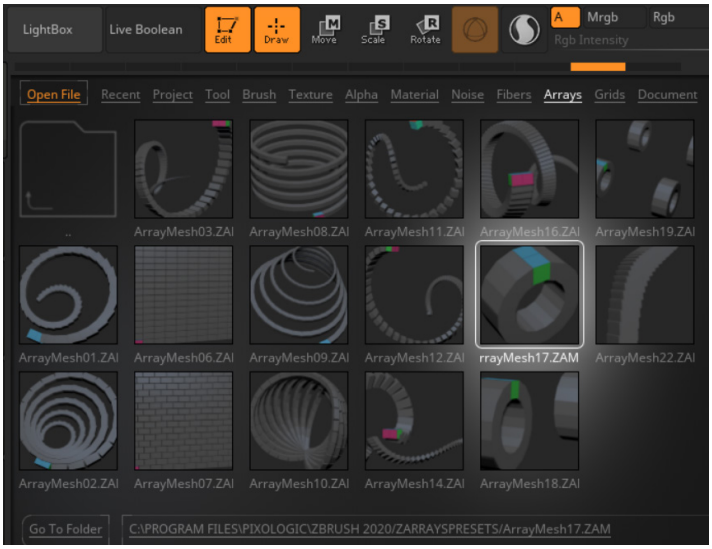


Figure 3-155 *The* ***Array Mesh*** *subpalette*

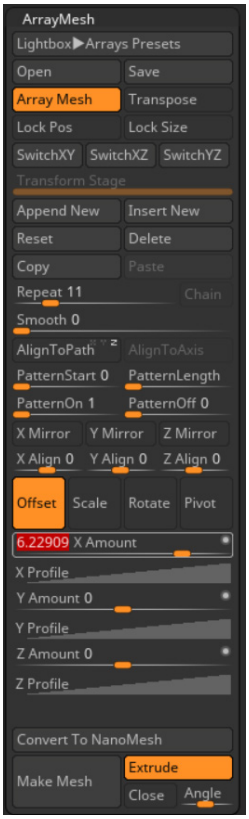


Figure 3-156 *The attributes in* ***Array Mesh***

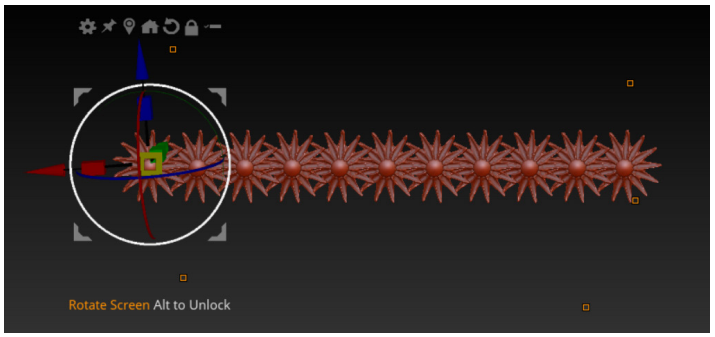


Figure 3-157 *Flowers aligned*

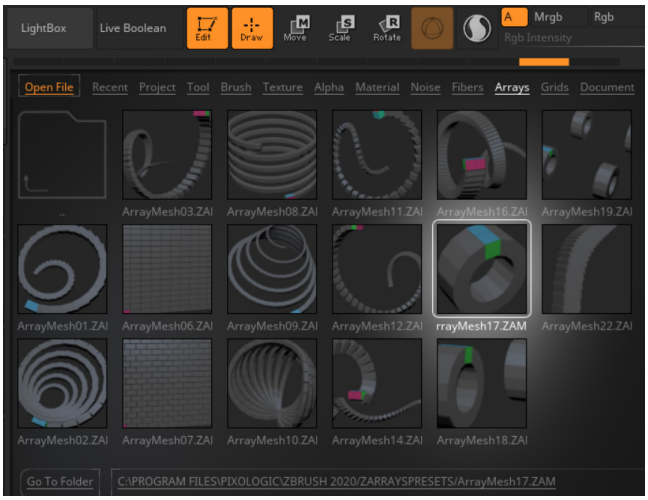


Figure 3-158 *The* ***ArrayMesh17.ZAM*** *file chosen from the* ***Arrays*** *browser*

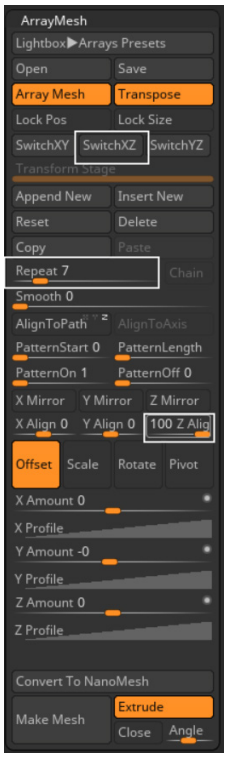


Figure 3-159 *Attributes set in the* ***Array Mesh*** *subpalette*

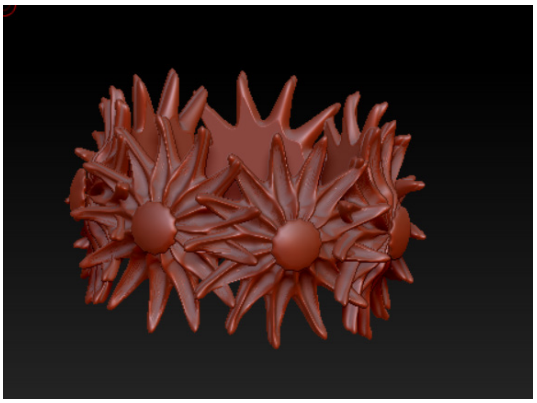


Figure 3-160 *The finger ring*

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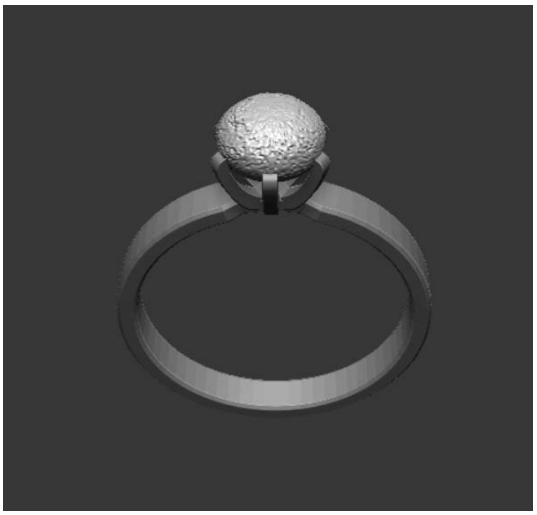


Figure 3-161 *Using stager on ring*

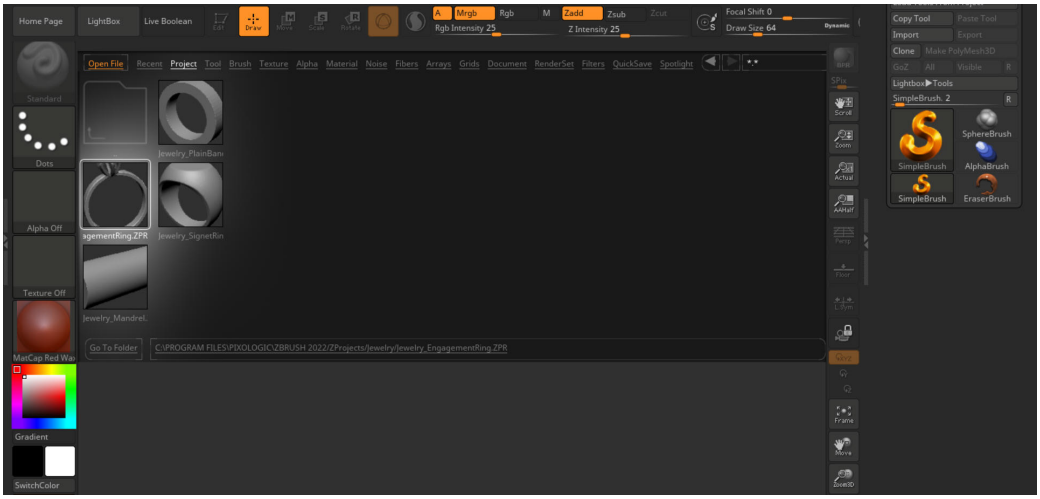


Figure 3-162 *The jewelry presets*

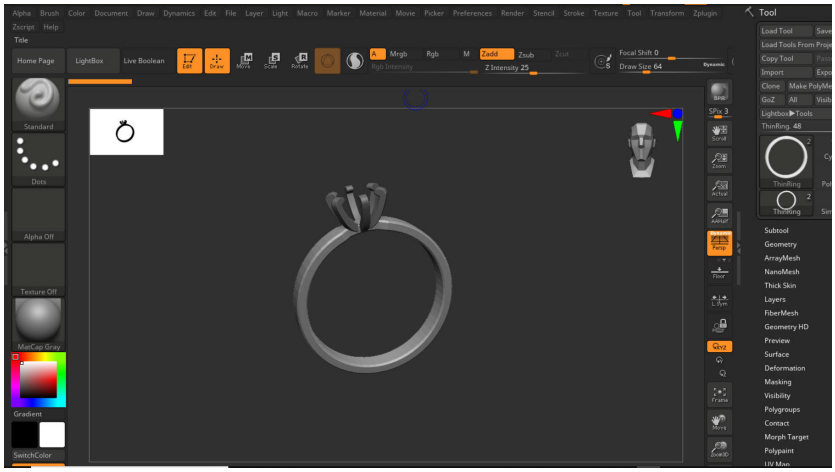


Figure 3-163 *The model displayed in the canvas*

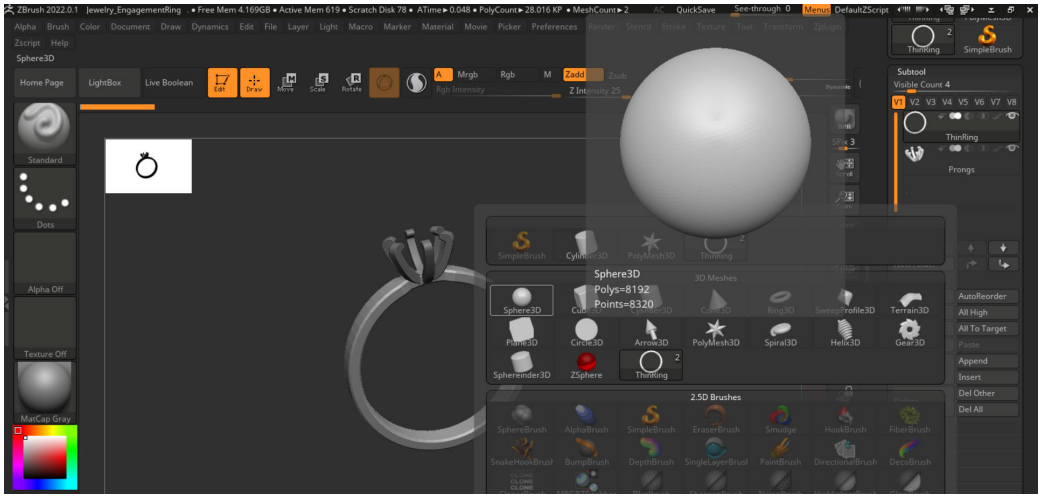


Figure 3-164 *Choosing the* ***Sphere3D*** *primitive*

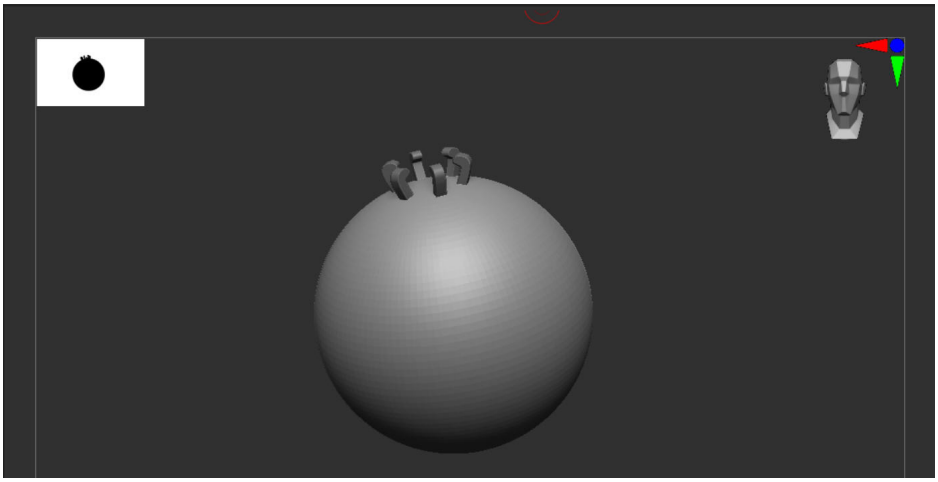


Figure 3-165 *Sphere created in the canvas*

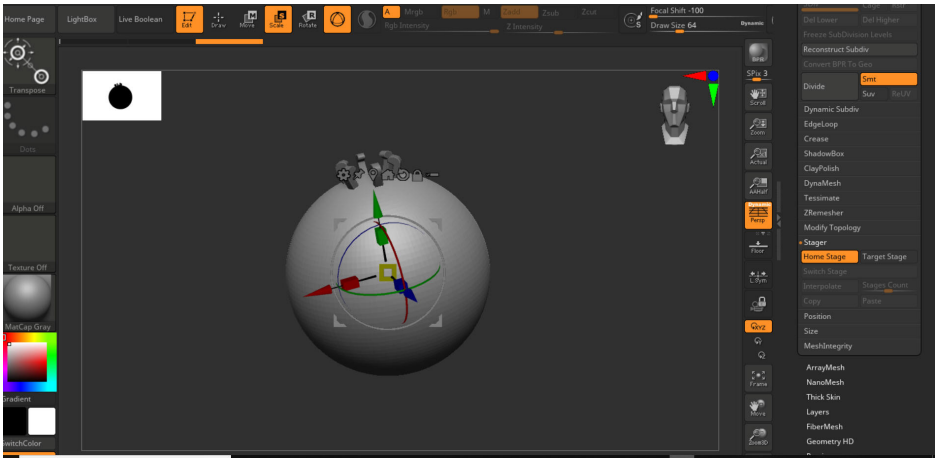


Figure 3-166 *The* ***Home Stage*** *button chosen from the* ***Stager*** *area*

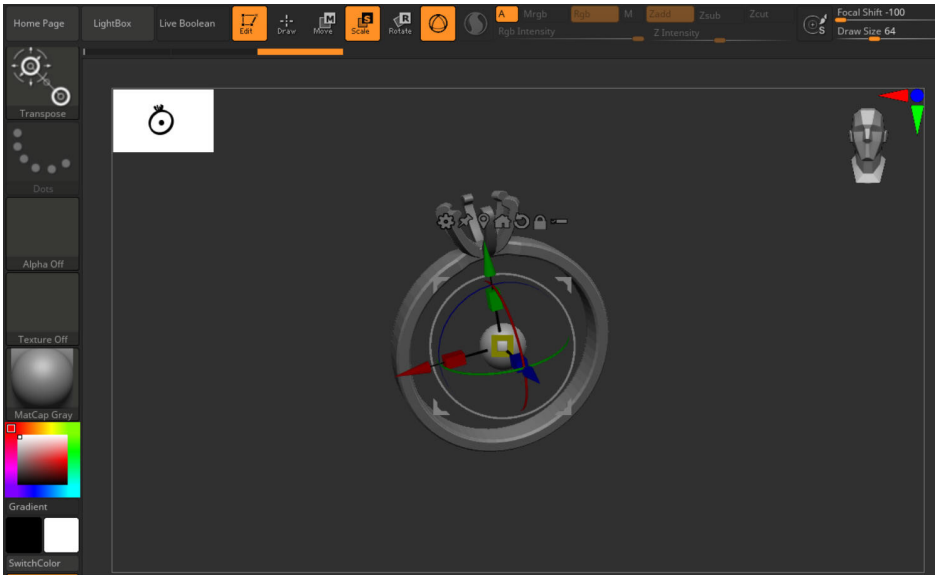
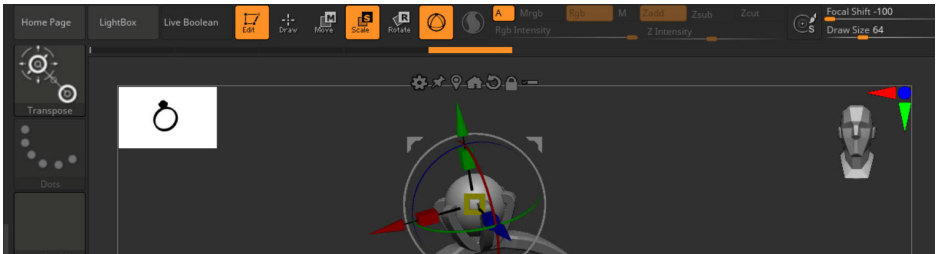


Figure 3-167 *Stone scaled*



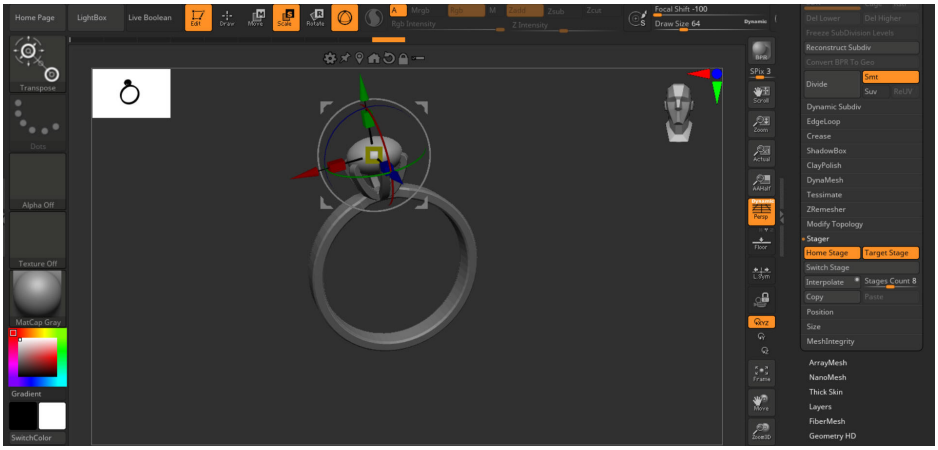


***Figure 3-169 Choosing the Target Stage** button from **the Stager** area*

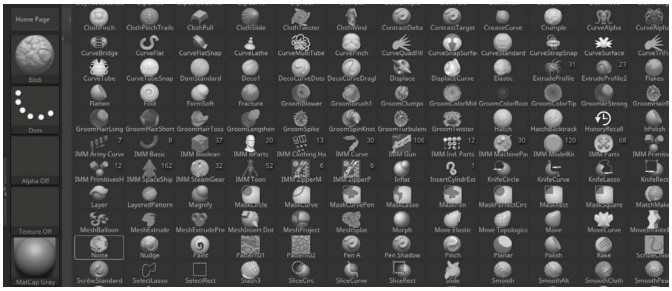


***Figure 3-170** The **Noise** brush chosen*



Figure 3-171** The value of the **Draw Size** slider set to **140

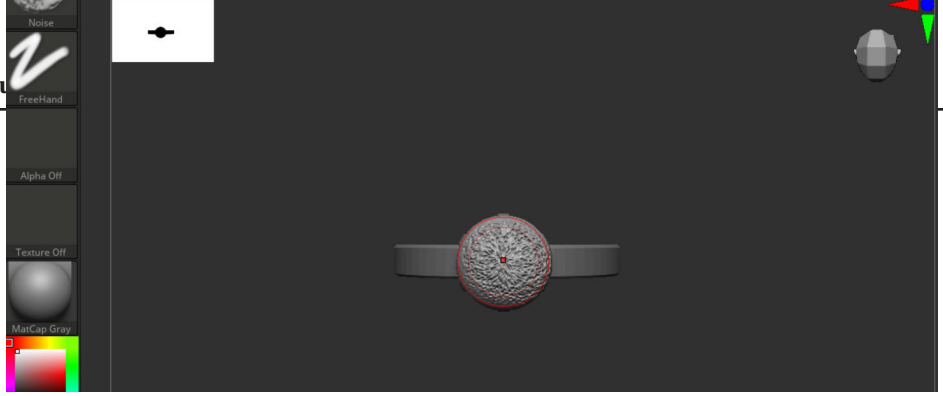


Figure 3-172 *The noise brush dragged*



Figure 3-173 *Model of a table lamp*

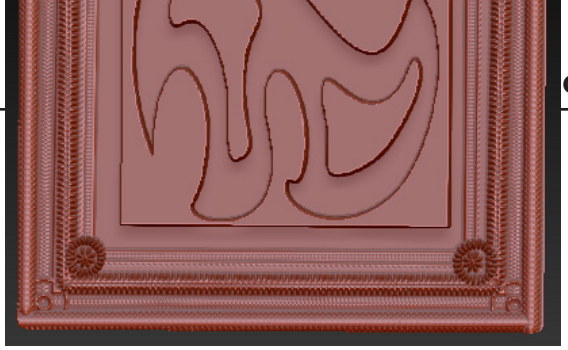


Figure 3-174 *Model of a photo frame*

Chapter 4

SubTools and FiberMesh



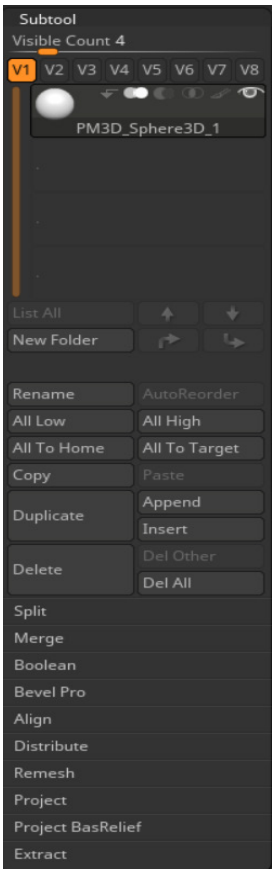


Figure 4-1 *The* ***SubTool*** *subpalette displayed on creating a sphere*

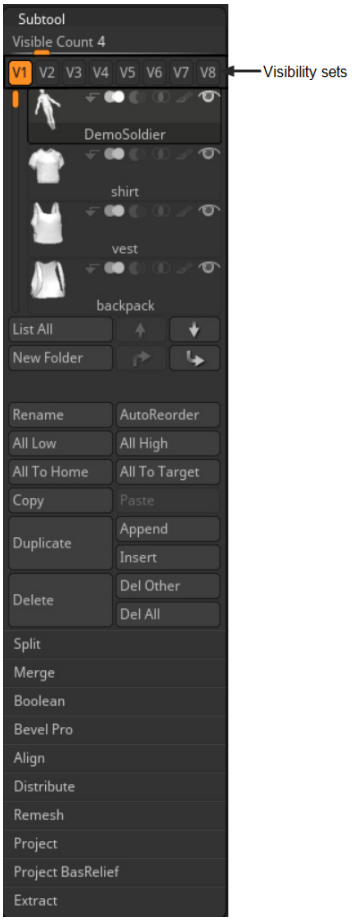


Figure 4-2 *The* ***SubTool*** *subpalette displayed on loading the* ***DemoSoldier***

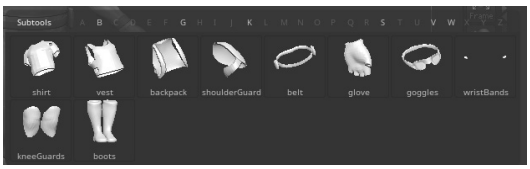


Figure 4-3 *The flyout displayed on choosing the* ***List All*** *button*

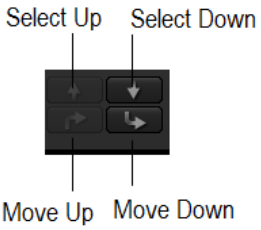


Figure 4-4 *The arrow buttons*

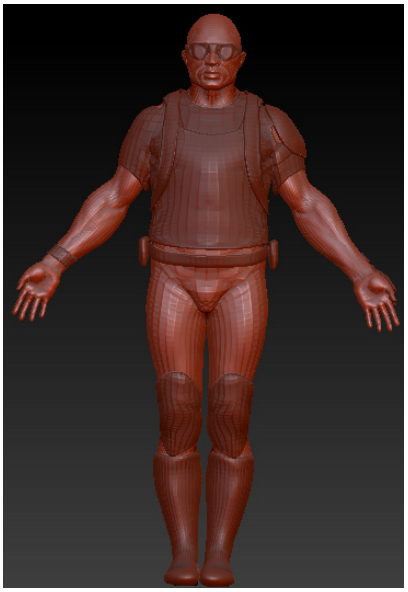


Figure 4-6 *The model of the DemoSoldier.ZTL before choosing the* ***All Low*** *button*

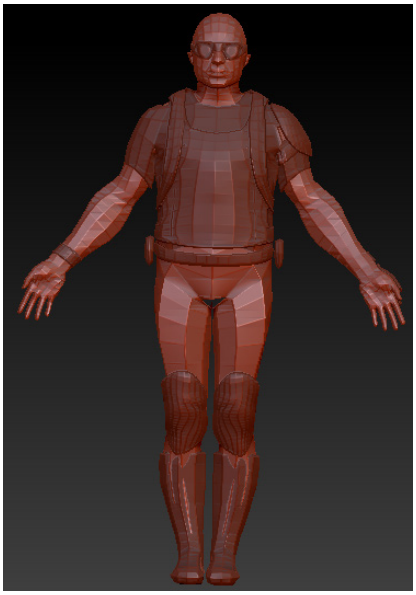


Figure 4-7 *The model of the DemoSoldier.ZTL after choosing the* ***All Low*** *button*



Figure 4-8 *The flyout displayed on choosing the* ***Append*** *button*

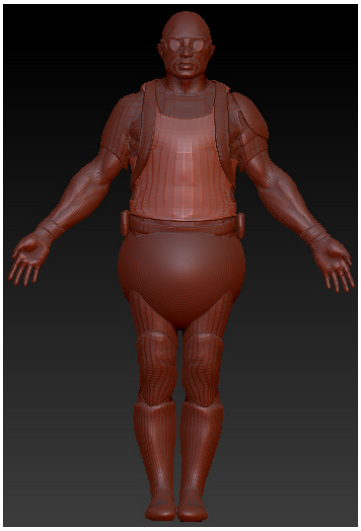


Figure 4-9 *A sphere inserted inside the model*

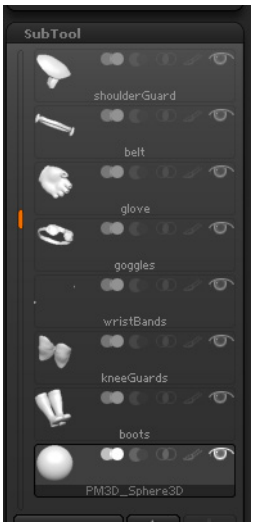


Figure 4-10 *The thumbnail for the sphere displayed below the* ***boots*** *subtool*



Figure 4-11 *The message box displayed on choosing the* ***Delete*** *button*

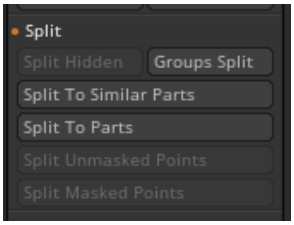


Figure 4-12 *The* ***Split*** *area*

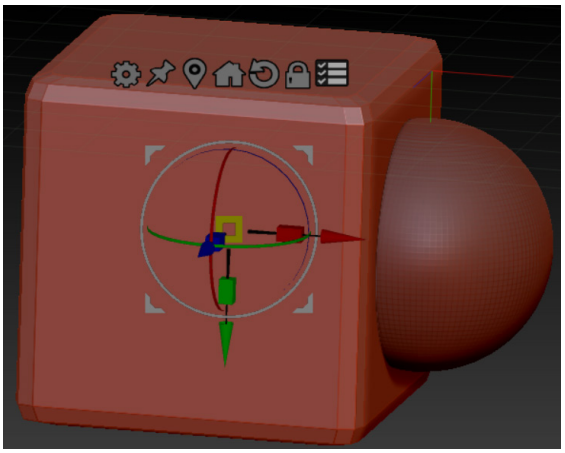


Figure 4-13 *Subtools arranged for boolean operation*

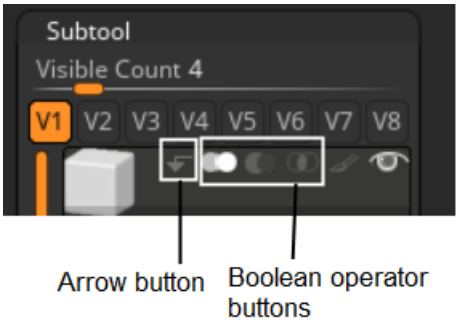


Figure 4-14 *Various buttons used in the boolean operation*

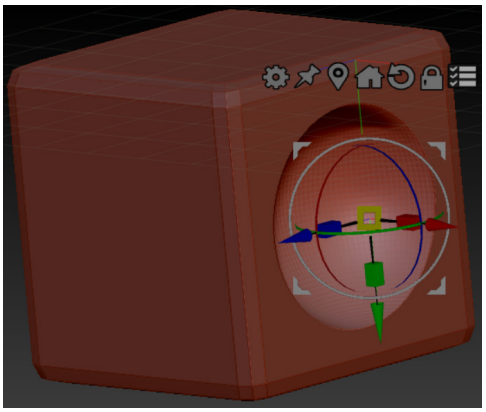


Figure 4-15 *Subtraction boolean operation carried on cube and sphere*

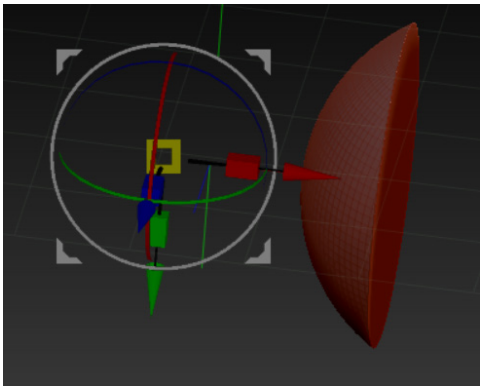


Figure 4-16 *Intersection boolean operation on cube and sphere*

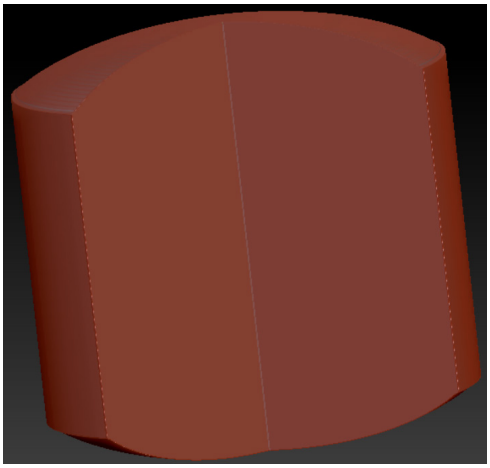


Figure 4-17 *Modified Sphereinder3D object*

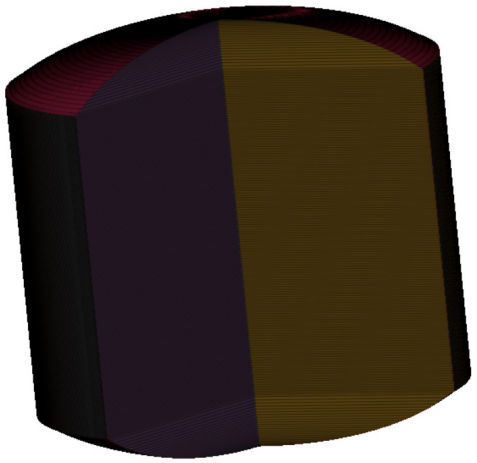


Figure 4-18 *Modified polygroups of Sphereinder3D object*

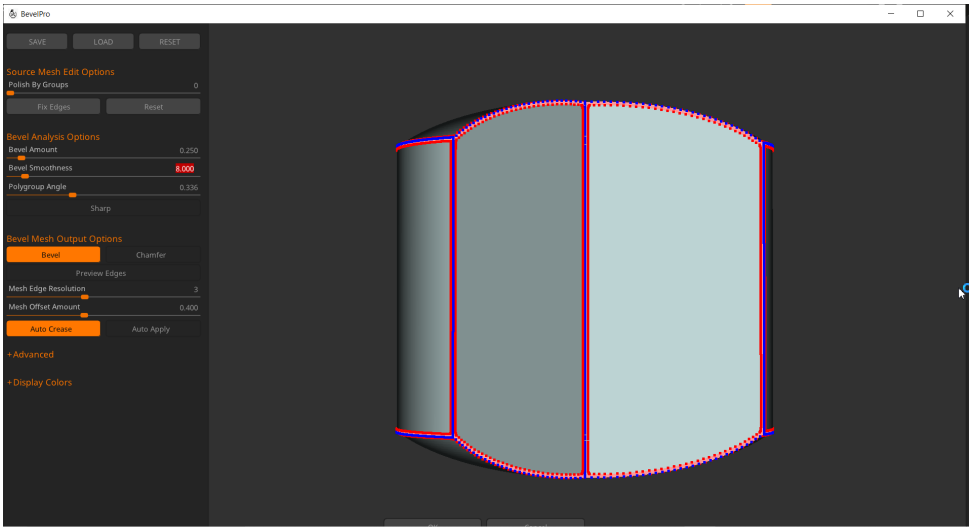


Figure 4-19 *The **BevelPro** plugin launched*

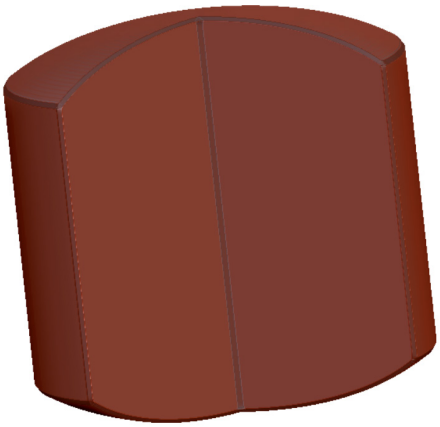


Figure 4-20 *The* ***Spherinder3D*** *object beveled*



Figure 4-21 *The* ***Align*** *area*

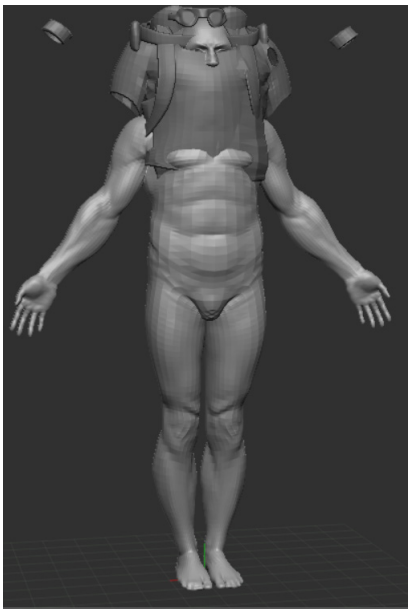


Figure 4-22 *Subtools aligned with respect to the top edges of the DemoSoldier subtool*

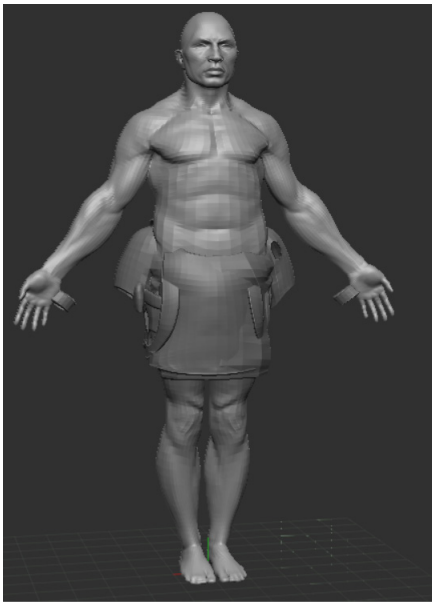


Figure 4-23 *Subtools aligned with respect to the vertical center of the DemoSoldier subtool*

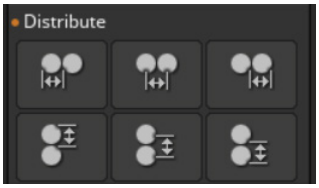


Figure 4-24 *The* ***Distribute*** *area*

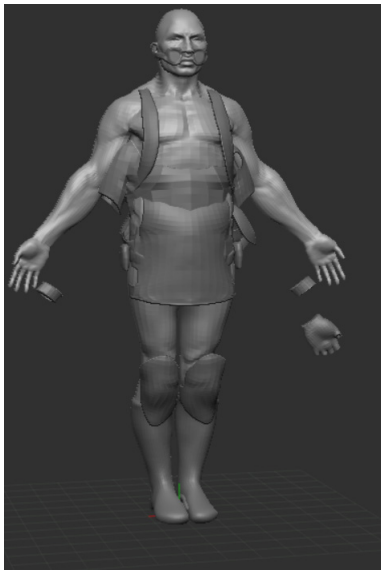


Figure 4-25 *Subtools distributed with respect to the vertical center of the* ***DemoSoldier*** *subtool*

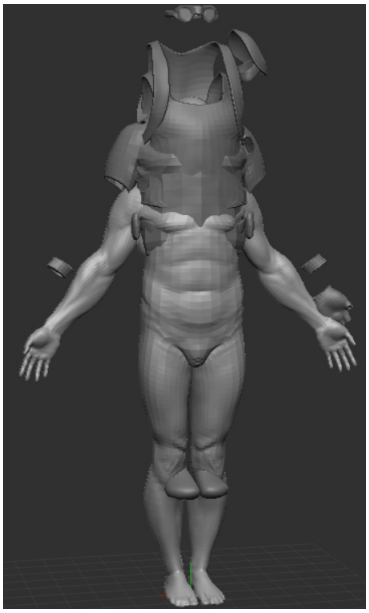


Figure 4-26 *Subtools distributed with respect to the top edges of the* ***DemoSoldier*** *subtool*

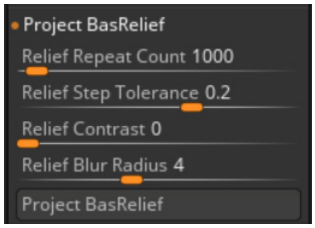


Figure 4-27 *The* ***ProjectBasRelief*** *area*

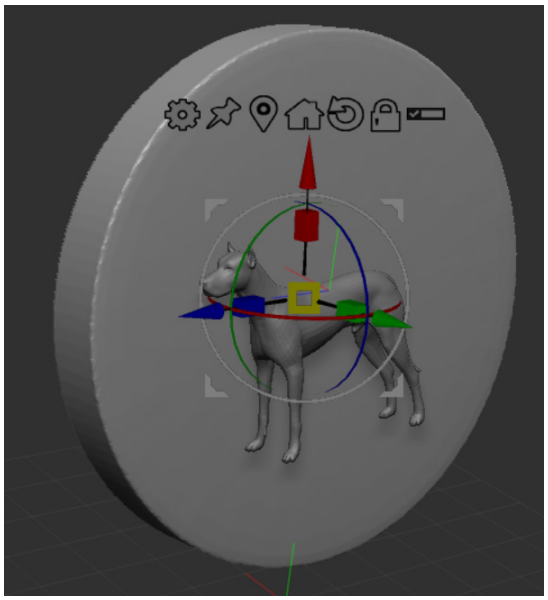


Figure 4-28 ***PM3D_Cylinder3D1*** *and* ***Dog*** *aligned*

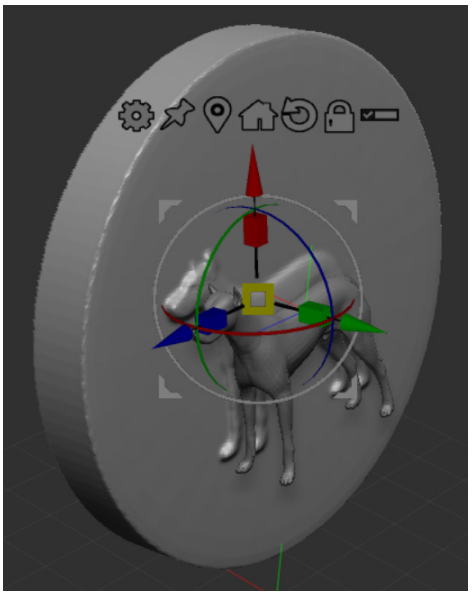


Figure 4-29 *Embossed dog surface displayed*



Figure 4-30 *The* ***FiberMesh*** *subpalette*

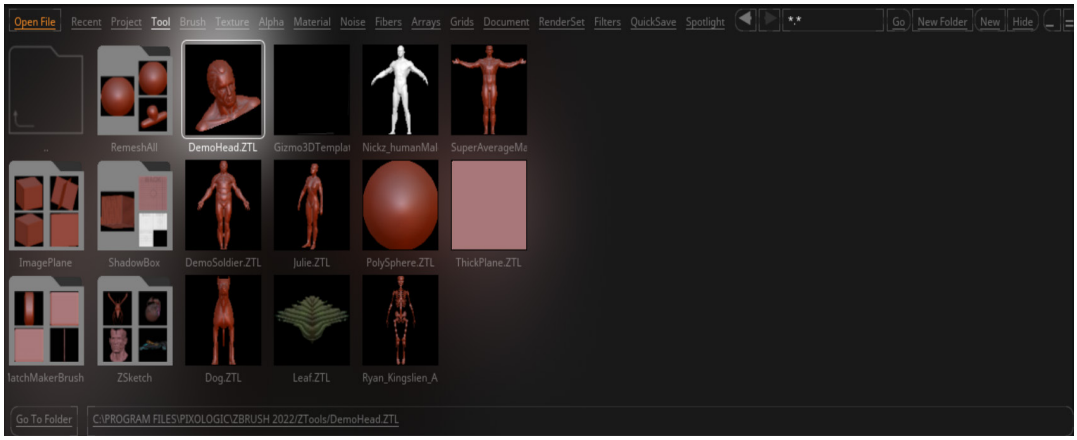


Figure 4-31 *The DemoHead.ZTL file chosen from the* ***LightBox*** *browser*



Figure 4-32 *A mask drawn on the head of the model*

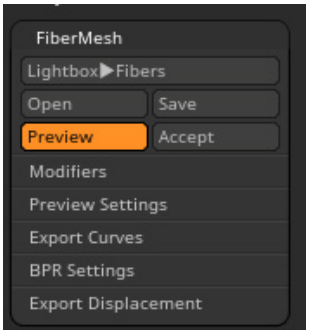


Figure 4-33 *The* ***Preview*** *button chosen from the* ***FiberMesh*** *subpalette*



Figure 4-34 *The fiber mesh created on the masked area of the head*



Figure 4-35 *The* ***Modifiers*** *area*

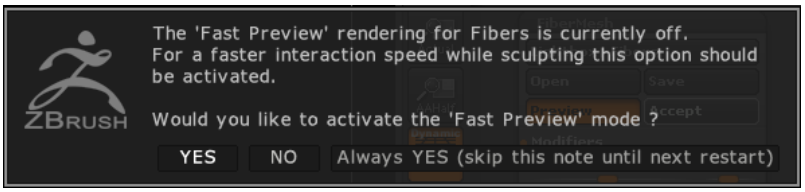


Figure 4-36 *Message box displayed on choosing the* ***Accept*** *button*



Figure 4-37 *The final rendered preview of the fiber mesh*

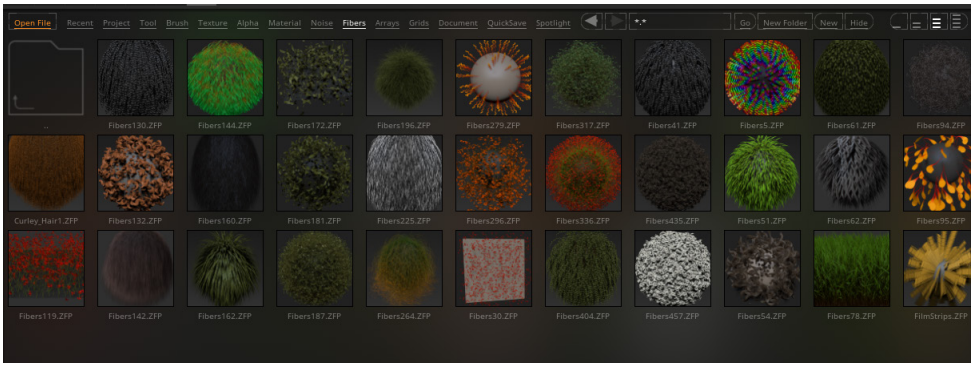


Figure 4-38 *The inbuilt fibres in the* ***LightBox*** *browser*

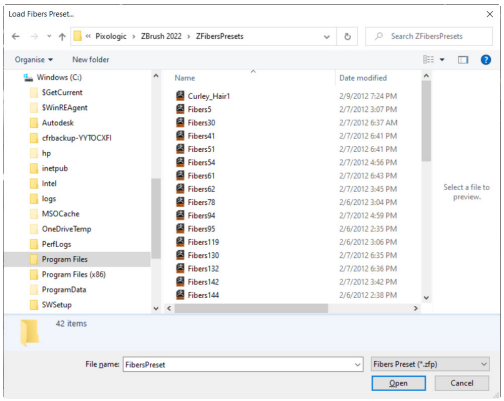


Figure 4-39 *The* ***Load Fibers Preset*** *dialog box*

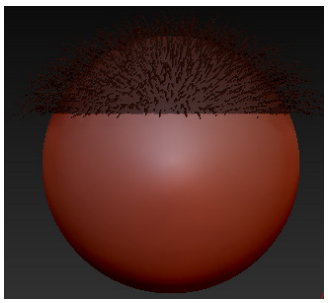


Figure 4-40 *The mesh containing 2000 fibers*

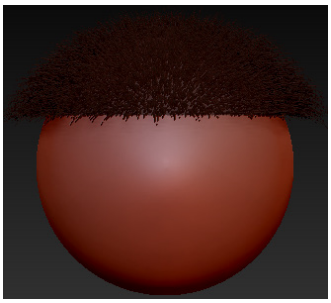


Figure 4-41 *The mesh containing 10,000 fibers*

DeV

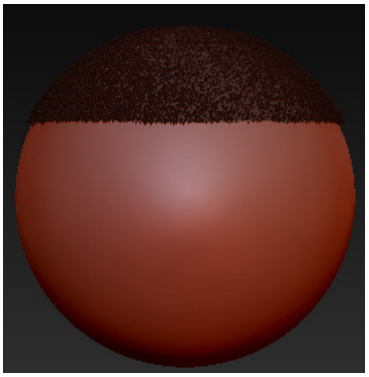


Figure 4-42 *Fiber mesh with the value of the* ***Length*** *slider set to* ***50***



Figure 4-43 *Fiber mesh with the value of the* ***Length*** *slider set to* ***1000***



Figure 4-44 *The fiber mesh with the value of* ***Gravity*** *slider set to* ***1***



Figure 4-45 *Effect produced by the* ***GroomBlower*** *brush*



Figure 4-46 *Effect produced by the* ***GroomClumps*** *brush*



Figure 4-47 *Effect produced by the* ***GroomColorMild*** *brush*



Figure 4-48 *Effect produced by the* ***GroomHairBall*** *brush*



Figure 4-49 *Effect produced by the* ***GroomHairToss*** *brush*



Figure 4-50 *Effect produced by the* ***GroomSpike*** *brush*

TUTORIALS

Tutorial 1



Figure 4-51 *The ice cream cone*

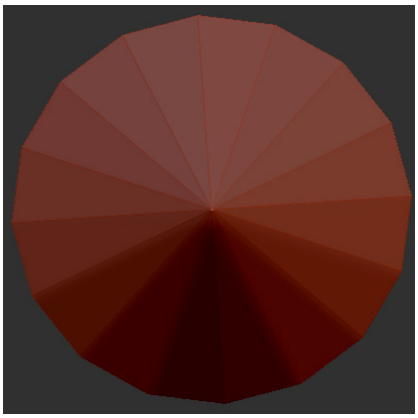


Figure 4-52 *The cone created in the canvas*

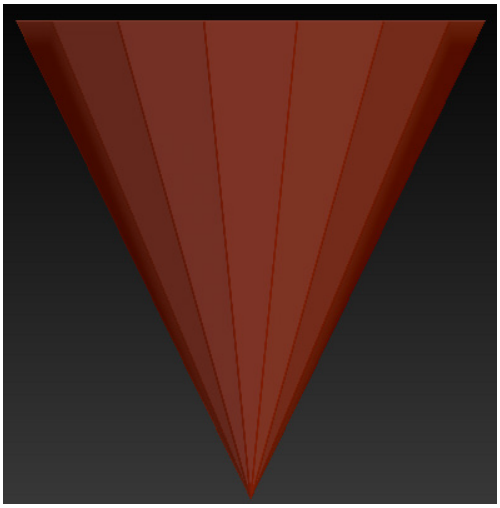


Figure 4-53 *The cone snapped to the canvas*

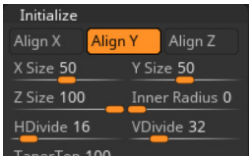


Figure 4-54 *The values set in the* ***X Size*** *and* ***Y Size*** *sliders*

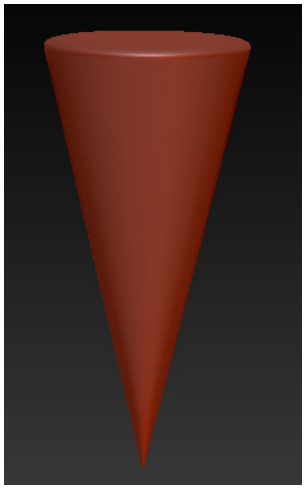


Figure 4-55 *The ice cream cone smoothened*

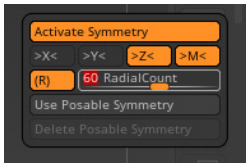


Figure 4-56 *The value of the* ***RadialCount*** *slider set to* ***60***



Figure 4-57 *Patterns created at the top of the ice cream cone*

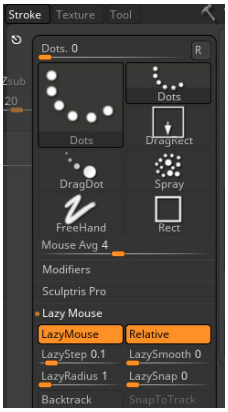


Figure 4-58 *The **LazyMouse** button chosen from the **Stroke** palette*



Figure 4-59 *The crisscross pattern created on ice cream cone*



Figure 4-60 *The **Append** button chosen in the **SubTool** subpalette*

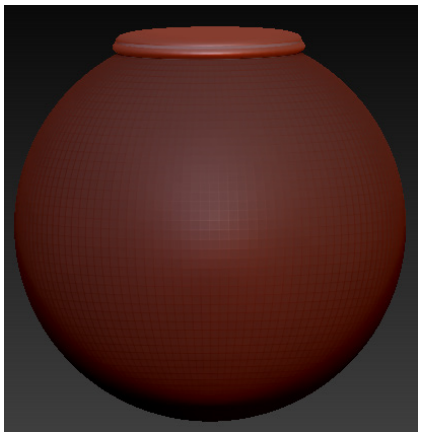


Figure 4-61 *The sphere overlapping the ice cream cone*

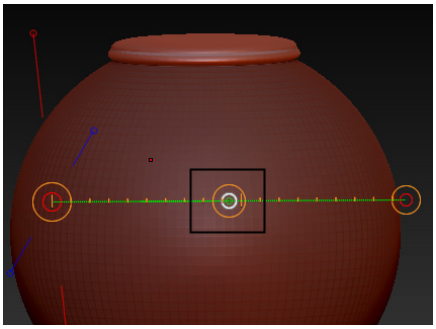


Figure 4-62 *The action line*



Figure 4-63 *The scoop fitting inside the cone*

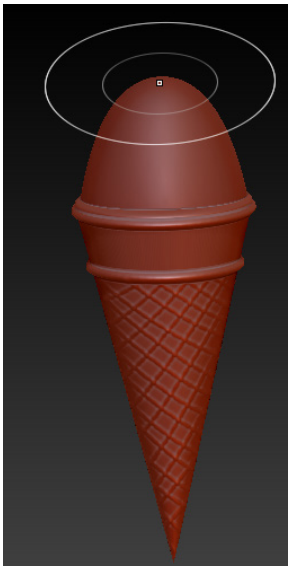


Figure 4-64 *The top portion of the scoop moved up using the* ***Move*** *brush*

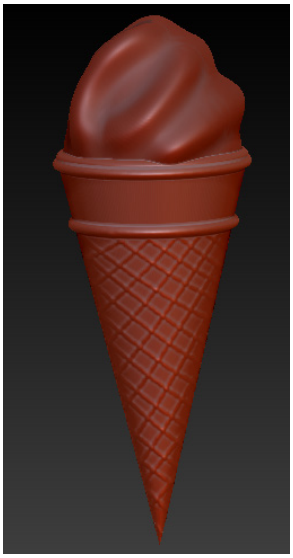


Figure 4-65 *Bumps created in the scoop using the* ***Standard*** *brush*



Figure 4-66 *Shape of the scoop modified using the* ***Spiral*** *brush*

Tutorial 2



Figure 4-67 *The final model of the monument*

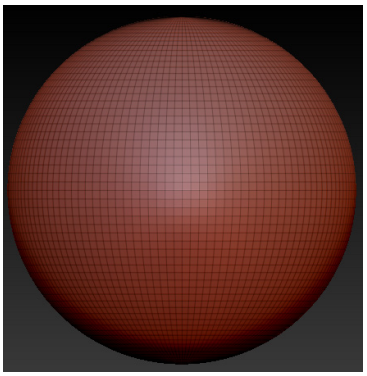


Figure 4-68 *The sphere snapped to the canvas*

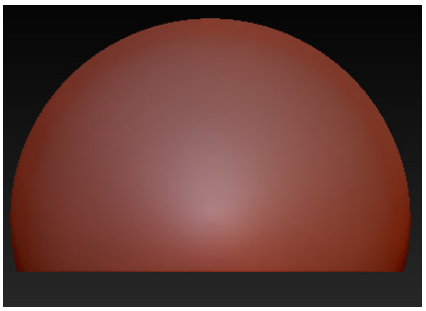


Figure 4-69 *The lower half of the dome deleted*

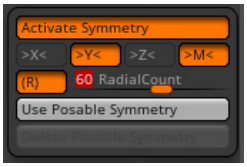


Figure 4-70 *Radial symmetry activated in Z-axis*

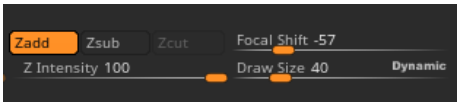


Figure 4-71 *Settings in the top shelf*

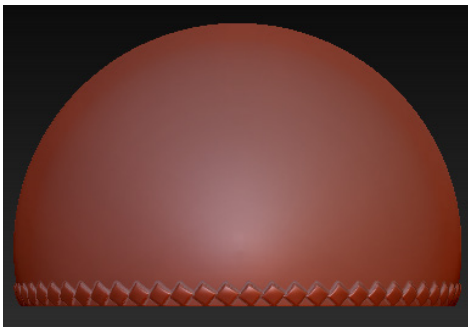


Figure 4-72 *Pattern created on the lower part of the dome*

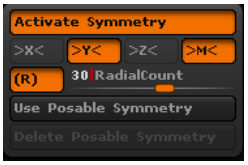


Figure 4-73 *The value of the* ***RadialCount*** *slider set to* ***30***



Figure 4-74 *Settings in the top shelf*

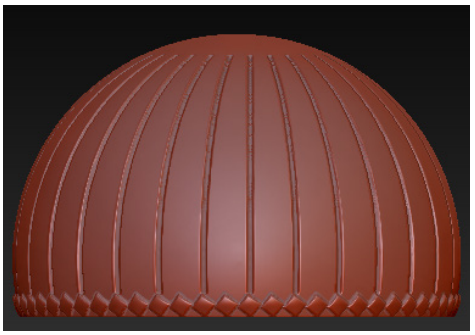


Figure 4-75 *Vertical lines created on the dome*



Figure 4-76 *Tiles created on the dome*

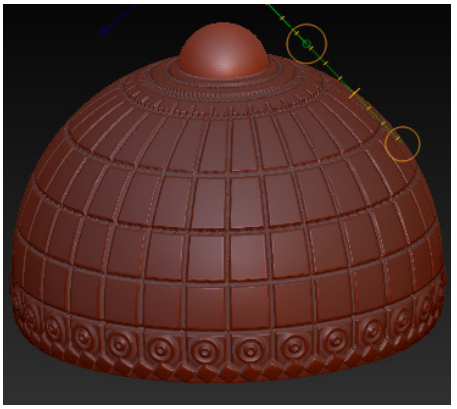


Figure 4-77 *The dome top scaled and moved to the top*

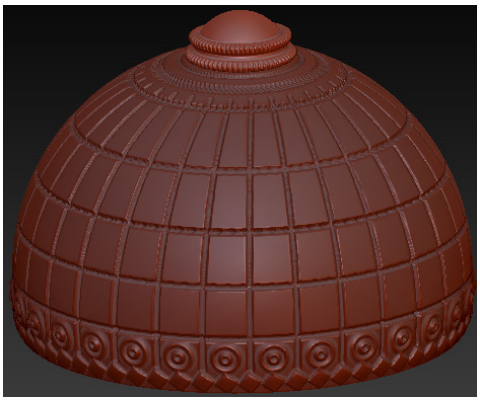


Figure 4-78 *Pattern created on the dome top using radial symmetry*

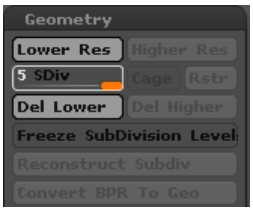


Figure 4-79 *The **Del Lower** button chosen in the **Geometry** subpalette*



Figure 4-80 *Finial created on the dome top using the **CurveLathe** brush*

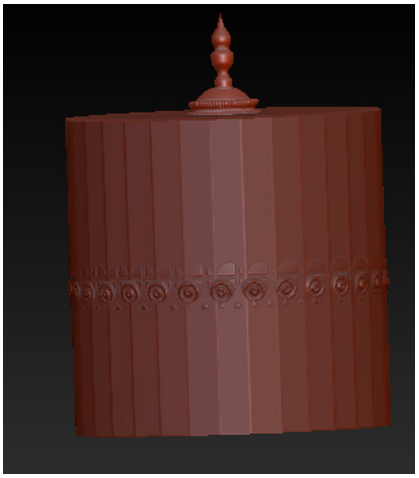


Figure 4-81 *Cylinder overlapping the dome*

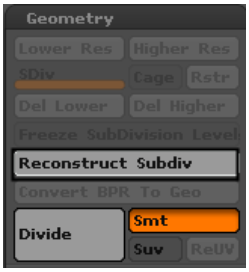


Figure 4-82 *The* ***Reconstruct Subdiv*** *button chosen from the* ***Geometry*** *subpalette*

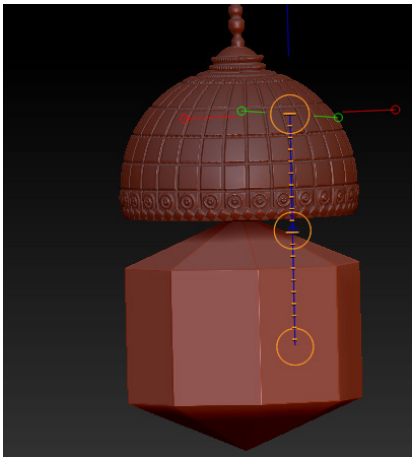


Figure 4-83 *The walls moved below the dome*

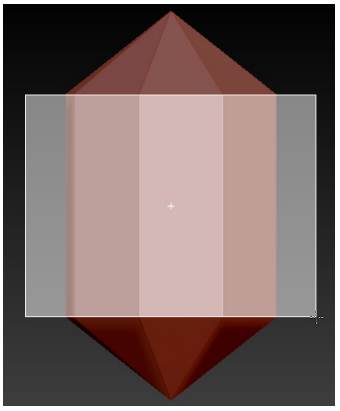


Figure 4-84 *Marquee selection on the walls*

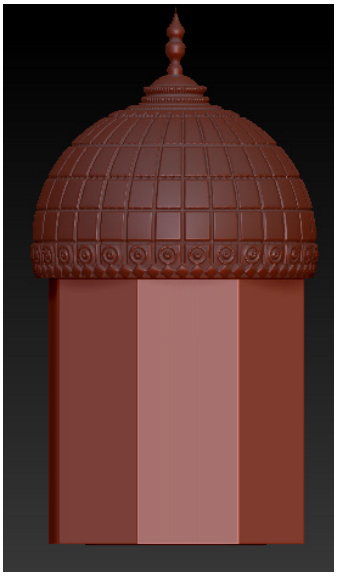


Figure 4-85 *The walls moved under the dome*

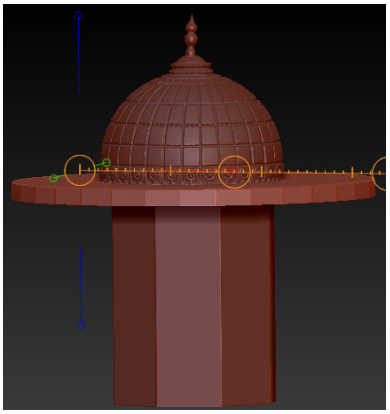


Figure 4-86 *The roof scaled and moved below the dome*

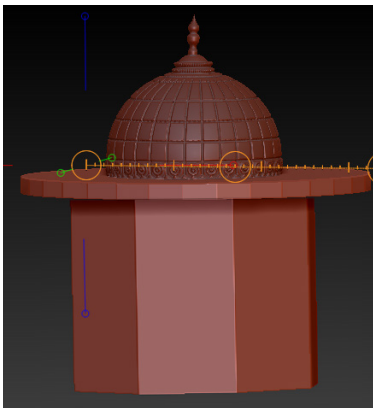


Figure 4-87 *The size of the walls increased along X and Y axes*

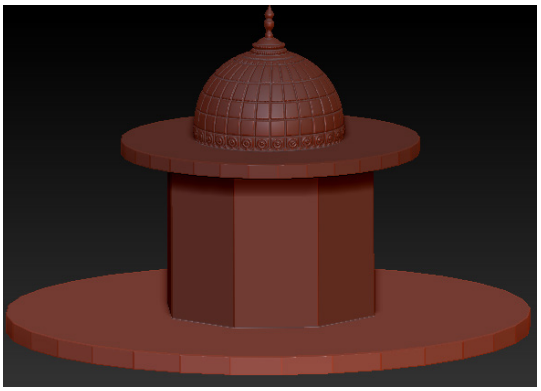


Figure 4-88 *Duplicate roof scaled along the X and Y axes*



Figure 4-89 *The value of* ***RadialCount*** *slider set to* ***46***

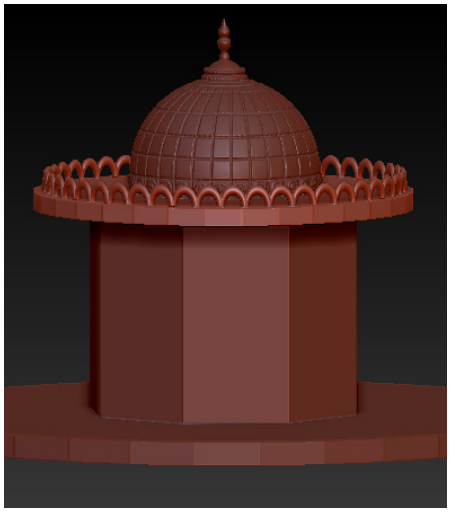


Figure 4-90 *Railing created using the* ***InsertHRing*** *brush*

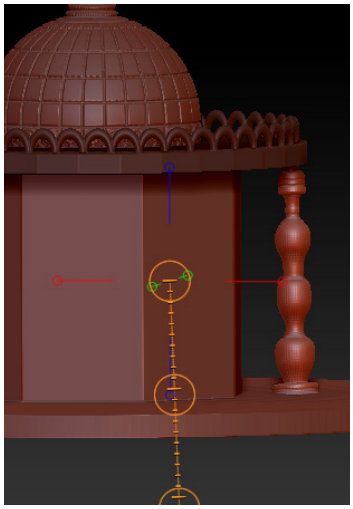


Figure 4-91 *Pillar created using the* ***CurveLathe*** *brush*

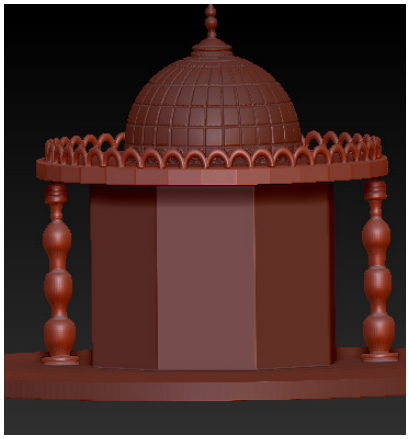


Figure 4-92 *Copy of the pillar created and moved toward left*

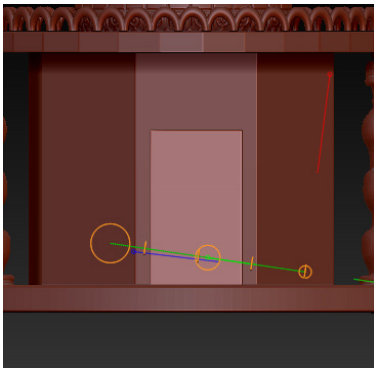


Figure 4-93 *The door moved using the action line*



Figure 4-94 *The* ***Deformation*** *check box selected*

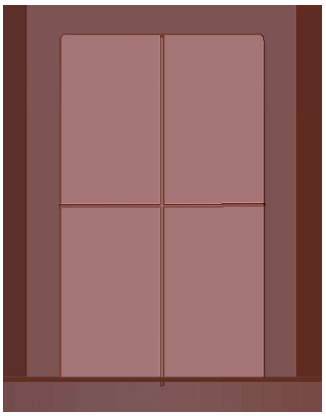


Figure 4-95 *Horizontal and vertical partitions created on the door*

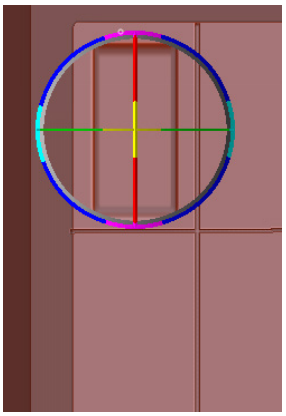


Figure 4-96 *The pattern scaled up*



Figure 4-97 *Pattern created on all the panels*

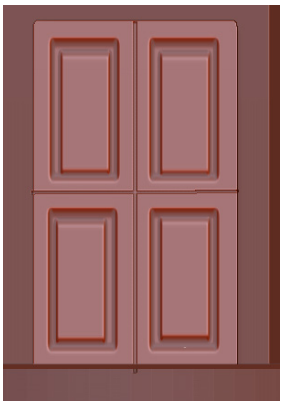


Figure 4-98 *Newly created pattern copied on all the panels*



Figure 4-99 *Pattern created on all the panels*



Figure 4-100 *Knob of the door created*

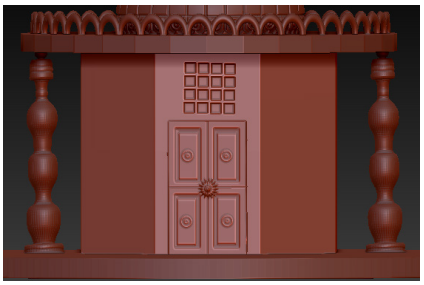


Figure 4-101 *Grid pattern created on the walls*



Figure 4-102 *The final model of the monument*

Tutorial 3

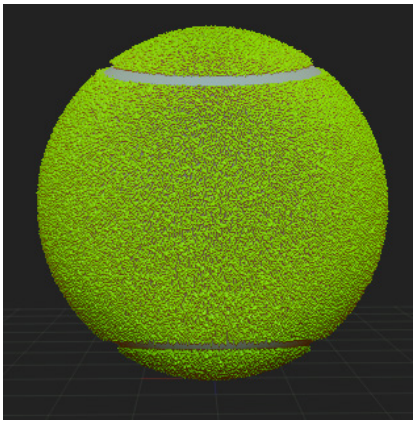


Figure 4-103 *The final model of the tennis ball*

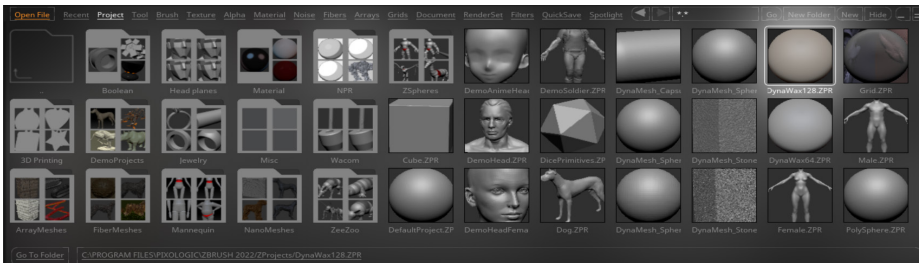


Figure 4-104 *The* ***DynaWax128.ZPR*** *file chosen from the* ***LightBox*** *browser*

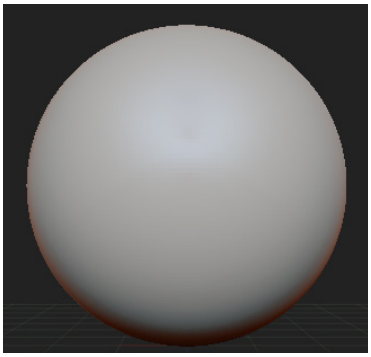


Figure 4-105 *The* ***DynaWax128.ZPR*** *created in the canvas*

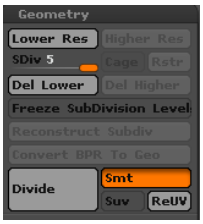


Figure 4-106 *Choosing the* ***Divide*** *button from the* ***Geometry*** *subpalette*

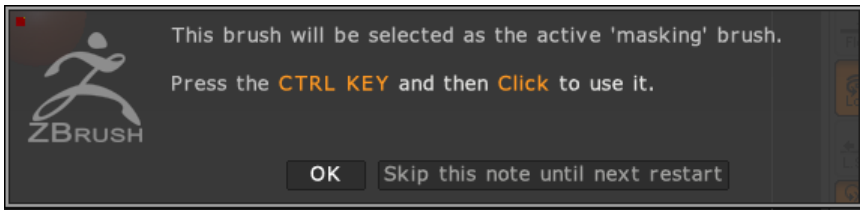


Figure 4-107 *Message box displayed on choosing the* ***MaskRect*** *brush*

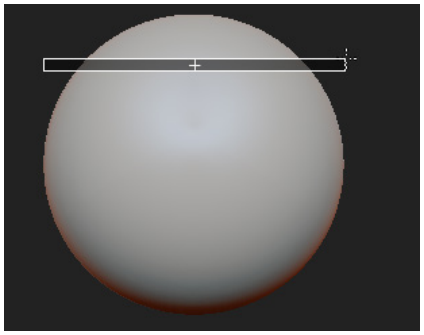


Figure 4-108 *Upper part of the tennis ball selected*

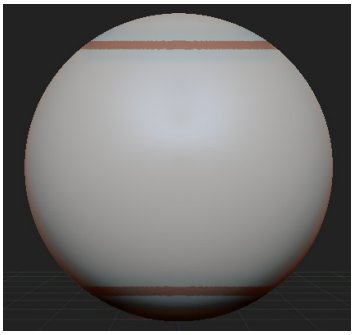


Figure 4-109 *Mask created on lower and upper parts of the tennis ball*

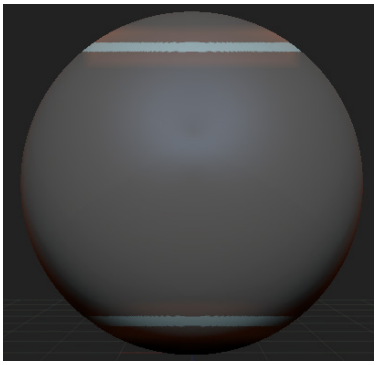


Figure 4-110 *Mask on the tennis ball inverted*

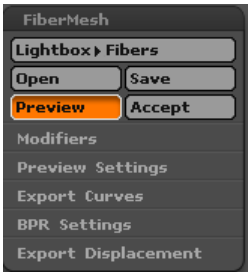


Figure 4-111 *Choosing the* ***Preview*** *button from the* ***FiberMesh*** *subpalette*

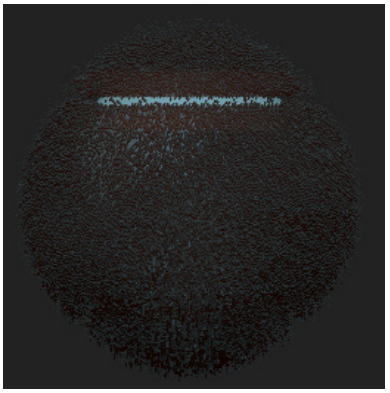


Figure 4-112 *Fibrous mesh displayed on the tennis ball*



Figure 4-113 *The value in the* ***Length*** *edit box set to* ***20***

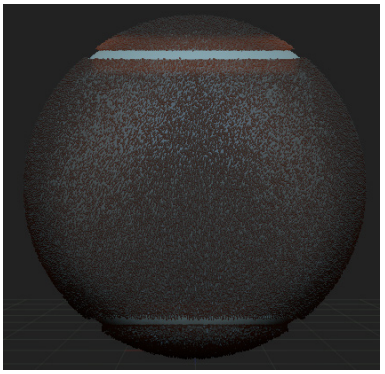


Figure 4-114 *Length of the fibers decreased*

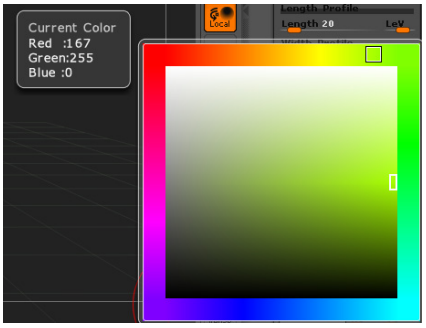


Figure 4-115 *Color chosen from the color picker window*

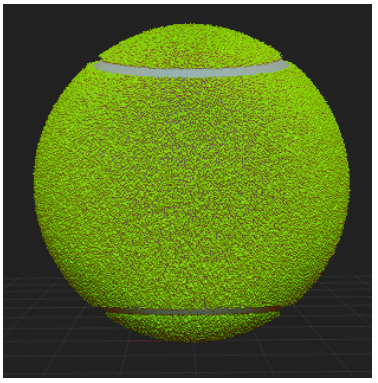


Figure 4-116 *The color of the fibers changed to green*

Exercise 1

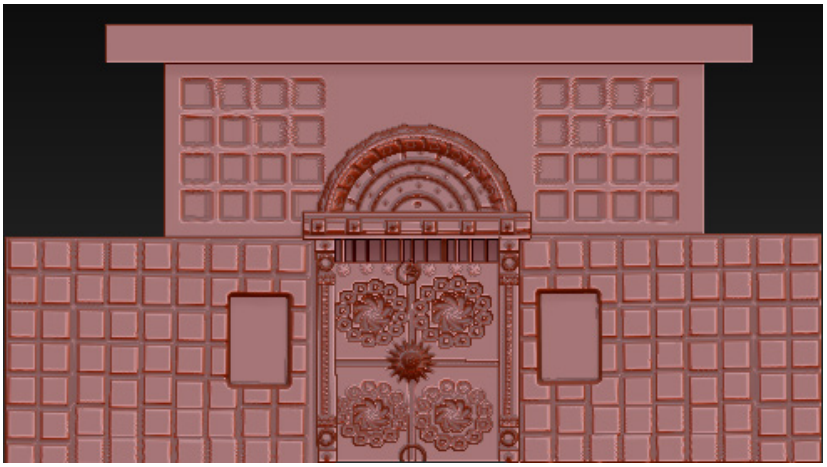


Figure 4-117 *Model of a house*

Exercise 2

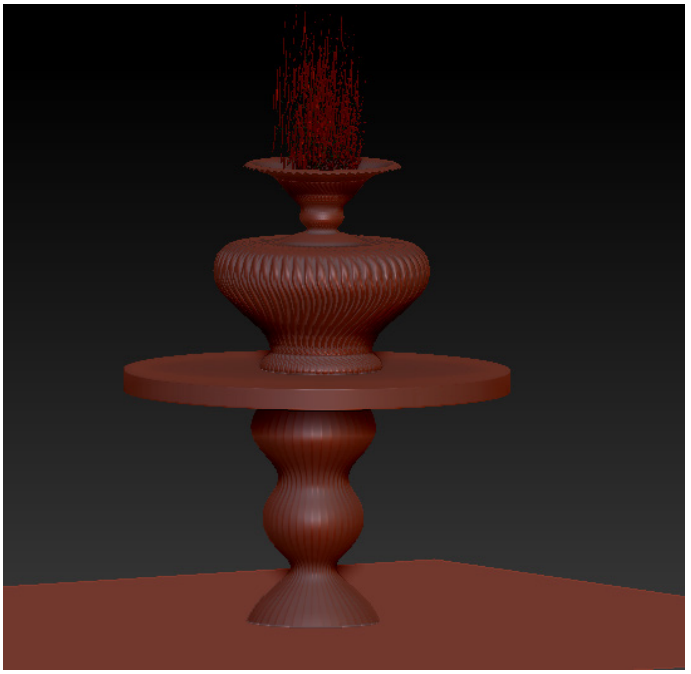


Figure 4-118 *Scene to be created for Exercise 2*

Chapter 5

ZSpheres





Figure 5-1 *The value of the* ***Range*** *slider set to* ***0***



Figure 5-2 ***ZSphere*** *chosen from the* ***3D Meshes*** *area of the flyout*

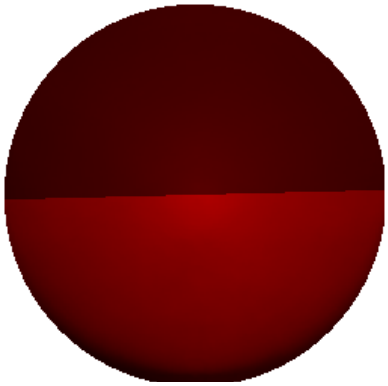


Figure 5-3 *A double colored sphere created in the canvas*

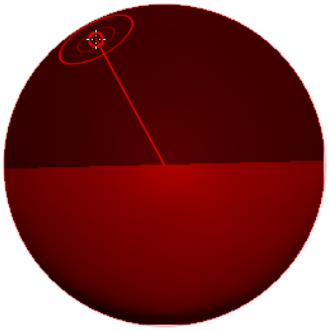


Figure 5-4 *Concentric circles displayed on the surface of ZSphere*

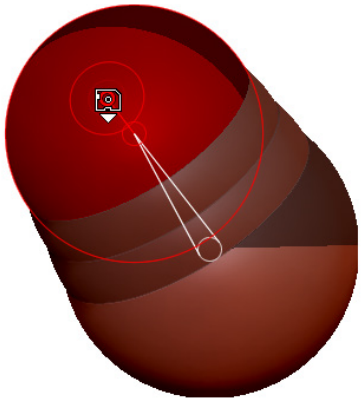


Figure 5-5 *New ZSphere created*

can move or scale it as required, refer to Figures 5-8 and 5-9.

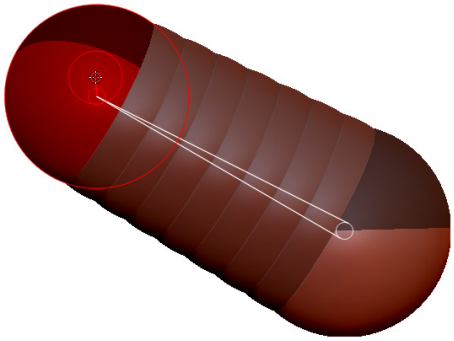


Figure 5-6 *Newly created ZSphere moved away from the previous ZSphere*

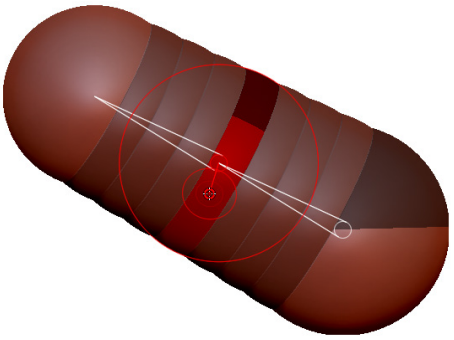


Figure 5-7 *Linked sphere converted into an editable ZSphere*

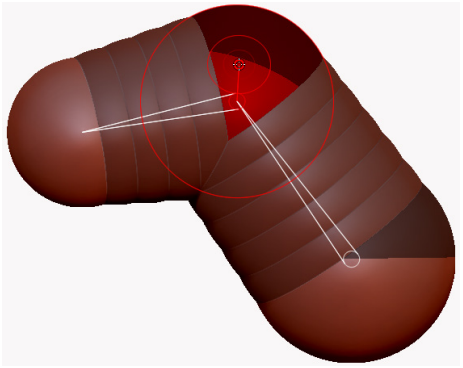


Figure 5-8 *The ZSphere moved using the* ***Move*** *button*

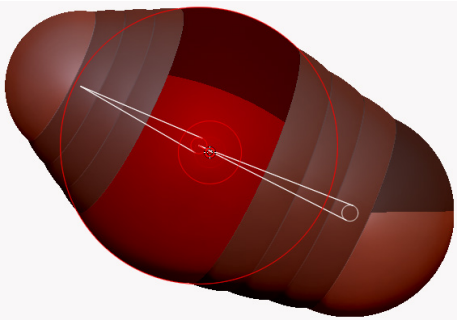


Figure 5-9 *The ZSphere scaled using the* ***Scale*** *button*

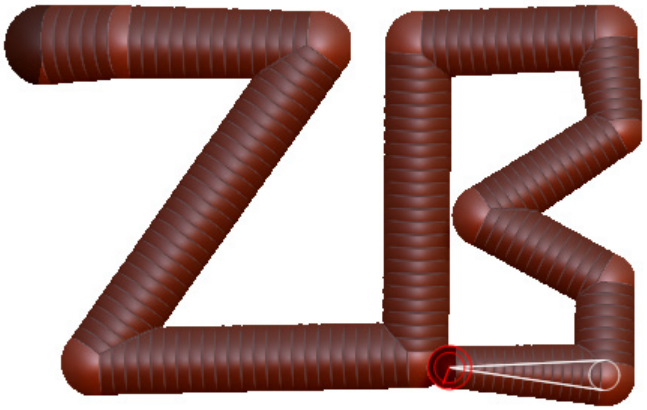


Figure 5-10 *Structure created using ZSpheres*

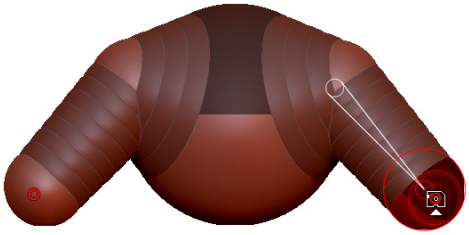


Figure 5-11 *Similar ZSpheres created by activating the symmetry in the X axis*

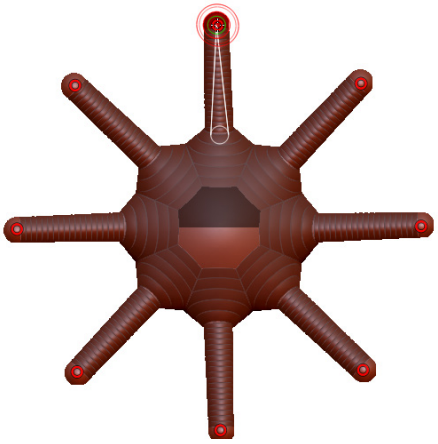


Figure 5-12 *Similar ZSpheres created by activating the radial symmetry*

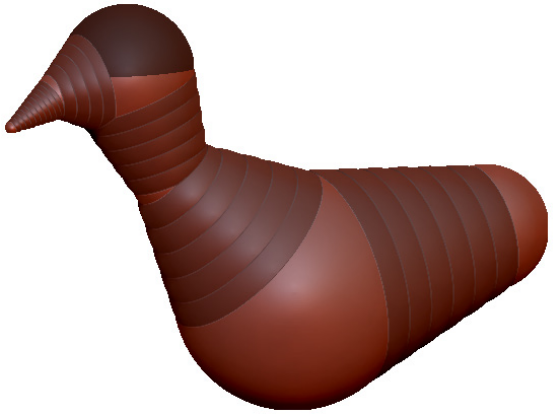


Figure 5-13 *ZSphere structure created in the canvas*



Figure 5-14 *The thumbnail for the ZSphere displayed*

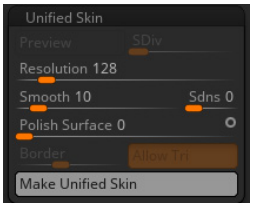


Figure 5-15 *The* ***Unified Skin*** *subpalette expanded*

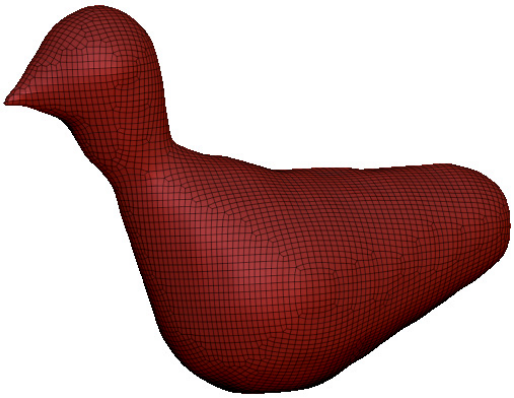


Figure 5-16 *The skinned mesh after choosing the* ***PolyF*** *button*



Figure 5-17 *The* ***Adaptive Skin*** *subpalette chosen*

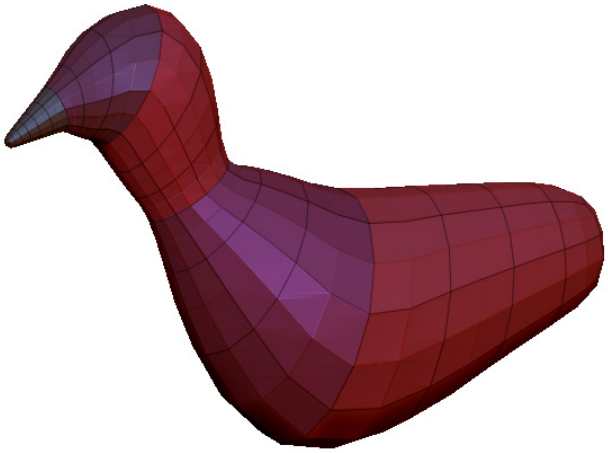


Figure 5-18 *The skinned mesh after choosing the* ***PolyF*** *button*



Figure 5-19 *The ZSphere structure*



Figure 5-20 *The preview of the ZSphere structure*

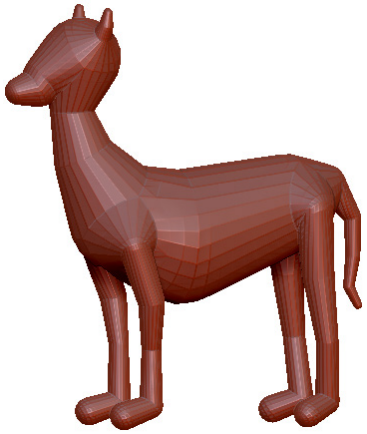


Figure 5-21 *Preview of the mesh with the value of the* ***Density*** *slider set to* ***1***



Figure 5-22 *Preview of the mesh with the value of the* ***Density*** *slider set to* ***7***



Figure 5-23 *Preview of the mesh with the value of the* ***G Radial*** *slider set to* ***4***



Figure 5-24 *Preview of the mesh with the value of the* ***G Radial*** *slider set to* ***20***

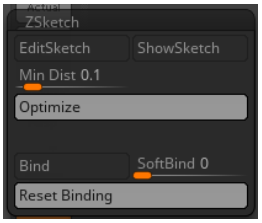


Figure 5-25 *The* ***ZSketch*** *subpalette in the* ***Tool*** *palette*

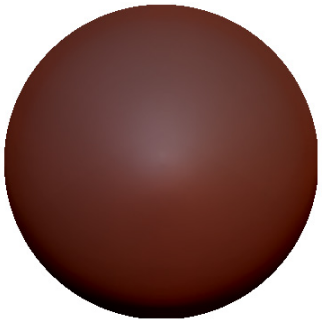


Figure 5-26 *The color of the ZSphere changed*



Figure 5-27 *Different shapes created using the strips of ZSpheres*

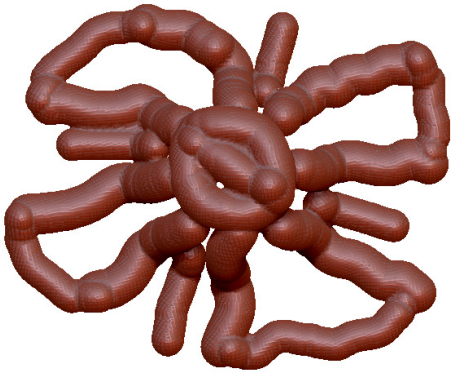


Figure 5-28 *Polymesh preview of the ZSketch*



Figure 5-29 *A structure created using ZSpheres*



Figure 5-30 *ZSketching done on the surface of the structure*

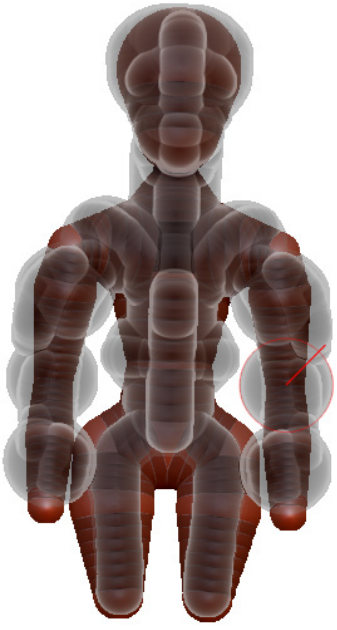


Figure 5-31 *Transparency in the sketched strips*

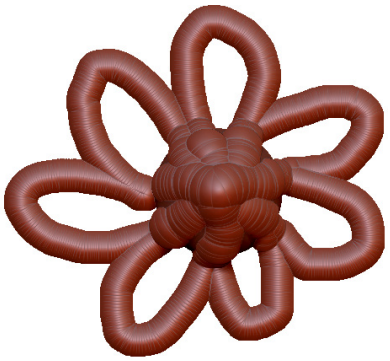


Figure 5-32 *Strips with the value of the* ***Min Dist*** *slider set to* ***0.1***

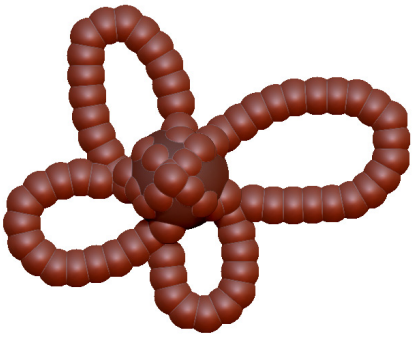


Figure 5-33 *Strips with the value of the* ***Min Dist*** *slider set to* ***1***



Figure 5-34 *Flyout displayed on choosing the Current Brush button*



Figure 5-35 *Strips created using the* ***Armature*** *brush*



Figure 5-36 *The skinned preview of the strips*

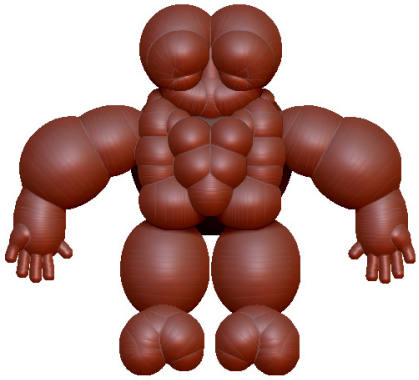


Figure 5-37 *Strips bulged out using the* ***Bulge*** *brush*

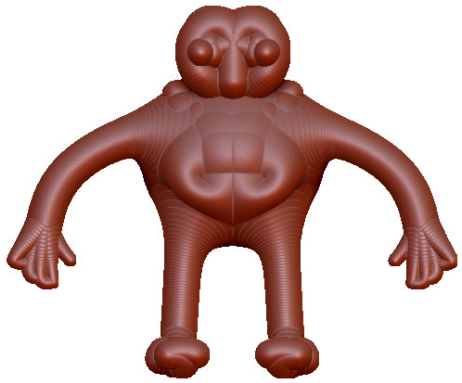


Figure 5-38 *Strips smoothened using the* ***Smooth 1*** *brush*



Figure 5-39 *The* ***Rigging*** *subpalette*



Figure 5-40 *The DemoSoldier.ZTL file created in the canvas*



Figure 5-41 *The* ***DemoSoldier_1*** *subtool chosen from the* ***SubTool*** *subpalette*

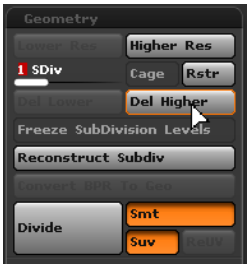


Figure 5-42 *The* ***Del Higher*** *button chosen from the* ***Geometry*** *subpalette*

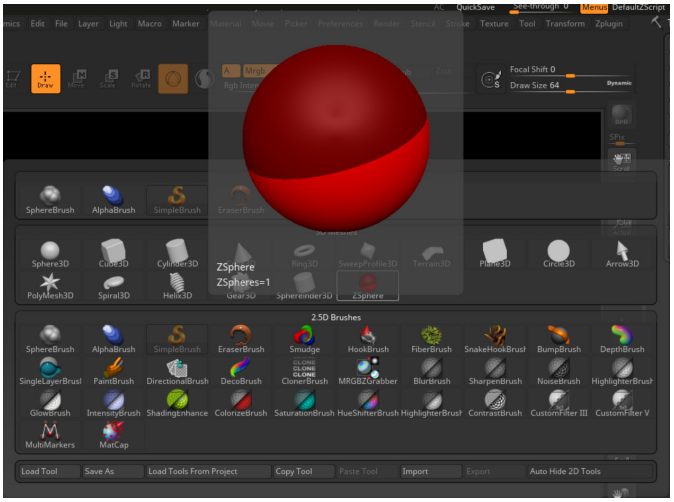


Figure 5-43 ***ZSphere*** *primitive chosen from the* ***3D Meshes*** *area of the flyout*

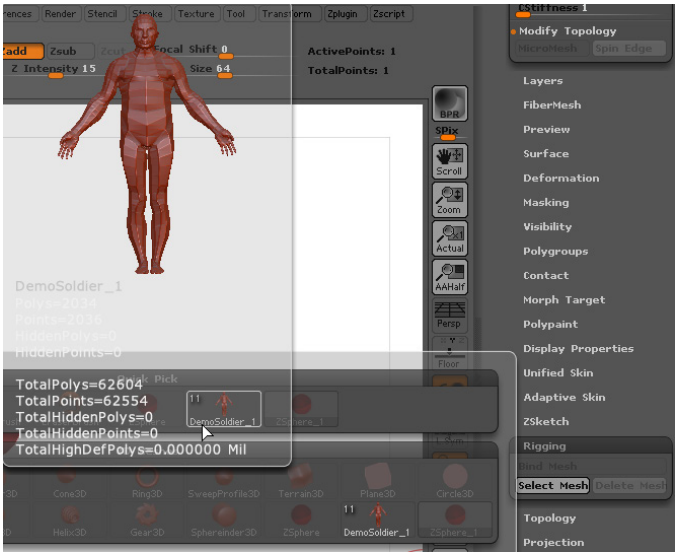


Figure 5-44 DemoSoldier_1 *chosen from the flyout*

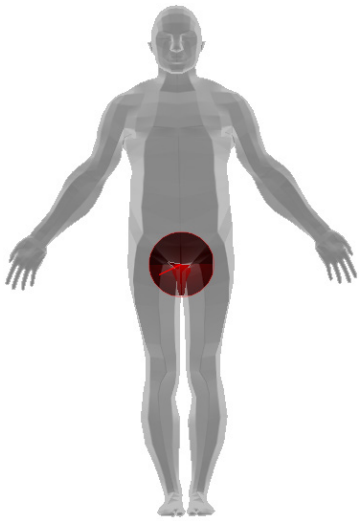


Figure 5-45 *The transparent model displayed in the canvas*

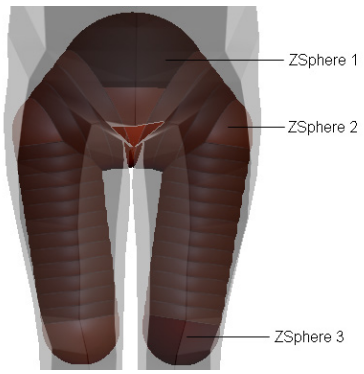


Figure 5-46 *Structure created using the ZSpheres*

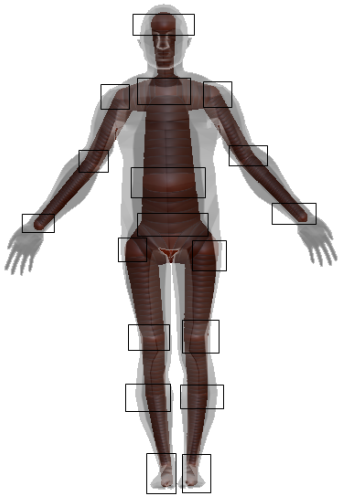


Figure 5-47 *Structure created inside the transparent model*

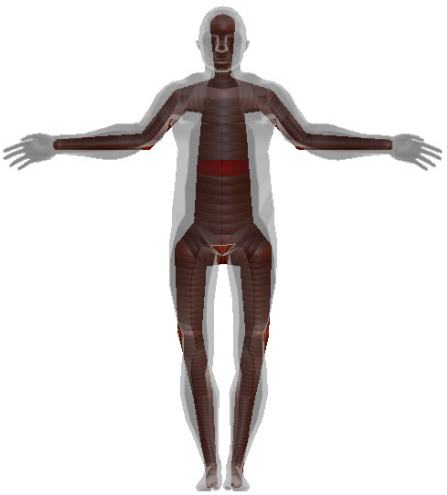


Figure 5-48 *Bend created in the elbow of the model*

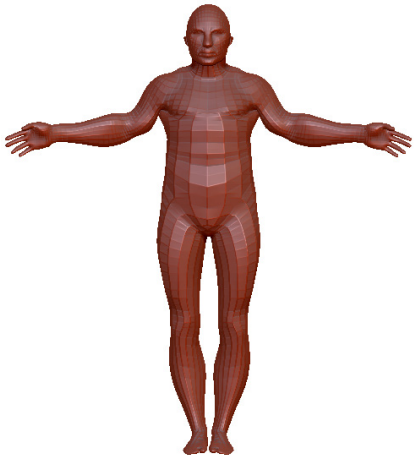


Figure 5-49 *The skinned model displayed in the canvas*



Figure 5-50 *The model smoothened by setting the value of the* ***SDiv*** *slider to* ***5***

TUTORIALS

Tutorial 1



Figure 5-51 *Basic shape of the human body*

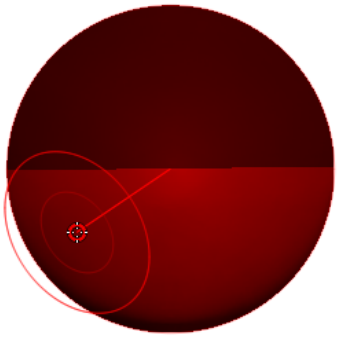


Figure 5-52 *ZSphere created in the canvas*

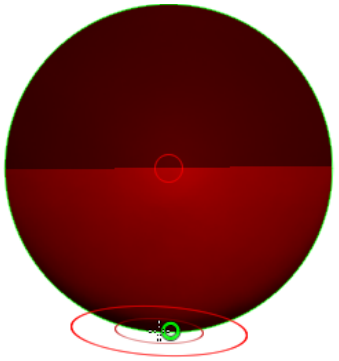


Figure 5-53 *Green circle displayed*

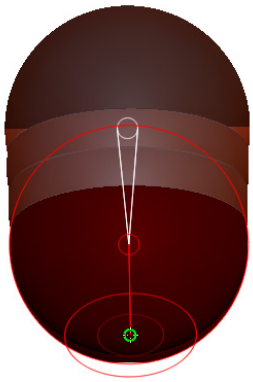


Figure 5-54 *Second ZSphere created below the existing ZSphere*

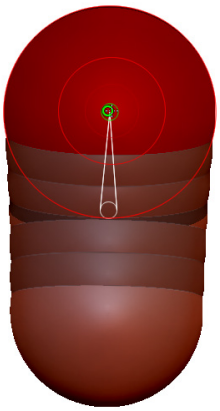


Figure 5-55 *Third ZSphere created above the existing ZSphere*

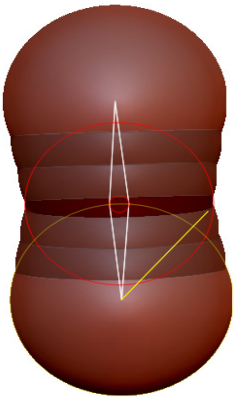


Figure 5-56 *Middle most ZSphere scaled using the* ***Scale*** *button*



Figure 5-57 *ZSphere created for the hips*

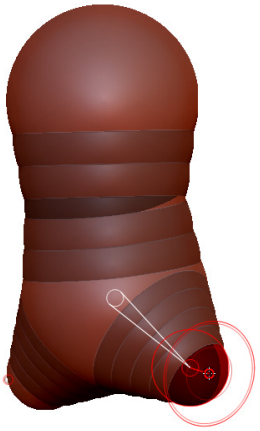


Figure 5-58 *Positioning ZSphere in the side view*

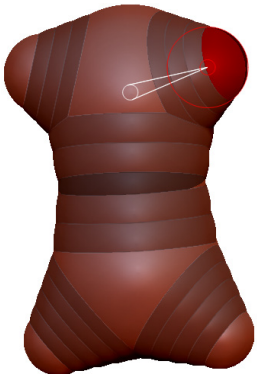


Figure 5-59 *ZSphere created for the shoulders*

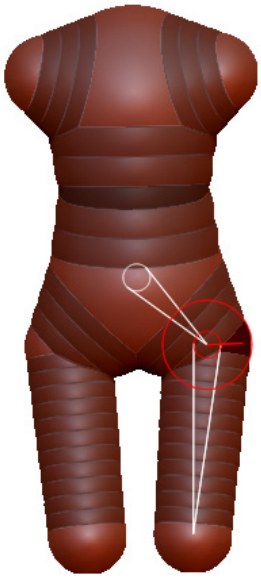


Figure 5-60 *ZSphere created and moved downward*

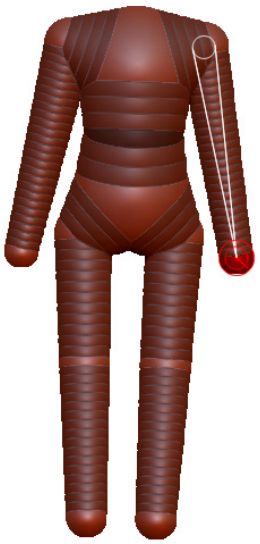


Figure 5-61 *ZSpheres created for the legs and the arms*

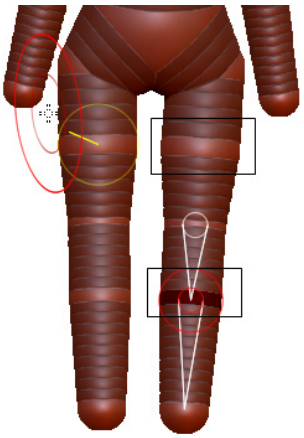


Figure 5-62 *Two new ZSpheres inserted and scaled*

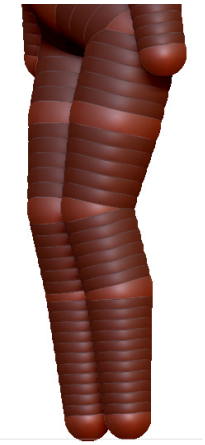


Figure 5-63 *The ZSpheres adjusted in the side view*

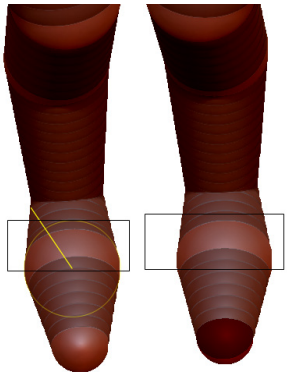


Figure 5-64 *Middle ZSphere scaled up*

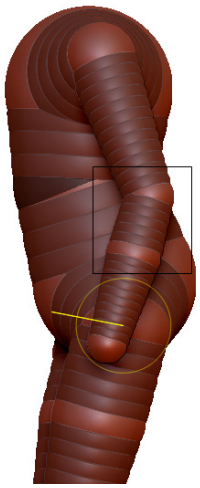


Figure 5-65 *Two new ZSpheres inserted and positioned in the side view*

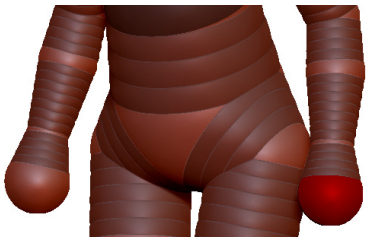


Figure 5-66 *New ZSphere created for the palm and moved downward*

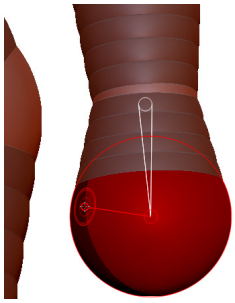


Figure 5-67 *Cursor hovered at the area dividing the red and maroon tones of the ZSphere*

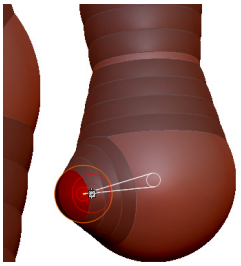


Figure 5-68 *ZSphere created and moved outward*

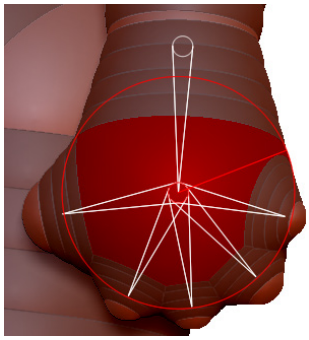


Figure 5-69 *Knuckles created for all the fingers of the hand*

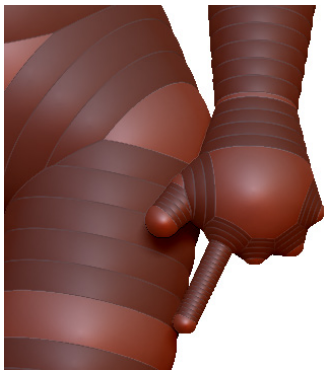


Figure 5-70 *Thumb and index finger created by creating ZSpheres and moving them outward*

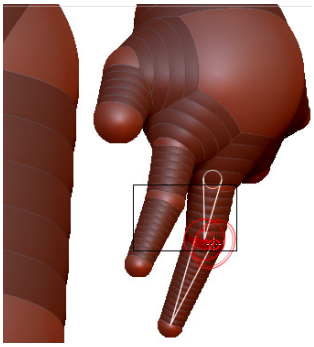


Figure 5-71 *Two new ZSpheres inserted in the index finger and the middle finger*

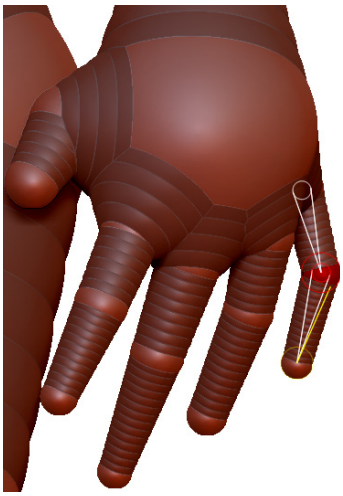


Figure 5-72 *Ring finger and the little finger created using ZSpheres*

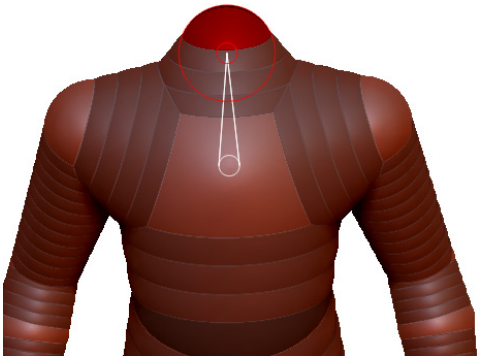


Figure 5-73 *ZSphere created for the lower part of the neck*

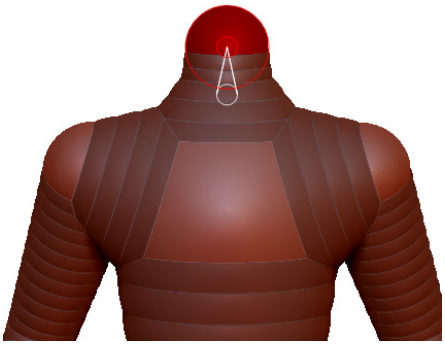


Figure 5-74 *Second ZSphere created for the upper part of the neck*

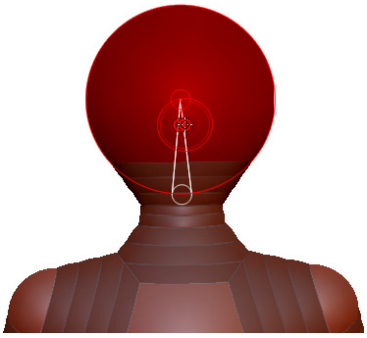


Figure 5-75 *ZSphere created for the lower part of the head*

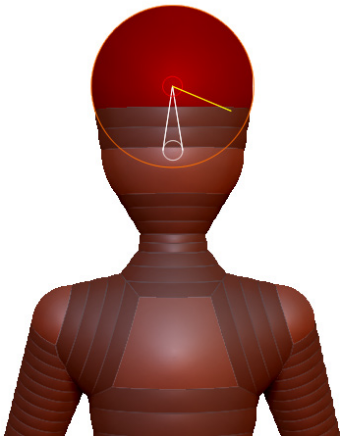


Figure 5-76 *ZSphere created for the upper part of the head*



Figure 5-77 *Final model of the body*



Figure 5-78 *Skinned preview of the body*

Tutorial 2



Figure 5-79 *Basic shape of the head of stag deer*

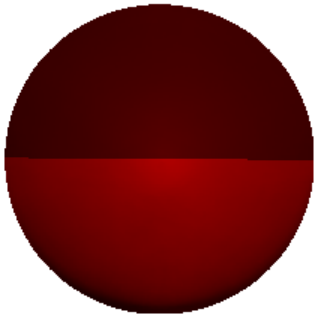


Figure 5-80 *ZSphere created in the canvas*

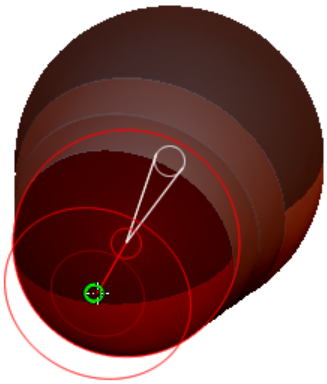


Figure 5-81 *ZSphere created at the center*

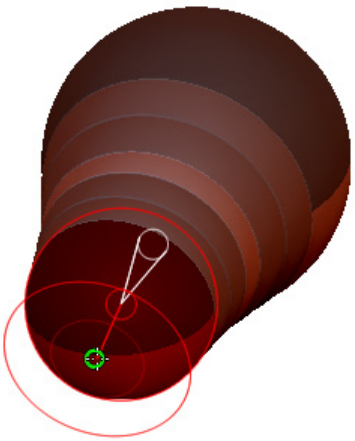


Figure 5-82 *Third Zsphere created*

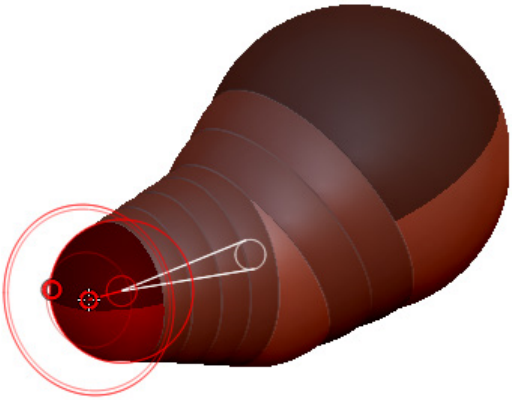


Figure 5-83 *ZSphere moved upward*

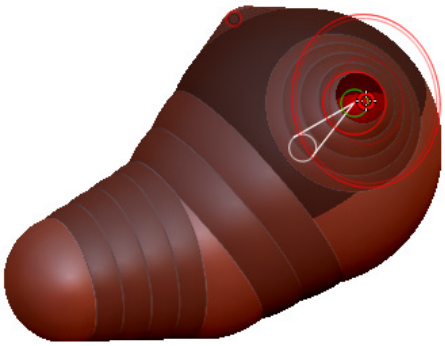


Figure 5-84 *ZSphere drawn for the ear*

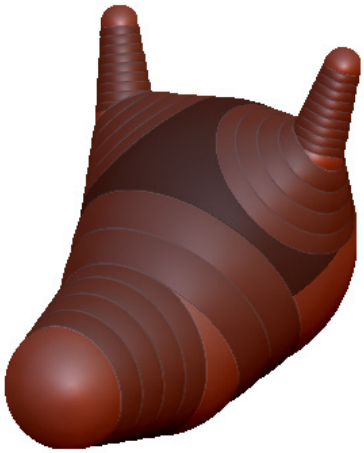


Figure 5-85 *ZSphere drawn and moved up*

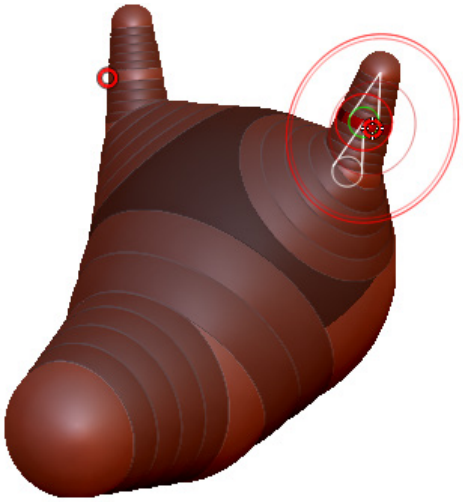


Figure 5-86 *ZSphere inserted at the centre*



Figure 5-87 *ZSphere moved outward*

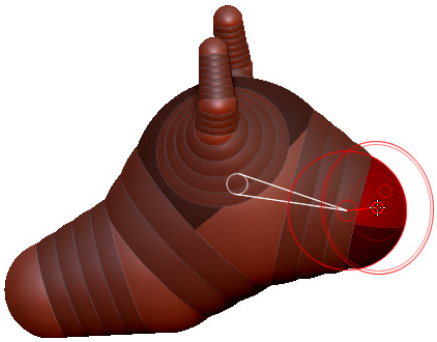


Figure 5-88 *ZSphere created for the neck*

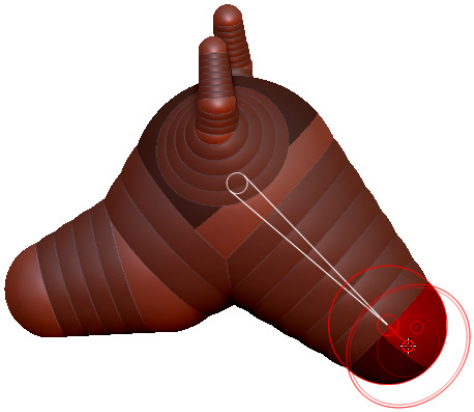


Figure 5-89 *ZSphere moved outward*

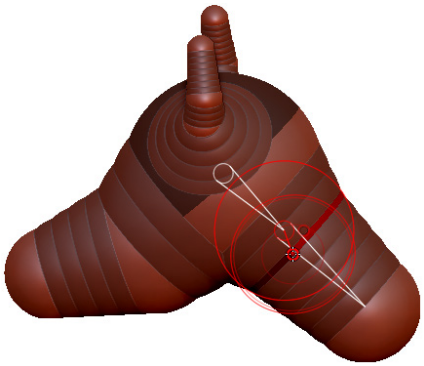


Figure 5-90 *ZSphere inserted in the neck and scaled down*

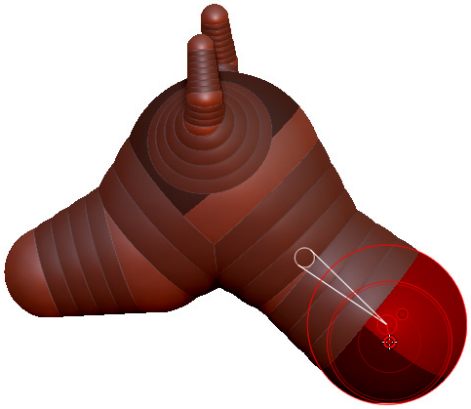


Figure 5-91 *ZSphere scaled up*

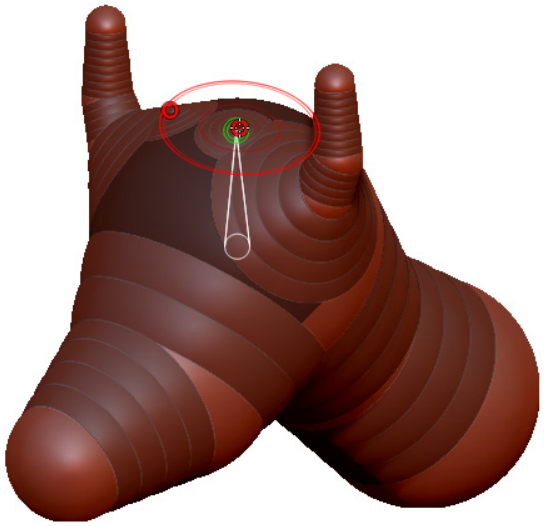


Figure 5-92 *ZSphere created for the antler*

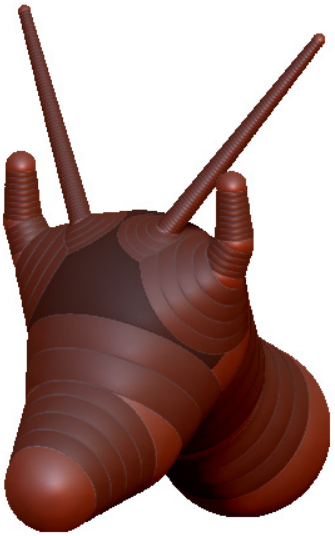


Figure 5-93 *ZSphere created and moved up*



Figure 5-94 *New ZSpheres created and moved*



Figure 5-95 *Antlers of the deer created*

Exercise 1



Figure 5-96 *Model of a tree*

Exercise 2



Figure 5-97 *Scene to be created for Exercise 2*

Chapter 6

DynaMesh, NanoMesh, and ZRemesher



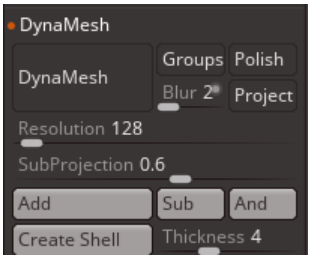


Figure 6-1 *The* ***DynaMesh*** *area in the* ***Geometry*** *subpalette*

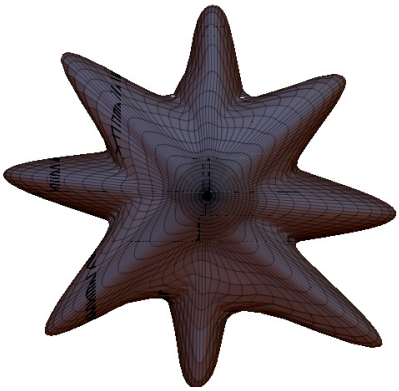


Figure 6-2 *The sphere deformed using the* ***Move*** *brush*

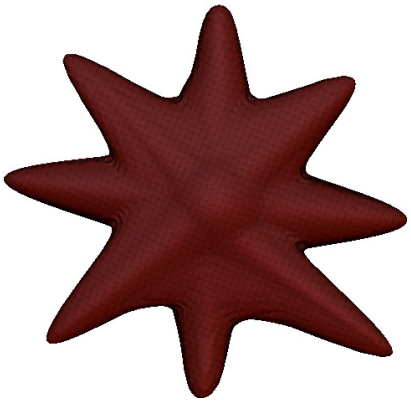


Figure 6-3 *The stretched polygons distributed uniformly*

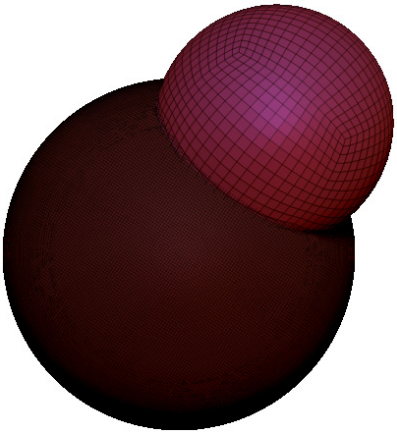


Figure 6-4 *A sphere inserted using the* ***InsertSphere*** *brush*

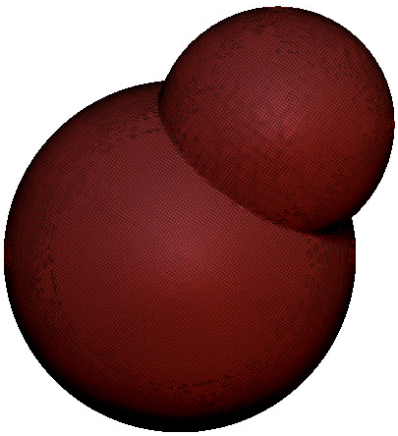


Figure 6-5 *Inserted sphere merged with the existing sphere*

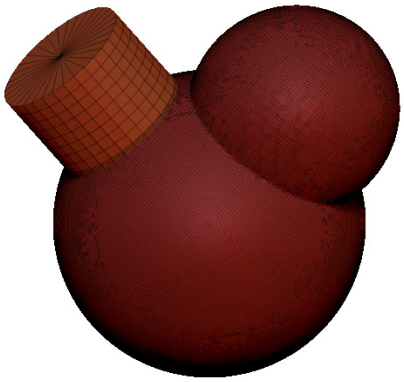


Figure 6-6 *Cylinder inserted using the* ***InsertCylinder*** *brush*

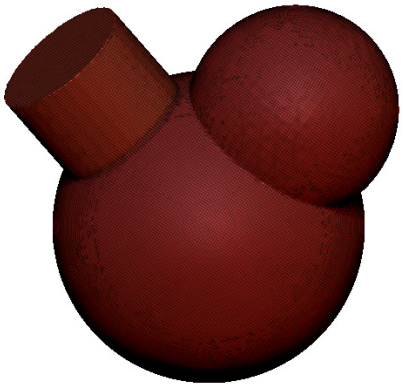


Figure 6-7 *New group created for the inserted cylinder*

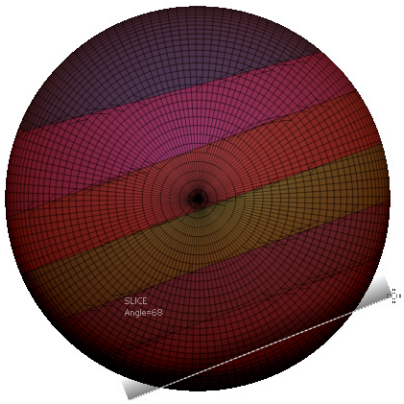


Figure 6-8 *Groups created using the* ***SliceCurve*** *brush*



Figure 6-9 *Split groups visible in the sphere*

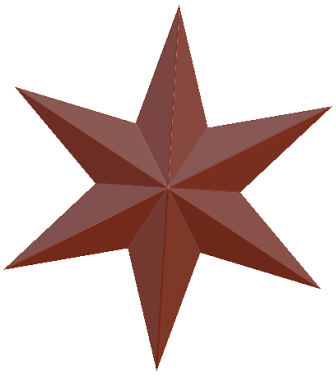


Figure 6-10 *The* ***PolyMesh3D*** *primitive created in the canvas*

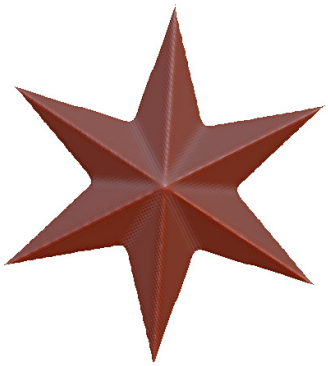


Figure 6-11 *The* ***PolyMesh3D*** *primitive converted into DynaMesh*

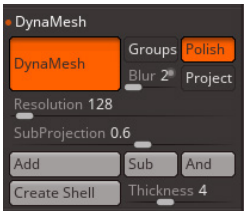


Figure 6-12 *The* ***DynaMesh*** *and* ***Polish*** *buttons chosen*

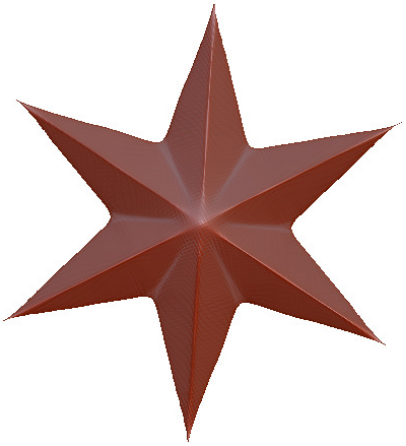


Figure 6-13 *The primitive converted into DynaMesh*

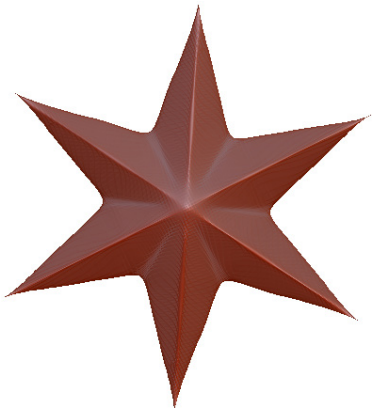


Figure 6-14 *The* ***DynaMesh*** *with the value of* ***Blur*** *slider set to* ***4***

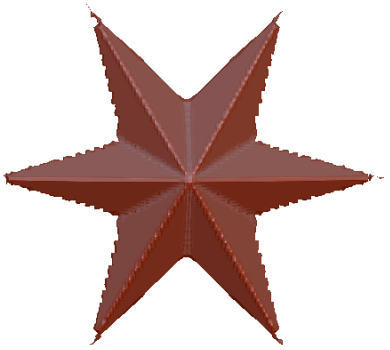


Figure 6-15 *The* ***DynaMesh*** *with the value of* ***Blur*** *slider set to* ***100***



Figure 6-16 *The DemoHead.ZTL file created in the canvas*

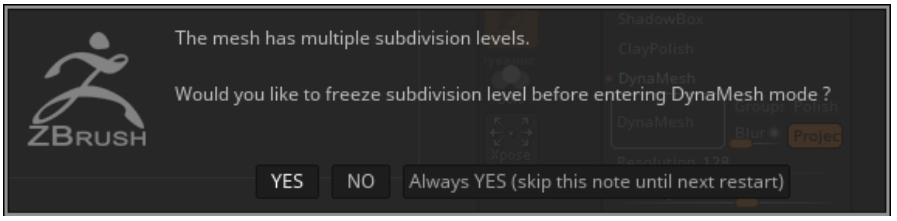


Figure 6-17 *The message box displayed on choosing the* ***DynaMesh*** *button*

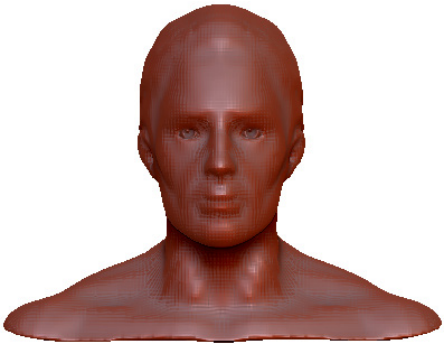


Figure 6-18 *The details lost on choosing the* ***DynaMesh*** *button*

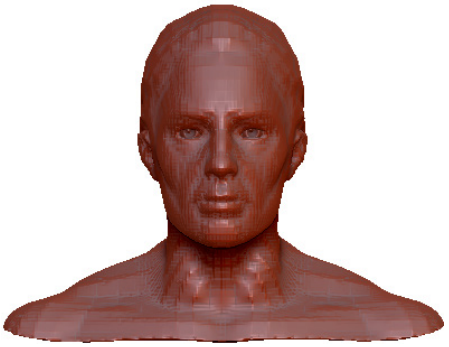


Figure 6-19 *The details retained on choosing the* ***DynaMesh*** *button with the* ***Project*** *button*

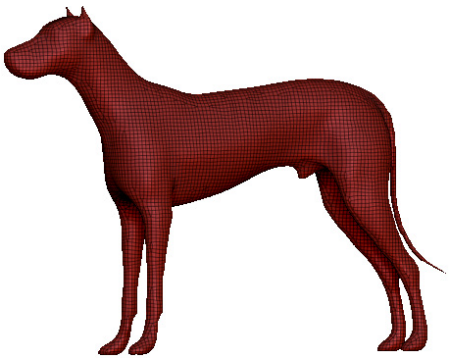


Figure 6-20 *Dynamesh created with the default value of* ***Resolution*** *slider*

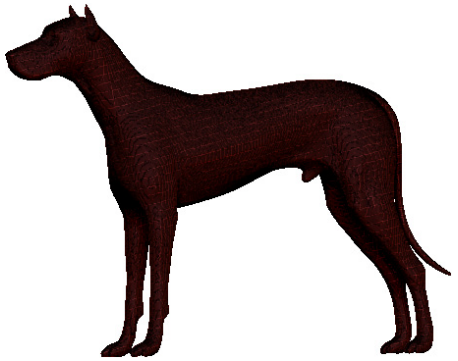


Figure 6-21 *Dynamesh created with the value of* ***Resolution*** *slider set to* ***1000***

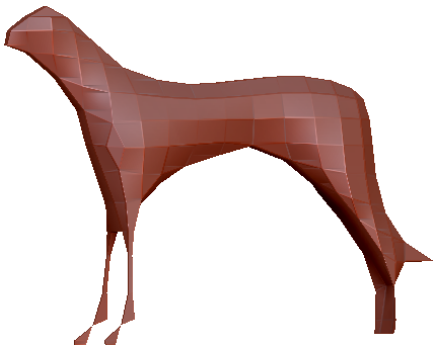


Figure 6-22 *The detail lost on setting the value of* ***Resolution*** *slider to* ***8***

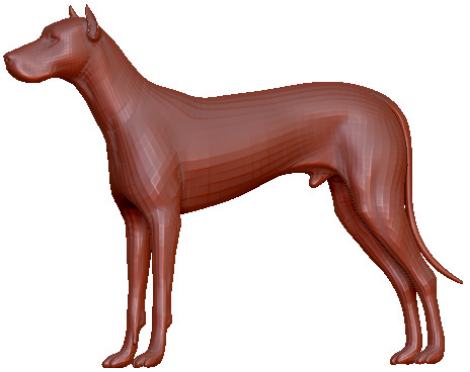


Figure 6-23 *The detail retained on setting the value of* ***Resolution*** *slider to* ***1024***

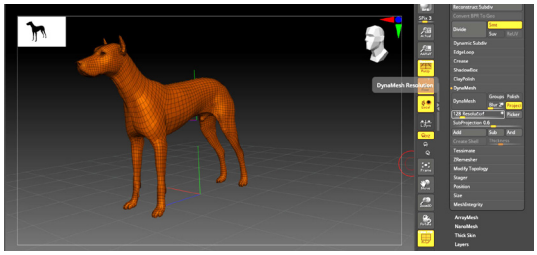


Figure 6-24 *The default value of the* ***Resolution*** *slider set to* ***128***

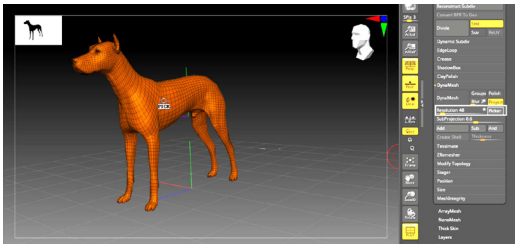


Figure 6-25 *Dragging* ***Picker*** *on model to set the value of the* ***Resolution*** *slider to* ***48***

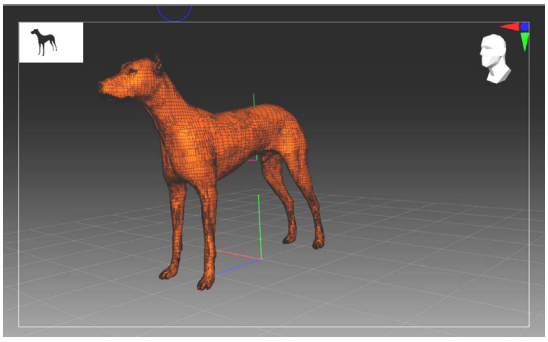


Figure 6-26 *The details lost on setting the value of the* ***Resolution*** *slider to 48*

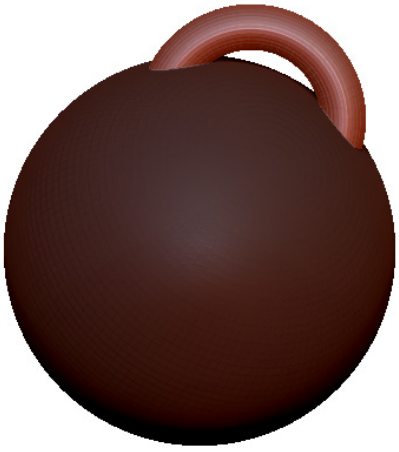


Figure 6-27 *The ring created on the surface of the sphere*

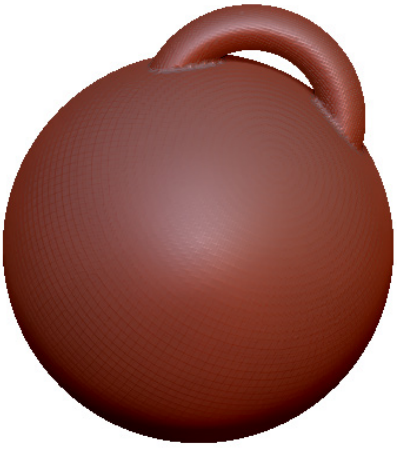


Figure 6-28 *The ring merged with the sphere*

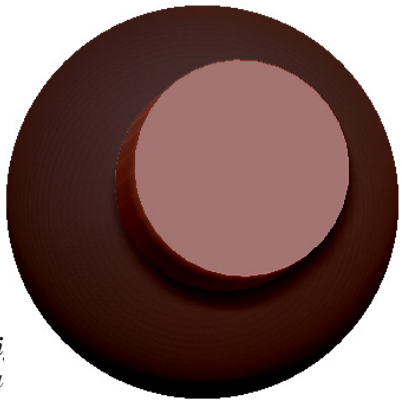


Figure 6-31 *The complete cylinder displayed*

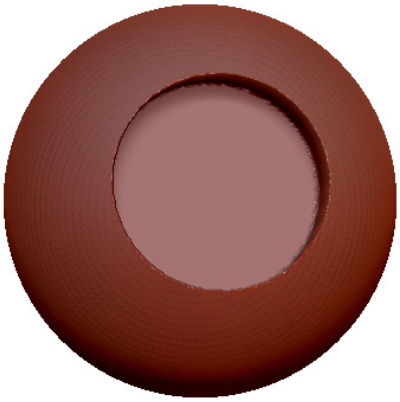


Figure 6-32 *A hole created on the sphere*

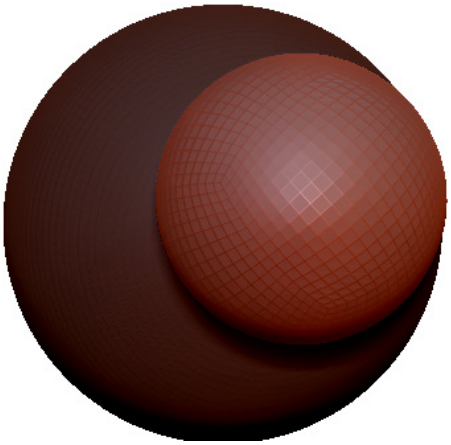


Figure 6-33 *The complete sphere displayed*

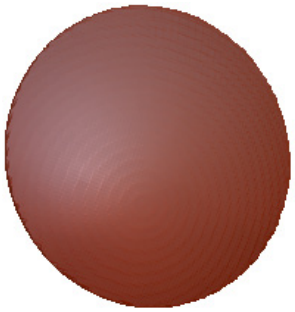


Figure 6-34 *Intersecting geometry retained*

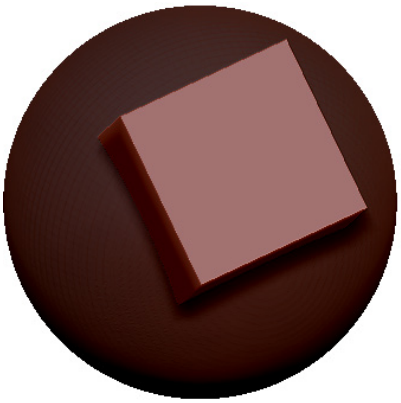


Figure 6-35 *The cube created on the surface of the sphere*

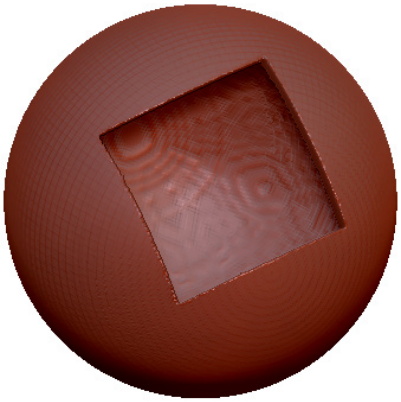


Figure 6-36 *The hole created on the surface of the sphere*

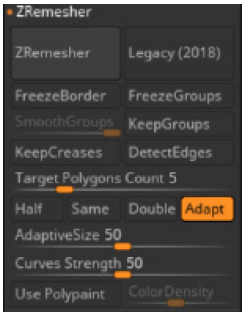


Figure 6-37 *Different buttons and sliders in the* ***ZRemesher*** *area*

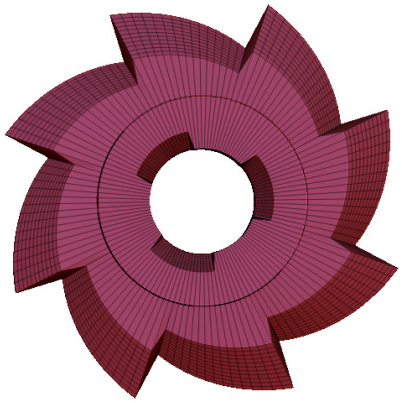


Figure 6-38 *The Gear3D primitive created in the canvas*

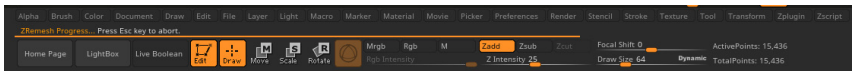


Figure 6-39 *The orange colored bar showing the status*

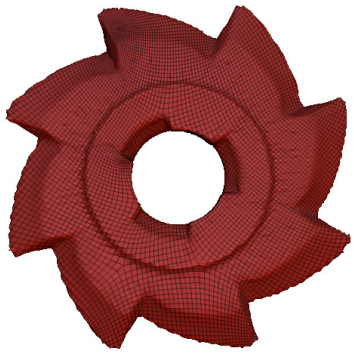


Figure 6-40 *Flow of polygons changed on choosing the* ***ZRemesher*** *button*

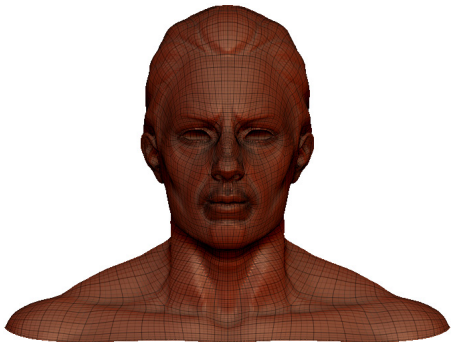


Figure 6-41 *The DemoHead.ZTL model created in the canvas*

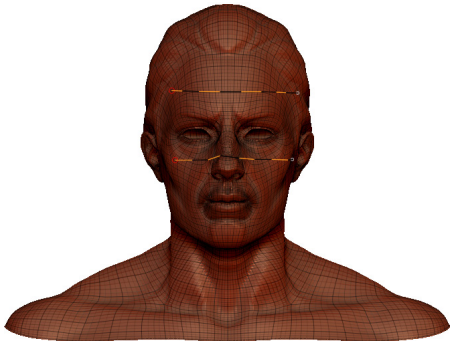


Figure 6-42 *Guide curves created using the* ***ZRemesherGuides*** *brush*

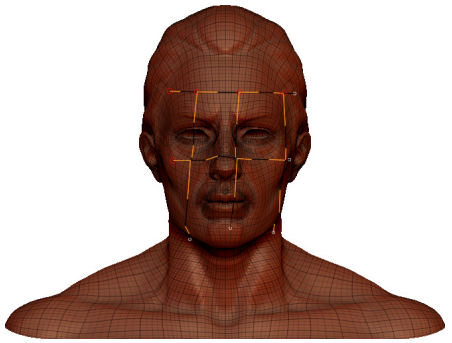


Figure 6-43 *Guide curves created for the flow of polygons*

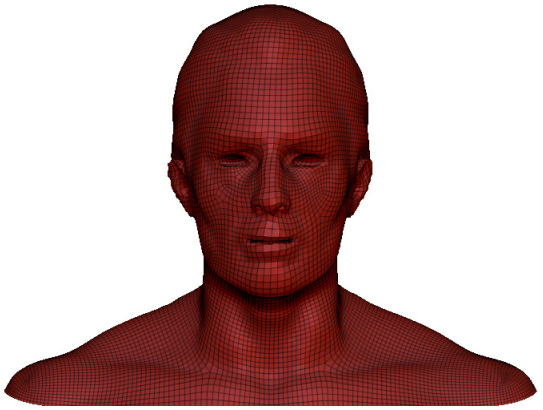


Figure 6-44 *Flow of the polygons changed according to the guide curves*

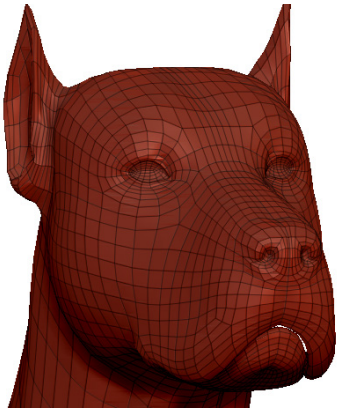


Figure 6-45 *Polygons in the Dog.ZTL*

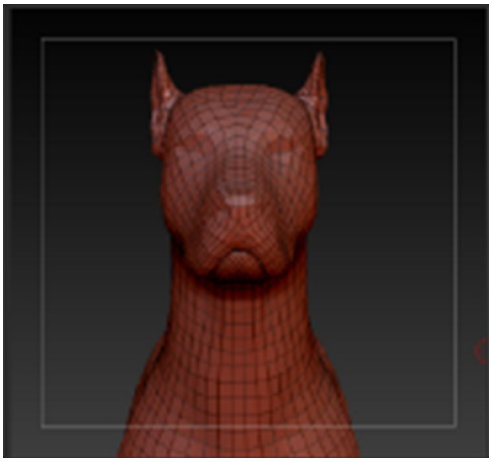


Figure 6-46 *Details lost on choosing the* ***ZRemesher*** *button*

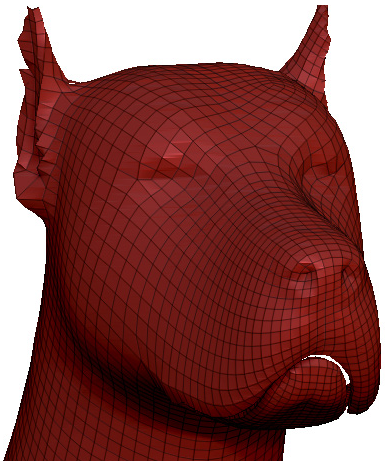


Figure 6-47 *Details around nose and mouth retained on choosing the* ***AutoMask*** *button*



Figure 6-48 *Retopologized model with the* ***Target Polygons Count*** *slider set to* ***1***



Figure 6-49 *Retopologized model with the* ***Target Polygons Count*** *slider set to* ***30***

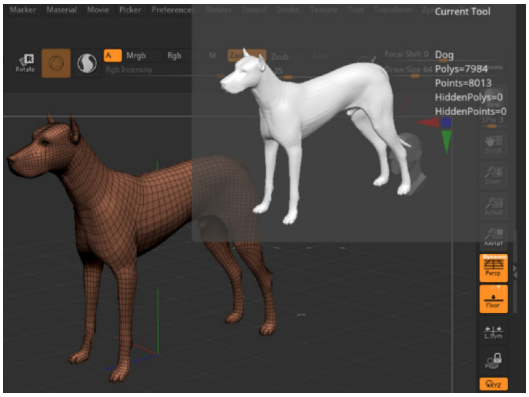


Figure 6-50 *The number of polygons equal to* ***7984***

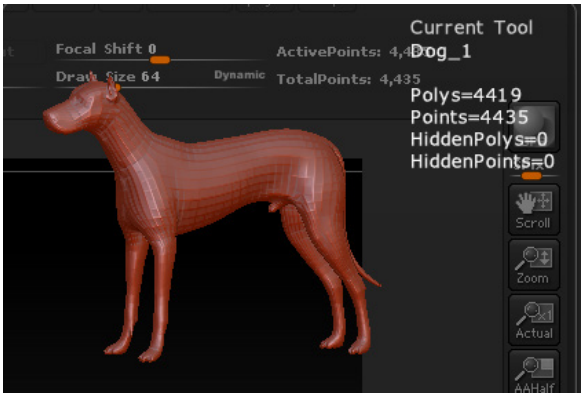


Figure 6-51 *The number of polygons reduced to 4419 after choosing the* ***Half*** *button*



Figure 6-52 *The* ***NanoMesh*** *subpalette*

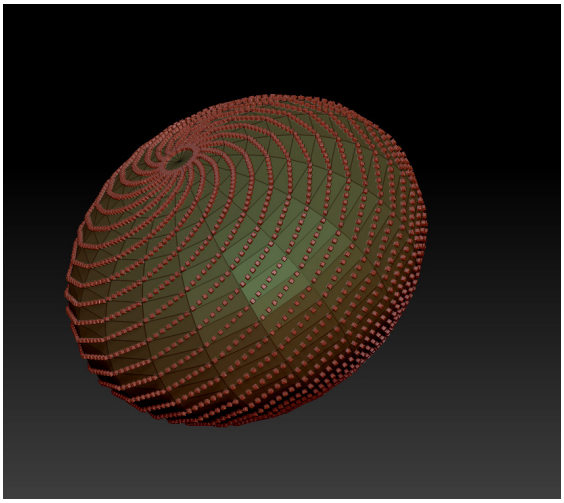


Figure 6-53 *The distribution of pattern of NanoMesh*

TUTORIALS

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Figure 6-54 *A coffee mug*

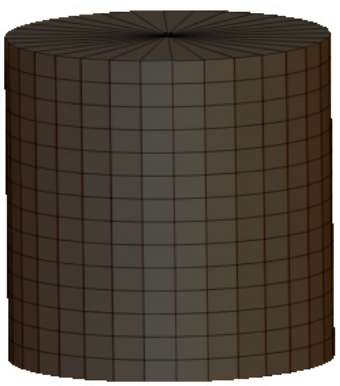


Figure 6-55 *The polygon edges displayed on choosing the* ***PolyF*** *button*

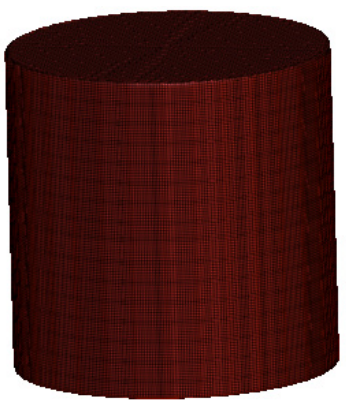


Figure 6-56 *The polygon distribution modified*

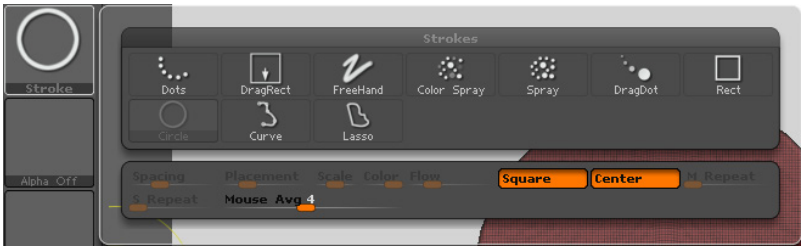


Figure 6-57 *The* ***Square*** *and* ***Center*** *buttons chosen from the flyout*

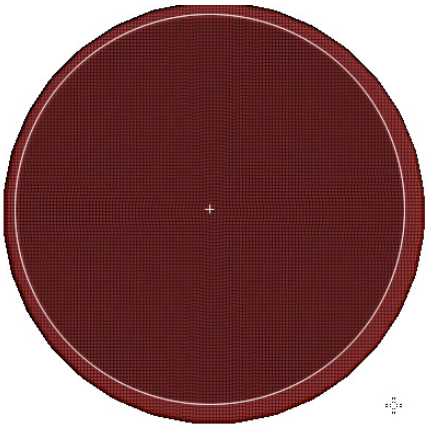


Figure 6-58 *A circular stroke created on the top of the coffee mug*

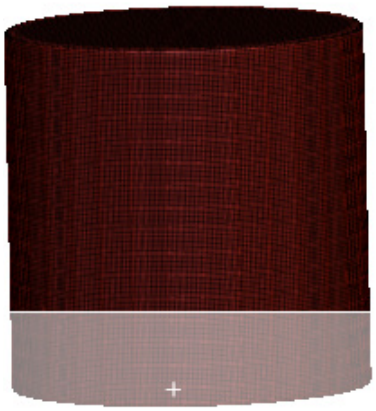


Figure 6-59 *A rectangular stroke created at the bottom of the coffee mug*



Figure 6-60 *Polygon edges disappeared from the surface*



Figure 6-61 *The mask inverted on the surface*

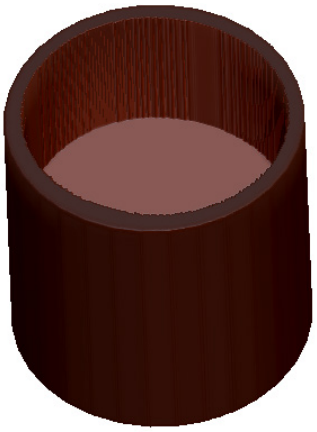


Figure 6-62 *The unmasked area moved downward*

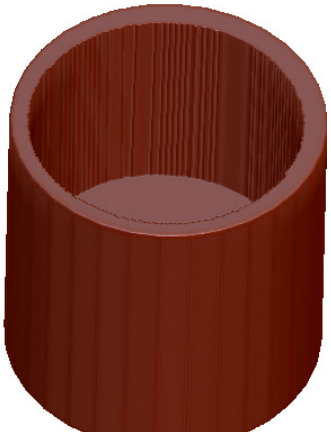


Figure 6-63 *The distorted geometry of the coffee mug*



Figure 6-64 *The surface of the coffee mug smoothened*



Figure 6-65 *The value of the* ***RadialCount*** *slider set to* ***73***



Figure 6-66 *The lower part of the coffee mug moved inward*

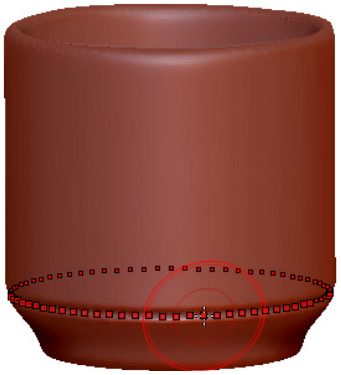


Figure 6-67 *A pattern created on the coffee mug*



Figure 6-68 *The same pattern created on the coffee mug*



Figure 6-69 *A handle created using the* ***InsertHRing*** *brush*



Figure 6-70 *The shape of the handle modified using the* ***Move*** *brush*



Figure 6-71 *The final model of the coffee mug*

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Figure 6-72 *The final model of the cartoon octopus*

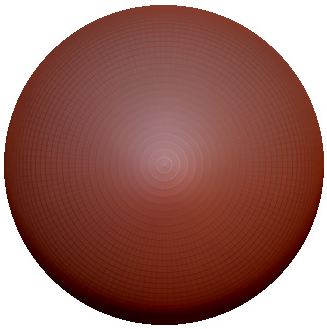


Figure 6-73 *The sphere created in the canvas*

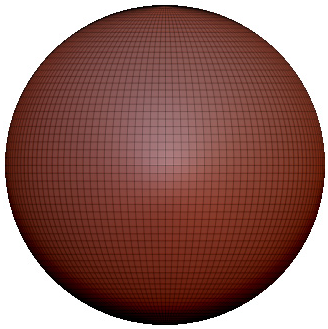


Figure 6-74 *The sphere rotated in the canvas*

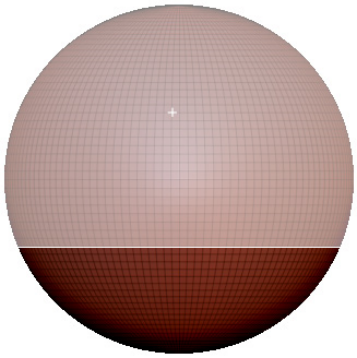


Figure 6-75 *The rectangular marquee selection created on the surface of sphere*

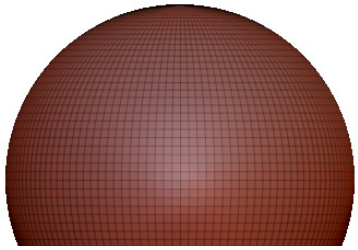


Figure 6-76 *The lower part of the sphere deleted*

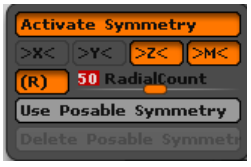


Figure 6-77 *The value of the* ***RadialCount*** *slider set to* ***50***

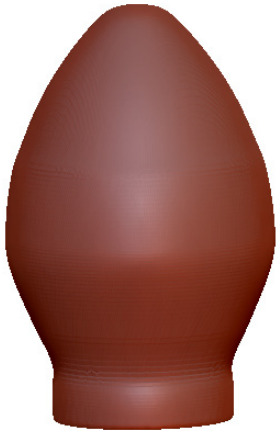


Figure 6-78 *The shape modified using the* ***Move*** *brush*



Figure 6-79 *The value of the* ***RadialCount*** *slider set to* ***8***



Figure 6-80 *Base for the tentacles created using the* ***Inflat*** *brush*



Figure 6-81 *The surface of the octopus smoothened*

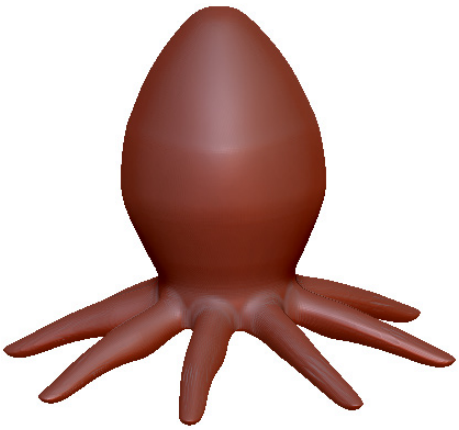


Figure 6-82 *The tentacles dragged out using the* ***Move*** *brush*

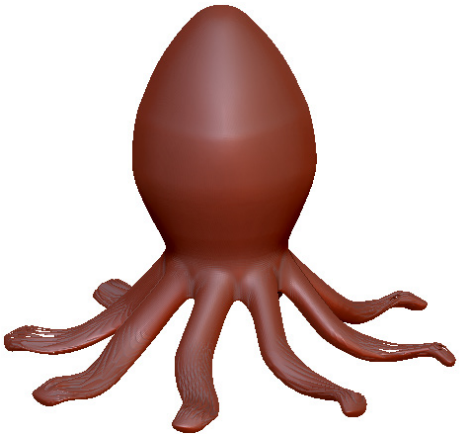


Figure 6-83 *Ends of the tentacles moved toward left*

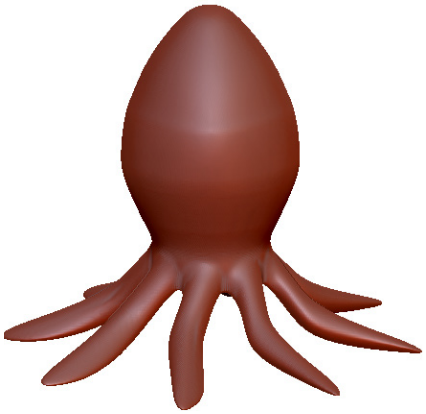


Figure 6-84 *Ends of the tentacles smoothened using the* ***Smooth*** *brush*

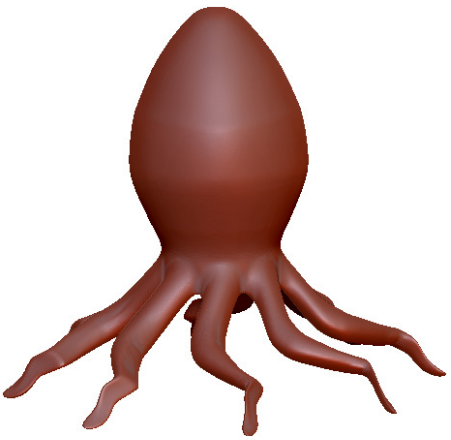


Figure 6-85 *Ends of the tentacles moved toward left using the* ***SnakeHook*** *brush*

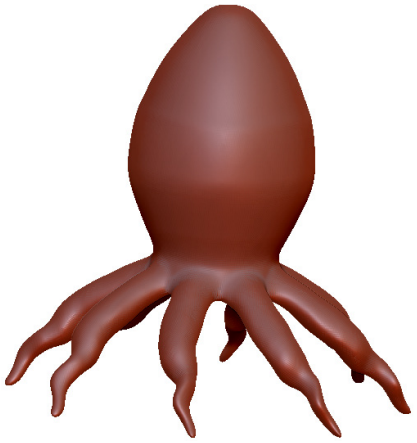


Figure 6-86 *Depth added to the tentacles using the* ***Inflat*** *brush*

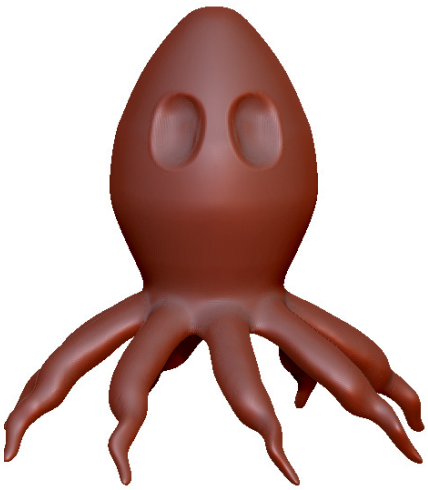


Figure 6-87 *Eye socket created using the* ***Standard*** *brush*

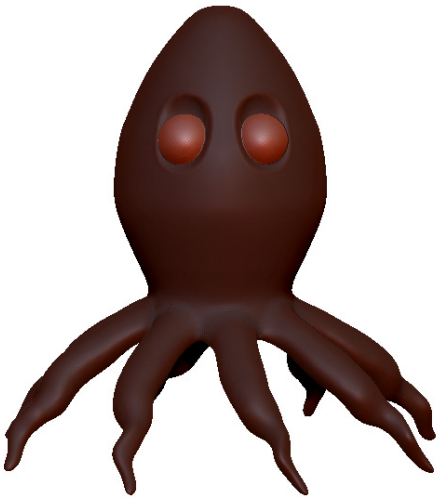


Figure 6-88 *Eye ball created using the* ***InsertSphere*** *brush*

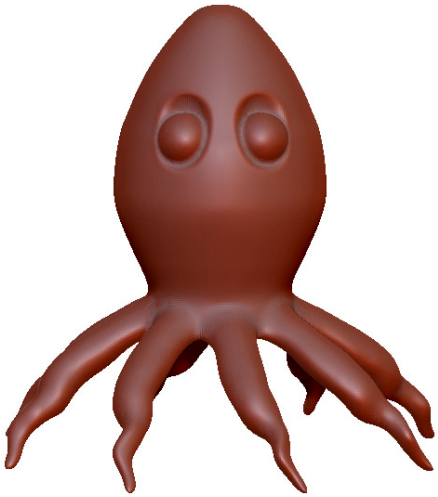


Figure 6-89 *Eyeball merged with the socket*

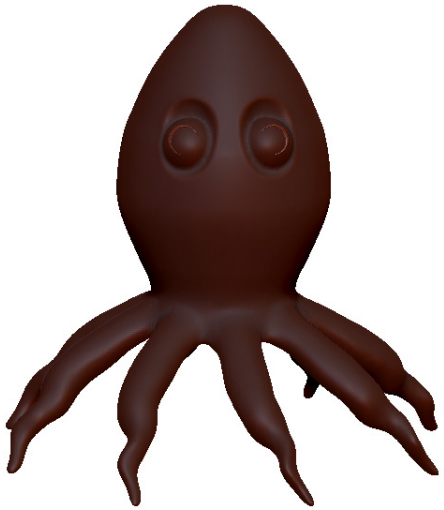


Figure 6-90 *A sphere created on eyeball with the ALT key pressed*

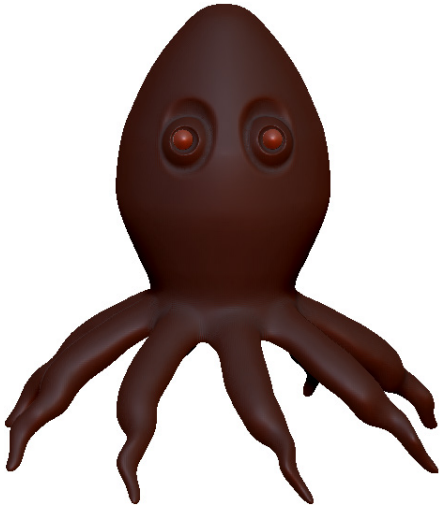


Figure 6-91 *Sphere created on the surface of the hole*

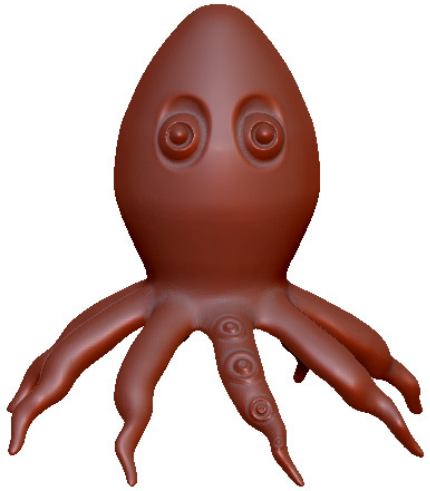


Figure 6-92 *Pattern created on a tentacle*

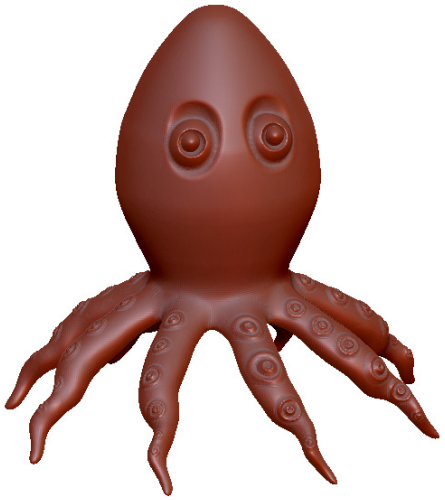


Figure 6-93 *Pattern created on all the tentacles*



Figure 6-94 *Noise pattern created on the body of the octopus*

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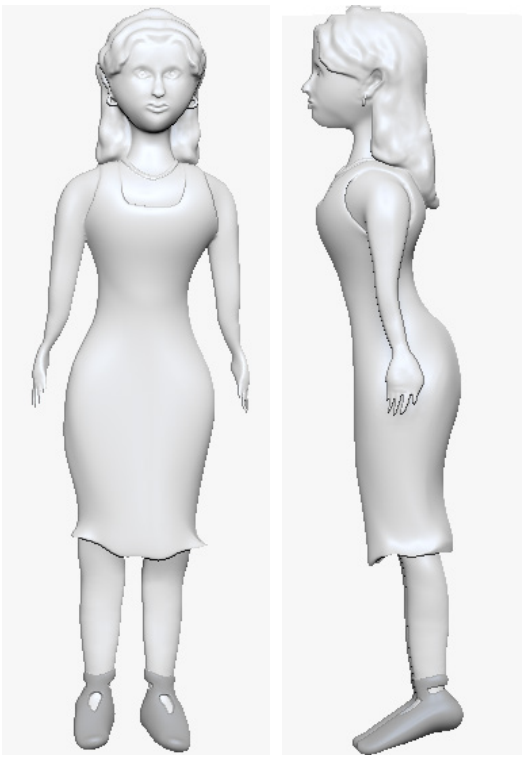


Figure 6-95 *The final model of the mannequin*

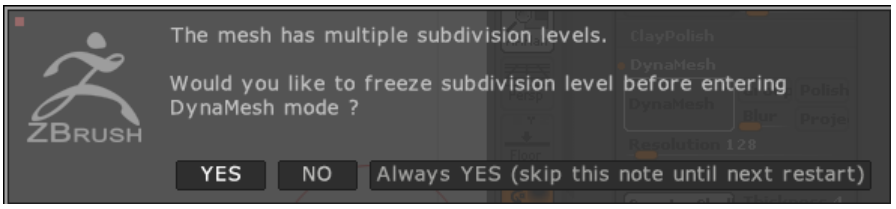


Figure 6-96 *The dialog box displayed on choosing the* ***DynaMesh*** *button*

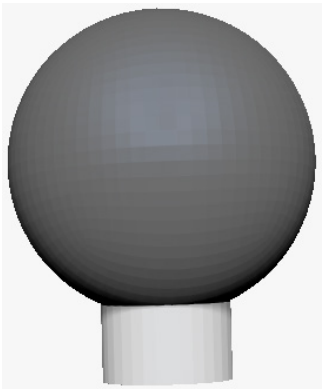


Figure 6-97 *A cylinder inserted using the* ***InsertCylinder*** *brush*

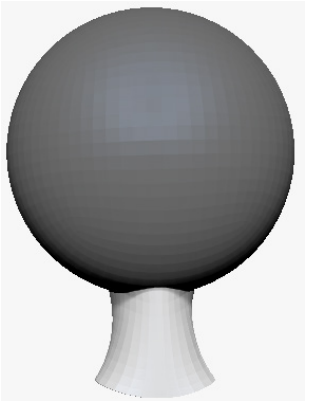


Figure 6-98 *Shape of the cylinder modified to create neck*

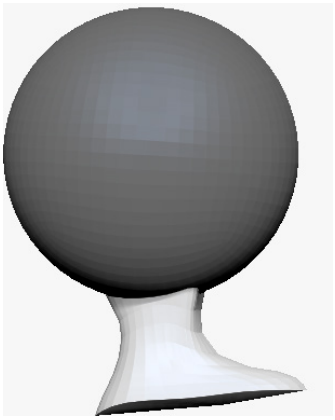


Figure 6-99 *Shape of the neck modified in side view*

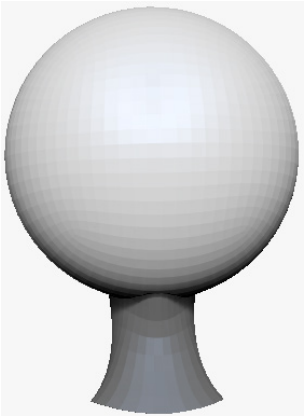


Figure 6-100 *The mask inverted*

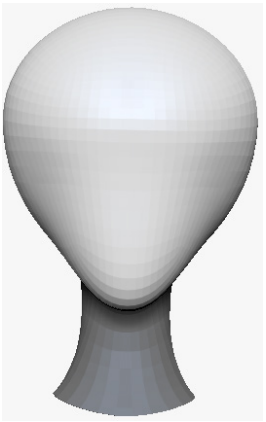


Figure 6-101 *Shape of the sphere modified in front view*

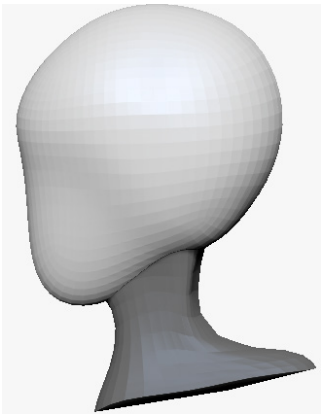


Figure 6-102 *Shape of the sphere modified in side view*

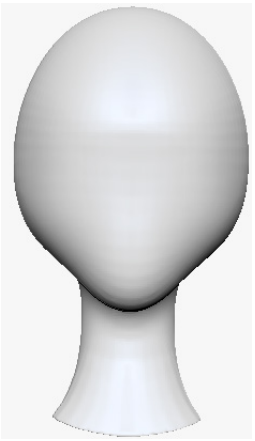


Figure 6-103 *The neck merged with the head*

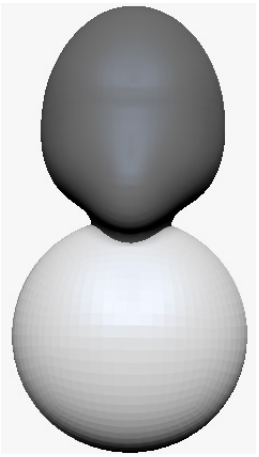


Figure 6-104 *A sphere created using the* ***InsertSphere*** *brush*

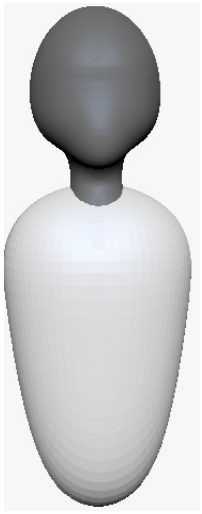


Figure 6-105 *Shape of the sphere modified to create a torso*

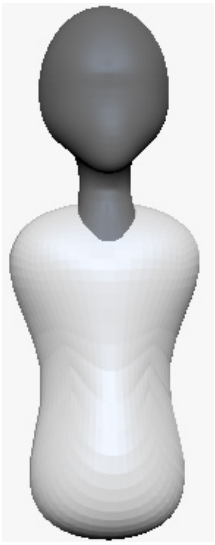


Figure 6-106 *A curve created using the* ***Move*** *brush*

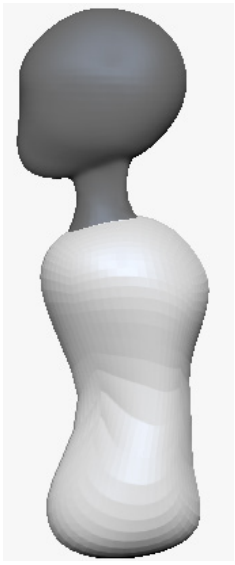


Figure 6-107 *The shape modified in the side view*



Figure 6-108 *The seam below the neck removed*

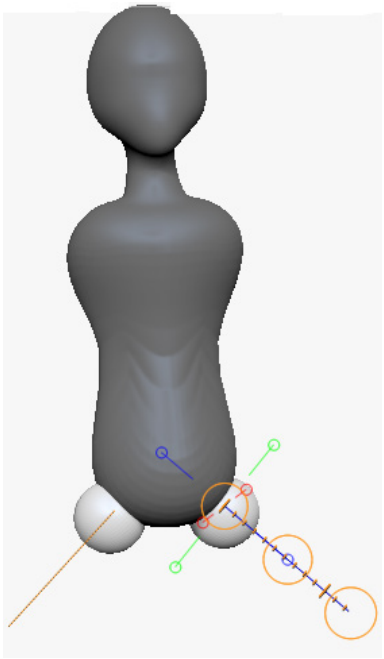


Figure 6-109 *Sphere moved using the action line*



Figure 6-110 *The shape modified using the* ***Move*** *brush*



Figure 6-111 *The shape modified to create legs*



Figure 6-112 *The mask removed from the head and torso*



Figure 6-113 *The seam below the torso removed*



Figure 6-114 *The body adjusted in the side view*



Figure 6-115 *Depth added to thighs and knees*



Figure 6-116 *Sphere created for the shoulders*



Figure 6-117 *Shape modified to create arms*



Figure 6-118 *Shape modified in side view*

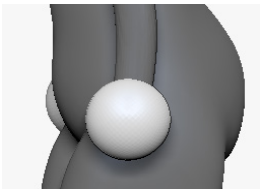


Figure 6-119 *Sphere created for hand*



Figure 6-120 *Shape of the sphere modified to create palm*

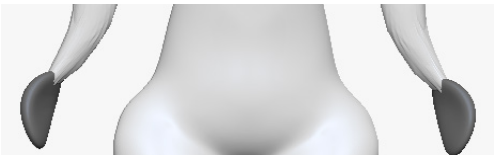


Figure 6-121 *Shape of the arm adjusted according to the palm*

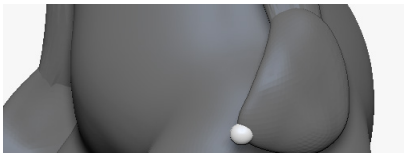


Figure 6-122 *Sphere created for the thumb*

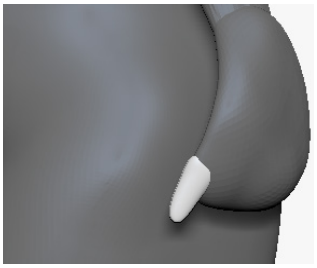


Figure 6-123 *Shape modified using the* ***Move*** *brush to create a thumb*

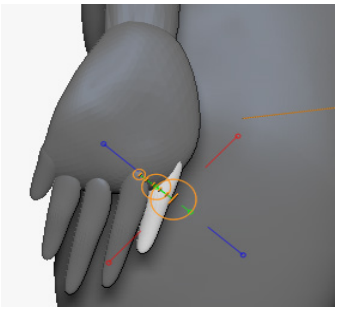


Figure 6-124 *Fingers created using the spheres*



Figure 6-125 *Sphere created for the feet*



Figure 6-126 *Shape modified using the* ***Move*** *brush*

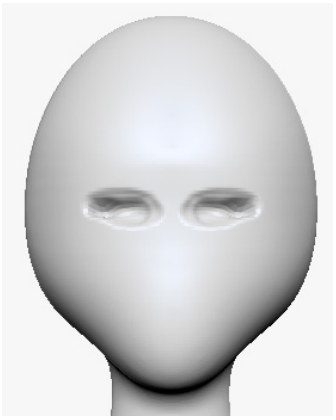


Figure 6-127 *Eye sockets created using the* ***Standard*** *brush*



Figure 6-128 *Sphere inserted for the eyes*

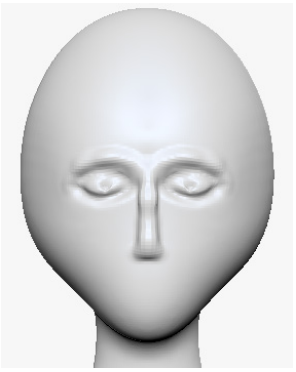


Figure 6-129 *Eyes and nose created using the* ***Standard*** *brush*



Figure 6-130 *Shape of the nose created in side view*



Figure 6-131 *Partition created for the lips using the* ***Dam_Standard*** *brush*



Figure 6-132 *Depth created for the lips using the* ***Standard*** *brush*

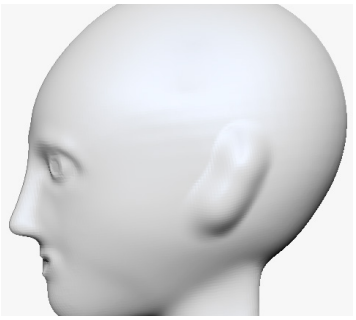


Figure 6-133 *Base for the ear created using the* ***Standard*** *brush*

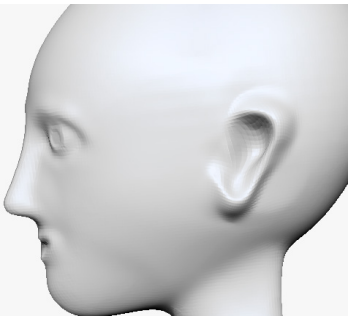


Figure 6-134 *Shape of the ear created using the* ***Standard*** *brush*



Figure 6-135 *Mask created for the outfit*



Figure 6-136 *The* ***Extract*** *area expanded*

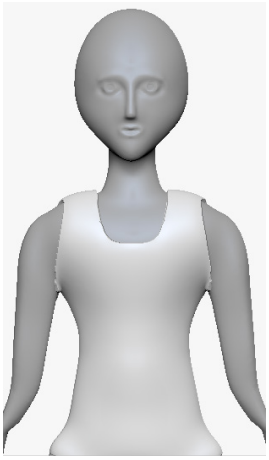


Figure 6-137 *The mask removed from the surface*



Figure 6-138 *The dress created using the* ***Move*** *brush*

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Figure 6-139 *Mask created for the hair*

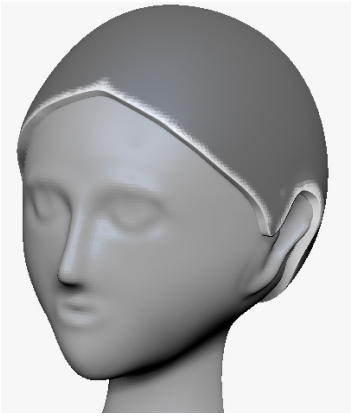


Figure 6-140 *Mask displayed on the surface*



Figure 6-141 *Shape of the hair created using the* ***Move*** *brush*



Figure 6-142 *Depth added using the* ***Inflat*** *brush*

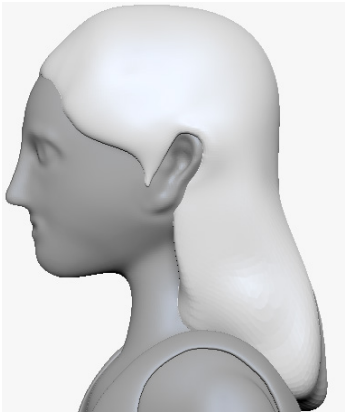


Figure 6-143 *Shape of the hair modified using the* ***Move*** *brush*

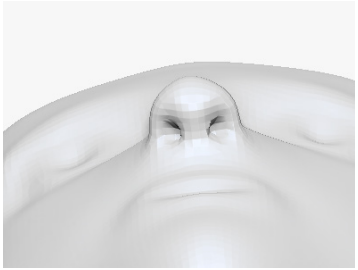


Figure 6-144 *Nostrils created using the* ***Dam_Standard*** *brush*



Figure 6-145 *Lips created using the* ***Standard*** *brush*



Figure 6-146 *Shape of the lips refined using the* ***Pinch*** *brush*



Figure 6-147 *Depth added to the eyes using the* ***Standard*** *brush*



Figure 6-148 *Depth added to the hair using the* ***Standard*** *brush*

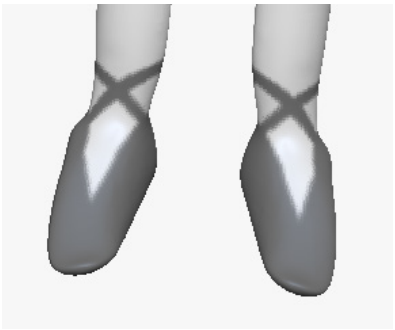


Figure 6-149 *Mask created for the shoes*

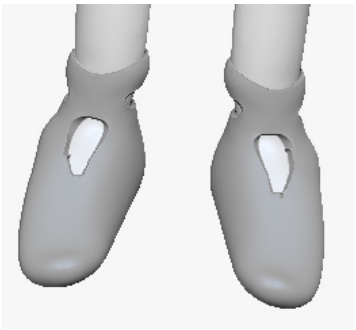


Figure 6-150 *The mask extracted from the surface*



Figure 6-151 *Earrings created using the* ***InsertHRing*** *brush*

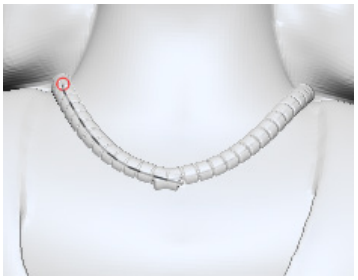


Figure 6-152 *Necklace created using the* ***InsertCylndrExt*** *brush*

Tutorial 4

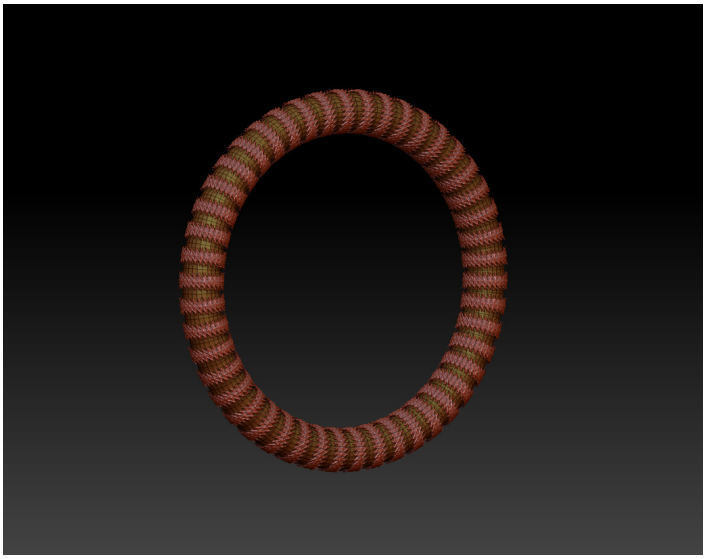


Figure 6-153 *The model of bangle*

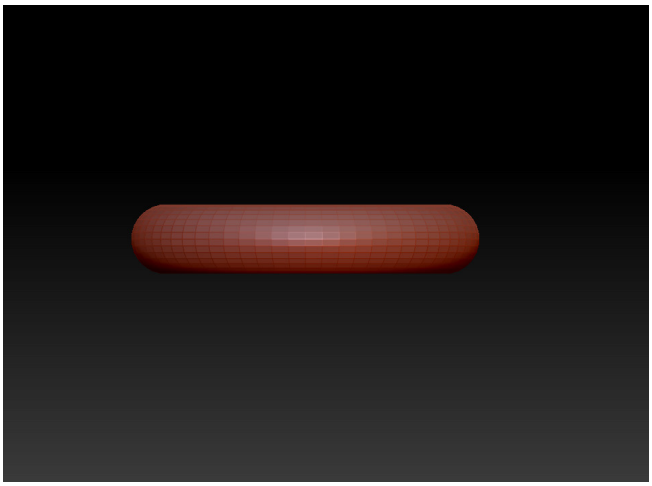


Figure 6-154 *The* ***Ring3D*** *created in the canvas*

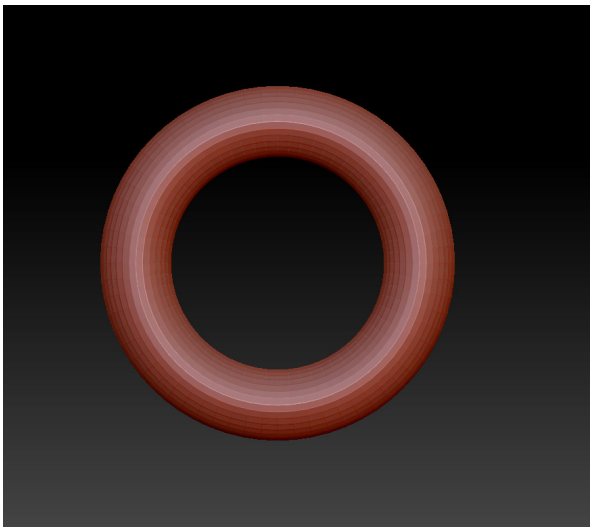


Figure 6-155 *Ring is snapped at right angle to the canvas*

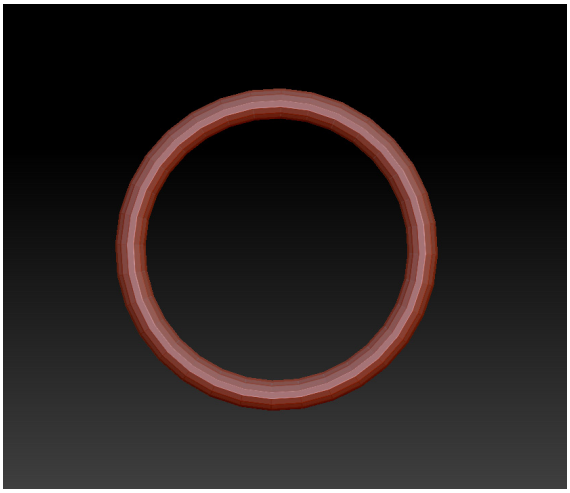


Figure 6-156 *Shape of the ring changed*



Figure 6-157 *The* ***Insert NanoMesh*** *and* ***All Polygons*** *options chosen from the* ***ZMODELER*** *window*

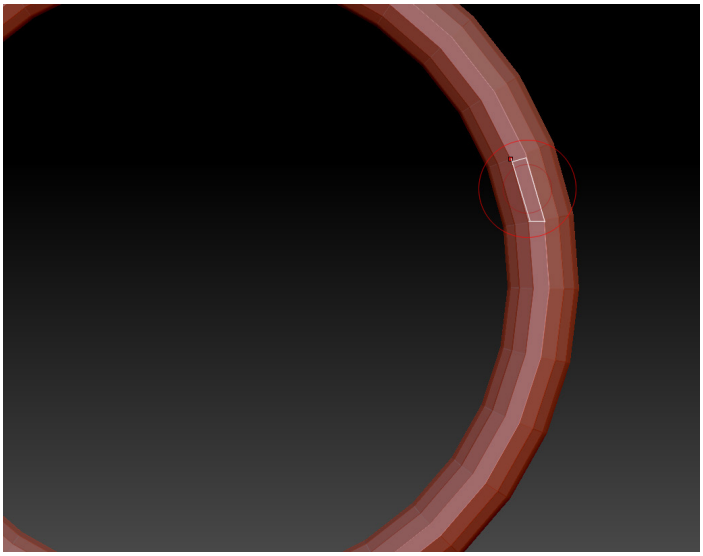


Figure 6-158 *Hover the cursor on the polygon*

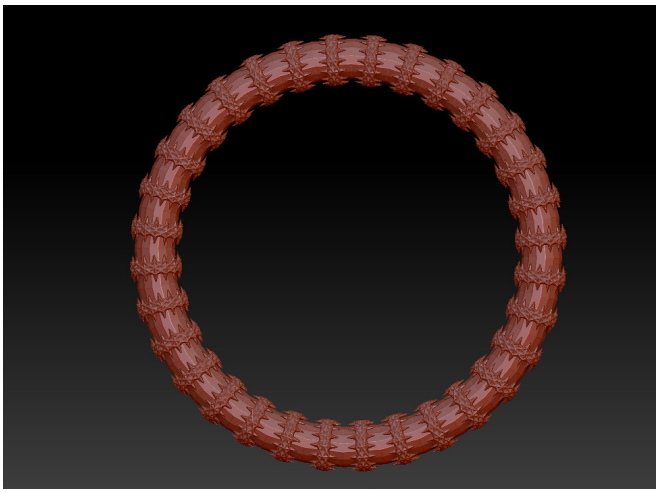


Figure 6-159 *The instances of* ***PolyMesh3D***

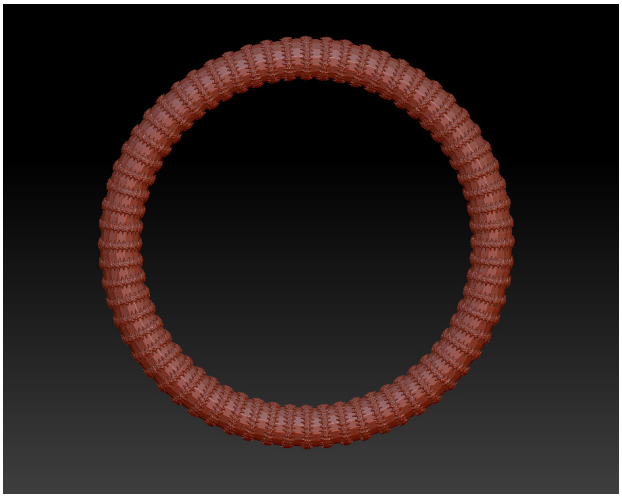


Figure 6-160 *The bangle is created*

Exercise 1

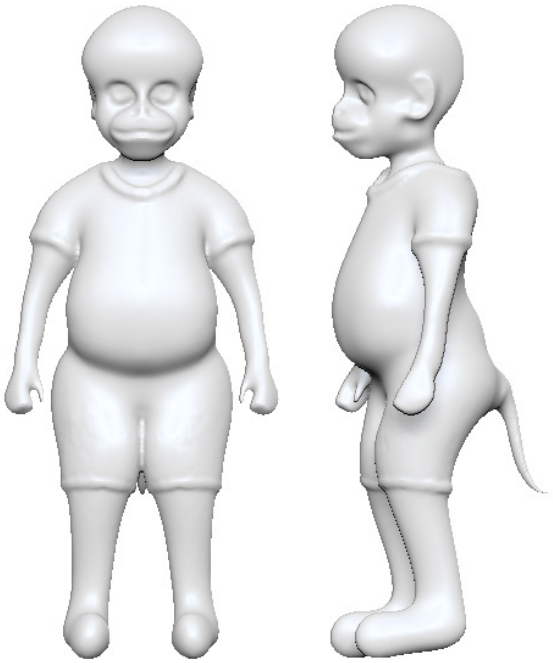


Figure 6-161 *Model of the cartoon monkey*

Chapter 7

ShadowBox

Learning Objectives

After completing this chapter, you will be able to:

- *Work with the ShadowBox*
- *Create different models using the ShadowBox*

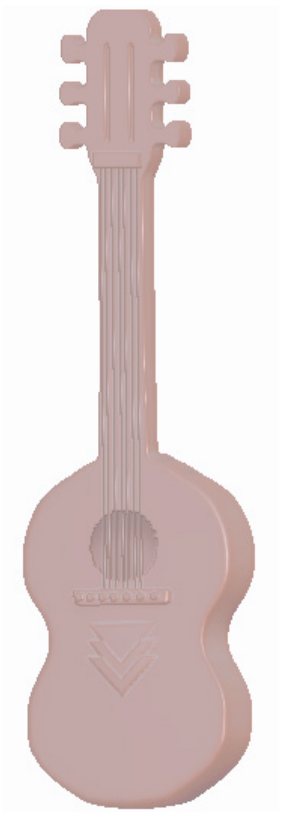




Figure 7-1 *The* ***ShadowBox*** *button chosen in the* ***Geometry*** *subpalette*



Figure 7-2 *ShadowBox displayed in the canvas*

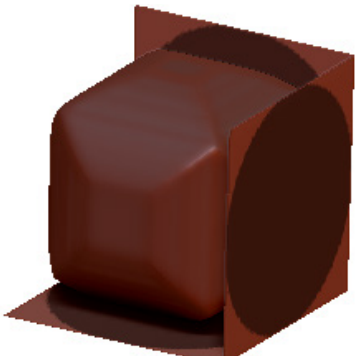


Figure 7-3 *The cubic ShadowBox*

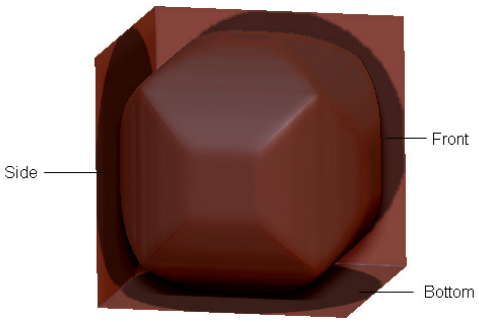


Figure 7-4 *The front, side, and bottom projections of the sphere in the ShadowBox*

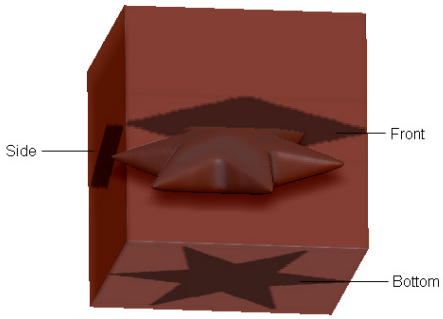


Figure 7-5 *The front, side, and bottom projections of the* ***PolyMesh3D_1*** *primitive*

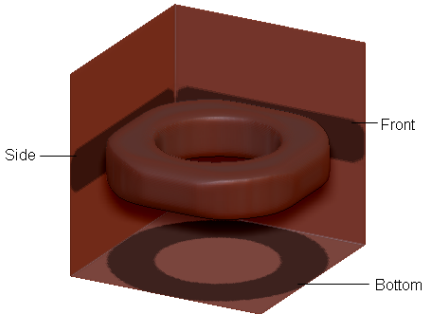


Figure 7-6 *The front, side, and bottom projections of the* ***Ring3D*** *primitive*

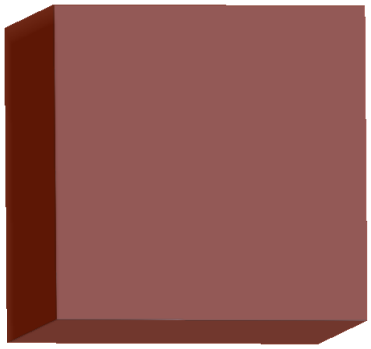


Figure 7-7 *The projections and 3D object cleared from the ShadowBox*

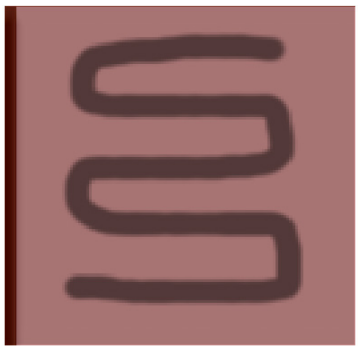


Figure 7-8 *Projection created in the front plane using the* ***MaskPen*** *brush*

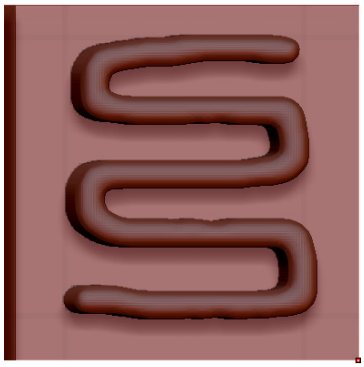


Figure 7-9 *3D mesh created inside the ShadowBox*

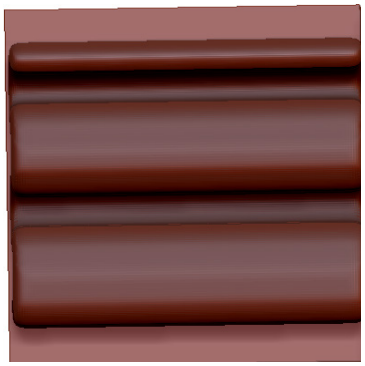


Figure 7-10 *Side view of the 3D mesh*

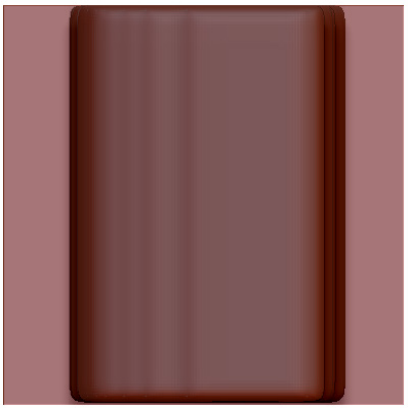


Figure 7-11 *Top view of the 3D mesh*

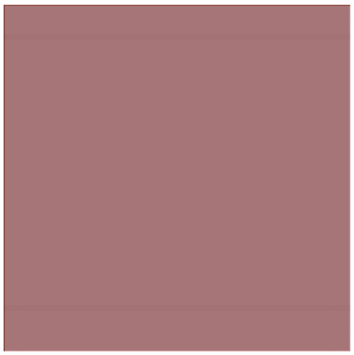


Figure 7-12 *Side plane of the ShadowBox snapped to the canvas*

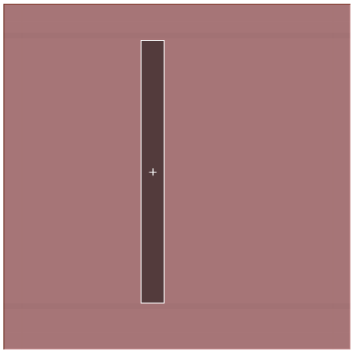


Figure 7-13 *Rectangular stroke created in the side plane of the ShadowBox*

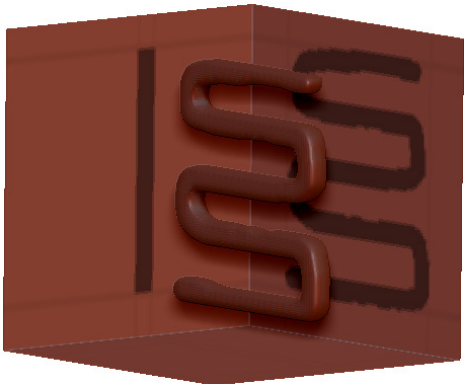


Figure 7-14 *Depth of the 3D mesh decreased according to the mask*

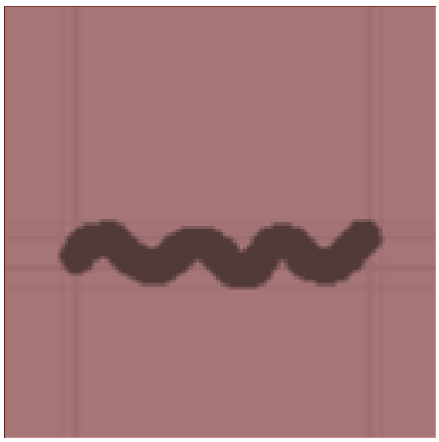


Figure 7-15 *Mask created in the bottom plane of the ShadowBox*

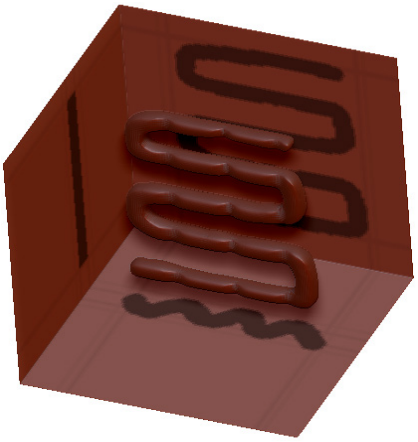


Figure 7-16 *Top view of the 3D mesh modified according to the mask*



Figure 7-17 *Mask created in the front plane of the ShadowBox*

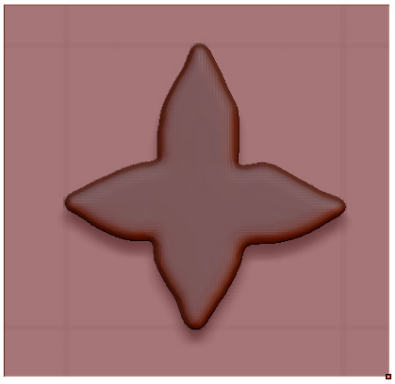


Figure 7-18 *3D mesh created in the ShadowBox*



Figure 7-19 *Shape of the mask modified in the back side of the front plane*

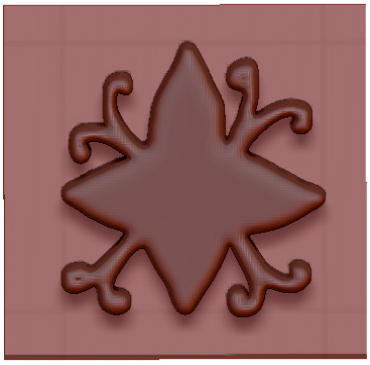


Figure 7-20 *Shape of the 3D mesh modified*



Figure 7-21 *Shape of the mask modified in the back side of the front plane*

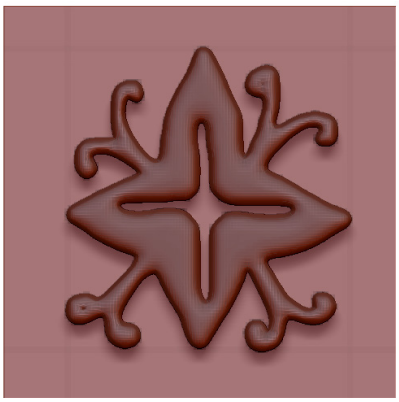


Figure 7-22 *Shape of the 3D object modified*

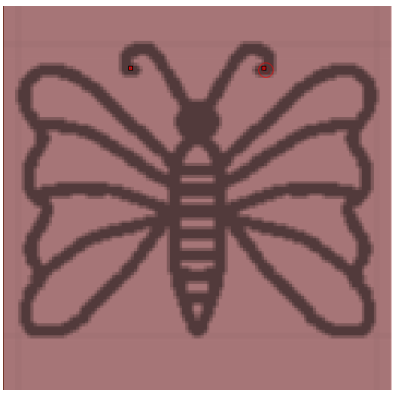


Figure 7-23 *Mask created with the symmetry activated in X-axis*

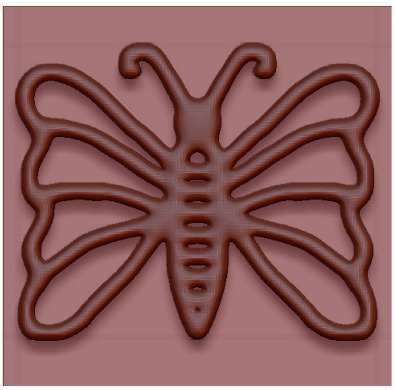


Figure 7-24 *3D object created in the ShadowBox*

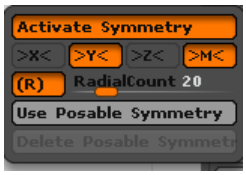


Figure 7-25 *The value of the* ***RadialCount*** *slider set to* ***20***

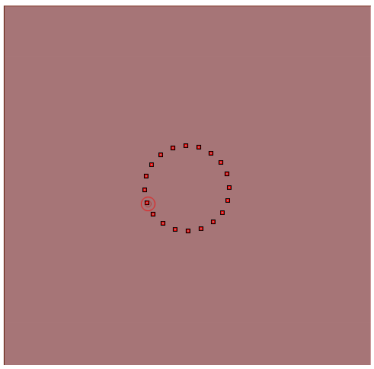


Figure 7-26 *Radial symmetry activated in the Y-axis*

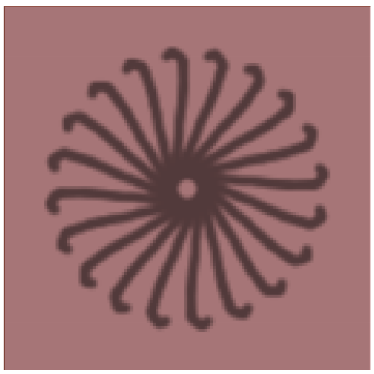


Figure 7-27 *Mask created in the front plane of the ShadowBox*

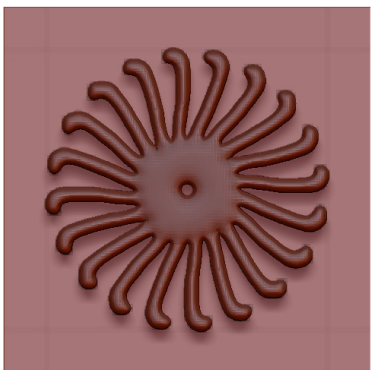


Figure 7-28 *A circular 3D mesh created in the ShadowBox*

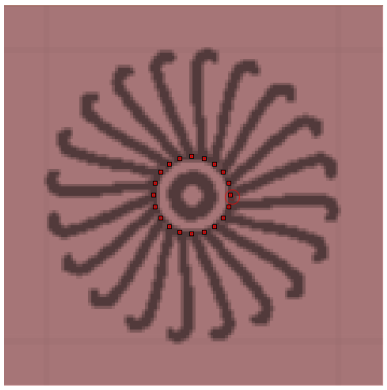


Figure 7-29 *Shape of the mask modified in the back side of the front plane*

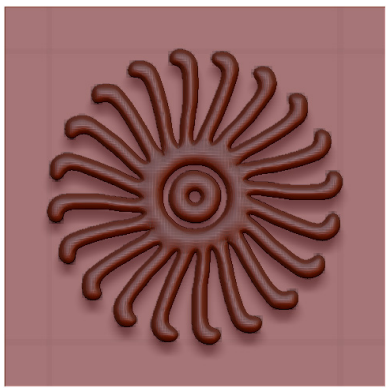


Figure 7-30 *Shape of the 3D object modified*

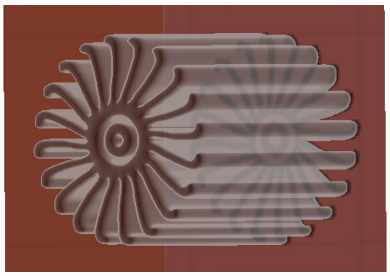


Figure 7-31 *Ghost transparency activated*

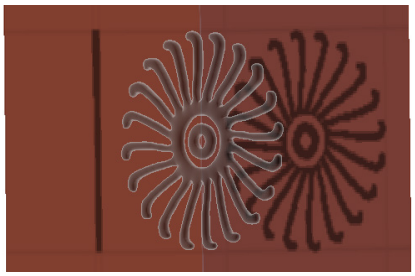


Figure 7-32 *Depth of the object modified*

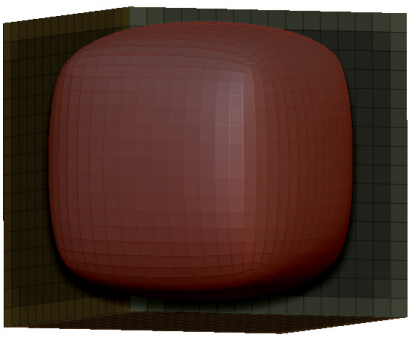


Figure 7-33 *Polygon edges displayed on the ShadowBox*

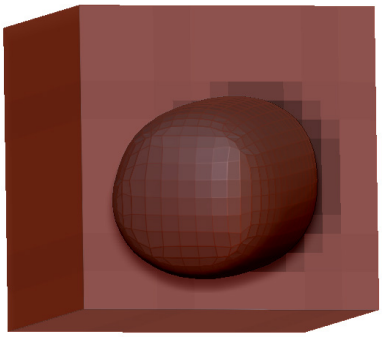


Figure 7-34 *Low resolution 3D mesh created in the ShadowBox*

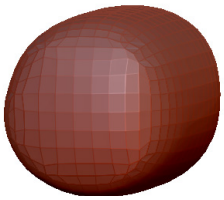


Figure 7-35 *Low resolution 3D object displayed in the canvas*

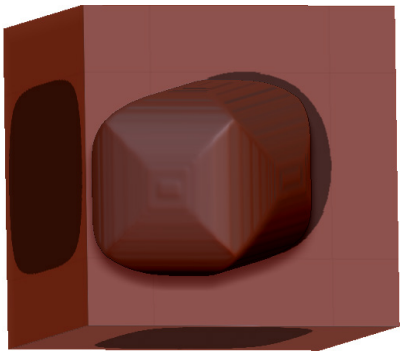


Figure 7-36 *High resolution 3D mesh created in the ShadowBox*

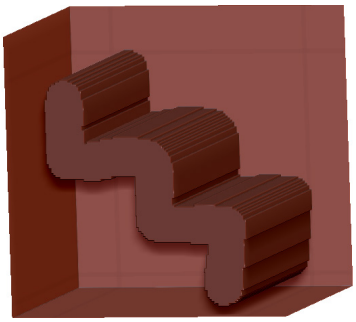


Figure 7-37 *The 3D object created with the value of the* ***Polish*** *slider set to* ***0***

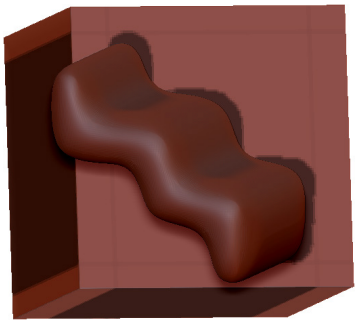


Figure 7-38 *The 3D object created with the value of the* ***Polish*** *slider set to* ***100***

TUTORIALS

Tutorial 1

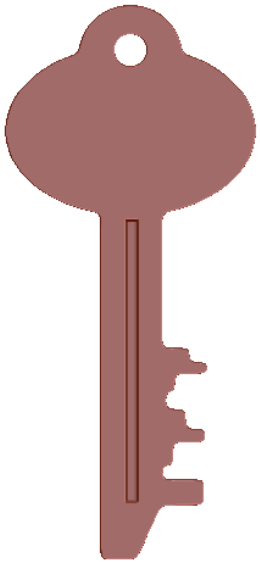


Figure 7-39 *The model of a key*

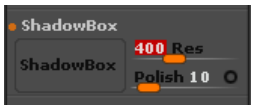


Figure 7-40 *The value of the* ***Res*** *slider set to* ***400***

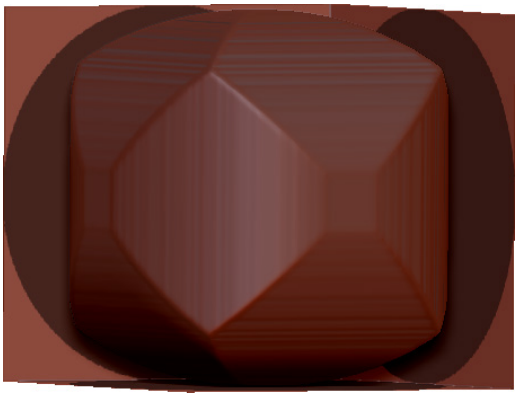


Figure 7-41 *The front view of the ShadowBox displayed in the canvas*

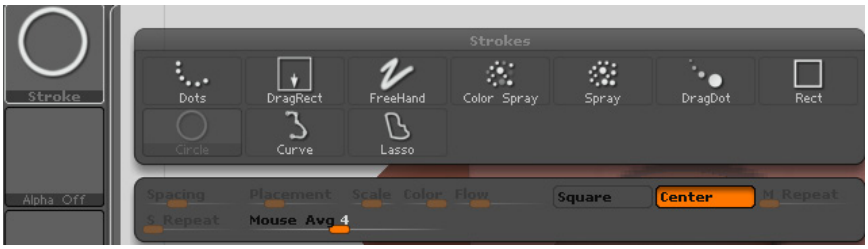


Figure 7-42 *The* ***Center*** *button chosen from the flyout*

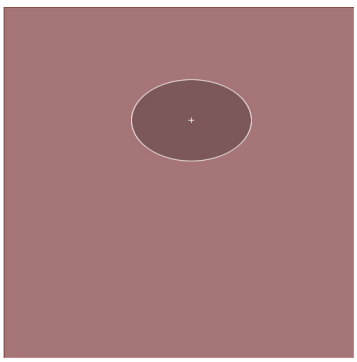


Figure 7-43 *An elliptical stroke created in the backside of the front plane*

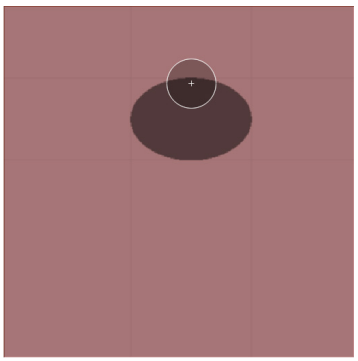


Figure 7-44 *A circular stroke created above the elliptical mask*

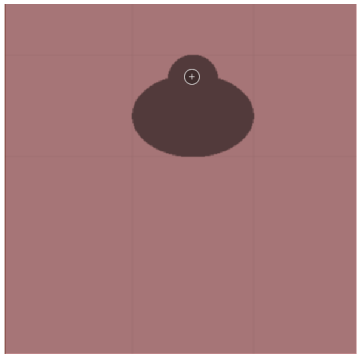


Figure 7-45 *A circular stroke created on the mask with the ALT key pressed*

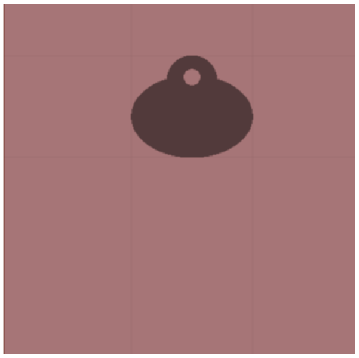


Figure 7-46 *A hole created in the mask*



Figure 7-47 *A rectangular mask created using the* ***MaskRect*** *brush*



Figure 7-48 *A rectangular mask created on the right side of the mask*

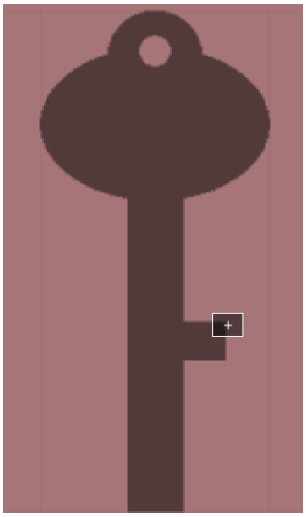


Figure 7-49 *A rectangular stroke created on the mask with the ALT key pressed*



Figure 7-50 *The shape of the mask modified*

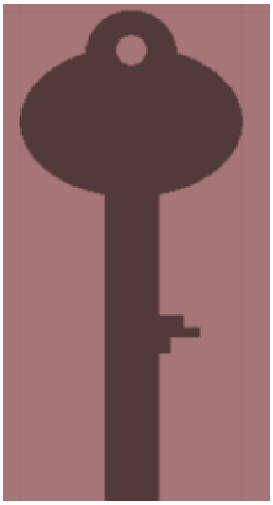


Figure 7-51 *Shape of the mask modified using the* ***MaskRect*** *brush*

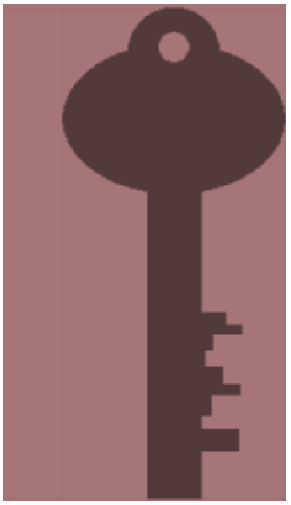


Figure 7-52 *Bottom part of the key created using the* ***MaskRect*** *brush*

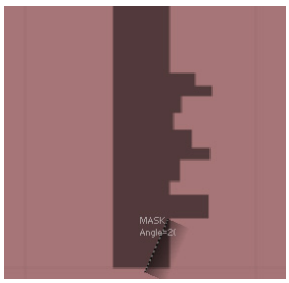


Figure 7-53 *Curved stroke created using the* ***MaskCurve*** *brush*

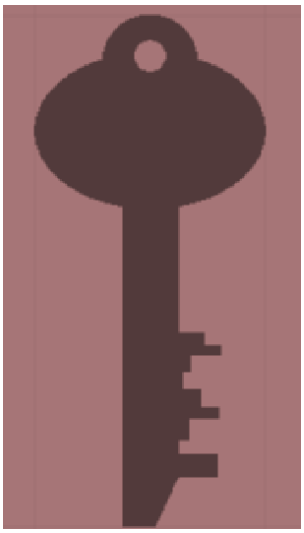


Figure 7-54 *Shape of the mask modified*



Figure 7-55 *A key created in the ShadowBox*

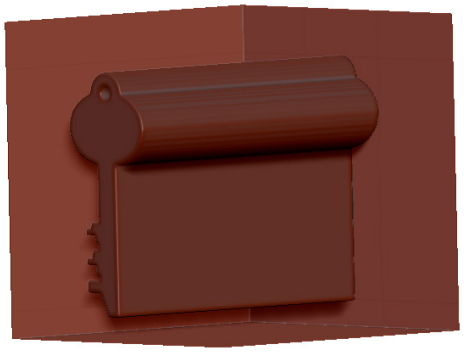


Figure 7-56 *Side view of the key*

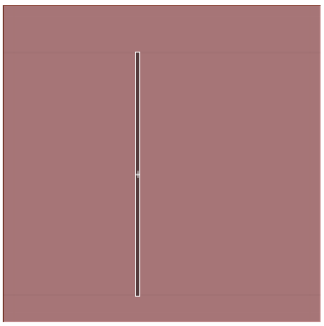


Figure 7-57 *A rectangular stroke created in the side plane*

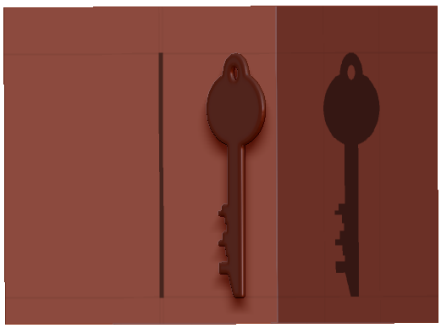


Figure 7-58 *The depth of the key decreased*

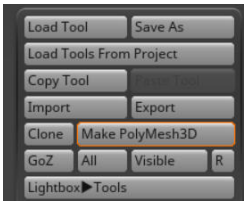


Figure 7-59 *The* ***Make PolyMesh3D*** *button chosen*



Figure 7-60 *The key displayed in the canvas*

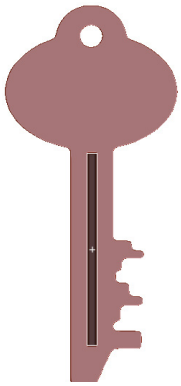


Figure 7-61 *Rectangular stroke created using the* ***MaskRect*** *brush*



Figure 7-62 *Mask removed from the back side of the key*



Figure 7-63 *The mask inverted*



Figure 7-64 *The* ***Offset*** *slider*

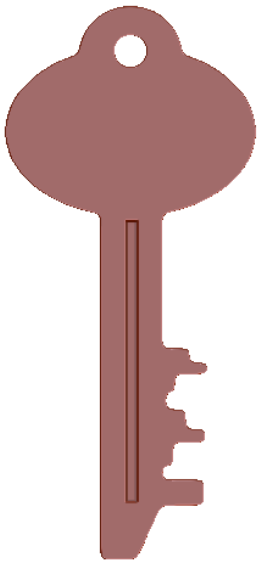


Figure 7-65 *The final model of the key*

Tutorial 2



Figure 7-66 *The model of a guitar*



Figure 7-67 *The ShadowBox*

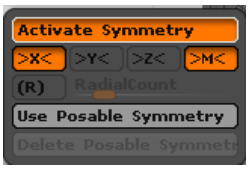


Figure 7-68 *The symmetry activated in the X-axis*

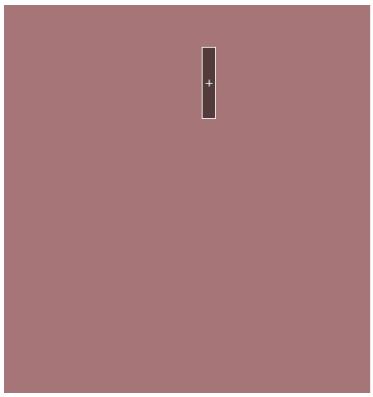


Figure 7-69 *A rectangular stroke created in the front plane*

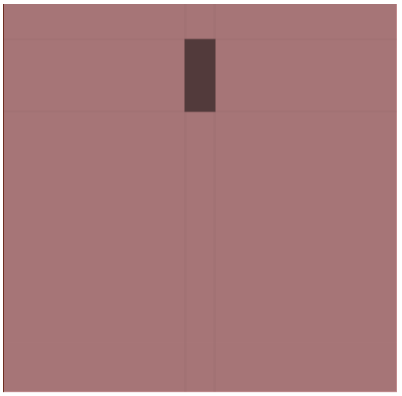


Figure 7-70 *A mask created in the front plane*

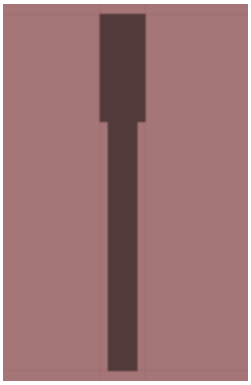


Figure 7-71 *Another rectangular mask created in the front plane*

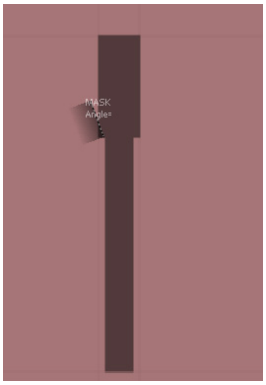


Figure 7-72 *Curved stroke created using the* ***MaskCurve*** *brush*

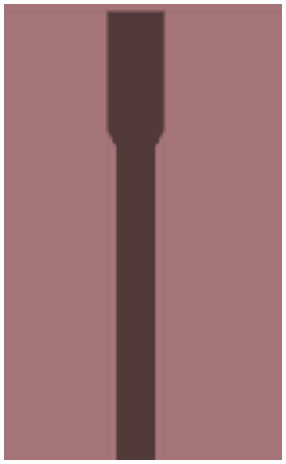


Figure 7-73 *Shape of the mask modified*

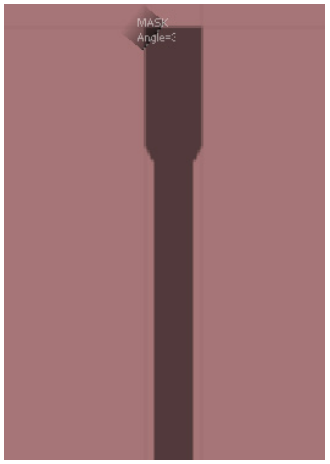


Figure 7-74 *Curved stroke created using the* ***MaskCurve*** *brush*

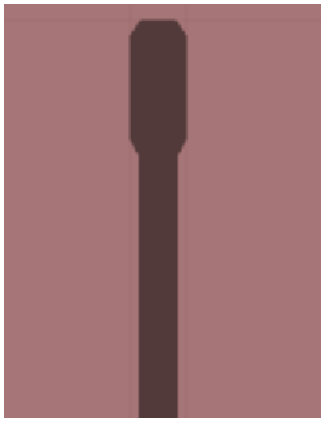


Figure 7-75 *Shape of the mask modified*

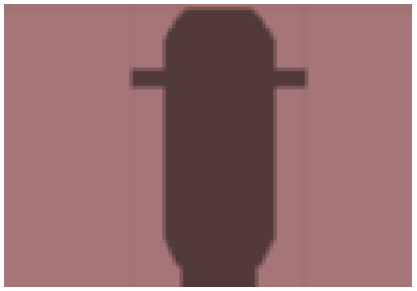


Figure 7-76 *Rectangular mask created*

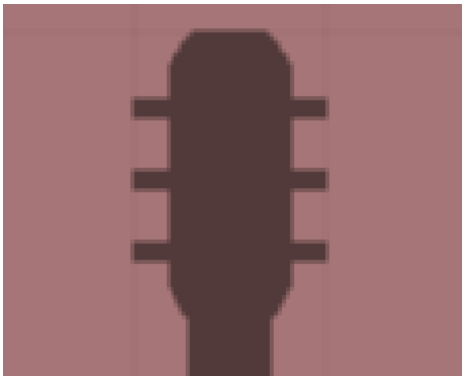


Figure 7-77 *Two more rectangular masks created*

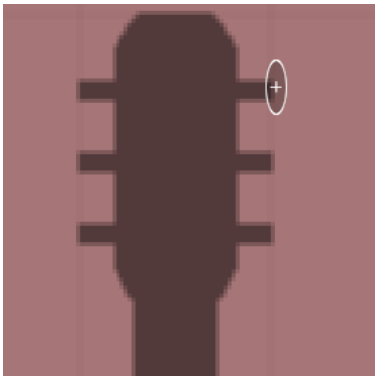


Figure 7-78 *An elliptical stroke created using the* ***MaskCircle*** *brush*

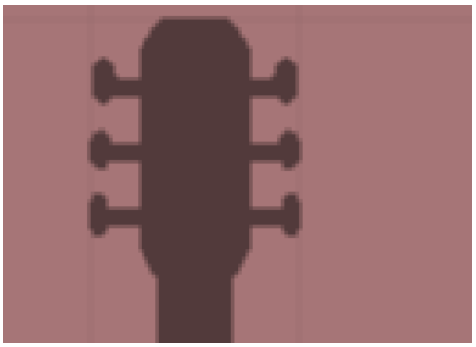


Figure 7-79 *Two more elliptical masks created*

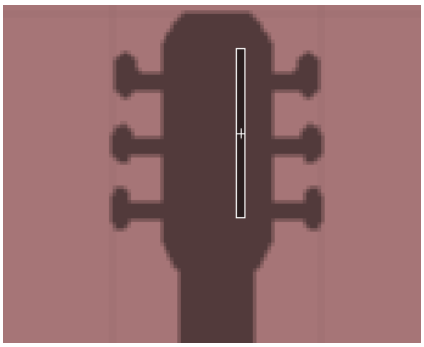


Figure 7-80 *A rectangular stroke created with the ALT key pressed*



Figure 7-81 *Shape of the mask modified*

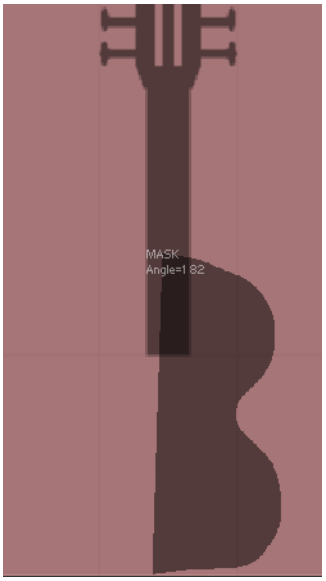


Figure 7-82 *A mask created using the* ***MaskLasso*** *brush*



Figure 7-83 *A mask created for the guitar*

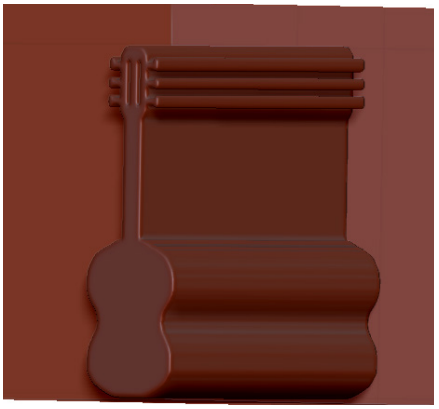


Figure 7-84 *A 3D mesh for a guitar created in the ShadowBox*

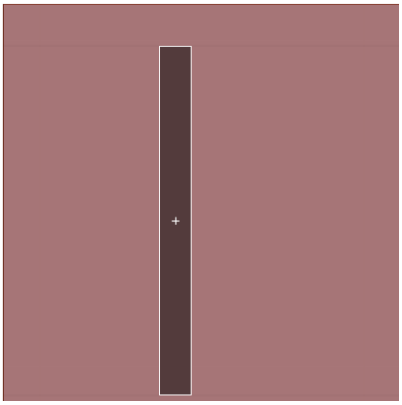


Figure 7-85 *A rectangular stroke created in the side plane*



Figure 7-86 *Width of the guitar decreased*

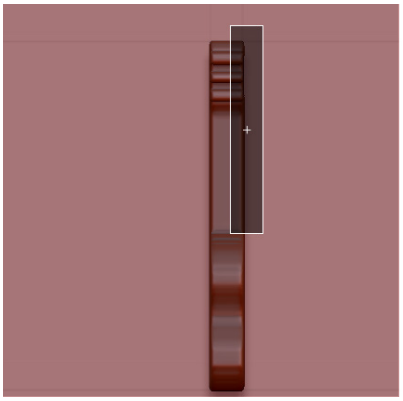


Figure 7-87 *A rectangular stroke created with the ALT key pressed*



Figure 7-88 *The shape of the guitar modified*

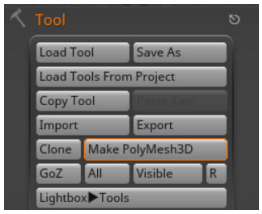


Figure 7-89 *The* ***Make PolyMesh3D*** *button chosen*



Figure 7-90 *The guitar displayed in the canvas*



Figure 7-91 *A rectangular stroke created with the ALT key pressed*



Figure 7-92 *The smoothness in the model removed*

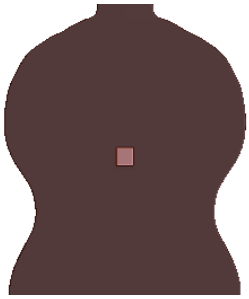


Figure 7-93 *A cube inserted using the* ***InsertCube*** *brush*

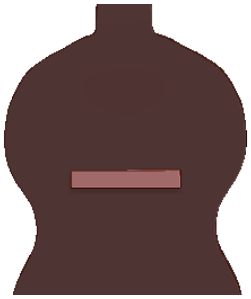


Figure 7-94 *Width of the cube increased*

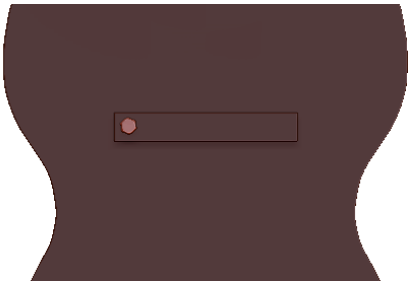


Figure 7-95 *A cylinder inserted using the* ***InsertCylinder*** *brush*

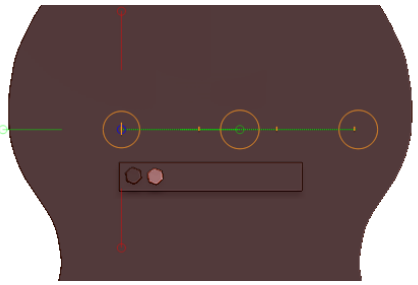


Figure 7-96 *A duplicate copy of the cylinder created*

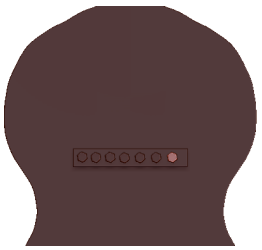


Figure 7-97 *More copies of cylinder created*

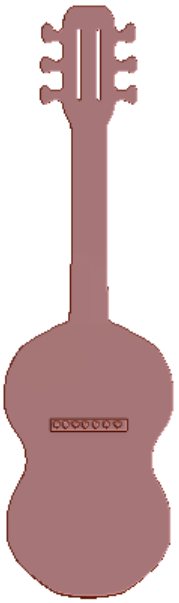


Figure 7-98 *The mask removed from the guitar*

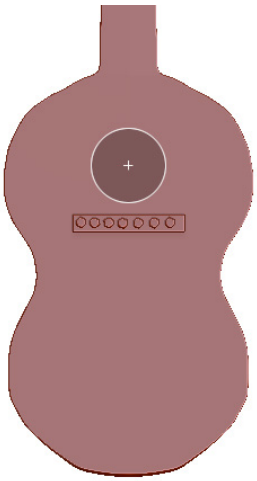


Figure 7-99 *The circular mask created using the* ***MaskCircle*** *brush*

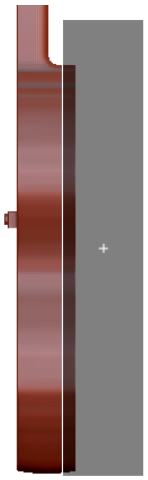


Figure 7-100 *A rectangular stroke created with the CTRL+ALT key pressed*



Figure 7-101 *The mask inverted*

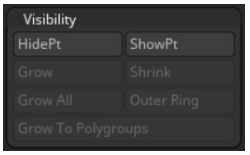


Figure 7-102 *The* ***HidePt*** *button chosen in the* ***Visibility*** *subpalette*

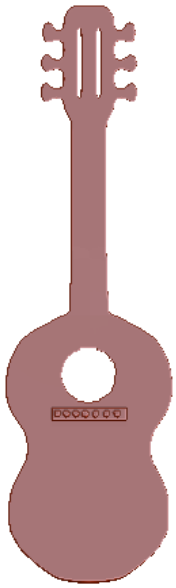


Figure 7-103 *A hole created in the guitar*

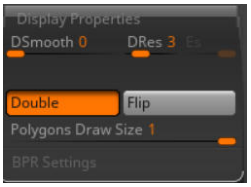


Figure 7-104 *The* ***Double*** *button chosen*

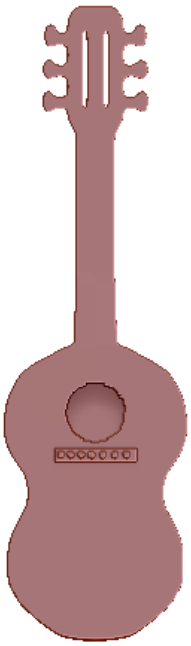


Figure 7-105 *The hole in the backside of the guitar filled*



Figure 7-106 *A cube inserted using the* ***InsertCube*** *brush*



Figure 7-107 *Width of the cube increased*

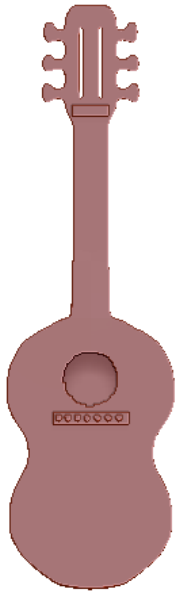


Figure 7-108 *The mask removed from the guitar*



Figure 7-109 *The* ***Append*** *button chosen*

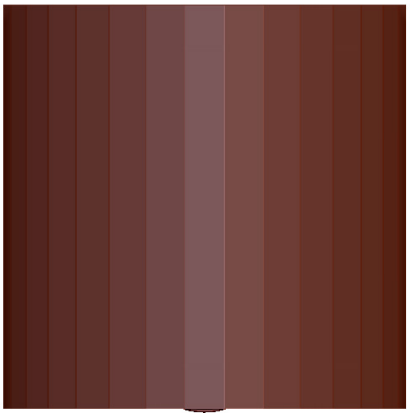


Figure 7-110 *A cylinder created in the canvas*

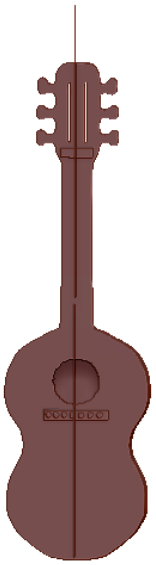


Figure 7-111 *The size of the cylinder decreased along the X and Y axes*



Figure 7-112 *The height of the cylinder decreased*



Figure 7-113 *The side view of the guitar*

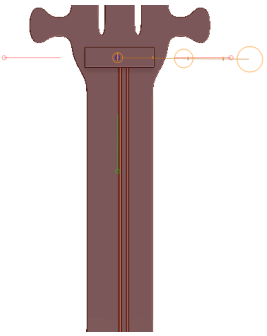


Figure 7-114 *Duplicate copy of the cylinder created*



Figure 7-115 *More copies of the cylinder created*



Figure 7-116 *Mask removed from the guitar*



Figure 7-117 *Shape of the guitar refined using the* ***Move*** *brush*



Figure 7-118 *A pattern created using the* ***Alpha 29*** *alpha image*

Exercise 1



Figure 7-119 *Model of a chair*

Exercise 2

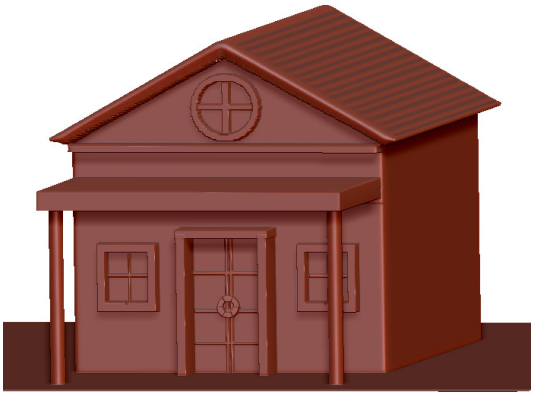


Figure 7-120 *Model of a hut*

Chapter 8

Materials in ZBrush





Figure 8-1 *The flyout displayed on choosing the Current Material button*



Figure 8-2 *The* ***Chrome BrightBlue Tint*** *material applied to the sphere*

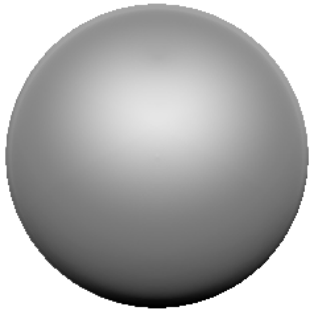


Figure 8-3 *The* ***MatCap Pearl Cavity*** *material applied to the sphere*

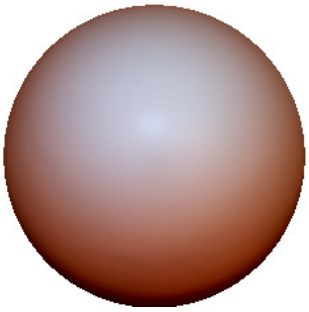


Figure 8-4 *The* ***MatCap Skin06*** *material applied to the sphere*

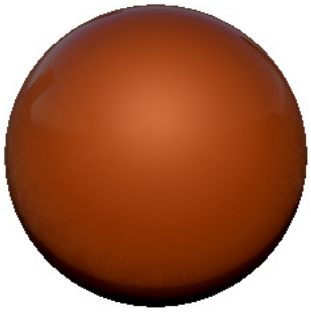


Figure 8-5 *The* ***ReflectOrange*** *material applied to the sphere*

Figure 8-6 *The* ***FlatSketch01*** *material applied to the sphere*



Figure 8-7 *The* ***SketchToyPlastic*** *material applied to the sphere*



Figure 8-8 *The preview of the object with a material*



Figure 8-9 *The* ***GelShaderA*** *material applied to the sphere*



Figure 8-10 *The* ***GradientMap2*** *material applied to the sphere*

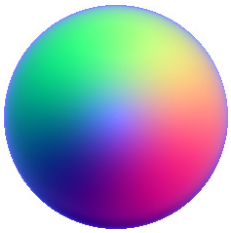


Figure 8-11 *The* ***NormalRGBMat*** *material applied to the sphere*



Figure 8-12 *The* ***ReflectedMap*** *material applied to the sphere*



Figure 8-13 *The* ***Material*** *palette*

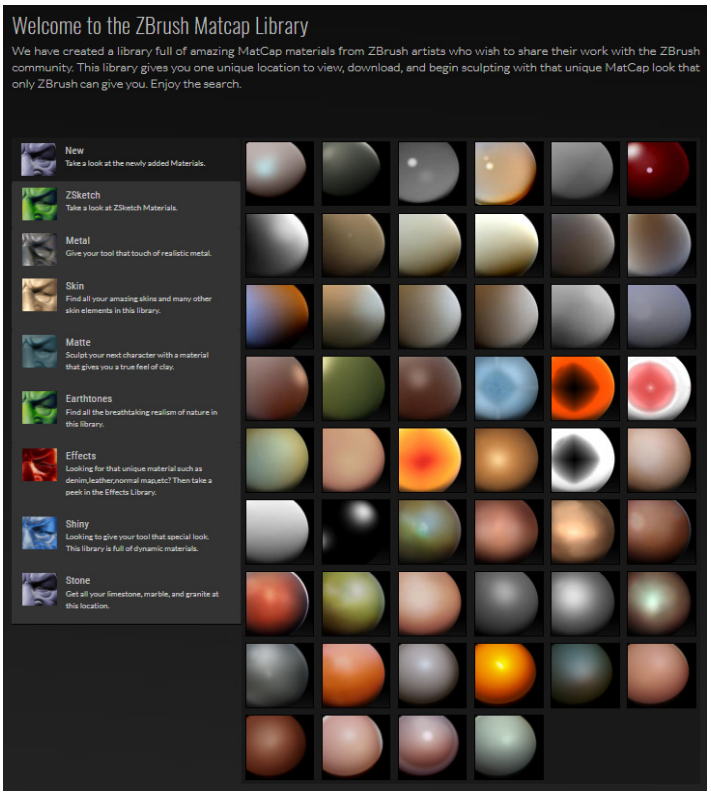


Figure 8-14 *The* ***MatCap*** *library*

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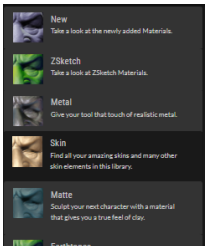


Figure 8-15 *Different categories*

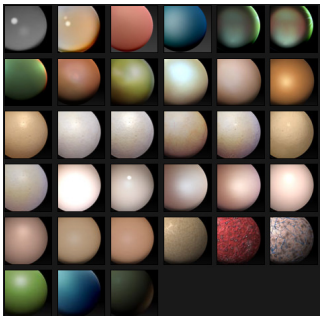


Figure 8-16 *The different skin materials*



Figure 8-17 *The* ***Download Now*** *link*

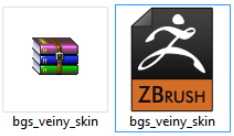


Figure 8-18 *The material file extracted from the zip file*

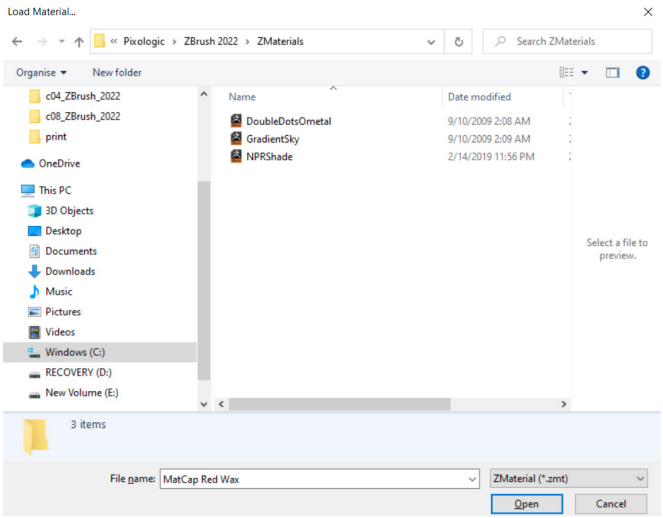


Figure 8-19 *The* ***Load Material*** *dialog box*



Figure 8-20 *The default material replaced by the downloaded material*

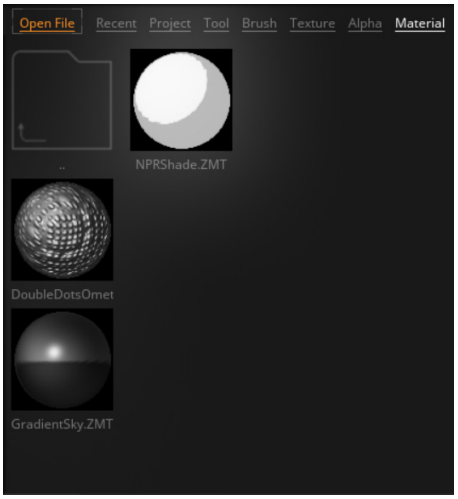


Figure 8-21 *The materials in the* ***LightBox*** *browser*

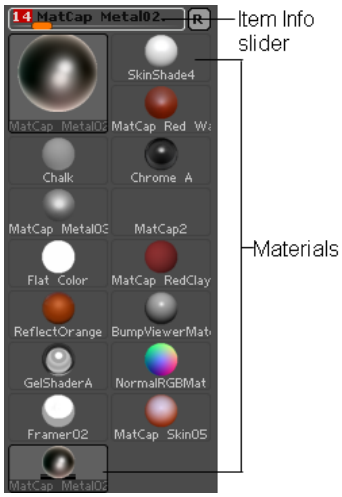


Figure 8-22 *The* ***Item Info*** *slider*

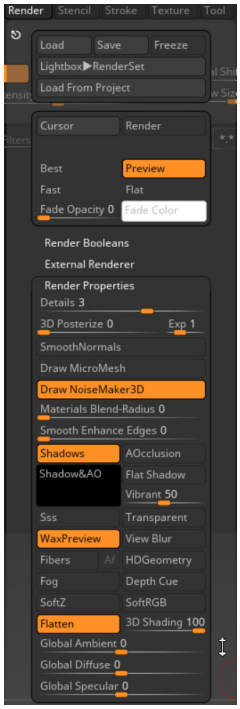


Figure 8-23 *The* ***WaxPreview*** *button chosen*

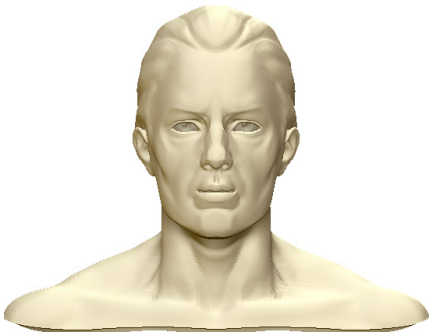


Figure 8-24 *The material applied to the model*

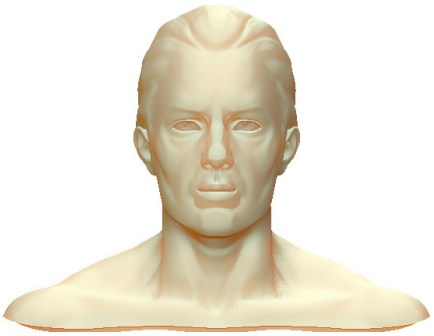


Figure 8-25 *Wax effect at* ***Strength*** *value* ***100***

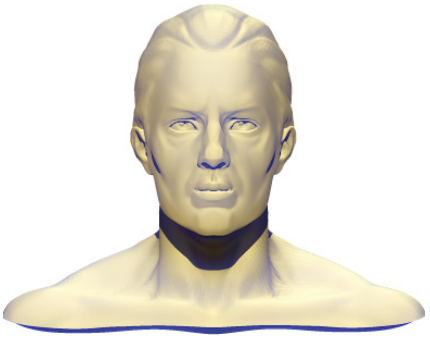


Figure 8-26 *Blue tint at* ***Temperature*** *value* ***-100***

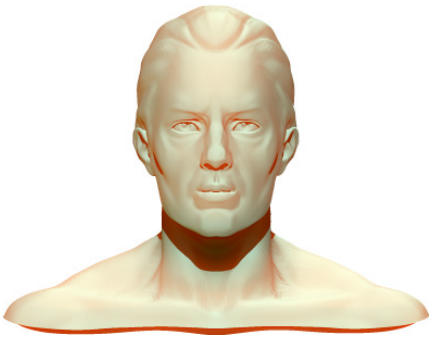


Figure 8-27 *Red tint at* ***Temperature*** *value* ***100***



Figure 8-28 *Partial view of the* ***Modifiers*** *subpalette for MatCap materials*

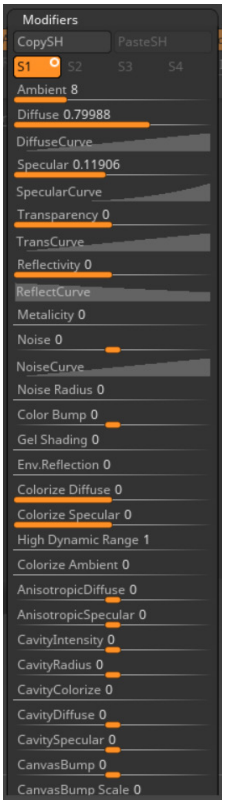


Figure 8-29 *Partial view of the* ***Modifiers*** *subpalette for Standard materials*

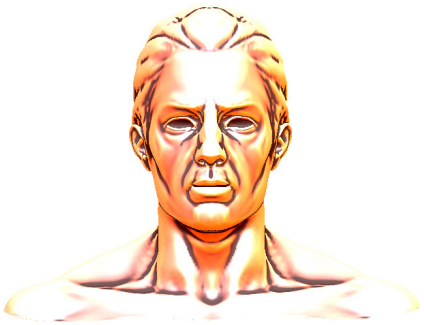


Figure 8-30 *Brightness displayed in the raised surfaces of an object*

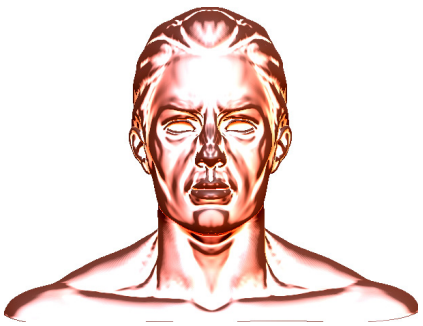


Figure 8-31 *Brightness displayed in the cavities of an object*



Figure 8-32 *Color of the raised surfaces converted to gray*



Figure 8-33 *Color of the cavities converted to gray*

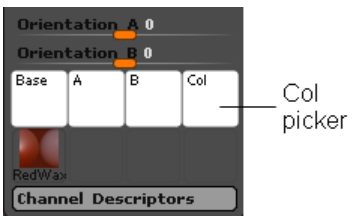


Figure 8-34 *The* ***Col*** *picker in the* ***Modifiers*** *subpalette*

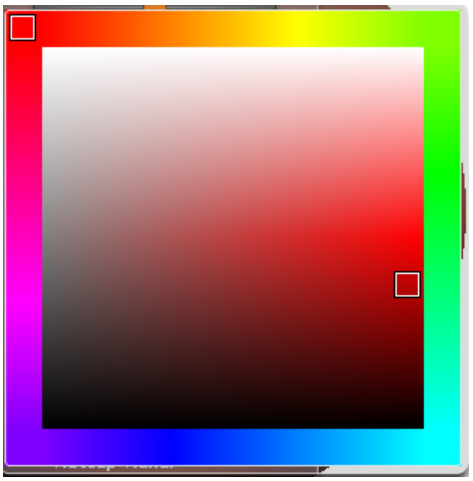


Figure 8-35 *Choosing a color from the color swatch*



Figure 8-36 *The surface facing the canvas filled with color*

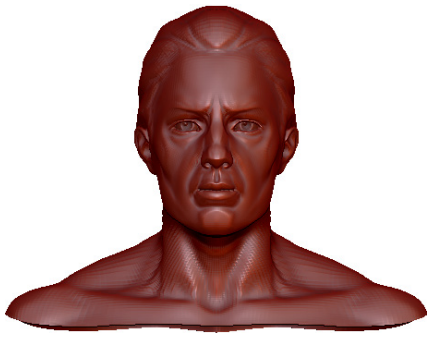


Figure 8-37 *The surface facing away from the canvas filled with color*

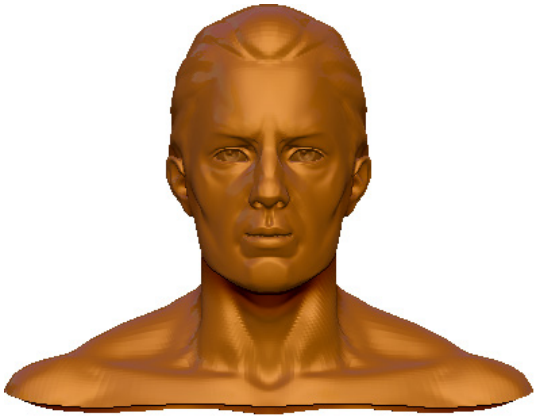


Figure 8-38 *The ReflectYellow material assigned to the model*



Figure 8-39 *Red color chosen from the color picker*



Figure 8-40 *Red color applied to the model*



Figure 8-41 *Red and yellow colors blended together*

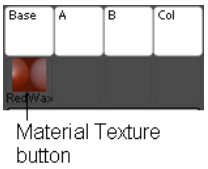


Figure 8-42 *The* ***Material Texture*** *button*

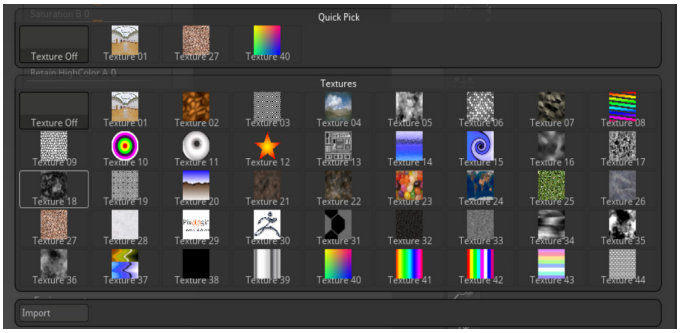


Figure 8-43 *The flyout displayed on choosing the* ***Material Texture*** *button*



Figure 8-44 *The texture applied to the model*



Figure 8-45 *The texture blurred using the* ***Blur*** *slider*



Figure 8-46 *Yellow color applied to the raised surfaces of the model*

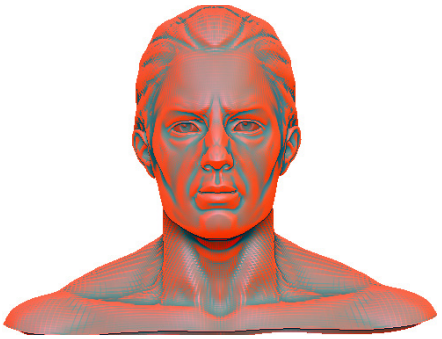


Figure 8-47 *Blue color applied to the cavities of the model*



Figure 8-48 *The color of the model desaturated*

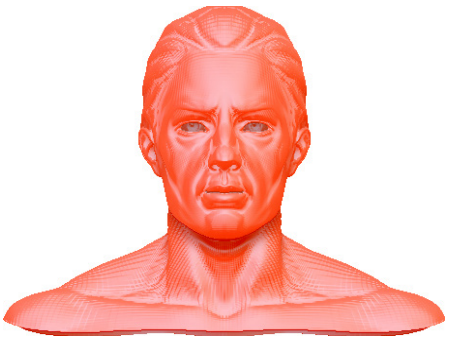


Figure 8-49 *The intensity of the color increased*

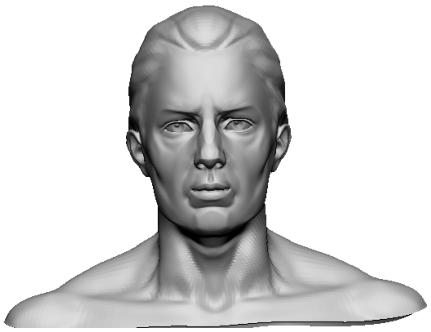


Figure 8-50 *The* ***BasicMaterial*** *material applied to the model*

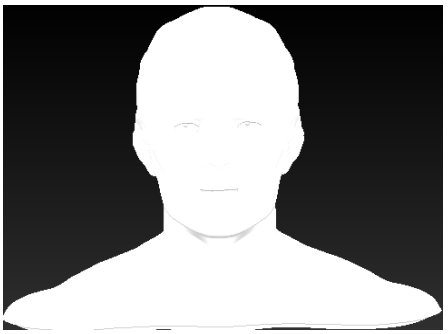


Figure 8-51 *Ambient light applied to the material*



Figure 8-52 *Disappearance of red color from the model*

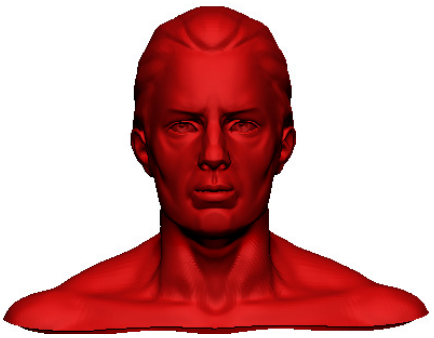


Figure 8-53 *Intensity of the red color increased*

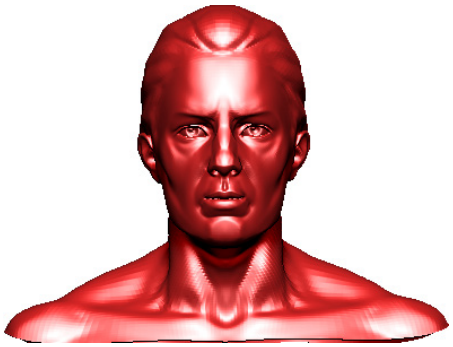


Figure 8-54 *Specularity applied to the material*

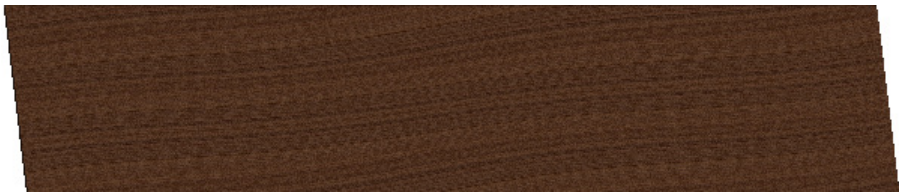


Figure 8-55 *The* ***GradientMap2*** *material applied to the plane*



Figure 8-56 *A new layer created in the* ***Layer*** *palette*

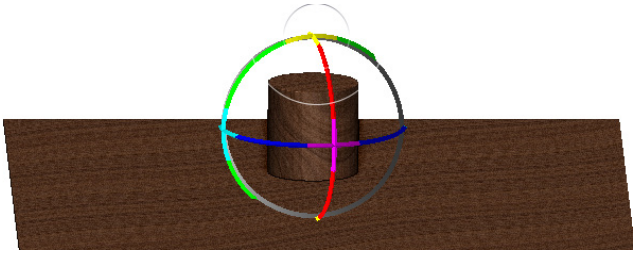


Figure 8-57 *The cylinder moved up using the gyro*



Figure 8-58 *The* ***M*** *button chosen in the top shelf*

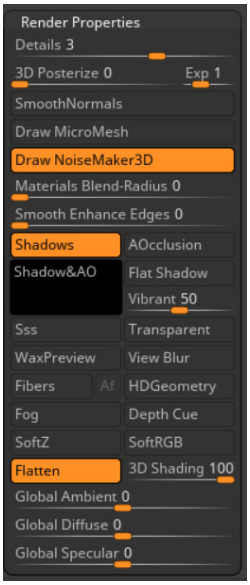


Figure 8-59 *The* ***Flatten*** *button chosen in the* ***Render*** *palette*

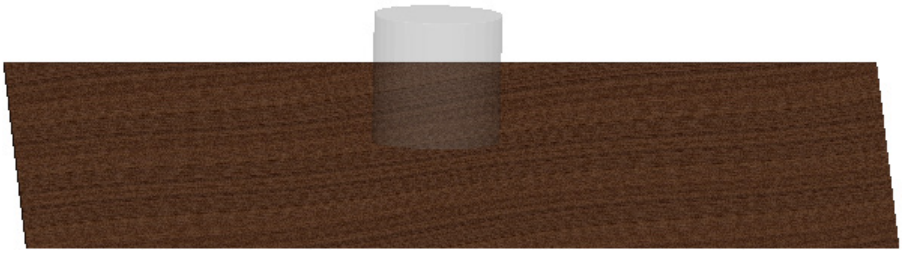


Figure 8-60 *Transparency displayed in the cylinder*

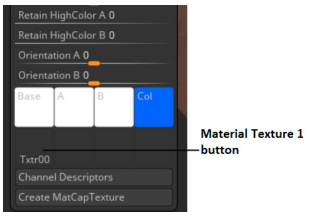


Figure 8-61 *The* ***Material Texture 1*** *button chosen*



Figure 8-62 *The texture reflected from the surface of the model*

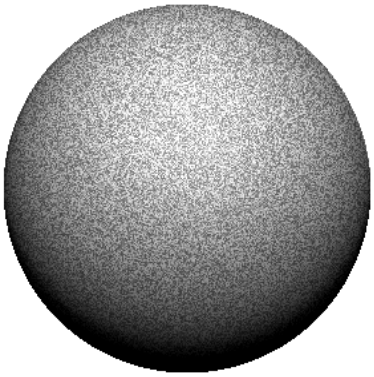


Figure 8-63 *The value of the* ***Noise*** *slider set to* ***0.4***



Figure 8-64 *The value of the* ***Noise Radius*** *slider set to* ***75***



Figure 8-65 *Bumpiness displayed in the noise applied to the material*

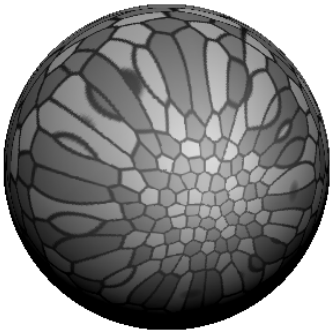


Figure 8-66 *Bumpiness displayed in the texture*

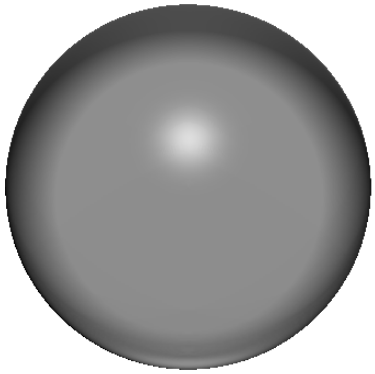


Figure 8-67 *Gel shading applied to the sphere*

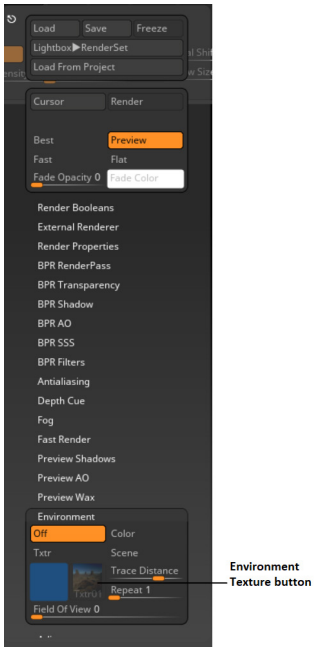
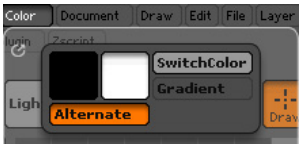


Figure 8-68 *The* ***Render*** *palette*



Figure 8-69 *The environmental reflection displayed on rendering*



TUTORIALS

Tutorial 1



Figure 8-72 *The model of an eyeball*

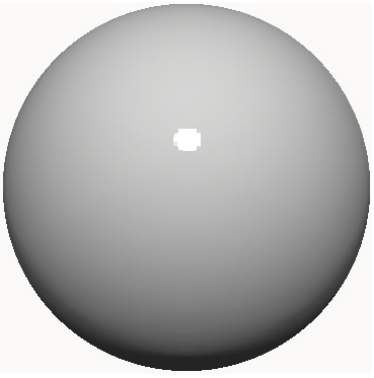
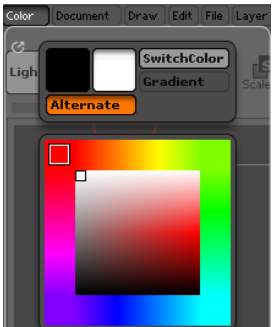
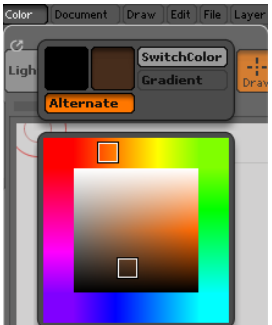


Figure 8-73 *The white color applied to the sphere*



Figure 8-74 *The value of the* ***RadialCount*** *slider set to* ***82***





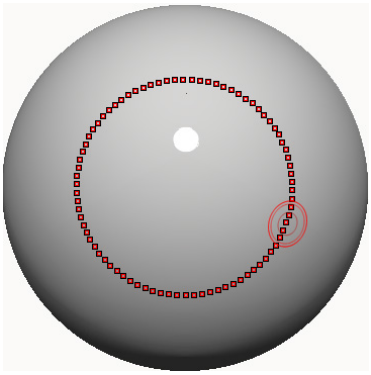


Figure 8-77 *The cursor hovered on the surface of the sphere*

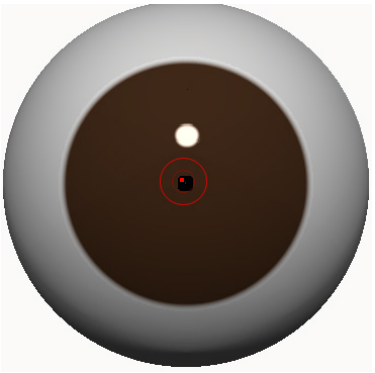


Figure 8-78 *The iris created for the eyeball*

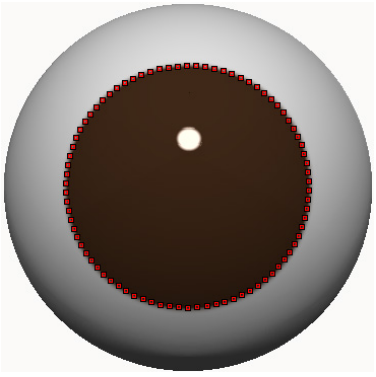


Figure 8-79 *The cursor hovered on the circumference of the iris*

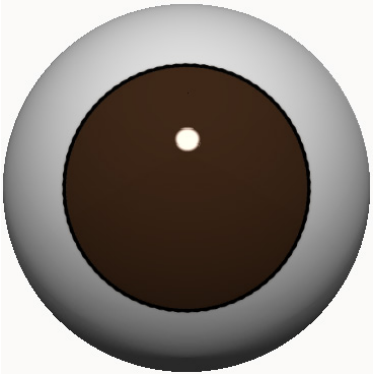
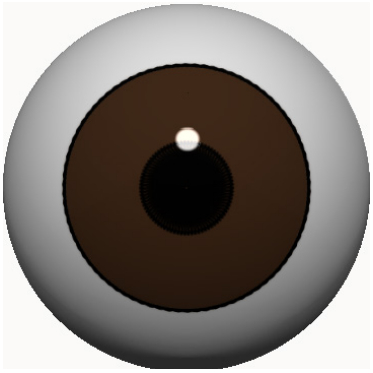


Figure 8-80 *An outline created for the iris*





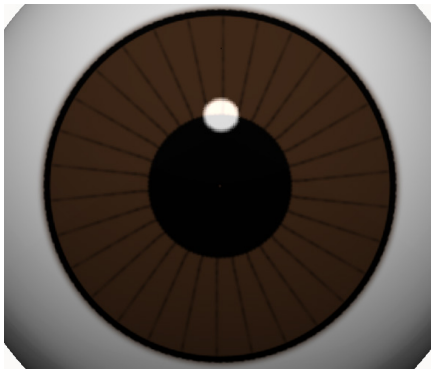


Figure 8-83 *Thin lines created on the surface of the iris*

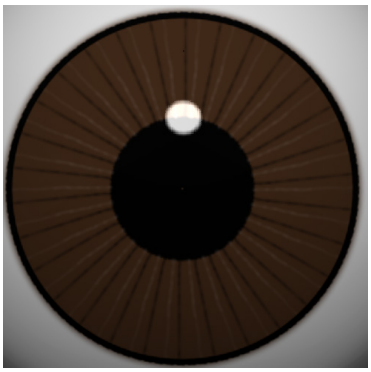


Figure 8-84 *More lines created on the surface of the iris*

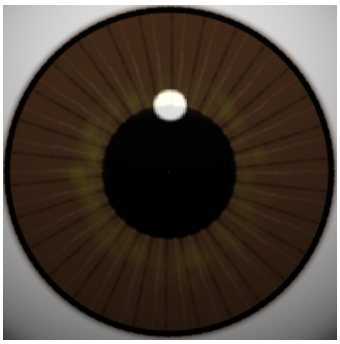


Figure 8-85 *Detail added to the iris*



Figure 8-86 *A pattern created on the white area of the eyeball*



Figure 8-87 *More patterns created on the white area of the eyeball*

Tutorial 2



Figure 8-88 *The model of the ring*

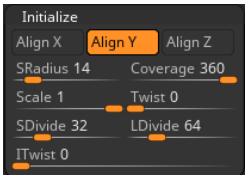


Figure 8-89 *The value of the* ***SRadius*** *slider set to* ***14***

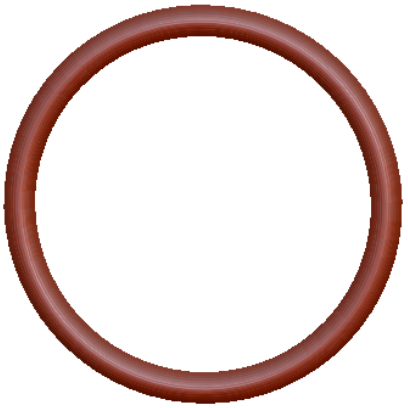


Figure 8-90 *The shape of the ring changed*



Figure 8-91 *A rectangular stroke created on the surface of the ring*



Figure 8-92 *The mask removed from the ring*



Figure 8-93 *The gold material applied to the ring*

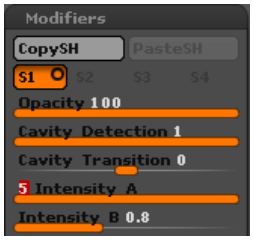


Figure 8-94 *The value of the **Intensity A** slider set to **5***

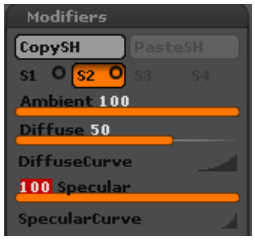


Figure 8-95 *The values of the **Ambient** and **Specular** sliders set to **100***

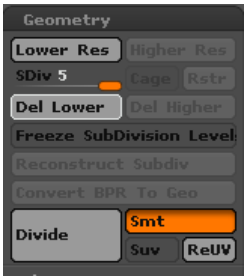


Figure 8-96 *The **Del Lower** button chosen in the **Geometry** subpalette*



Figure 8-97 *Diamonds created in the recessed area of the ring*



Figure 8-98 *Ring snapped horizontally with the canvas*



Figure 8-99 *A golden mesh inserted in the ring*

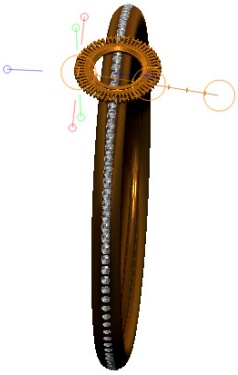


Figure 8-100 *The golden mesh adjusted using the action line*



Figure 8-101 *The size of the golden mesh increased along the Z-axis*



Figure 8-102 *The red stone fitted inside the golden mesh*



Figure 8-103 *The ring placed inside the ring box*

Tutorial 3



Figure 8-104 *The final output of the scene*

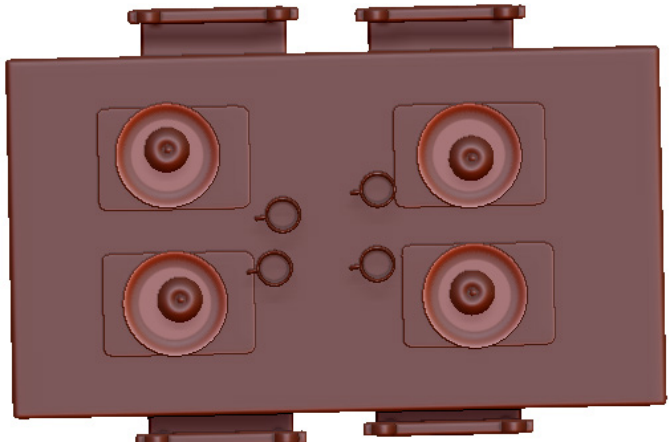


Figure 8-105 *The scene displayed in the canvas*



Figure 8-106 *The view of the canvas rotated*

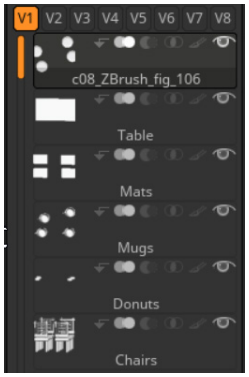


Figure 8-107 *The first subtool chosen from the list*



Figure 8-108 *Visibility of other subtools turned off*



Figure 8-109 *The plates displayed in the canvas*



Figure 8-110 *The* ***FillObject*** *button chosen*

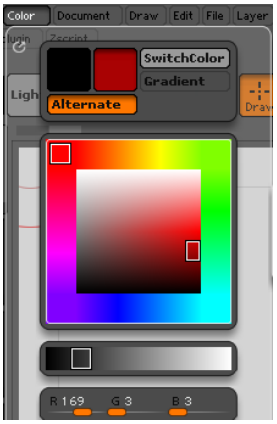


Figure 8-111 *The values of the* ***R****,* ***G****, and* ***B*** *sliders set*



Figure 8-112 *The material applied to the plates*



Figure 8-113 *The* ***GradientMap2*** *material applied to the table*



Figure 8-114 *The values of the* ***Diffuse*** *and* ***Specular*** *sliders set*

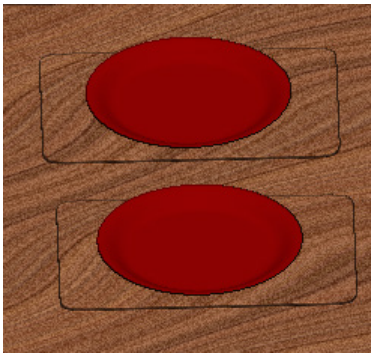


Figure 8-115 *The* ***GradientMap2*** *material applied to the mats*



Figure 8-116 *The* ***SoftPlastic*** *material applied to the mats*



Figure 8-117 *The* ***Metalic01*** *material applied to the mugs*

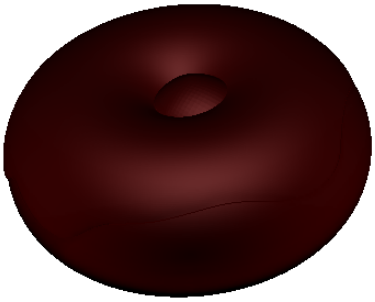


Figure 8-118 *The* ***Metalic01*** *material applied to the donut*

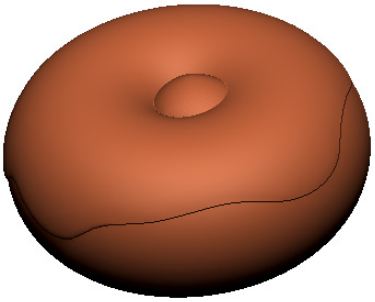


Figure 8-119 *The* ***BasicMaterial*** *material applied to the donut*



Figure 8-120 *The value of the* ***Noise*** *slider set to* ***0.1152***



Figure 8-121 *A chocolate layer created on the extruded part of the donut*



Figure 8-122 *The chocolate layer created on all the donuts*

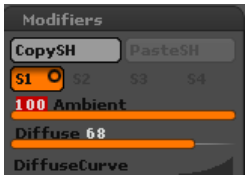


Figure 8-123 *The value of the* ***Ambient*** *slider set to* ***100***



Figure 8-124 *The* ***JellyBean*** *material painted on the middle part of the donut*

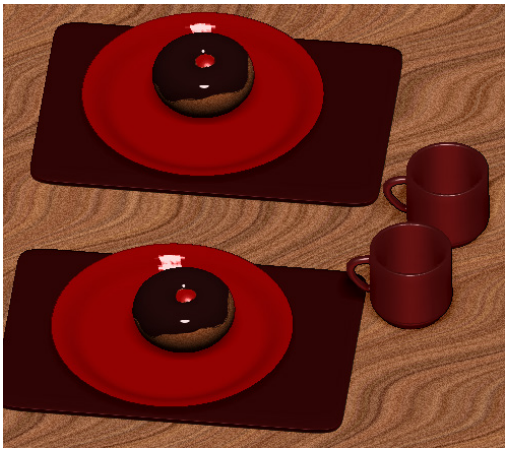


Figure 8-125 *The visibility of all the subtools turned on*



Figure 8-126 *The* ***GradientMap2*** *material applied to the chairs*

EXERCISES

Exercise 1



Figure 8-127 *Model of a cake*

Exercise 2



Figure 8-128 *Model of a hut*

Exercise 3



Figure 8-129 *The final output*

Chapter 9

Texturing in ZBrush

Learning Objectives

After completing this chapter, you will be able to:

- *Work with the Texture palette*
- *Work with the Spotlight tool*
- *Apply textures on different objects*





Figure 9-1 *The flyout displayed on choosing the Current Texture button*

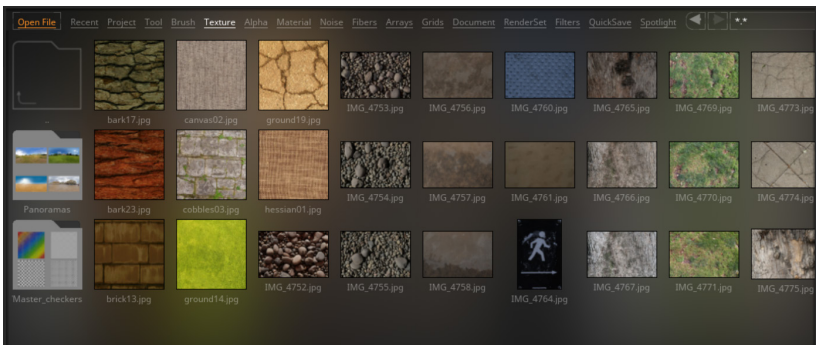


Figure 9-2 *The textures displayed in the* ***Texture*** *tab of the* ***LightBox*** *browser*



Figure 9-3 *The textures in the* ***Texture Library*** *tab*



Figure 9-4 *Different brick textures displayed*

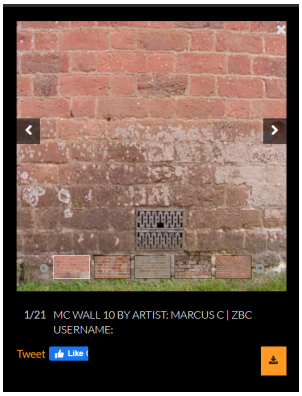


Figure 9-5 *Preview of the brick texture*

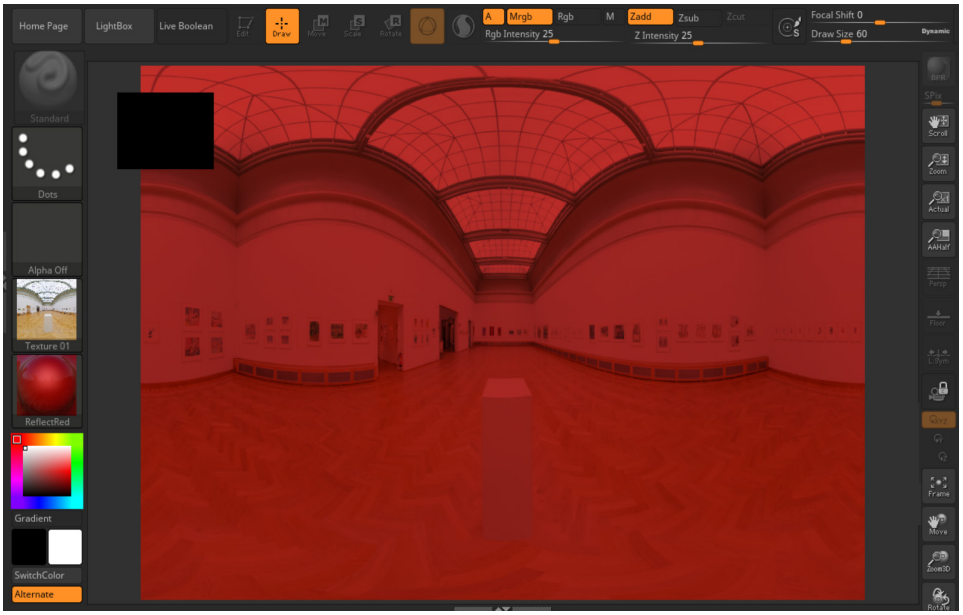


Figure 9-6 *The canvas filled with the texture and the material*

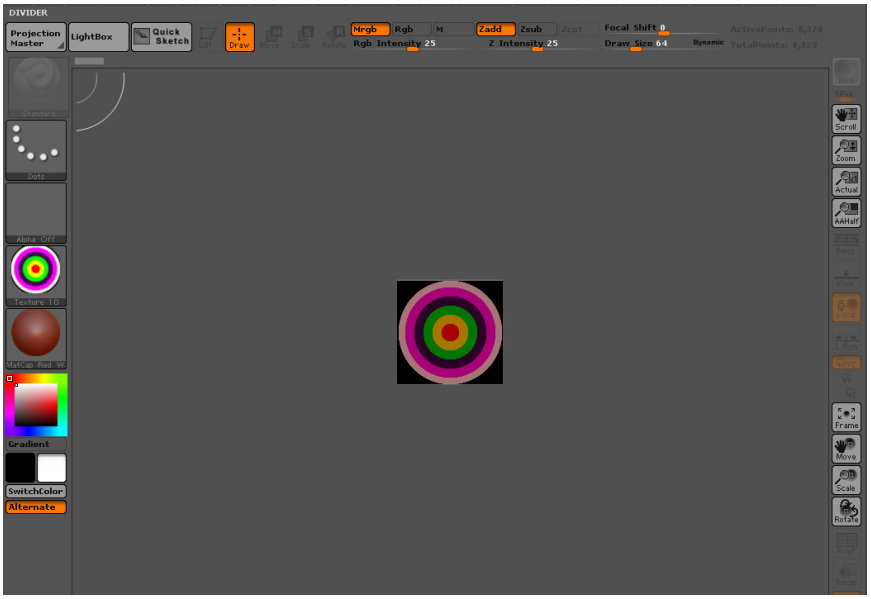


Figure 9-7 *The document cropped and filled with* ***Texture 10***



Figure 9-8 *A new texture image with the name* ***ZGrab01*** *displayed in the flyout*



Figure 9-9 *The* ***Texture*** *palette*

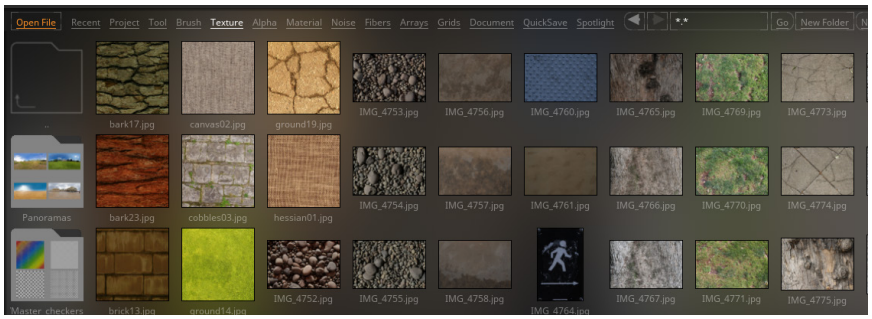


Figure 9-10 *The texture images displayed in the* ***LightBox*** *browser*

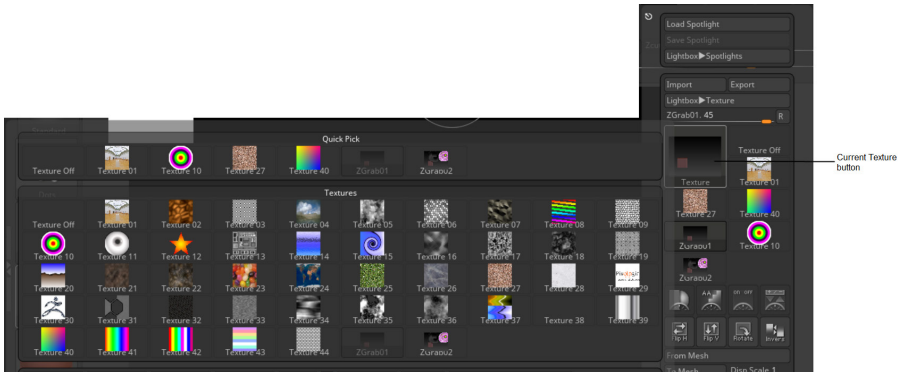


Figure 9-11 *The flyout displayed on choosing the Current Texture button*



Figure 9-12 *The texture image displayed*



Figure 9-13 *The texture image flipped horizontally*



Figure 9-14 *The texture image displayed*



Figure 9-15 *The colors in the texture image inverted*

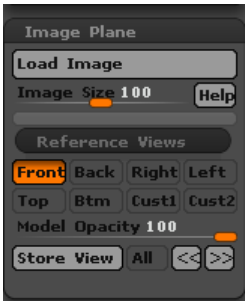


Figure 9-16 *The* ***Image Plane*** *subpalette*

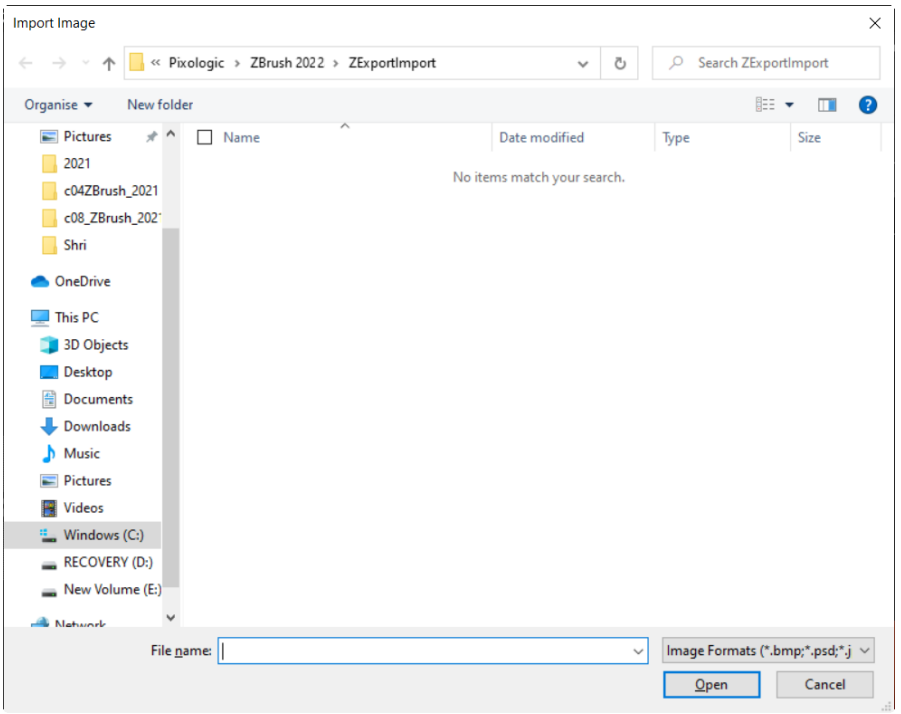


Figure 9-17 *The* ***Import Image*** *dialog box*



Figure 9-18 *The reference image displayed in the canvas*

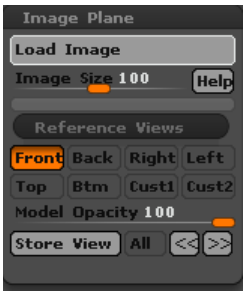


Figure 9-19 *The* ***Load Image*** *button chosen*



Figure 9-20 *The front view of the reference image displayed behind the sphere*

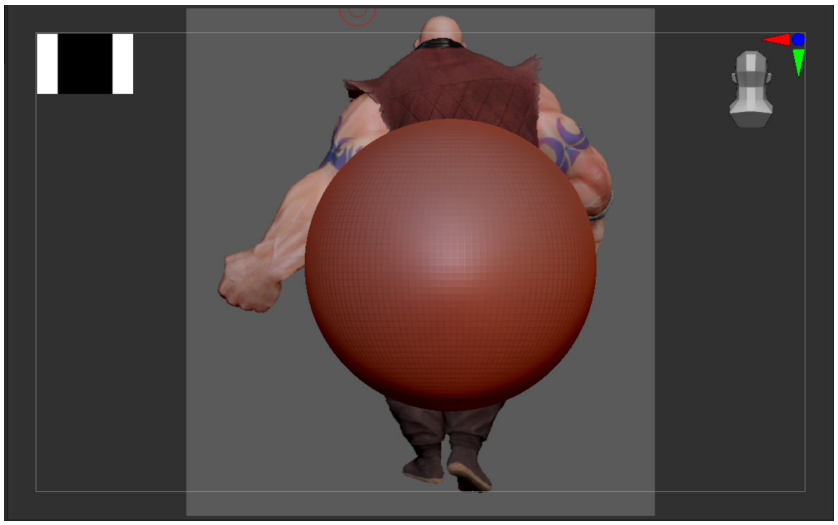


Figure 9-21 *The back view of the sphere and the reference image displayed in the canvas*



Figure 9-22 *The transparency in the sphere displayed*

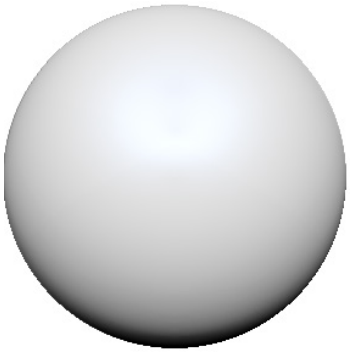


Figure 9-23 *The material applied to the sphere*

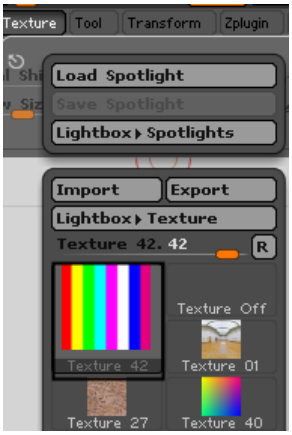


Figure 9-24 *The texture image displayed in the Current Texture button*



Figure 9-25 *The texture image displayed behind the sphere*



Figure 9-26 *The texture projected from the texture image onto the sphere*

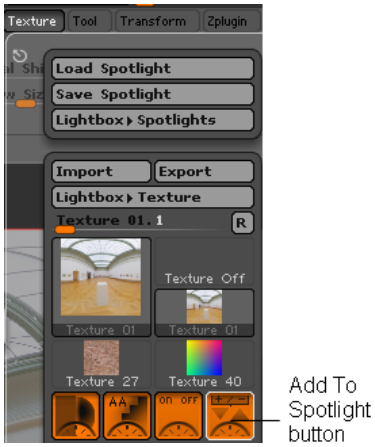


Figure 9-27 *The* ***Add To Spotlight*** *button chosen*



Figure 9-28 *The texture image and the ring displayed in the canvas*



Note

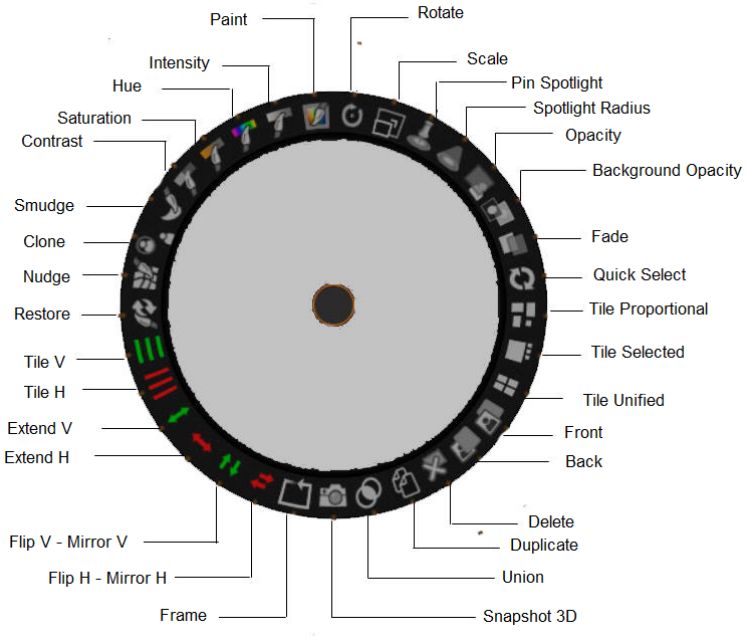


Figure 9-29 *The different icons in the ring*



Figure 9-30 *The chosen images displayed in the canvas*

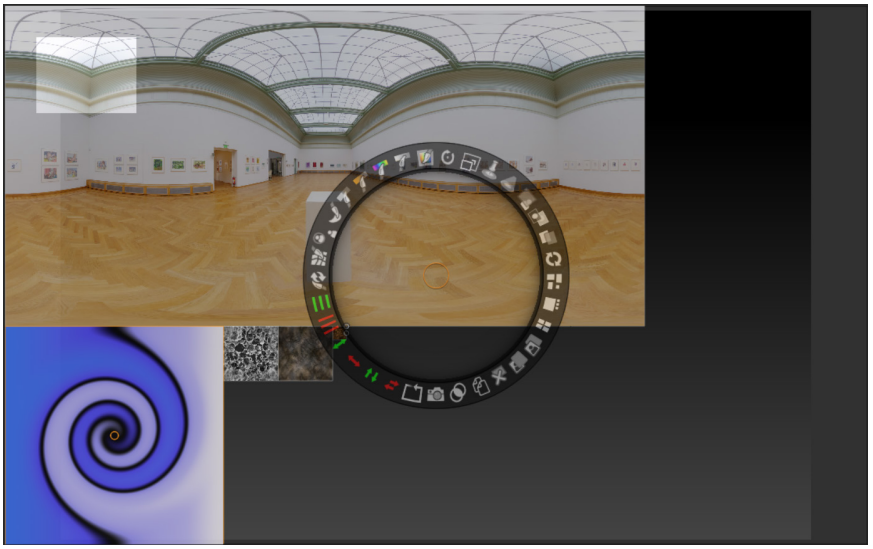


Figure 9-31 *The images stacked together proportionately*



Figure 9-32 *The image flipped horizontally*



Figure 9-33 *The image flipped vertically*

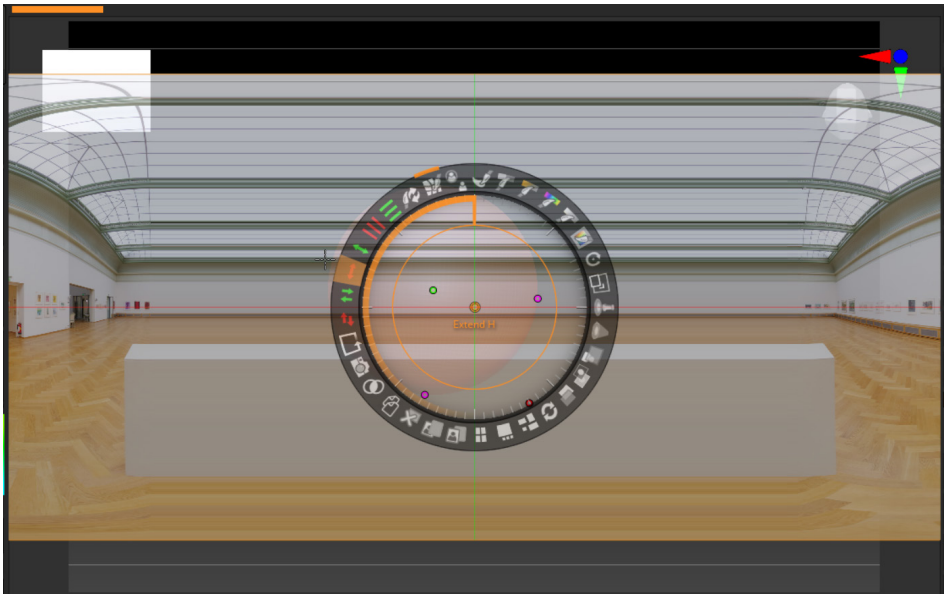


Figure 9-34 *The image extended horizontally*

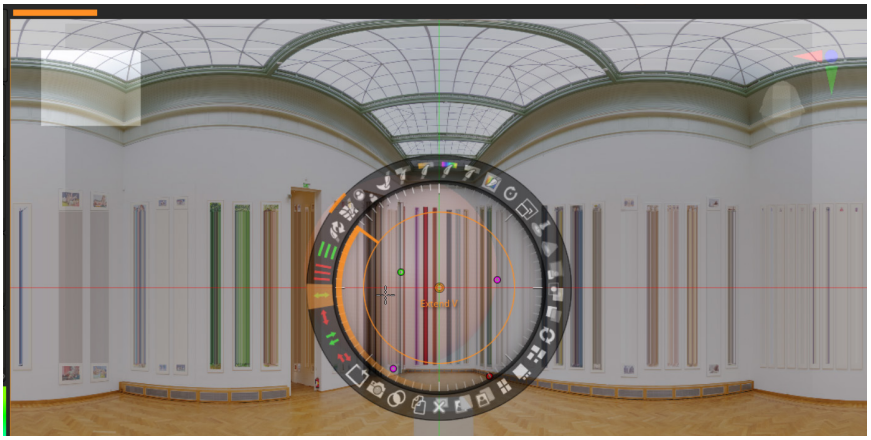


Figure 9-35 *The image extended vertically*

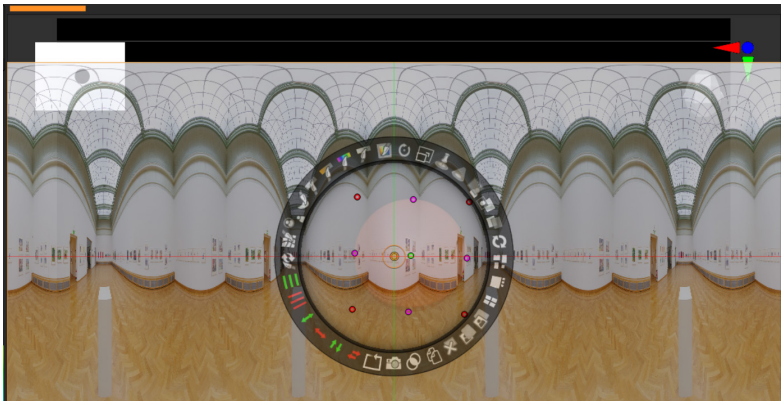


Figure 9-36 *The image tiled horizontally*

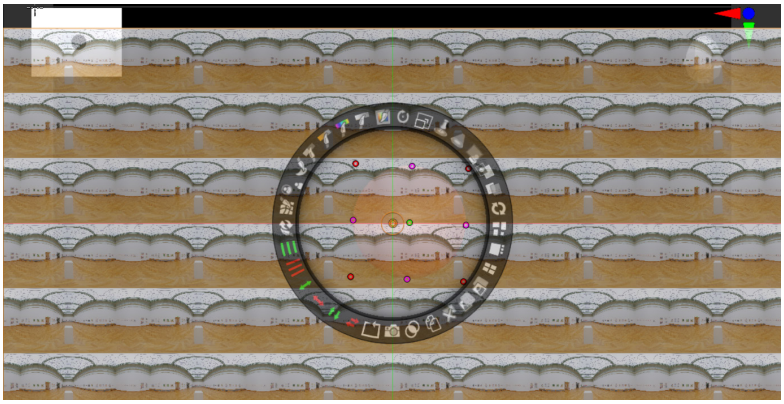


Figure 9-37 *The image tiled horizontally and vertically*



Figure 9-38 ***Texture 01*** *and* ***Texture 29*** *images added to the Spotlight*



Figure 9-39 *Texture images scaled and moved*



Figure 9-40 *Texture pasted at different locations*

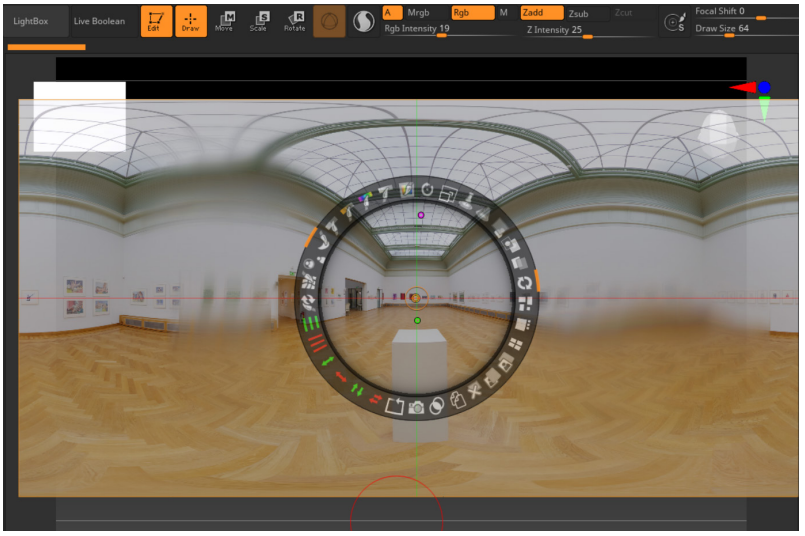


Figure 9-41 *Blur applied on the selected areas of the image*

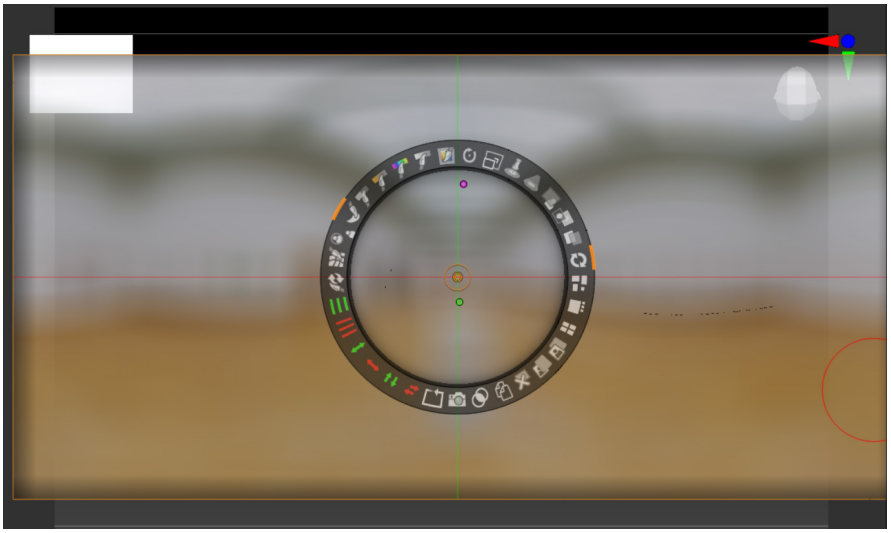


Figure 9-42 *Blur applied on the entire image*



Figure 9-43 *Contrast applied on the selected areas of the image*

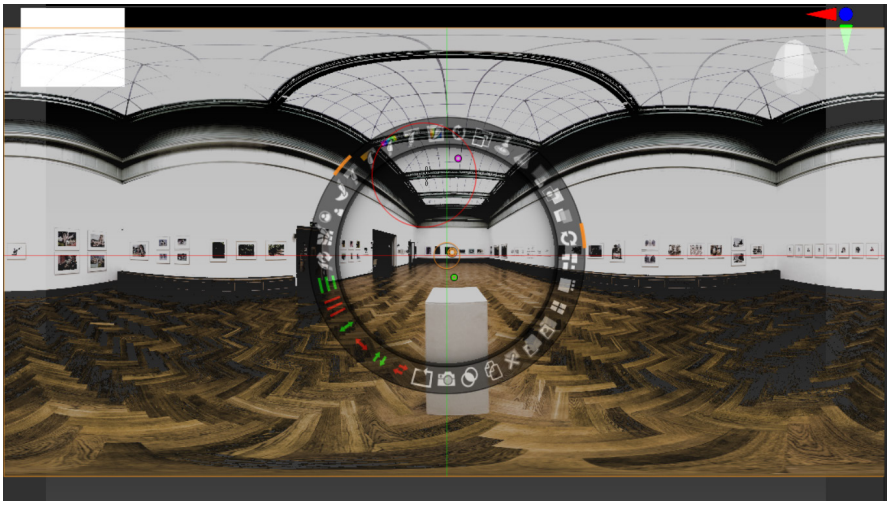


Figure 9-44 *Contrast applied on the entire image*



Figure 9-45 *The saturation increased in the selected areas of the image*

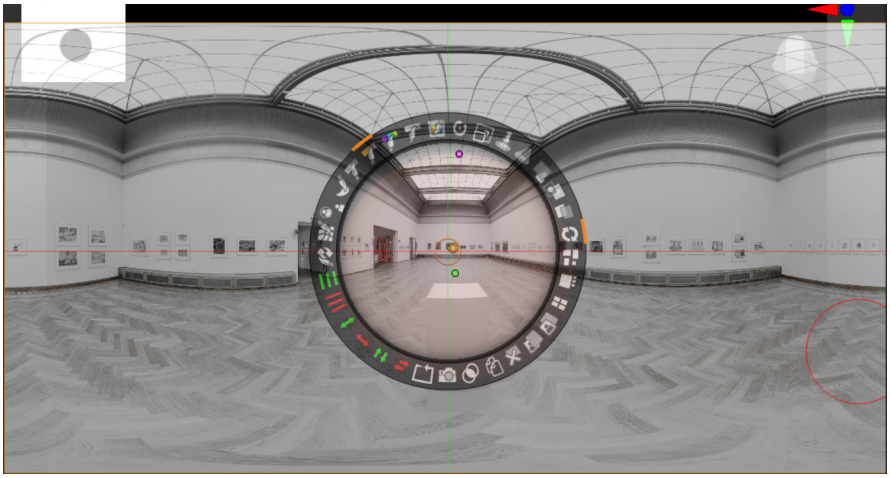


Figure 9-46 *The saturation decreased in the entire image*

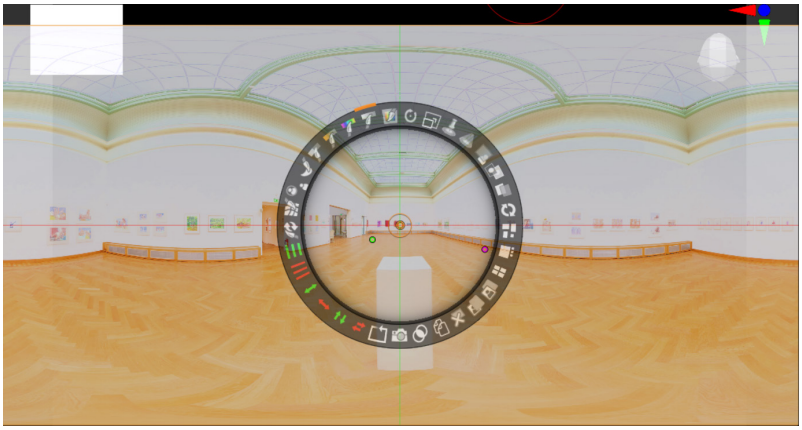


Figure 9-47 *Brightness increased in the entire image*

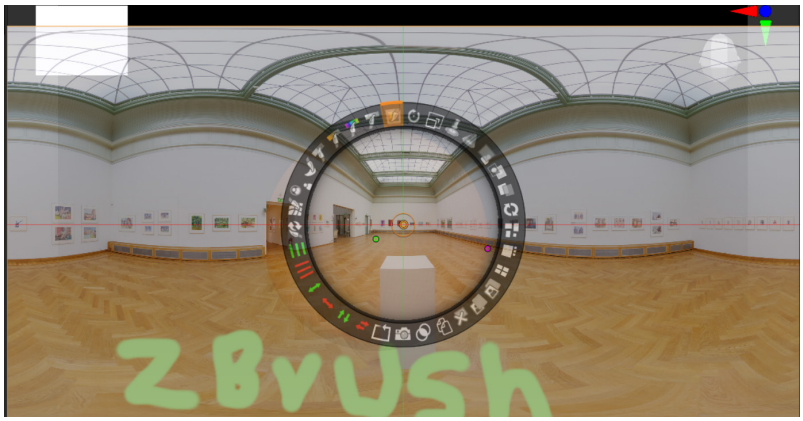


Figure 9-48 *Different colors painted on the image*



Figure 9-49 *Colors filled in the specific areas of the image*

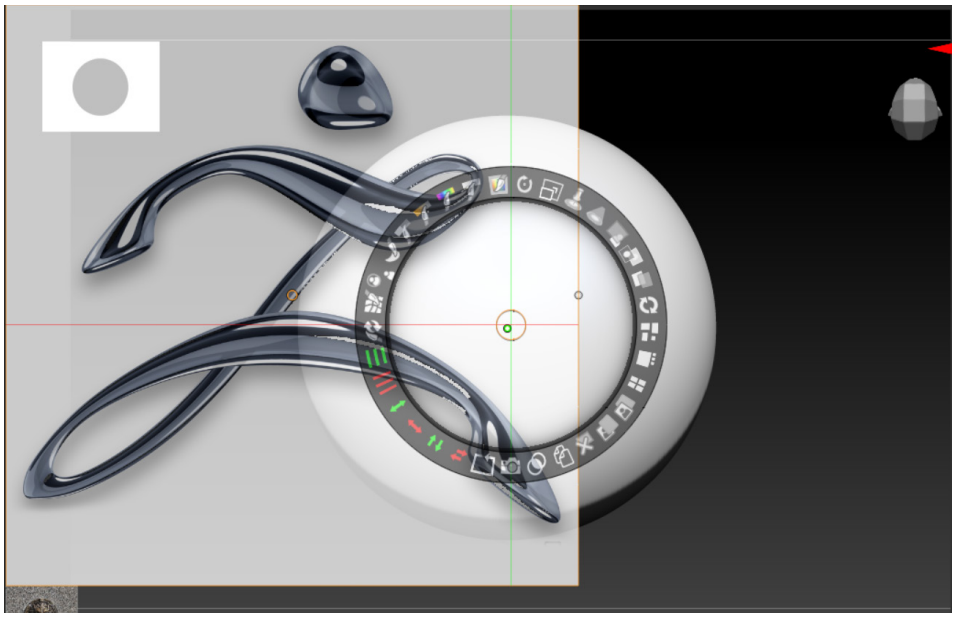


Figure 9-50 *The texture image added to the Spotlight*

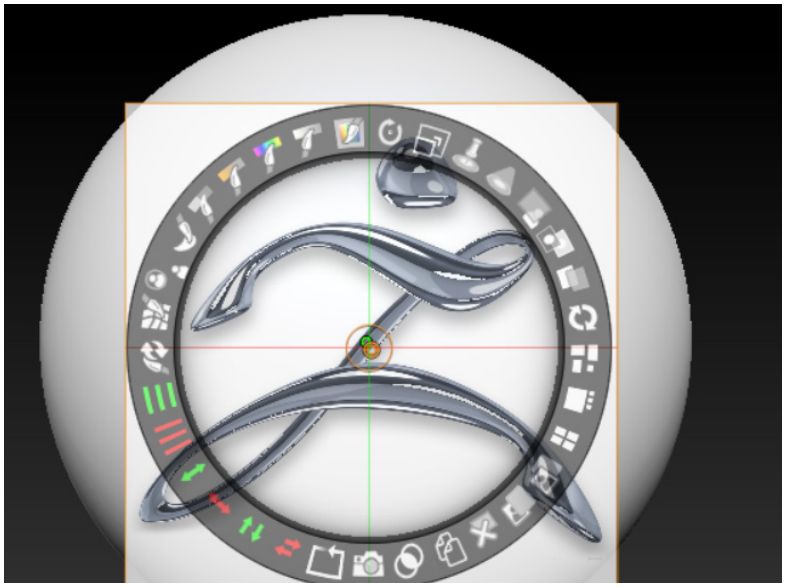


Figure 9-51 *The texture image scaled down*



Figure 9-52 *The* ***Texture 30*** *texture image projected on the sphere*



Figure 9-53 *The* ***Texture 29*** *texture image projected on the sphere*

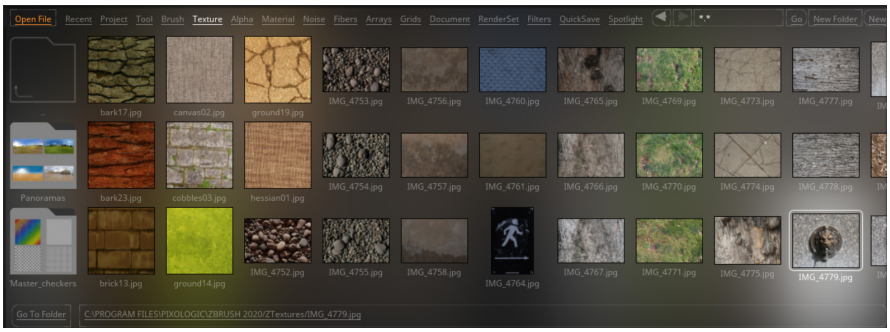


Figure 9-54 *The* ***IMG_4779.jpg*** *texture image chosen from the browser*

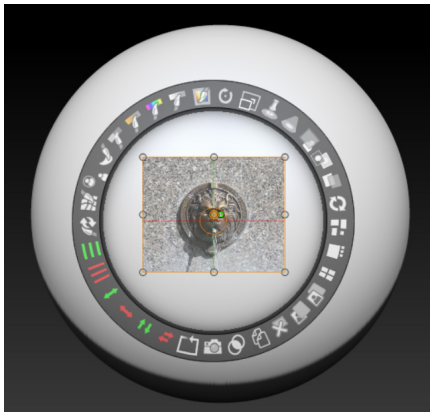


Figure 9-55 *The texture image scaled and positioned*



Figure 9-56 *The selected texture repeated on the surface of the sphere*



Figure 9-57 *The circular preview of the texture image displayed in the canvas*

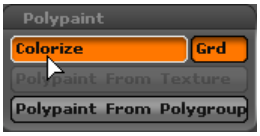


Figure 9-58 *The* ***Colorize*** *button chosen*



Figure 9-59 *Different colors painted on the surface of the sphere*

Tutorial 1



Figure 9-60 *The textured model of the hut*

box.

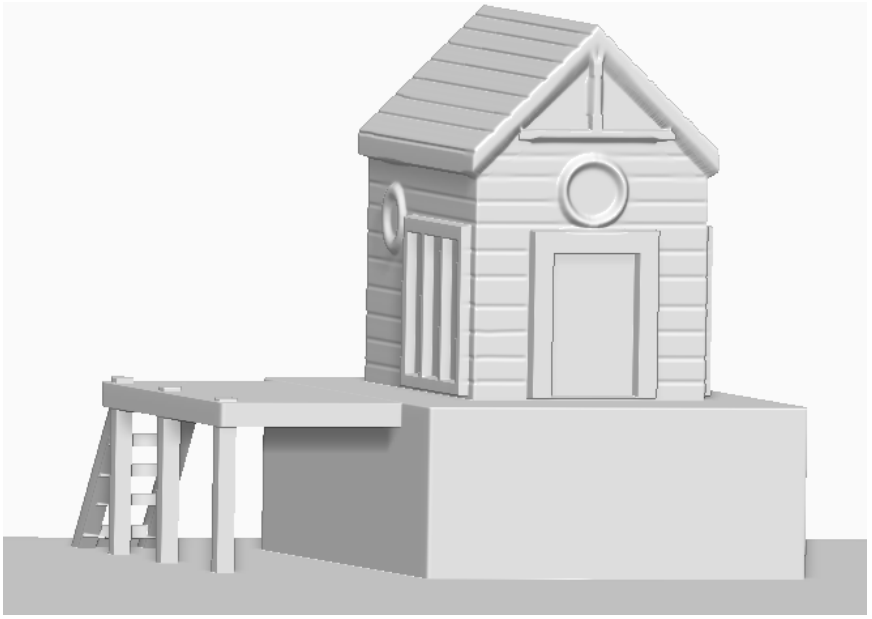


Figure 9-61 *The untextured model of the hut*



Figure 9-62 *Masks created on the door, windows, and ventilators of the hut*

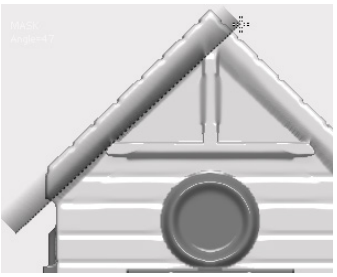


Figure 9-63 *Mask created on the roof of the hut using the* ***MaskCurve*** *brush*



Figure 9-64 *Mask created on the top area of the hut*

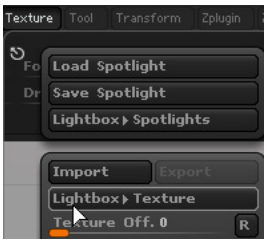


Figure 9-65 *The* ***LightBox Texture*** *button chosen*

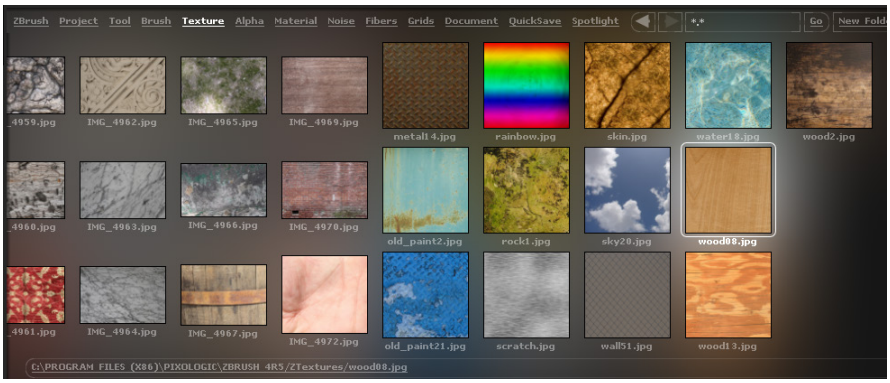


Figure 9-66 *The* ***wood08.jpg*** *texture image chosen from the* ***LightBox*** *browser*



Figure 9-67 *The texture image rotated in the canvas*



Figure 9-68 *The texture projected on the unmasked areas of the hut*

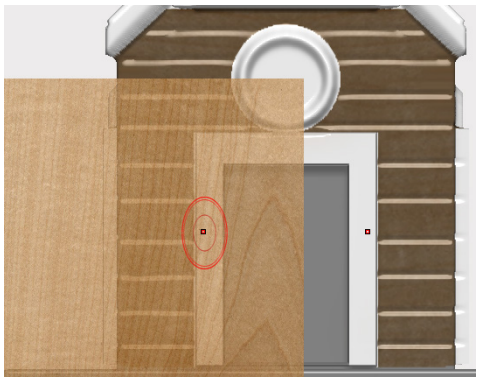


Figure 9-69 *The texture image rotated in the canvas*



Figure 9-70 *The mask removed from the surface of the hut*



Figure 9-71 *The texture image moved and rotated in the canvas*



Figure 9-72 *The mask removed from the surface of the hut*

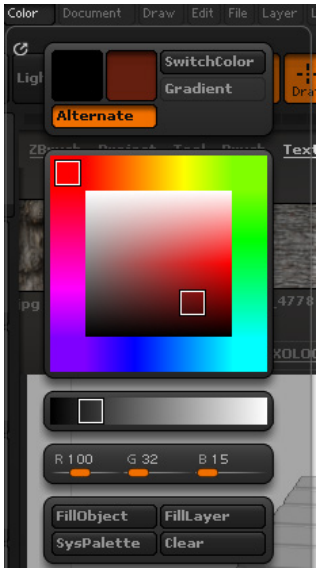


Figure 9-73 *The values of the* ***R****,* ***G****, and* ***B*** *sliders set*



Figure 9-74 *Mask removed from the inner part of the ventilator*



Figure 9-75 *The frame of the ventilator painted*



Figure 9-76 *The frame of the window painted*



Figure 9-77 *Mask removed from the hut*



Figure 9-78 *The mask applied on the window panes and the inner area of the ventilators*



Figure 9-79 *The texture image displayed in the canvas*



Figure 9-80 *The texture projected on the window panes of the hut*



Figure 9-81 *The texture image displayed in the canvas*



Figure 9-82 *The texture displayed on the ventilators*



Figure 9-83 *The inverted mask*



Figure 9-84 *Paint applied on the top area of the hut*



Figure 9-85 *The color painted on the top windows*

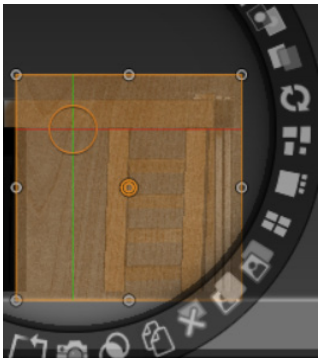


Figure 9-86 *The texture image placed on the staircase area*



Figure 9-87 *The texture projected on the staircase area*



Figure 9-88 *The texture image moved and scaled down*



Figure 9-89 *The texture projected on the front side of the base*



Figure 9-90 *The texture projected on all the sides of the base*



Figure 9-91 *The texture projected on the floor of the base*



Figure 9-92 *A mask created on the top of the ground*

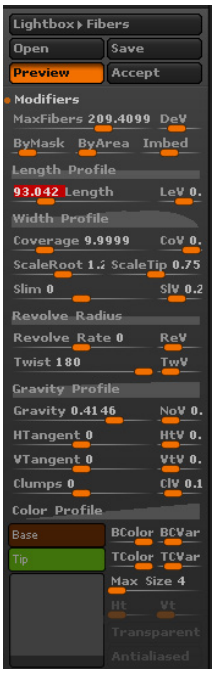


Figure 9-93 *The values of the sliders set*



Figure 9-94 *The grass displayed on the ground*

Tutorial 2



Figure 9-95 *The textured face*



Figure 9-96 *The* ***SkinShade4*** *material applied to the model*

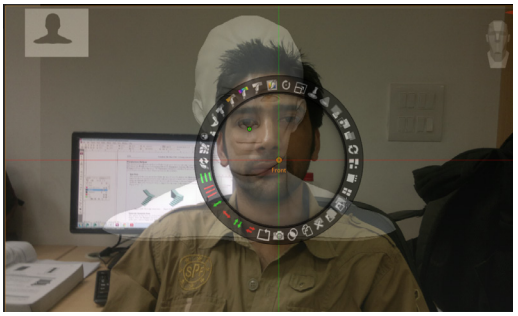


Figure 9-97 *A texture image displayed in the canvas*



Figure 9-98 *The transparency in the image increased*



Figure 9-99 *The cursor dragged on the surface of the image*



Figure 9-100 *The image manipulated using the* ***Nudge*** *icon*



Figure 9-101 *The cursor dragged on the face area of the texture image*

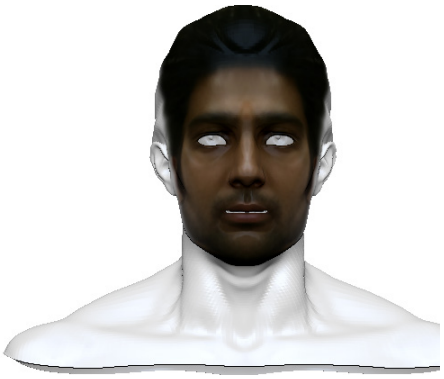


Figure 9-102 *The projected texture displayed on the face of the model*



Figure 9-103 *The texture projected on the neck of the model*

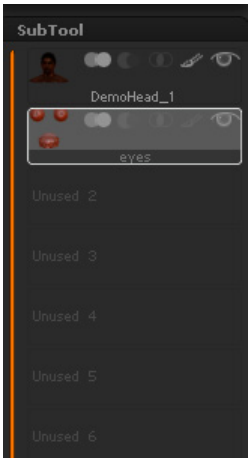


Figure 9-104 *The **eyes** subtool chosen from the list*

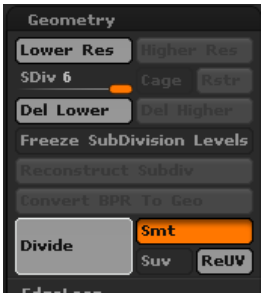


Figure 9-105 *The value of the **SDiv** slider set to **6***

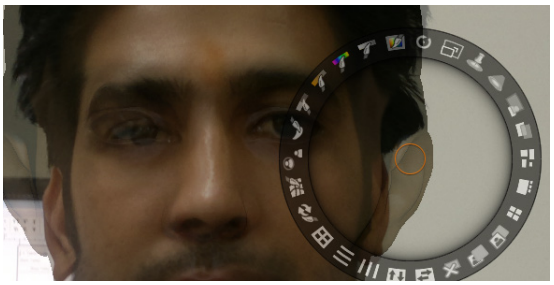


Figure 9-106 *The texture image moved to match the model*

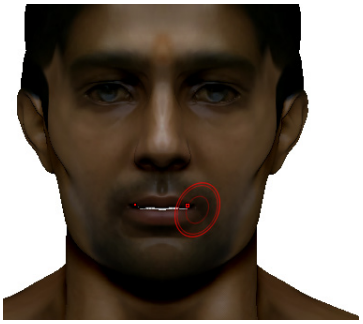


Figure 9-107 *Teeth of the model moved inward using the **Move** brush*

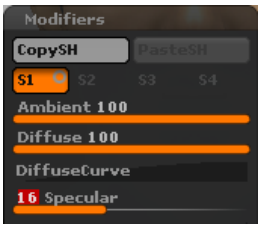


Figure 9-108 *The values of the* ***Ambient*** *and* ***Diffuse*** *sliders set*



Figure 9-109 *The texture on the model displayed clearly*

Exercise 1



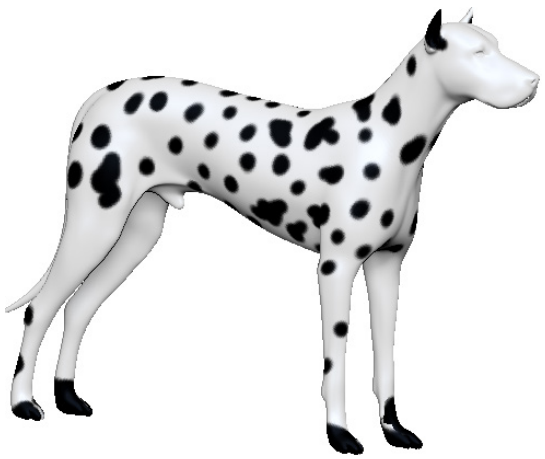
Figure 9-110 *Model of the hut without textures*



Figure 9-111 *Textured model of the hut*

Chapter 10

UV Master



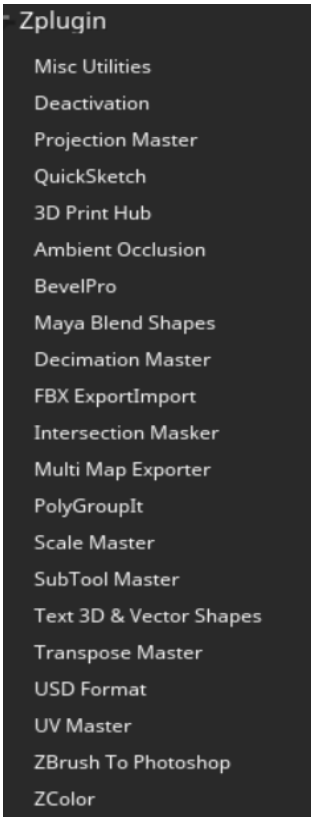


Figure 10-1 *The* ***ZPlugin*** *palette*

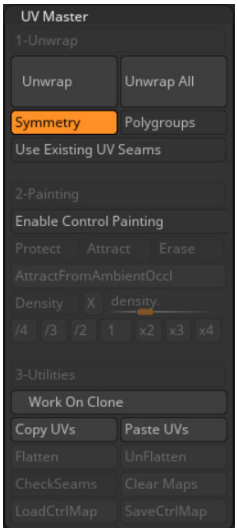


Figure 10-2 *The* ***UV Master*** *subpalette*

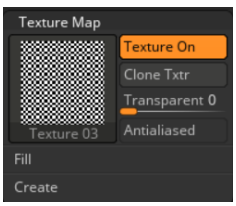


Figure 10-3 *The* ***Texture Map*** *subpalette*

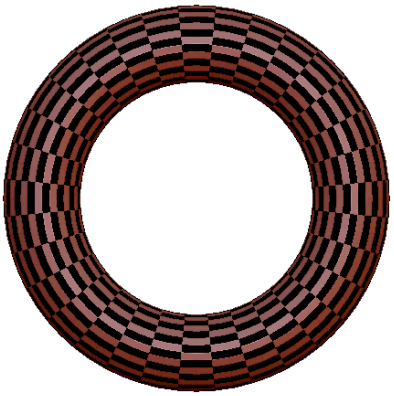


Figure 10-4 *The checker texture applied to the model*

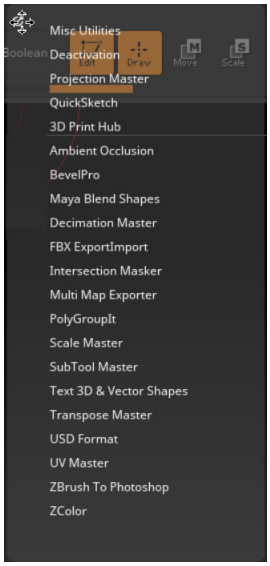


Figure 10-5 *The shape of the cursor changed*

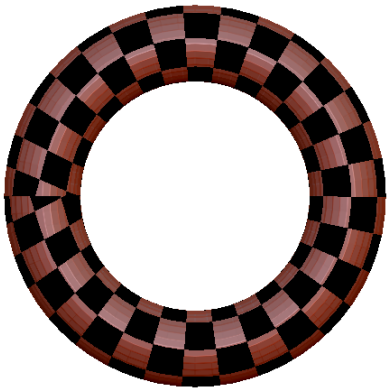


Figure 10-6 *The stretching in the texture rectified*



Figure 10-7 *The model loaded into the canvas*



Figure 10-8 *The* ***Flatten*** *button chosen*

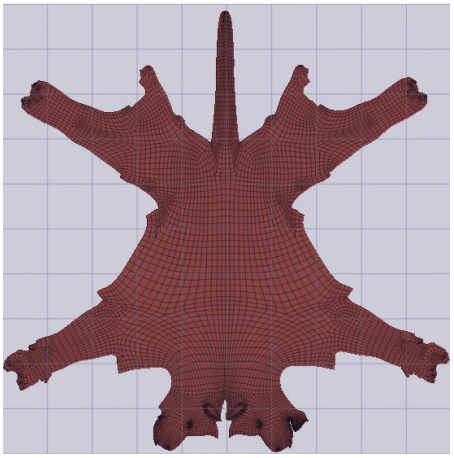


Figure 10-9 *The model flattened with the* ***Symmetry*** *button chosen*

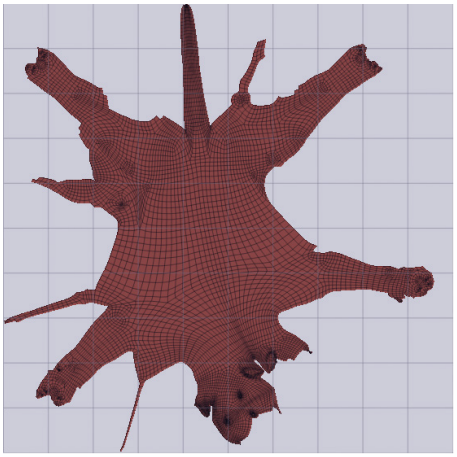


Figure 10-10 *The model flattened without the* ***Symmetry*** *button chosen*

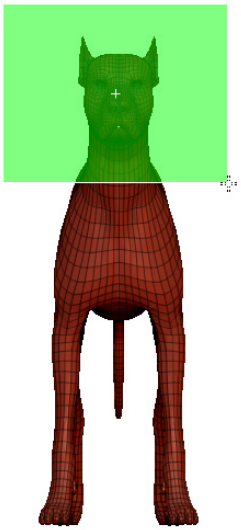


Figure 10-11 *A portion of model selected using the* ***SelectRect*** *brush*

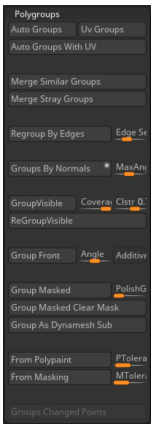


Figure 10-12 *The* ***GroupVisible*** *button chosen*

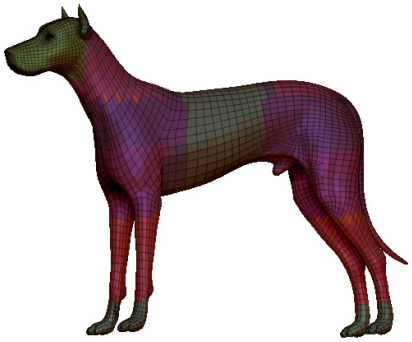


Figure 10-13 *Different polygroups created in the model*

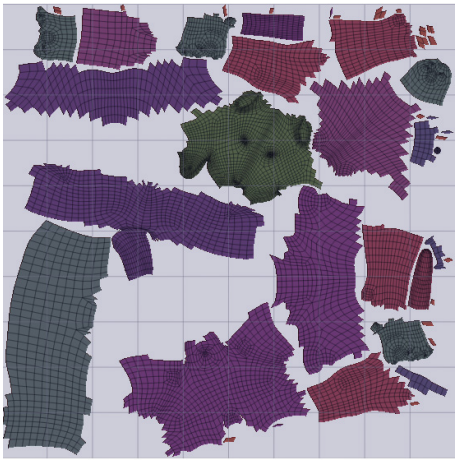


Figure 10-14 *Separate UV islands created for different polygroups*



Figure 10-15 *The seams in the model displayed*



Figure 10-16 *The front area of the model protected*



Figure 10-17 *The seam removed from the painted area*

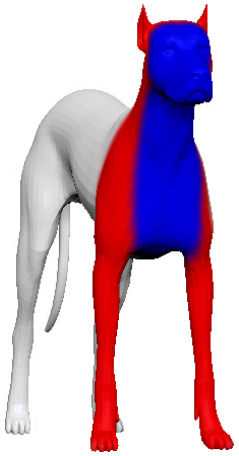


Figure 10-18 *The front area of the model painted blue*



Figure 10-19 *A seam created in the painted area*

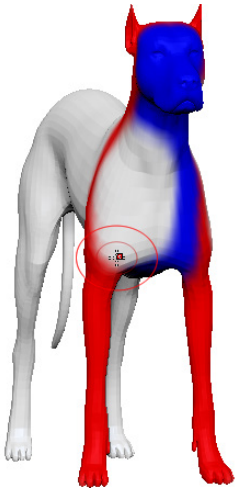


Figure 10-20 *A painted area erased using the* ***Erase*** *button*



Figure 10-21 *An attraction area painted automatically*

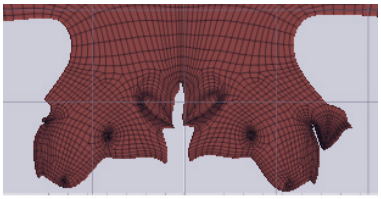


Figure 10-22 *The flattened image of the model*



Figure 10-23 *The* ***Density*** *button chosen*



Figure 10-24 *The face of the model painted*

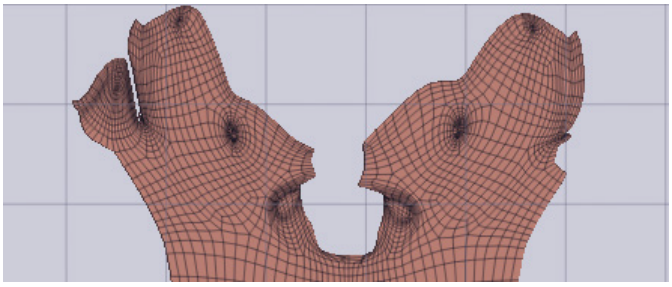


Figure 10-25 *The size of the UVs increased in the painted area*

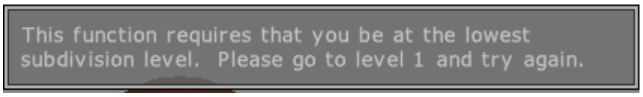


Figure 10-26 *The message box displayed on choosing the* ***Unwrap*** *button*

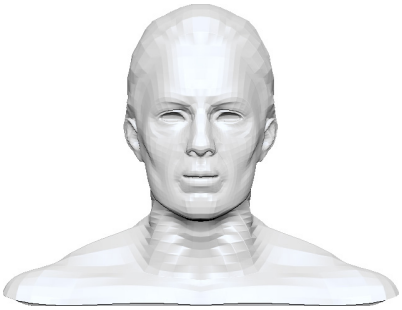


Figure 10-27 *The cloned model at its lowest subdivision level*



Figure 10-28 *The cloned model displayed in the flyout*

TUTORIALS

Tutorial 1

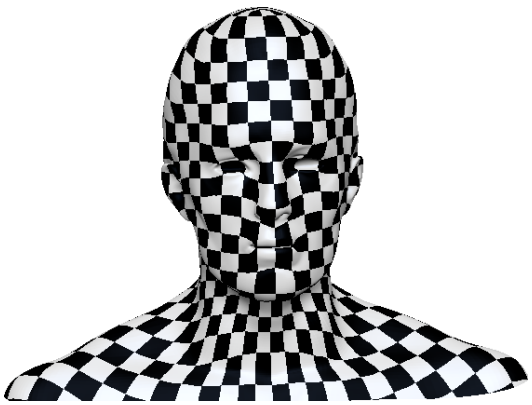


Figure 10-29 *The unwrapped model of the head*

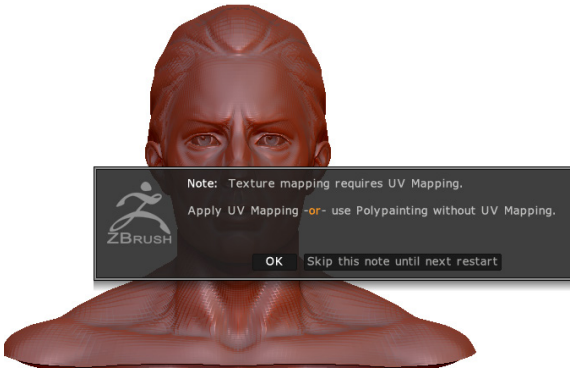


Figure 10-30 *The message box displayed on choosing the texture image*

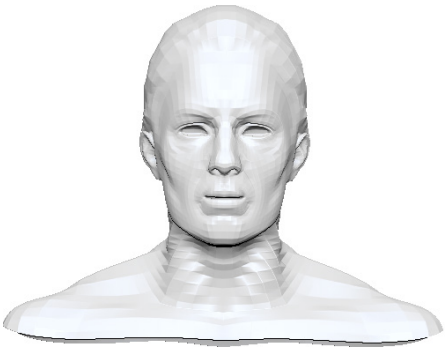


Figure 10-31 *The cloned model displayed in the canvas*



Figure 10-32 *The texture image applied to the model*

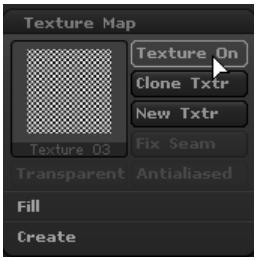


Figure 10-33 *The* ***Texture On*** *button chosen*

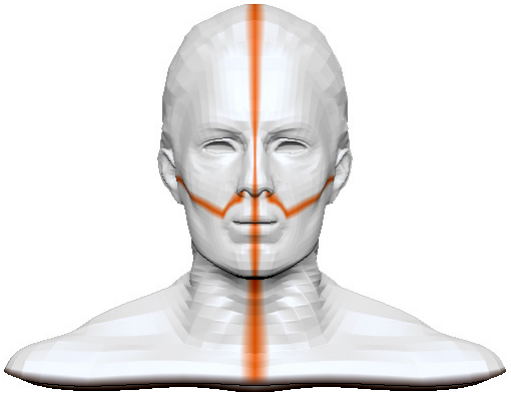


Figure 10-34 *The seams displayed on the model*

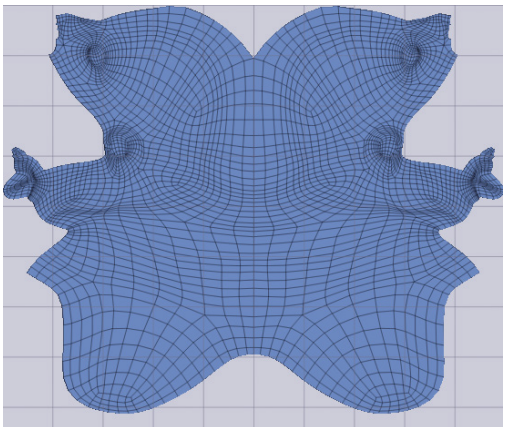


Figure 10-35 *The flattened image of the model*



Figure 10-36 *The front side of the model painted using the* ***Protect*** *button*

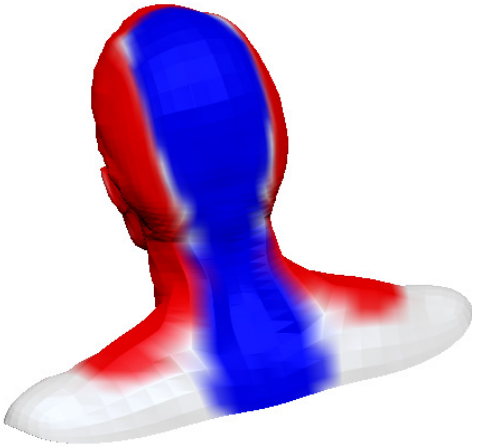


Figure 10-37 *The back side of the model painted using the* ***Attract*** *button*

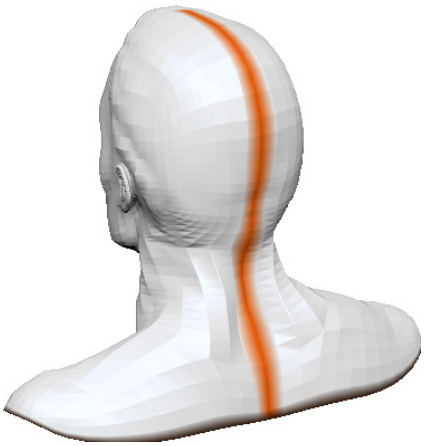


Figure 10-38 *The seam displayed after choosing the* ***Unwrap*** *button*

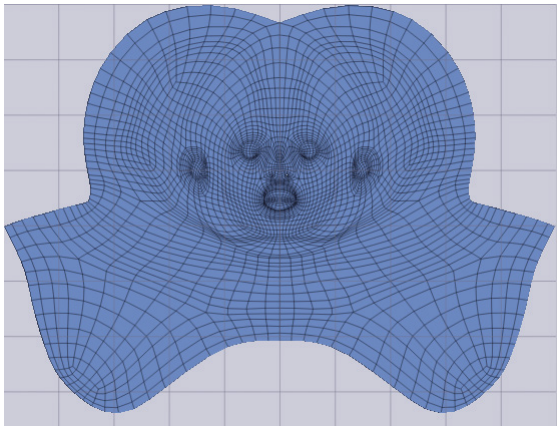


Figure 10-39 *The flattened image of the model displayed*

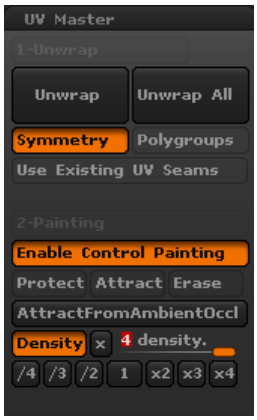


Figure 10-40 *The value of the **density** slider set to **4***

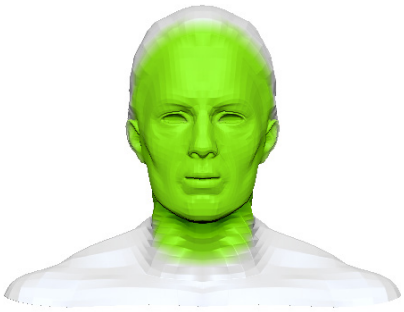


Figure 10-41 *The model with face area painted*

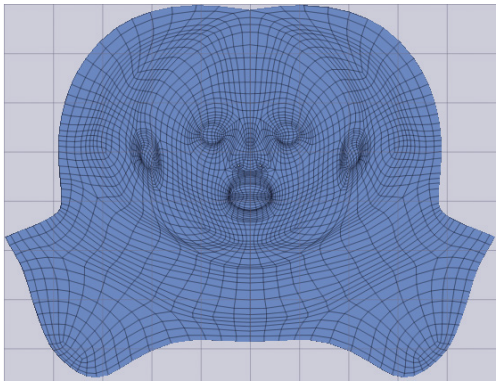


Figure 10-42 *The flattened image of the unwrapped model*

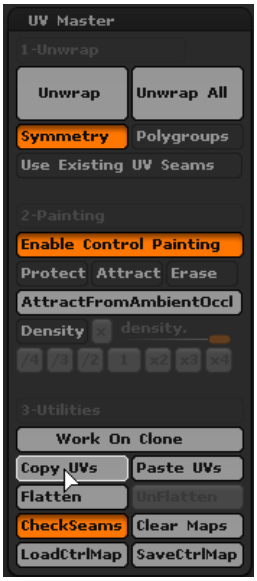


Figure 10-43 *The* ***Copy UVs*** *button chosen*

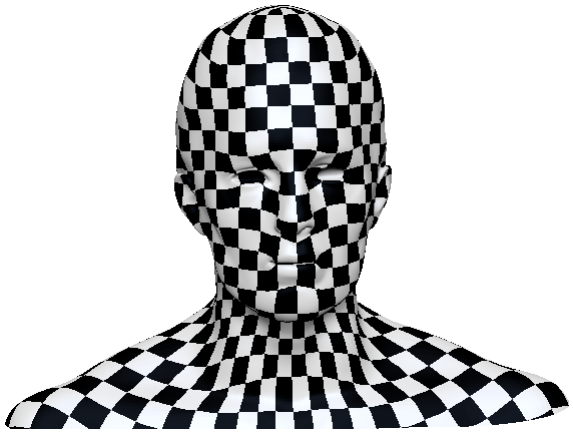


Figure 10-44 *The UVs pasted on the original model*

Tutorial 2

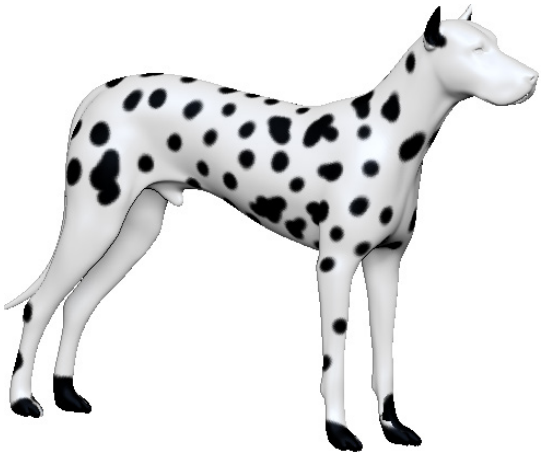


Figure 10-45 *Texture map applied to the model*



Figure 10-46 *The Dog.ZTL model displayed in the canvas*



Figure 10-47 *The seams displayed on the model*

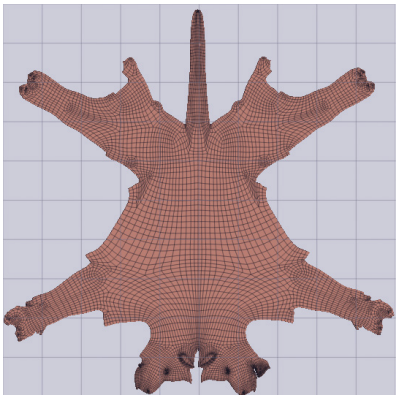


Figure 10-48 *The flattened image of the model*

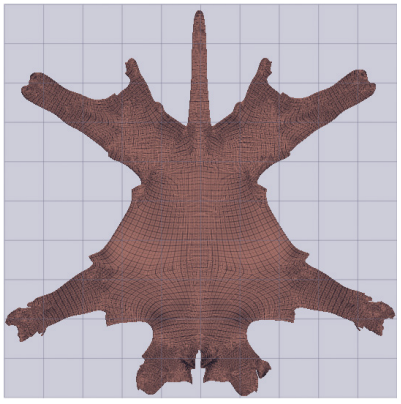


Figure 10-49 *The modified flattened image after pressing CTRL+D thrice*

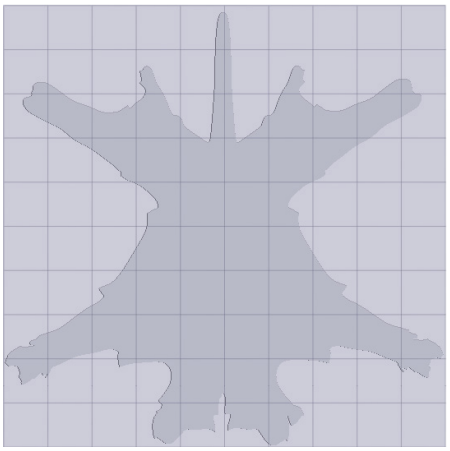


Figure 10-50 *The* ***SkinShade 4*** *material applied to the image*

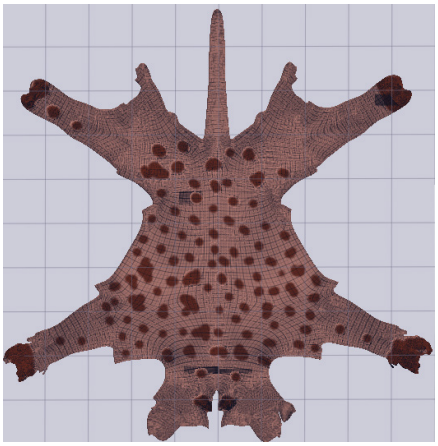


Figure 10-51 *A pattern created on the surface of the image*



Figure 10-52 *The* ***New From Polypaint*** *button chosen*



Figure 10-53 *The* ***Clone Txtr*** *button chosen*



Figure 10-54 *The texture image chosen from the flyout*

Exercise 1



Figure 10-55 *The final output*

Chapter 11

Lighting



Figure 11-1 *The* ***Light*** *palette*

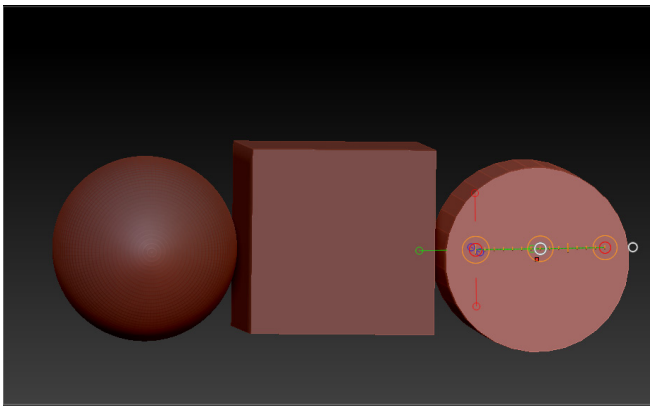


Figure 11-2 *Different objects created in the canvas*



Figure 11-3 *Different settings in the* ***Light*** *palette*

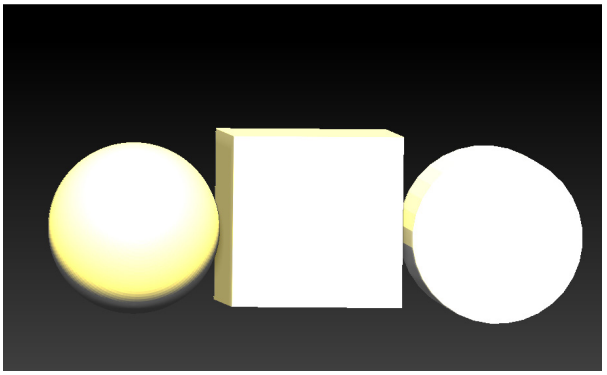


Figure 11-4 *Light settings applied to the scene*

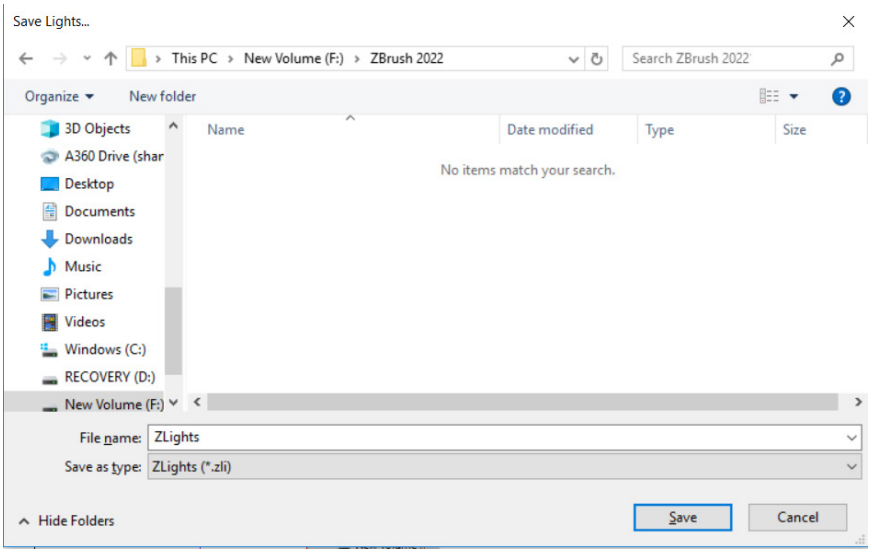


Figure 11-5 *The* ***Save Lights*** *dialog box*

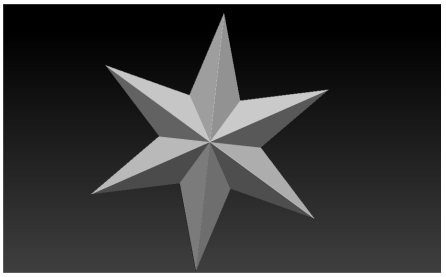


Figure 11-6 *The* ***BasicMaterial*** *material applied to the object*



Figure 11-7 *The light settings applied in the new scene*

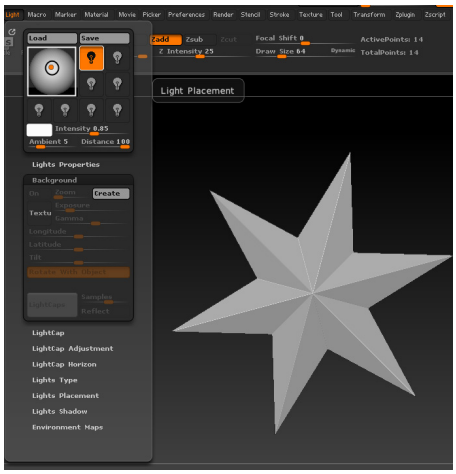


Figure 11-8 *The position of light in the* ***Light Placement*** *window*

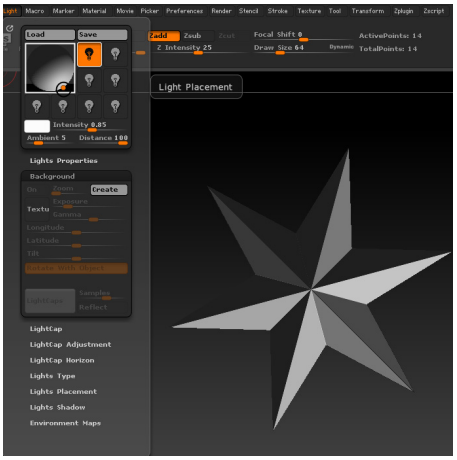


Figure 11-9 *The position of light changed in the* ***Light Placement*** *window*



Figure 11-10 *The light switches in the* ***Light*** *palette*

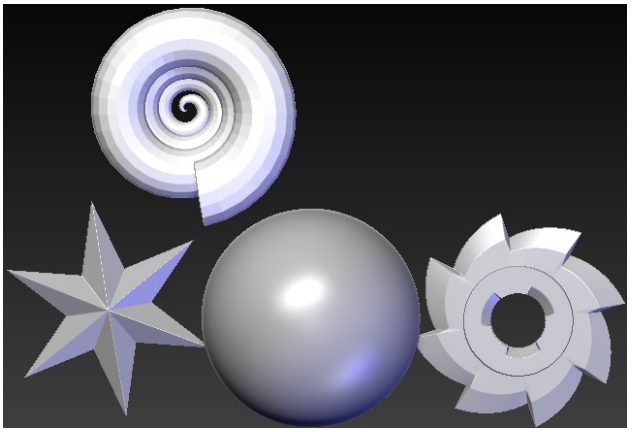


Figure 11-11 *The scene illuminated by switching on all the lights*



Figure 11-12 *The scene with the value of the* ***Intensity*** *slider set to* ***0***



Figure 11-13 *The scene with the value of the* ***Intensity*** *slider set to* ***10***



Figure 11-14 *All the lights turned off*



Figure 11-15 *The value of the* ***Ambient*** *slider set to* ***100***



Figure 11-16 *The graph curve*

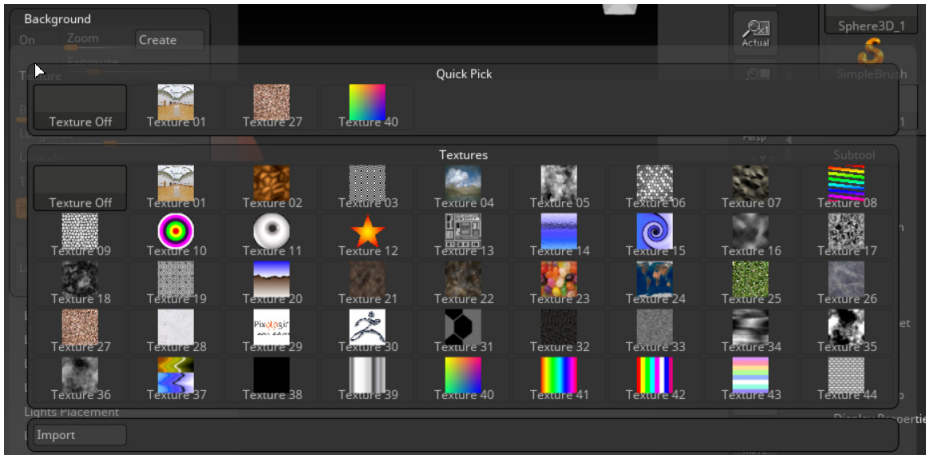


Figure 11-17 *The flyout displayed on choosing the* ***Environment Texture*** *button*

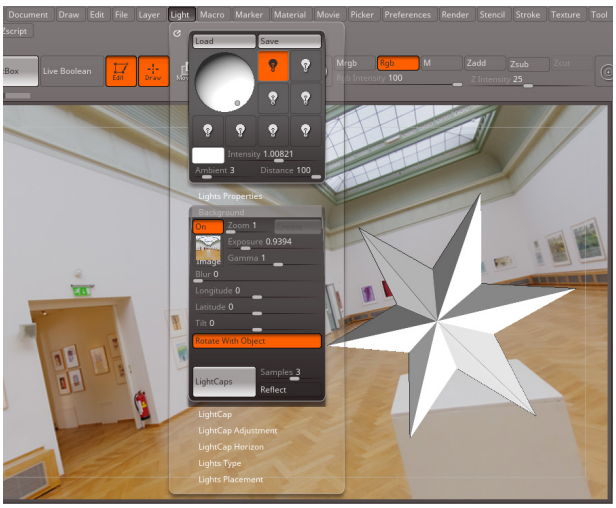


Figure 11-18 *The chosen texture image displayed in the background*

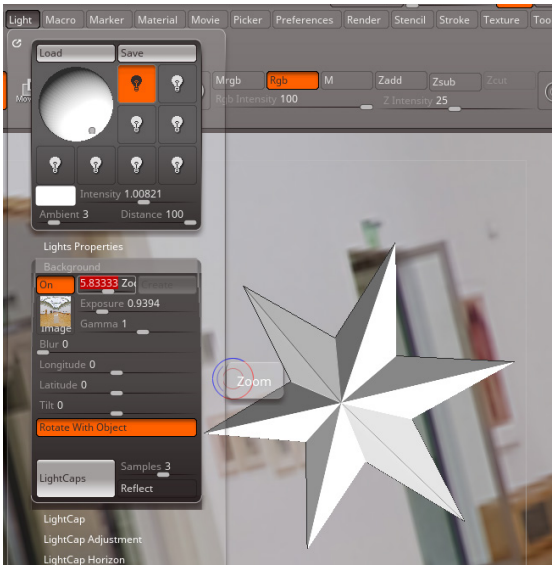


Figure 11-19 *The background image zoomed in*



Figure 11-20 *The lighting in the sphere changed according to the* ***Texture 01*** *image*

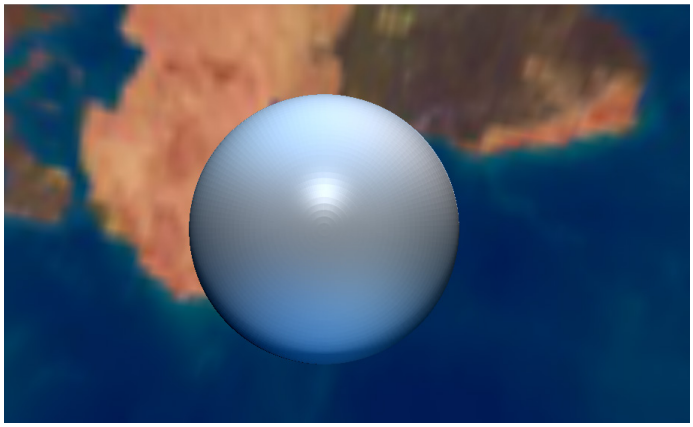


Figure 11-21 *The lighting in the sphere changed according to the* ***Texture 24*** *image*

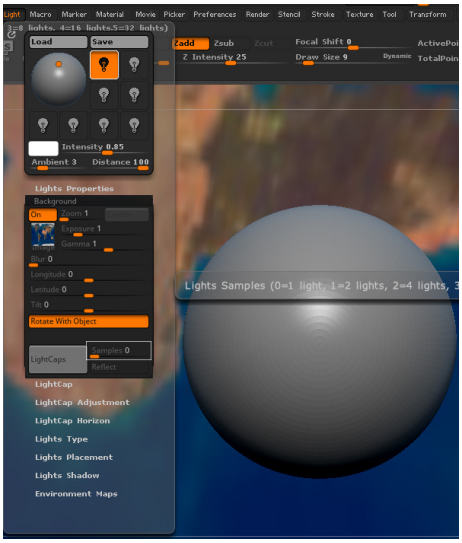


Figure 11-22 *The object when the value of the* ***Samples*** *slider is set to* ***0***

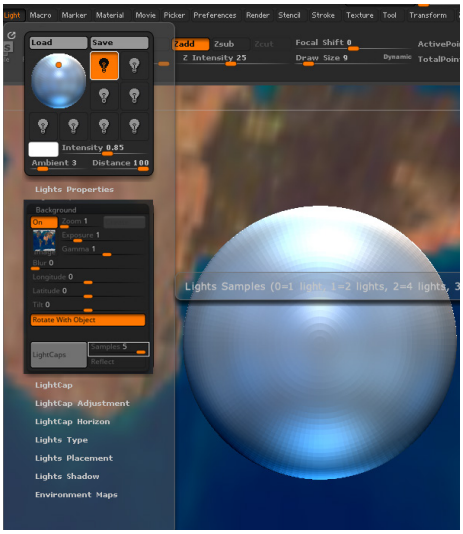


Figure 11-23 *The object when the value of the* ***Samples*** *slider is set to* ***5***

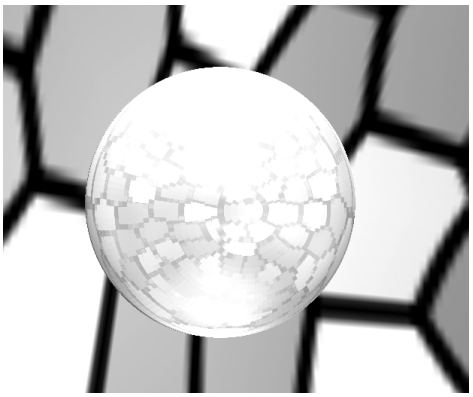


Figure 11-24 *The texture reflected in the sphere*



Figure 11-25 *The* ***LightCap*** *subpalette*



Figure 11-26 *The light added in the* ***LightCap Preview*** *window*

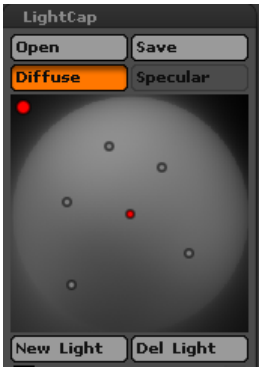


Figure 11-27 *More lights added and moved in the window*



Figure 11-28 *The* ***Strength*** *slider set to* ***0.2611***

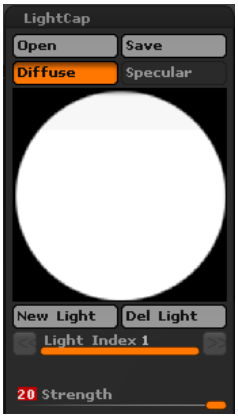


Figure 11-29 *The* ***Strength*** *slider set to* ***20***



Figure 11-30 *The* ***Aperture*** *slider set to* ***10***



Figure 11-31 *The* ***Aperture*** *slider set to* ***120***



Figure 11-32 *The color of the light changed to red*

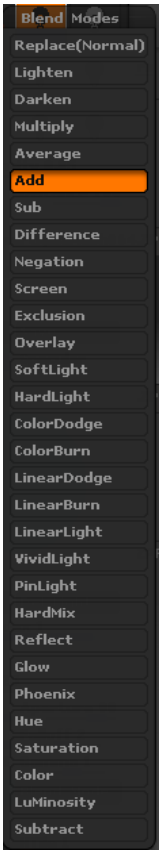


Figure 11-33 *The flyout displayed on choosing the* ***Blend Mode*** *button*



Figure 11-34 *The texture image projected on the light*



Figure 11-35 *The shape of the light changed*

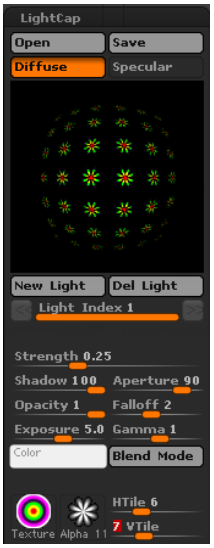


Figure 11-36 *The tiling displayed in the* ***LightCap Preview*** *window*

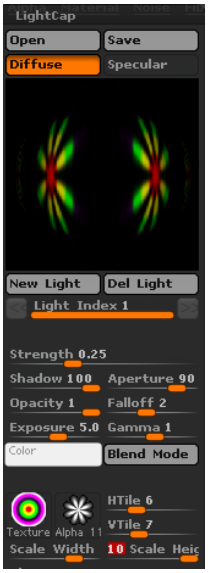


Figure 11-37 *Displaying the scaled texture in the* ***LightCap Preview*** *window*

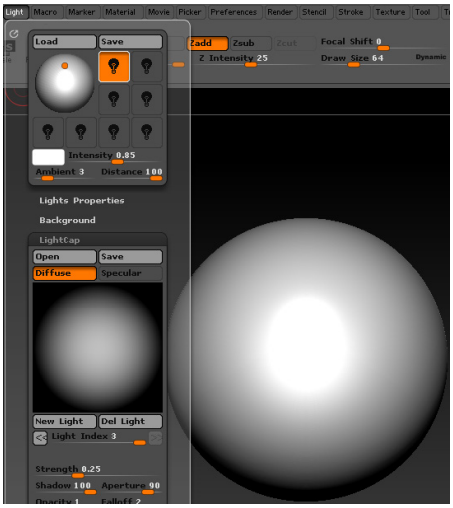


Figure 11-38 *The light capture applied to the scene*

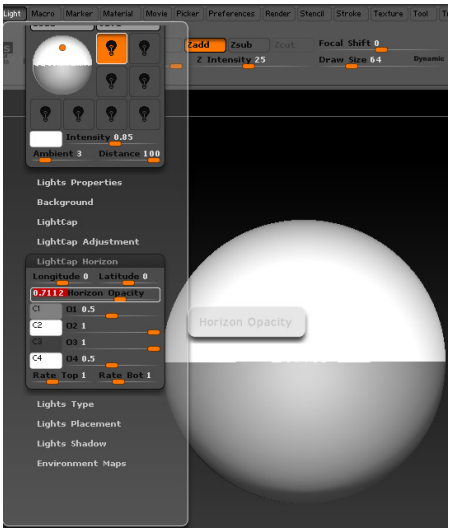


Figure 11-39 *The opacity of the horizon line increased*

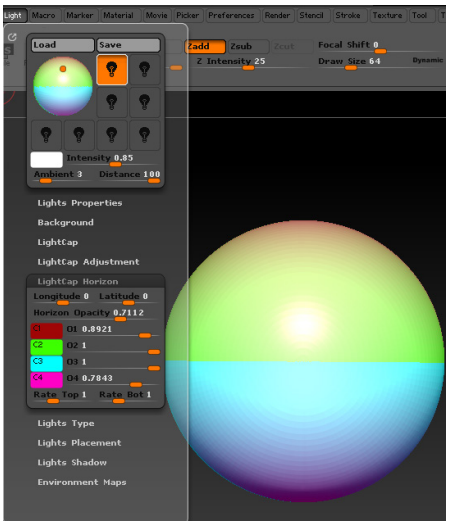


Figure 11-40 *Four different colors applied to the light capture*

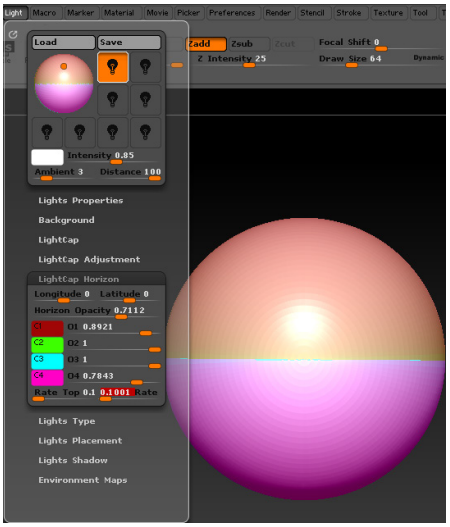


Figure 11-41 *The offset of the top and bottom colors increased*



Figure 11-42 *The* ***Lights Placement*** *subpalette*

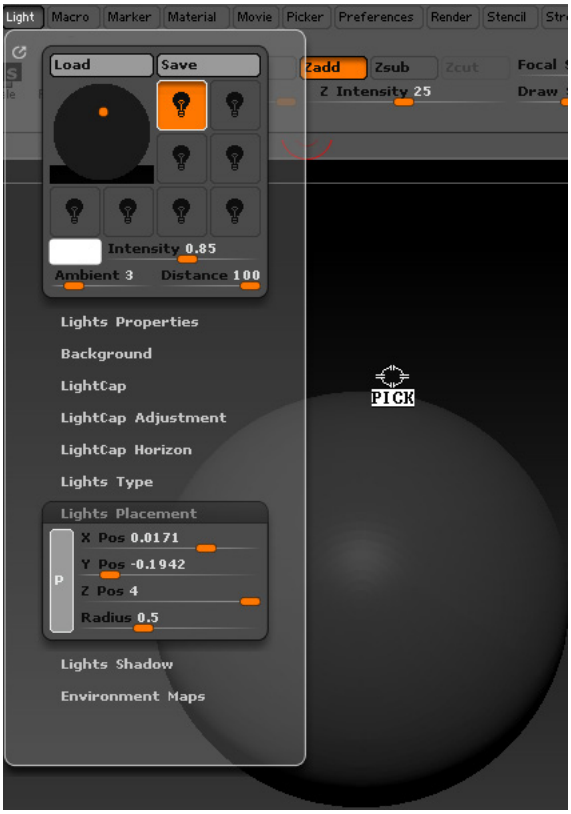


Figure 11-43 *The values of the* ***X Pos***, ***Y Pos***, *and* ***Z Pos*** *sliders updated*

TUTORIAL

Tutorial 1

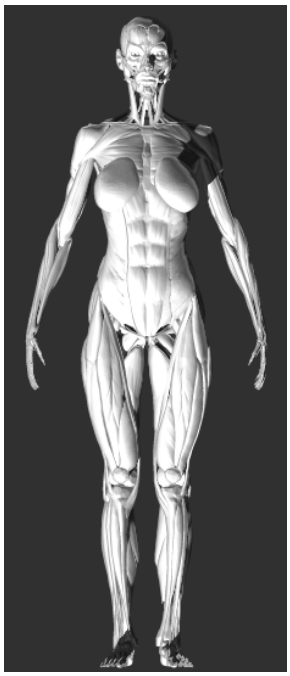


Figure 11-44 *The output after applying lights*

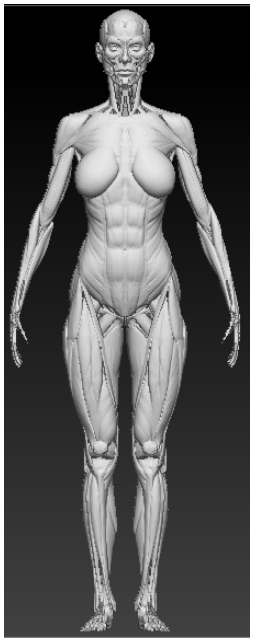


Figure 11-45 *The* ***FastShader*** *material applied to the model*



Figure 11-46 *The* ***Light*** *palette*



Figure 11-47 *The key light positioned in the* ***Light Placement*** *window*



Figure 11-48 *The* ***Shadow*** *button chosen*

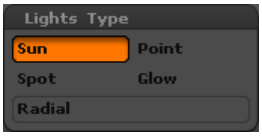


Figure 11-49 *The* ***Sun*** *button chosen*



Figure 11-50 *The fill light positioned in the* ***Light Placement*** *window with its color changed*

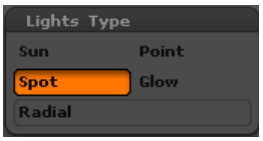


Figure 11-51 *The* ***Spot*** *button chosen*



Figure 11-52 *The back light positioned in the* ***Light Placement*** *window*



Figure 11-53 *The* ***Create*** *button chosen in the* ***Background*** *subpalette*

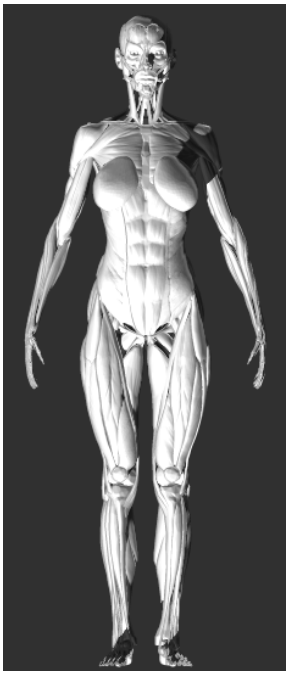


Figure 11-54 *The model rendered using the* ***BPR*** *renderer*

EXERCISE

Exercise 1

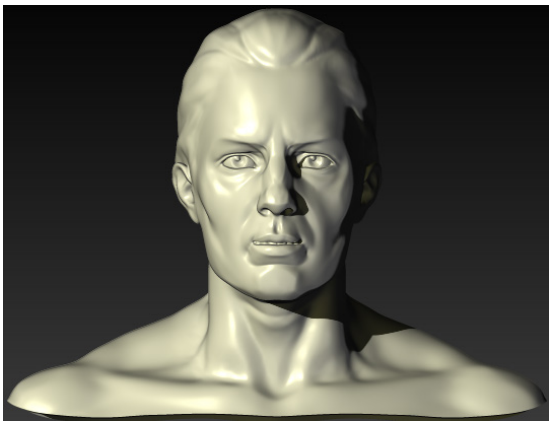


Figure 11-55 *The final output*

Chapter 12

Rendering

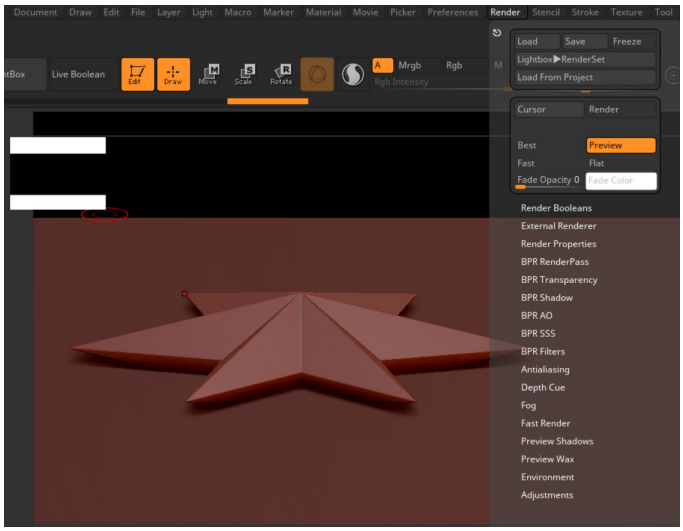


Figure 12-1 *The area to be rendered selected using the* ***Cursor*** *button*

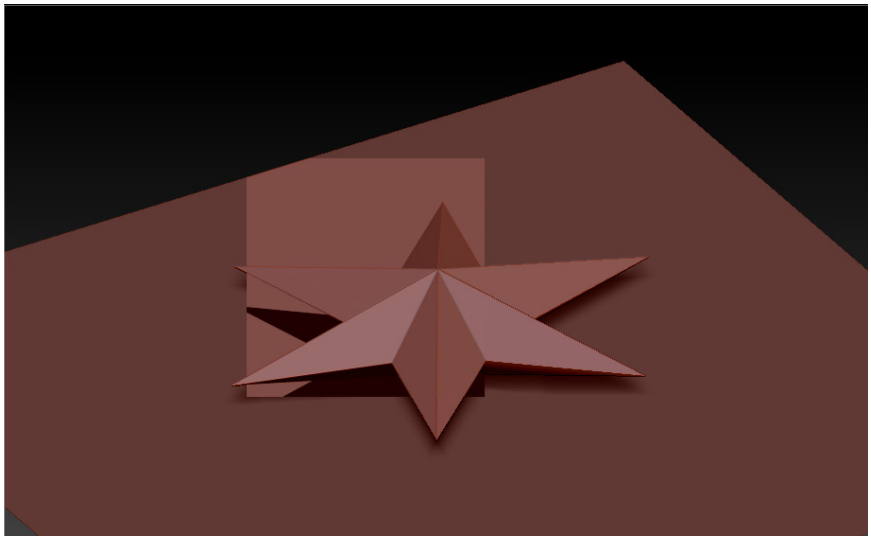


Figure 12-2 *The selected area of the scene rendered*



Figure 12-3 *The plane placed below the model*



Figure 12-4 *The scene rendered using the* ***Best*** *button*



Figure 12-5 *The scene rendered using the* ***Fast*** *button*



Figure 12-6 *The scene rendered using the* ***Flat*** *button*



Figure 12-7 *The cartoon effect applied to a model*

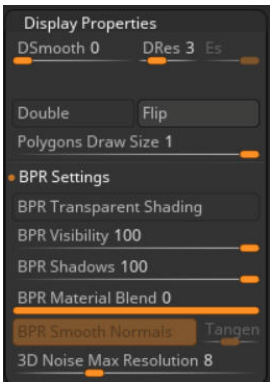


Figure 12-8 *The* ***BPR Smooth Normals Render Mode*** *button chosen*

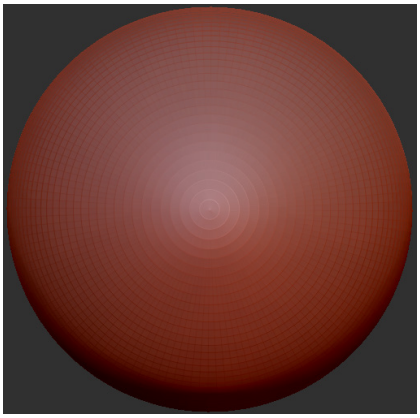


Figure 12-9 *A sphere created in the canvas*



Figure 12-10 *A flyout displayed on choosing the* ***Micro Mesh*** *button*



Figure 12-11 *The message box displayed on choosing the primitive*

.

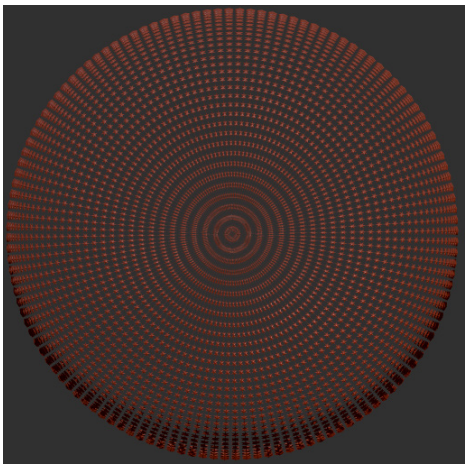


Figure 12-12 *The polygons of the sphere replaced by stars on rendering*

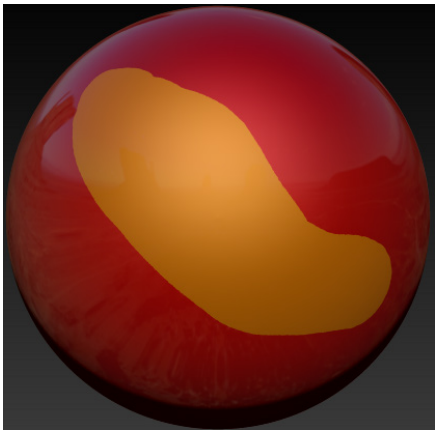


Figure 12-13 *Rendered sphere with the value of the* ***Materials Blend-Radius*** *slider set to* ***0***

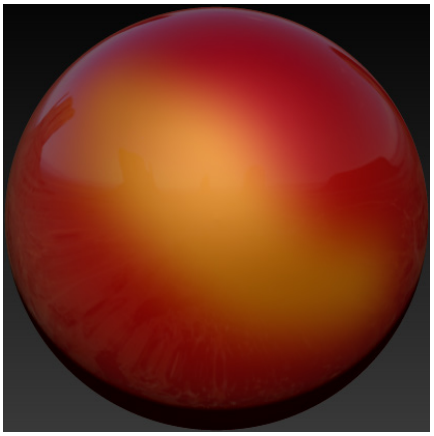


Figure 12-14 *Rendered sphere with the value of the* ***Materials Blend-Radius*** *slider set to* ***50***

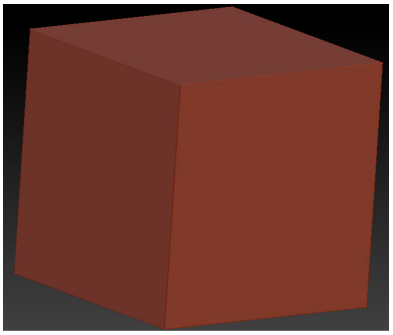


Figure 12-15 *The rendered scene in the canvas*

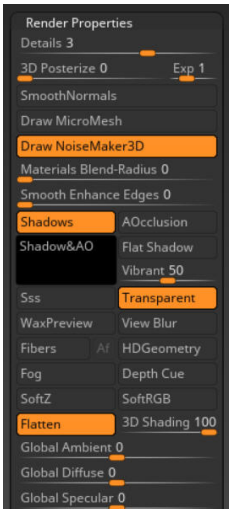


Figure 12-16 *The* ***Transparent*** *button chosen*

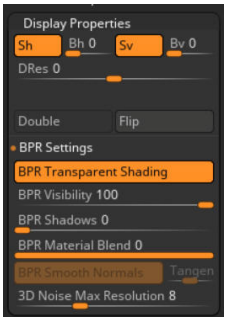


Figure 12-17 *The* ***Display Properties*** *subpalette*

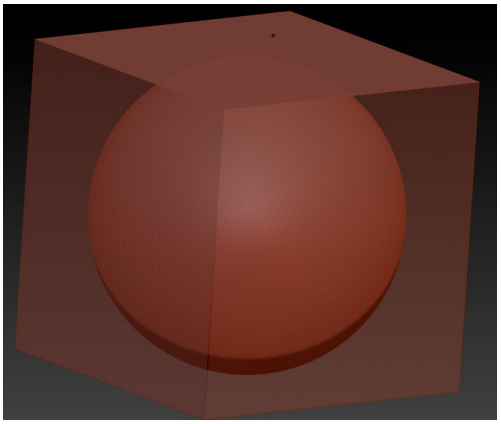


Figure 12-18 *The transparency in the cube displayed on rendering*



Figure 12-19 *The value of the* ***VBlur Radius*** *slider set to* ***10***



Figure 12-20 *The blur effect applied to the model*



Figure 12-21 *The* ***BPR RenderPass*** *subpalette*



Figure 12-22 *The scene rendered using the* ***BPR*** *renderer*

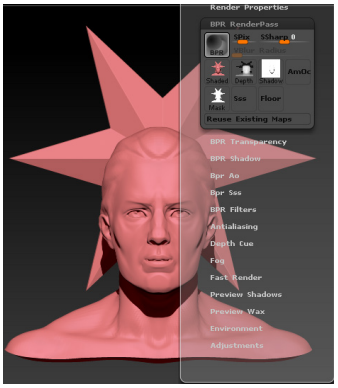


Figure 12-23 *The different slots in the* ***BPR RenderPass*** *subpalette filled up*

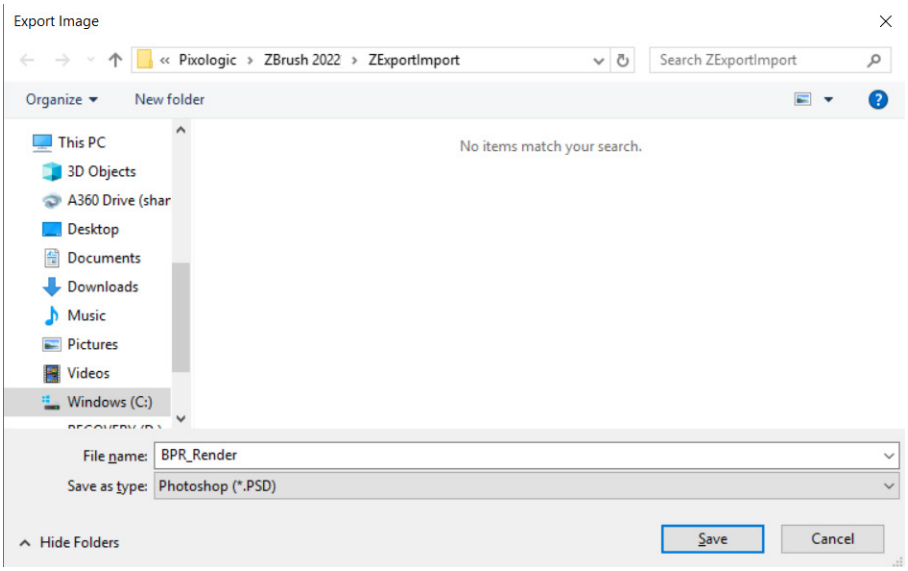


Figure 12-24 *The* ***Export Image*** *dialog box*



Figure 12-25 *The* ***BPR Transparency*** *subpalette*



Figure 12-26 *The* ***BPR Shadow*** *subpalette*



Figure 12-27 *The* ***Bpr Ao*** *subpalette*

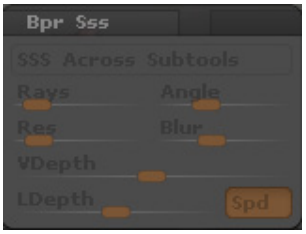


Figure 12-28 *The* ***Bpr Sss*** *subpalette*

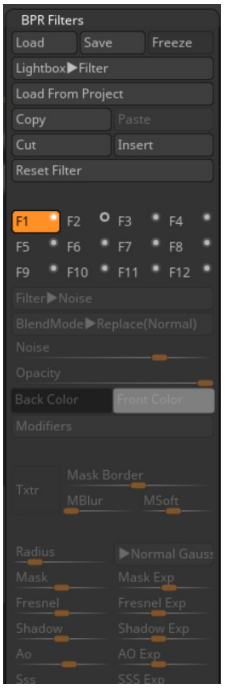


Figure 12-29 *The partial view of* ***BPR Filters*** *subpalette*

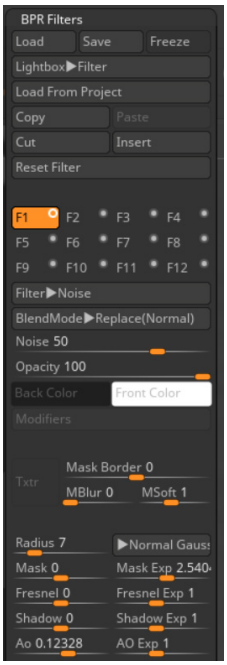


Figure 12-30 *Different parameters for applying noise filter*

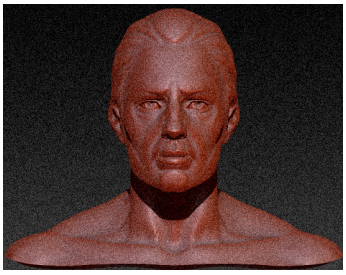


Figure 12-31 *The noise filter applied to the rendered image*



Figure 12-32 *The blur filter applied to the rendered image*



Figure 12-33 *The sharpen filter applied to the rendered image*

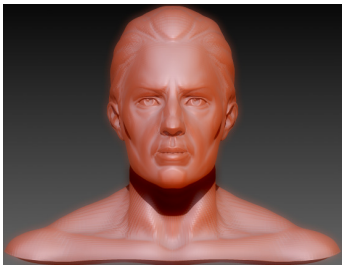


Figure 12-34 *The orton filter applied to the rendered image*

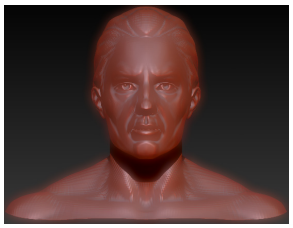


Figure 12-35 *The glow filter applied to the rendered image*



Figure 12-36 *The fade filter applied to the rendered image*



Figure 12-37 *The colorize filter applied to the rendered image*



Figure 12-38 *The red filter applied to the rendered image*

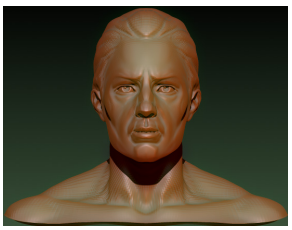


Figure 12-39 *The green filter applied to the rendered image*



Figure 12-40 *The blue filter applied to the rendered image*



Figure 12-41 *The saturation filter applied to the rendered image*

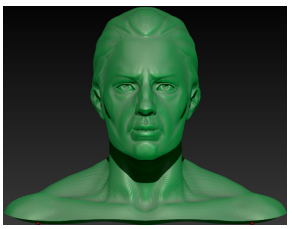


Figure 12-42 *The hue filter applied to the rendered image*

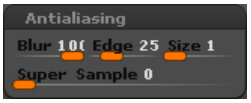


Figure 12-43 *The* ***Antialiasing*** *subpalette*

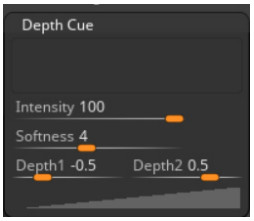


Figure 12-44 *The* ***Depth Cue*** *subpalette*



Figure 12-45 *The flyout displayed on choosing the* ***Depth Cue Alpha*** *button*

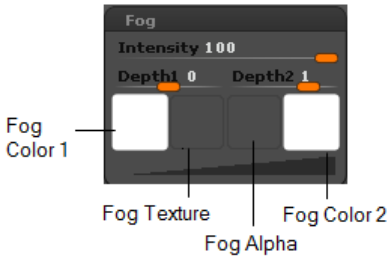


Figure 12-46 *The* ***Fog*** *subpalette*



Figure 12-47 *The* ***Preview Shadows*** *subpalette*



Figure 12-48 *The* ***Preview Wax*** *subpalette*



Figure 12-49 *The value of the* ***Strength*** *slider set to* ***20***



Figure 12-50 *The* ***Environment*** *subpalette*



Figure 12-51 *The* ***Adjustments*** *subpalette*

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Figure 12-52 *The* ***Plane3D*** *primitive chosen from the flyout*



Figure 12-53 *The plane displayed in the canvas*

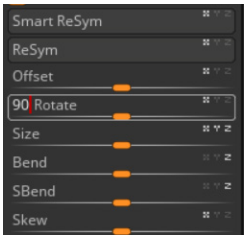


Figure 12-54 *The value of the* ***Rotate*** *slider set to* ***90***

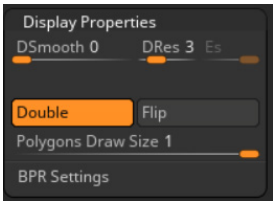


Figure 12-55 *The* ***Double*** *button chosen*

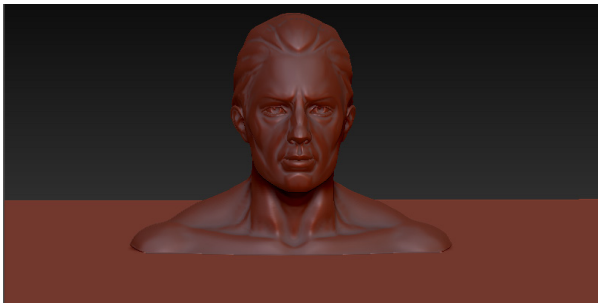


Figure 12-56 *The plane placed below the model*



Figure 12-57 *The light positioned in the* ***Light Placement*** *window*

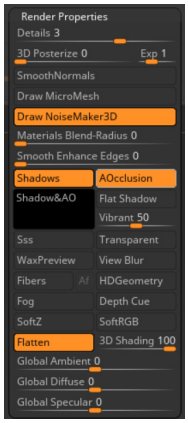


Figure 12-58 *The* ***AOcclusion*** *button chosen*



Figure 12-59 *The render passes generated*

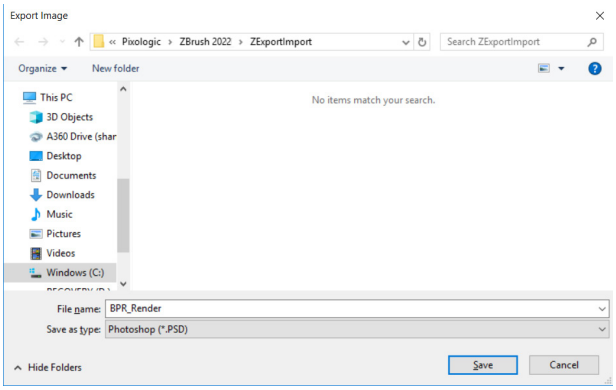


Figure 12-60 *The* ***Export Image*** *dialog box*



Figure 12-61 *The light positioned in the* ***Light Placement*** *window*

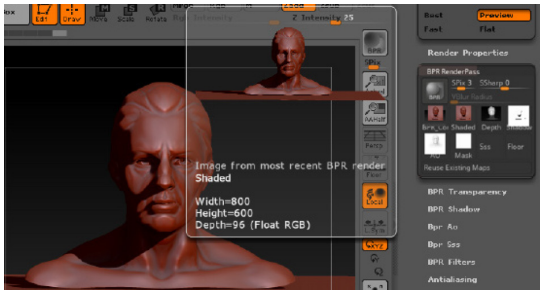


Figure 12-62 *The* ***Shaded*** *render pass selected*

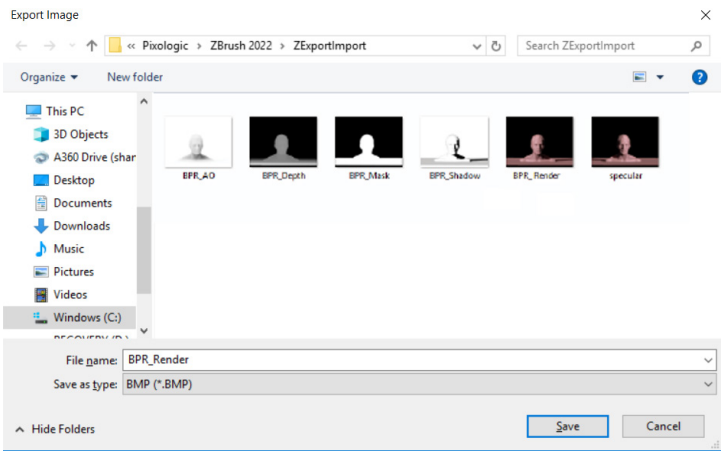


Figure 12-63 *The render passes saved in the .BMP format*

Tutorial 2



Figure 12-64 *The* ***Kotelnikoff Earthquake*** *model displayed in the canvas*

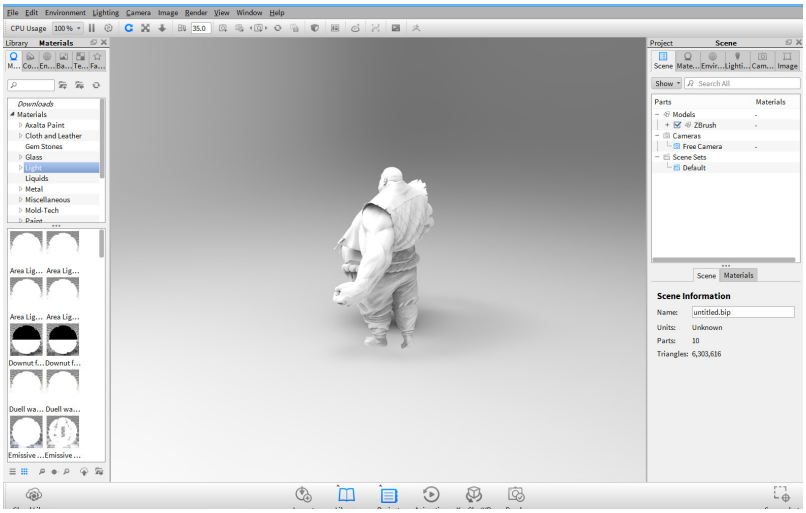


Figure 12-65 *The rendered model in the KeyShot renderer*

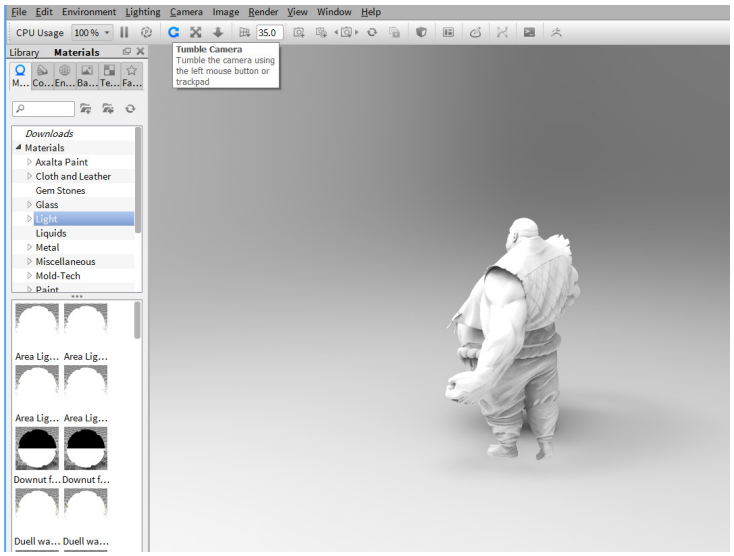


Figure 12-66 *Choosing the* ***Tumble Camera*** *button from the Ribbon*

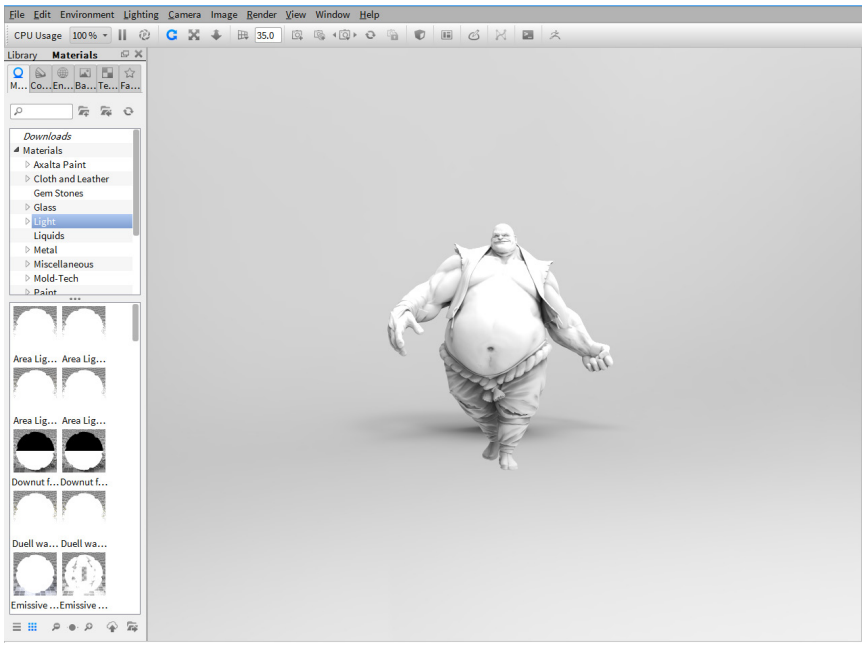


Figure 12-67 *Model rotated using the* ***Tumble Camera*** *button*

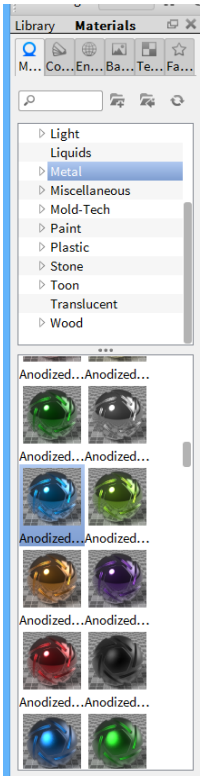


Figure 12-68 *The* ***Metal*** *node in the* ***Library***

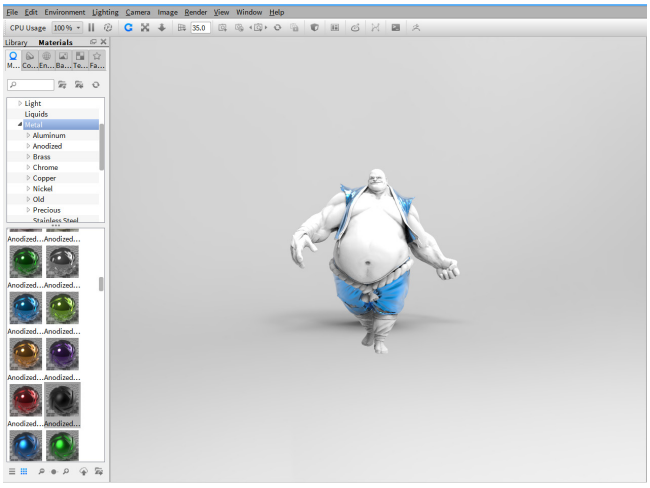


Figure 12-69 *The* ***Anodized Light Blue*** *material applied to the dress*

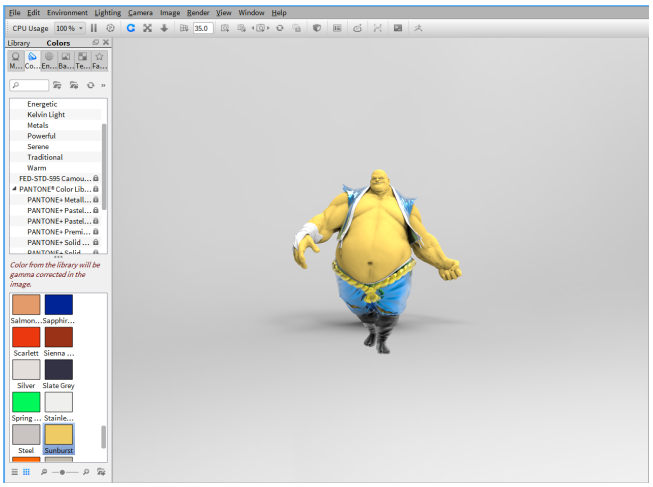


Figure 12-70 *The* ***Sunburst*** *material applied to the model*



Figure 12-71 *The* ***Doch-Design_Dirt-Lot*** *material applied*

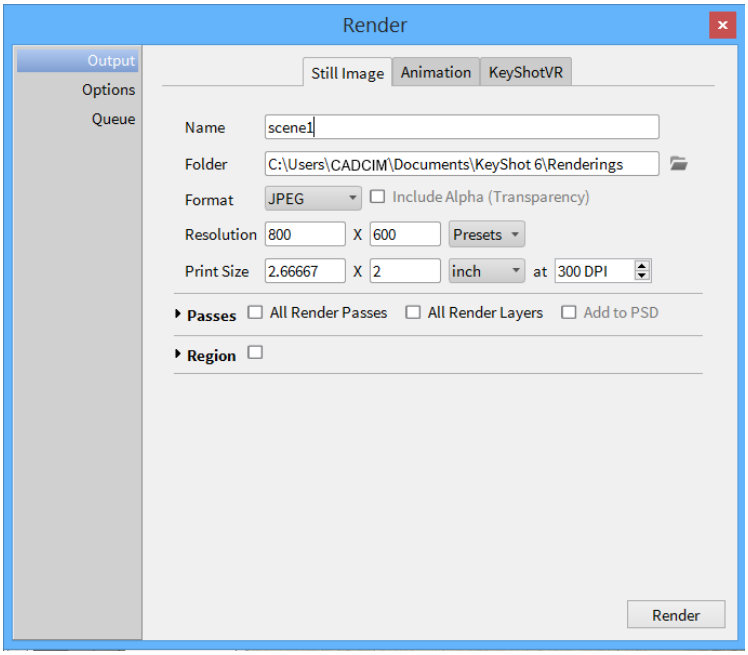


Figure 12-72 *The* ***Render*** *dialog box*

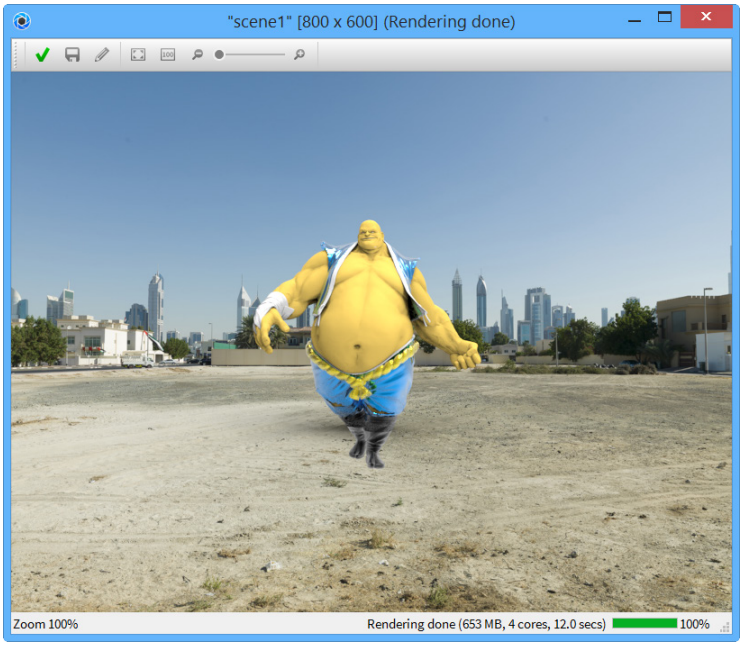


Figure 12-73 *The rendering window*

Tutorial 3

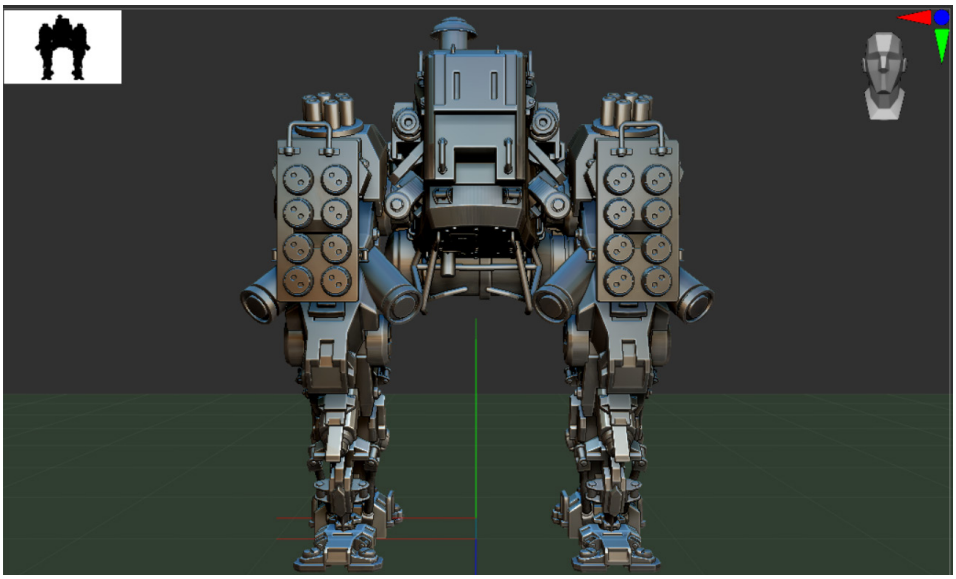


Figure 12-74 *The model displayed in the canvas*



Figure 12-75 *The attributes set in the* ***Light*** *palette*

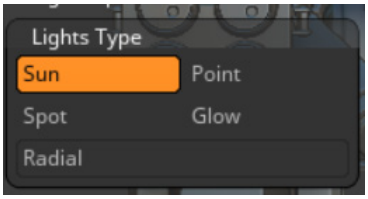


Figure 12-76 *The* ***Sun*** *button chosen*

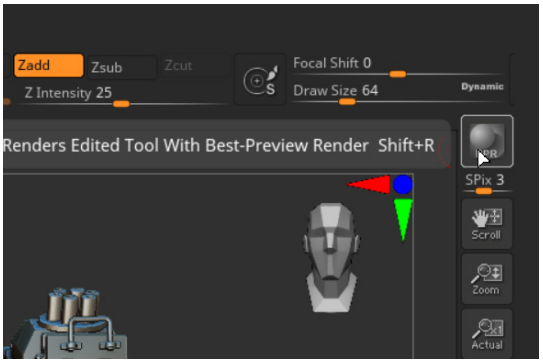


Figure 12-77 *The* ***BPR*** *button*

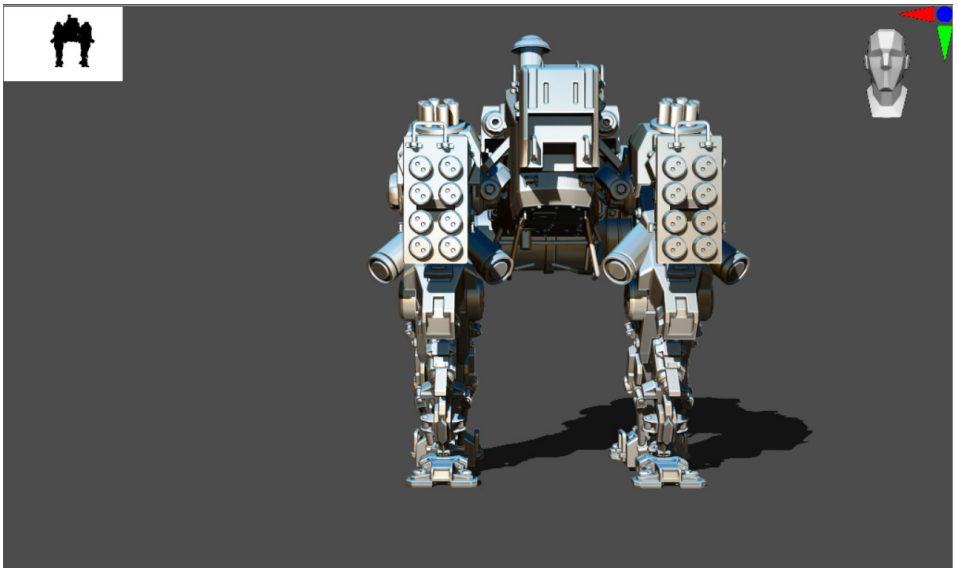


Figure 12-78 *The model rendered using the* ***BPR*** *renderer*

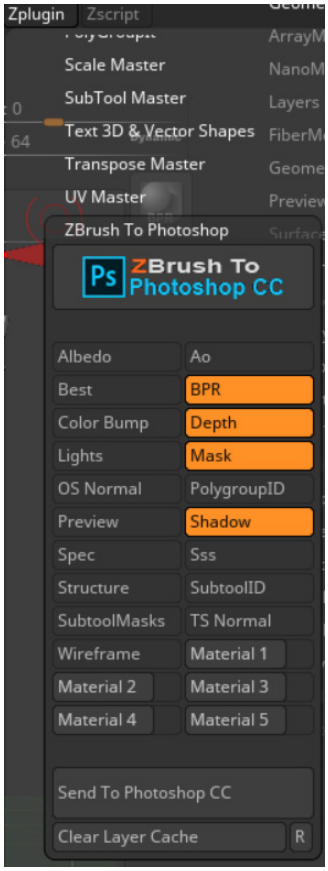


Figure 12-79 *The* ***ZBrush To Photoshop*** *subpalette*

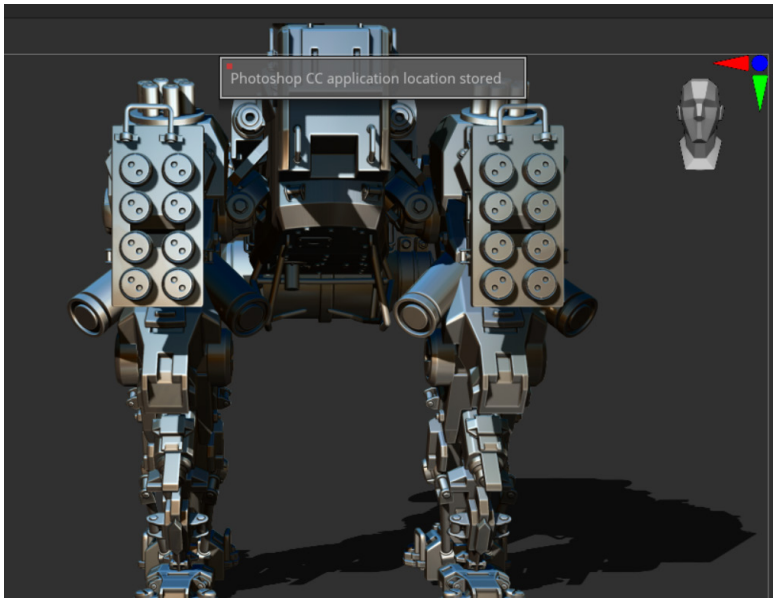


Figure 12-80 *The message displayed*

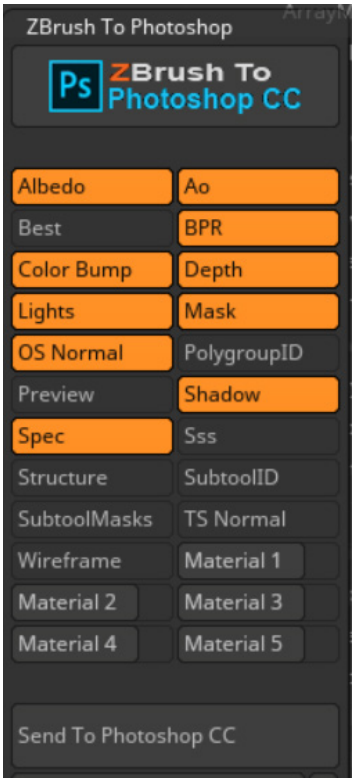


Figure 12-81 *Some of the buttons chosen*

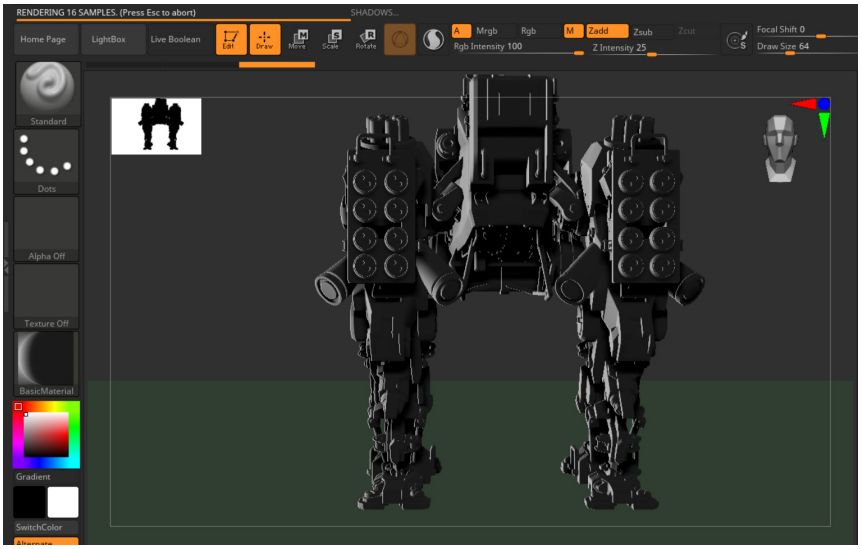


Figure 12-82 *The process of rendering*

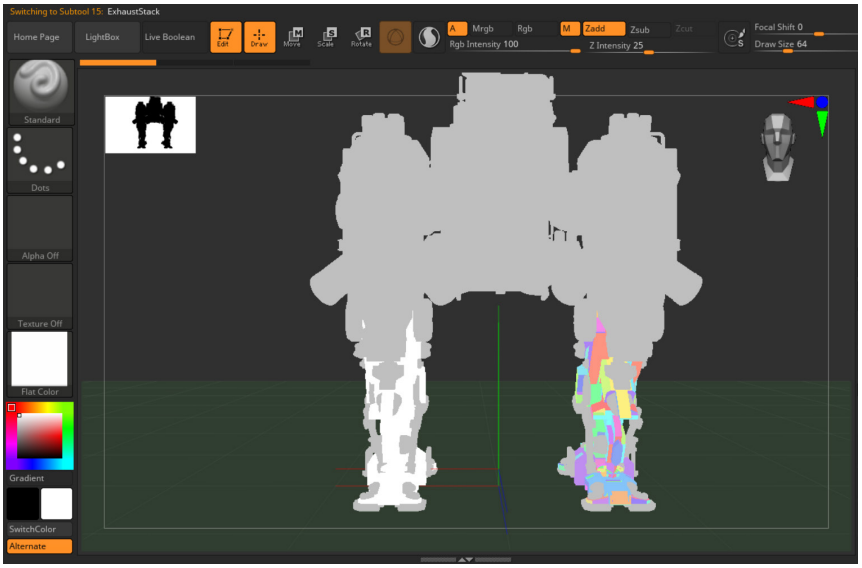


Figure 12-83 *The process of rendering with different render passes*

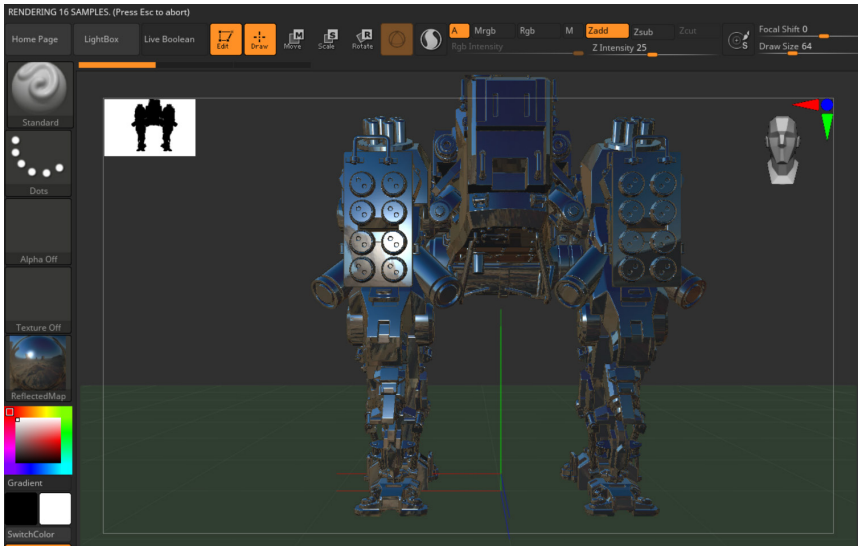


Figure 12-84 *The process of rendering with different render passes*



Figure 12-85 *Compositing render passes in a scene using Photoshop*

Exercise 1

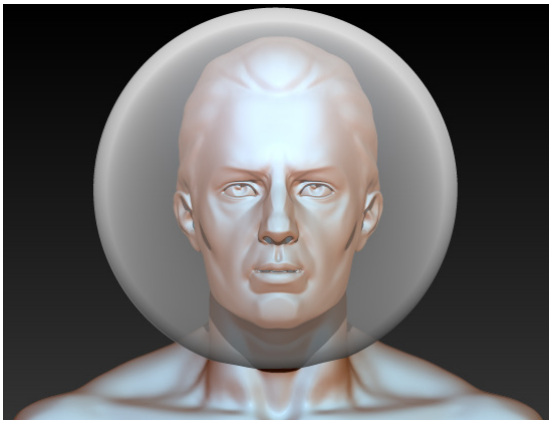


Figure 12-86 *The final output*

Chapter 13

Dynamics



Figure 13-1 *The* ***Dynamics*** *Palette*

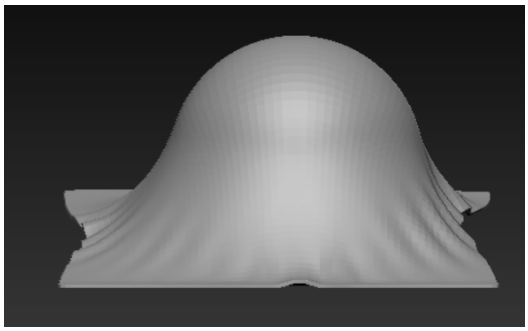


Figure 13-2 *Cloth simulation with* ***Strength = 0.5***

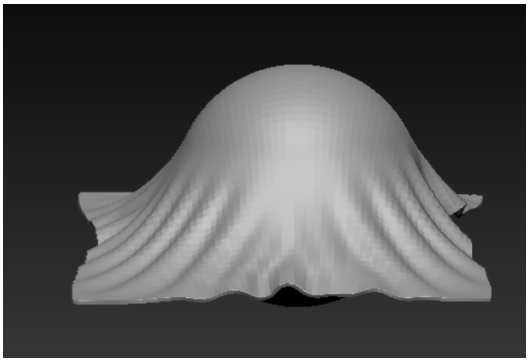


Figure 13-3 *Cloth simulation with* ***Strength = 1***

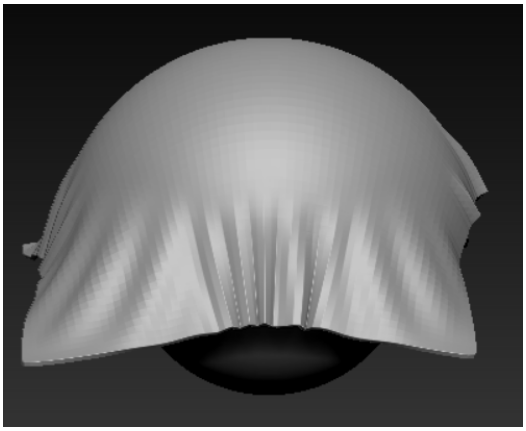


Figure 13-4 *Cloth simulation with* ***Firmness = 1***

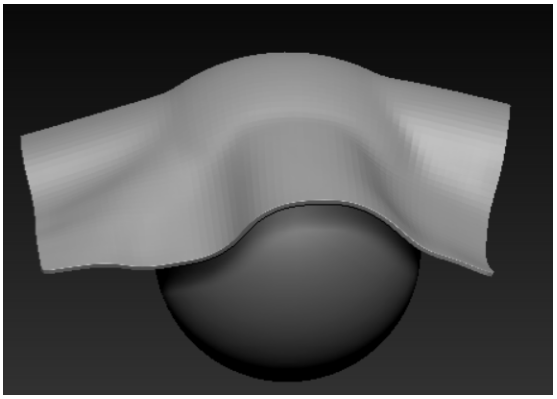


Figure 13-5 *Cloth simulation with* ***Firmness = 4***

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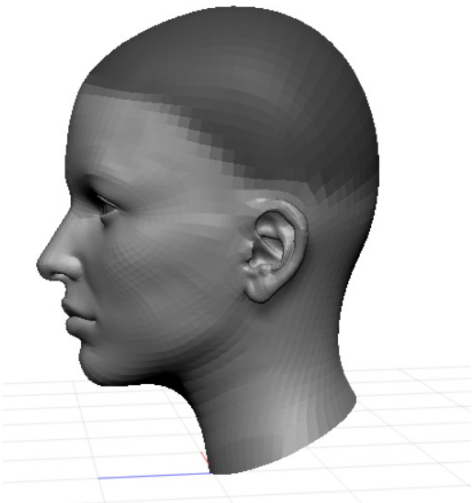


Figure 13-6 *mask created on the head of a model*

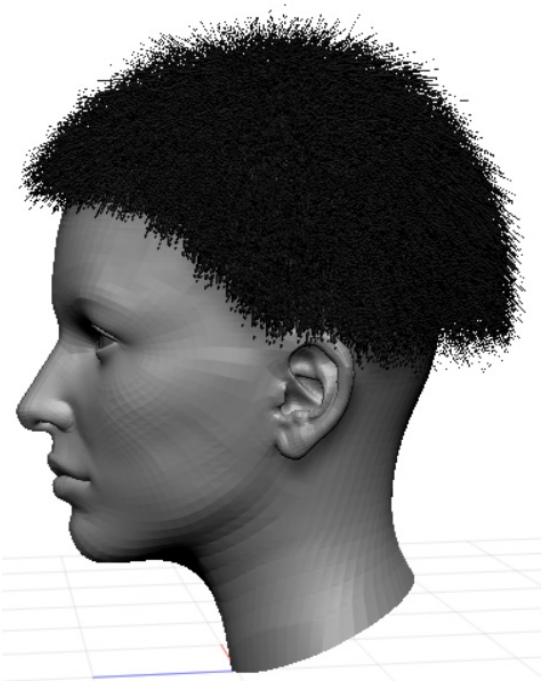


Figure 13-7 *Fibers generated on the head of a model*



Figure 13-8 *Width profile changed*



Figure 13-9 *Fibers modified on the head of a model*



Figure 13-10 *Fibers modified again*



Figure 13-11 *Fibers tilted down*



Figure 13-12 *Hairstyle modified*

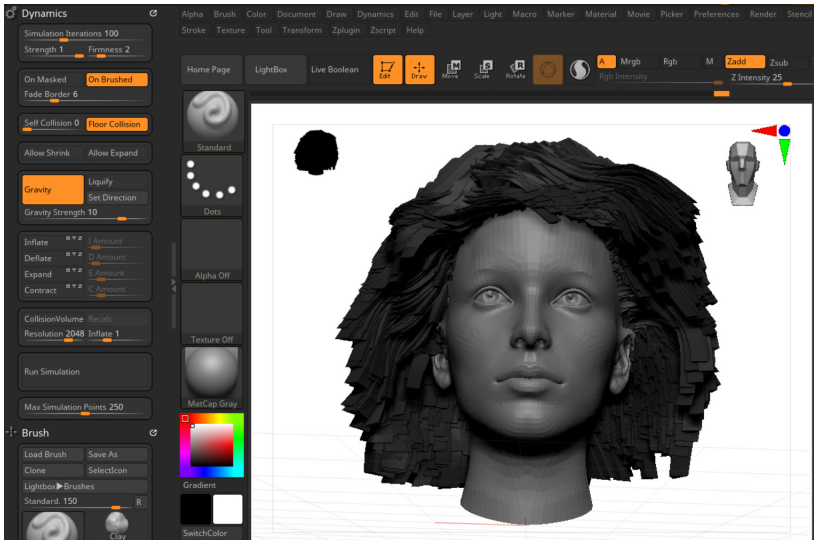


Figure 13-13 *The* ***Dynamics*** *palette pinned at the left of the interface*



Figure 13-14 *FiberMask Profile changed*



Figure 13-15 *Modified hairstyle of the model*



Figure 13-16 *Simulating hair of the model*

Tutorial 2

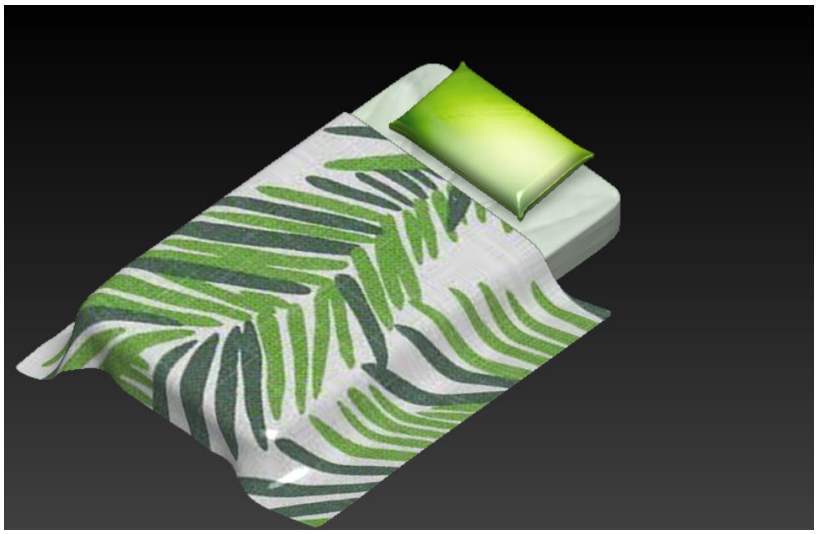


Figure 13-17 *The mattress, bedsheet, and pillow model*

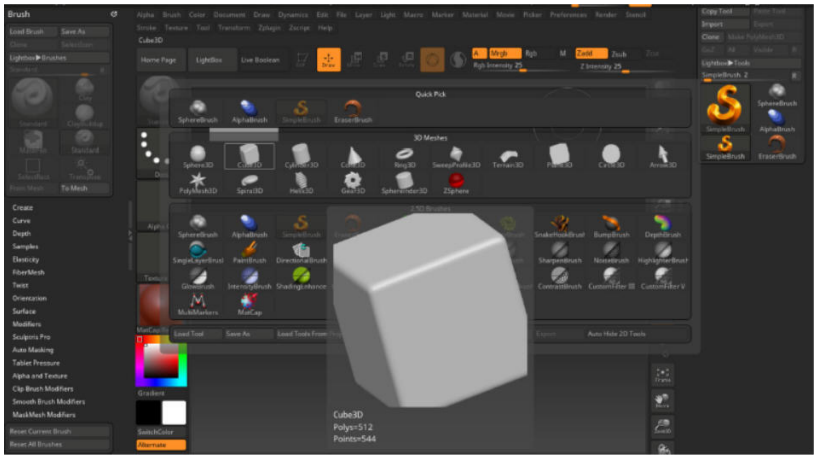


Figure 13-18 ***Cube3D*** *chosen from the flyout*

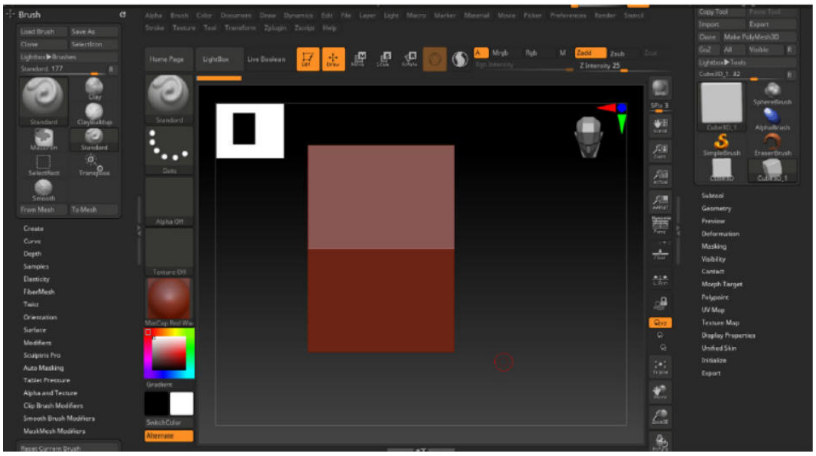


Figure 13-19 *The* ***Cube3D_1*** *created in the canvas*

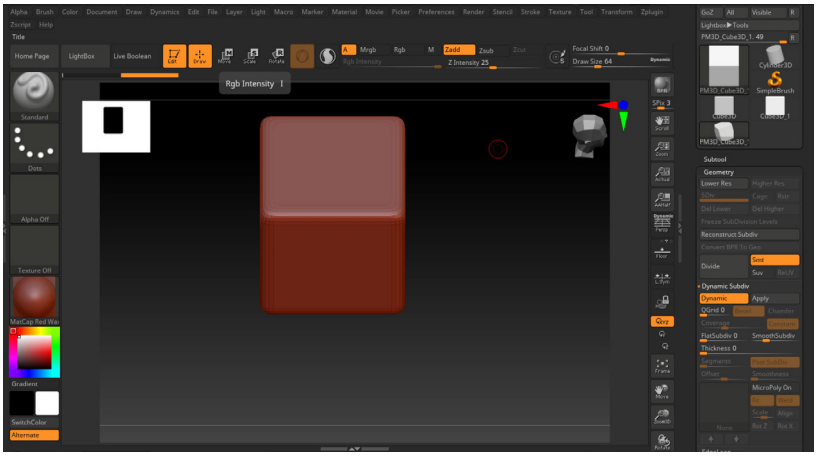


Figure 13-20 *The Mattress bevelled and smoothened*

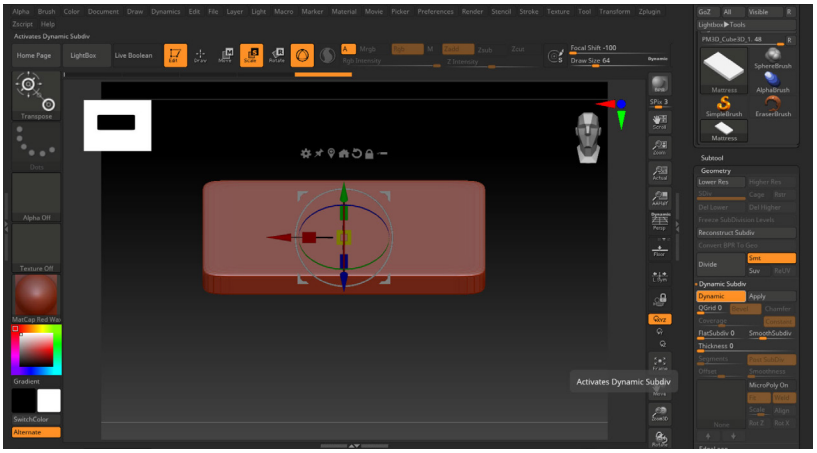


Figure 13-21 *Mattress scaled using the* ***Scale*** *tool*

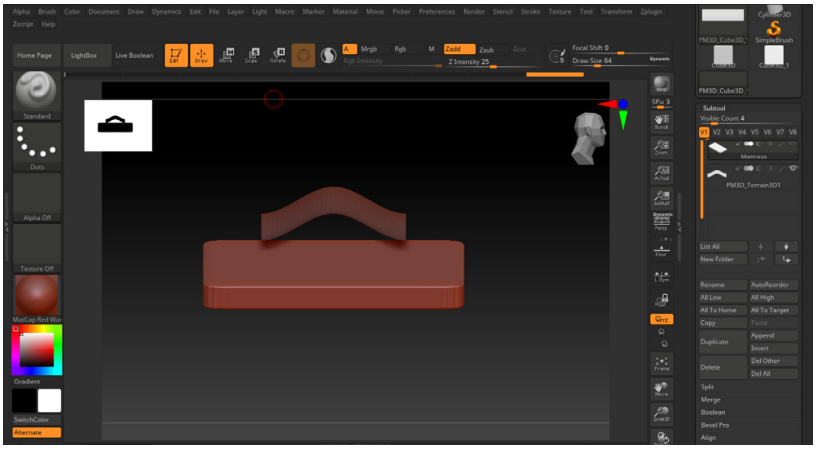


Figure 13-22 *The* ***Terrain 3D1*** *added in canvas*

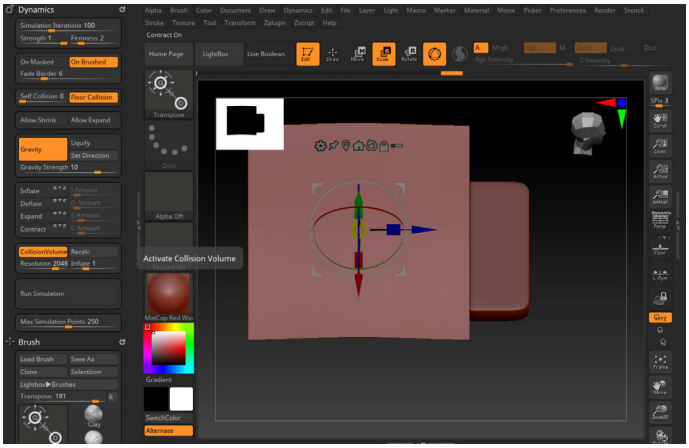


Figure 13-23 *Scaled bedsheet*

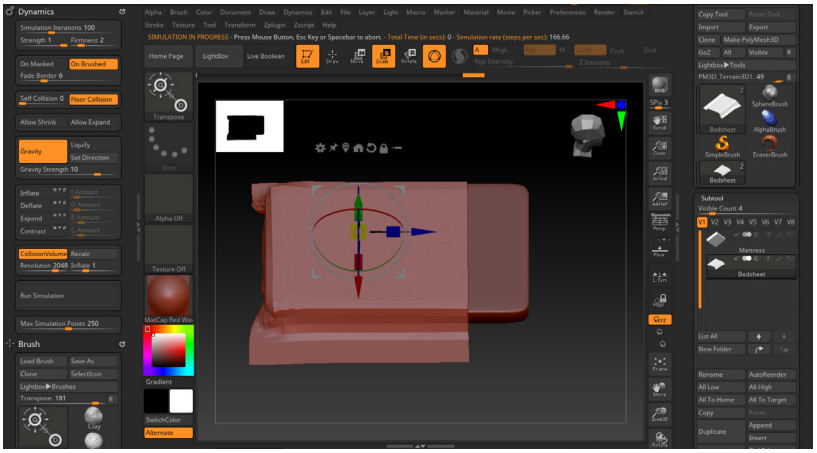


Figure 13-24 *Simulation of Bedsheet falling on Mattress*

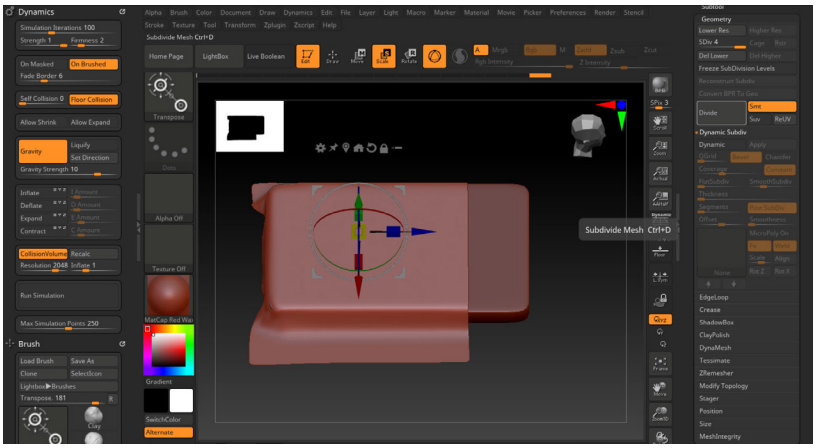


Figure 13-25 *The smoothened bedsheet*

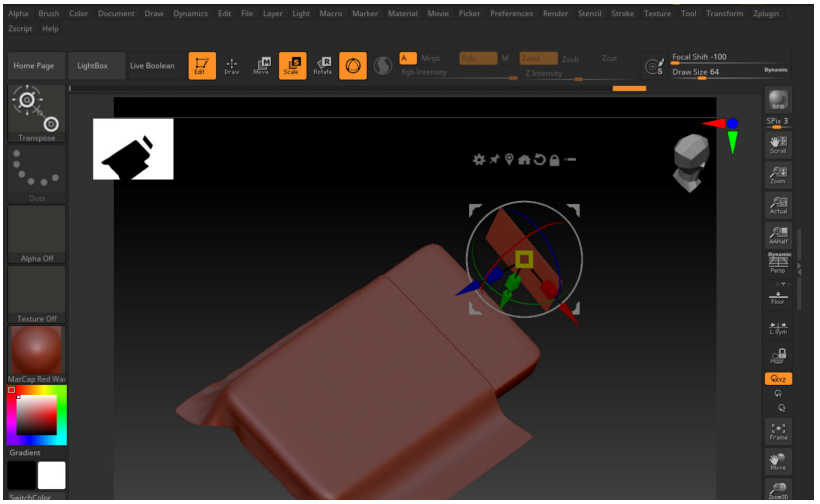


Figure 13-26 *Aligning pillow*

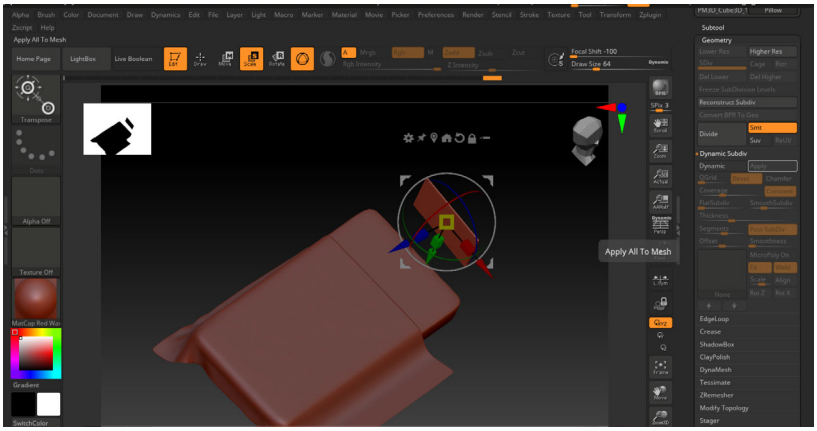


Figure 13-27 *Increasing the thickness of pillow*

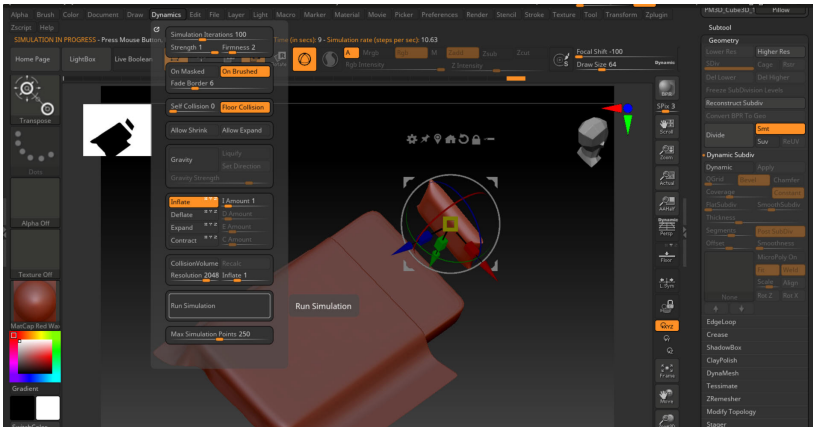


Figure 13-28 *Simulating Pillow*

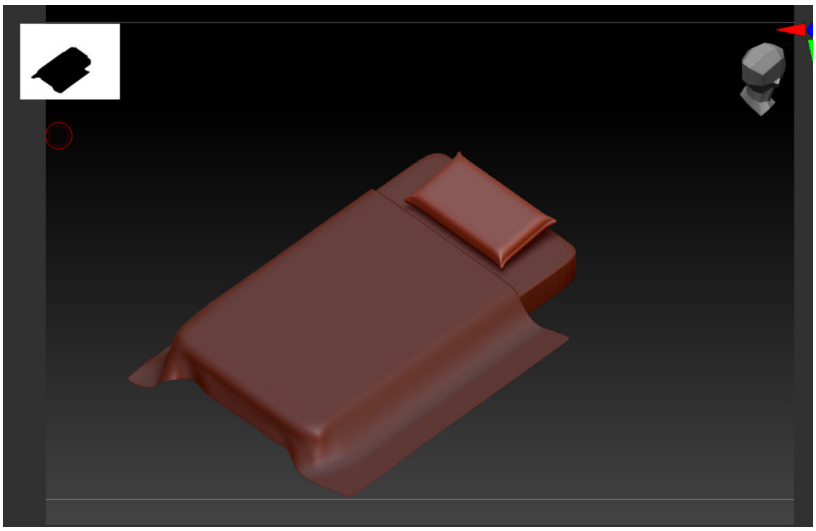


Figure 13-29 *Setting Pillow on Mattress*

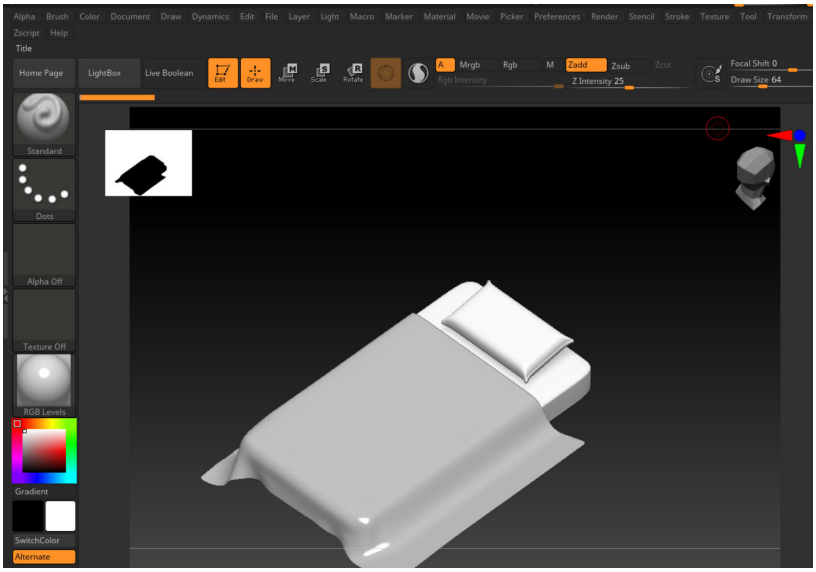


Figure 13-30 *The **RGB** material applied to the Mattress, Bedsheet, and Pillow*

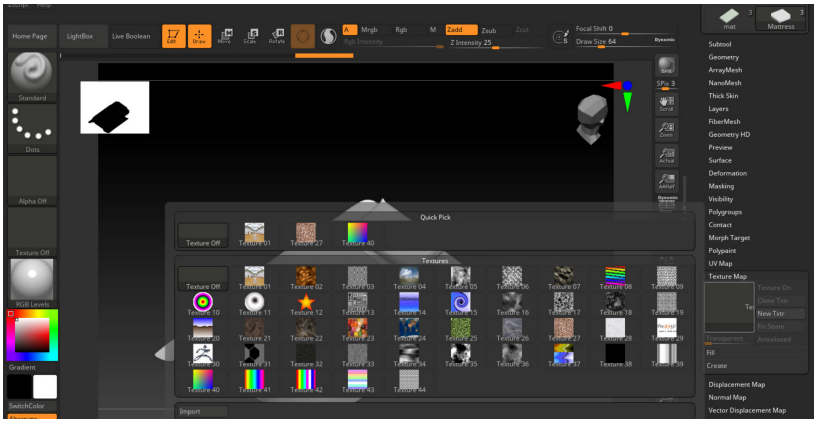


Figure 13-31 *The flyout displayed*

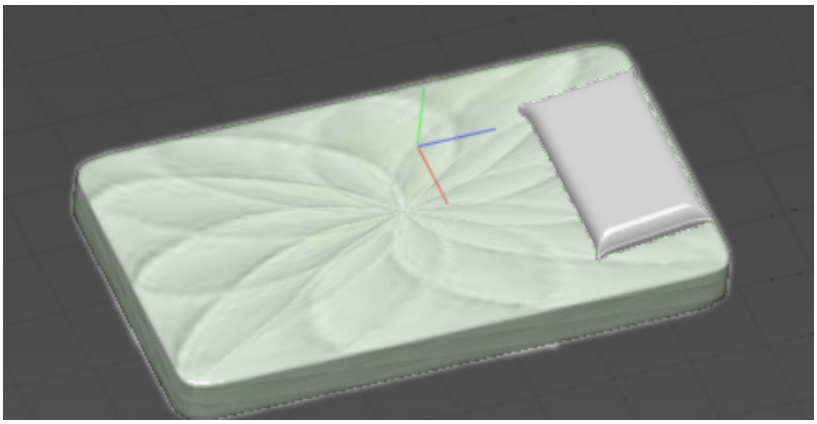


Figure 13-32 *The mattress texture applied to the Mattress*

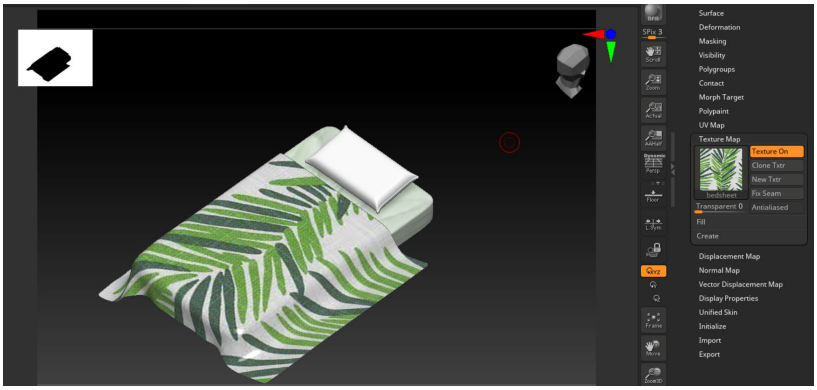


Figure 13-33 *The bedsheet texture applied to the Bedsheet*

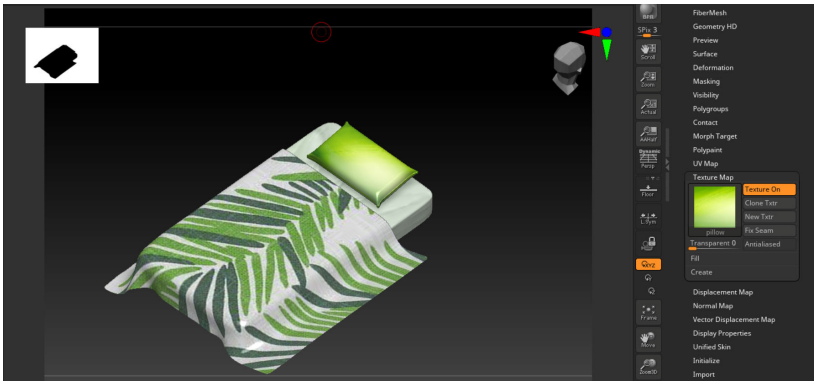


Figure 13-34 *The pillow texture applied to the Pillow*

Exercise 1



Figure 13-35 *Cloth simulation*

Project 1

Cartoon Character Model with a Background Scene - I



Figure P1-1 *The model of a cartoon character with a background scene*

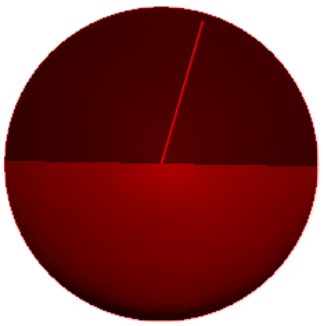


Figure P1-2 *A ZSphere created in the canvas*

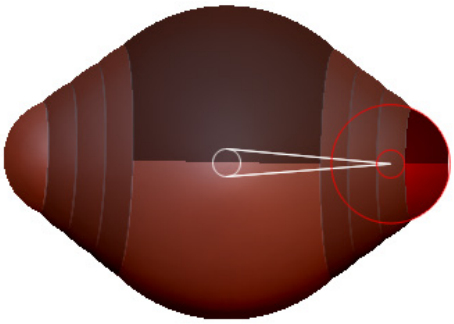


Figure P1-3 *A ZSphere created for the shoulders*

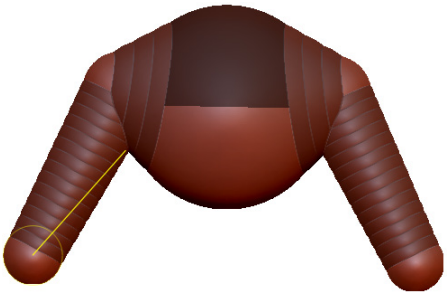


Figure P1-4 *A ZSphere created for elbow and moved downward*

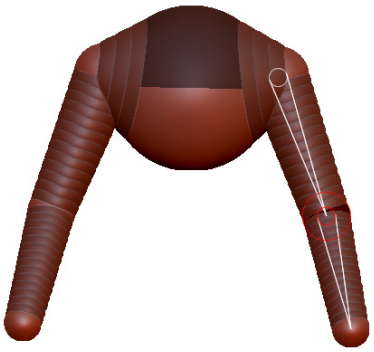


Figure P1-5 *A ZSphere created and moved outward*

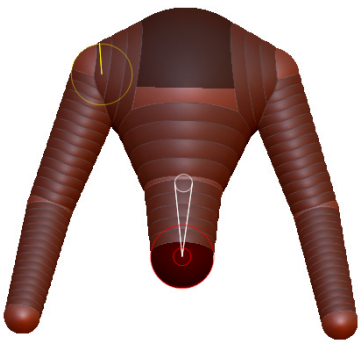


Figure P1-6 *The torso created*

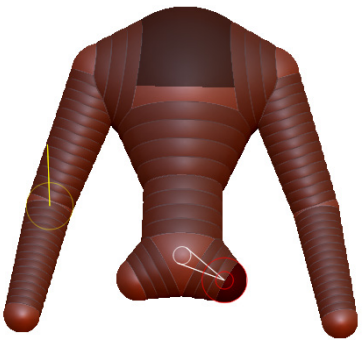


Figure P1-7 *A ZSphere created for the hips*

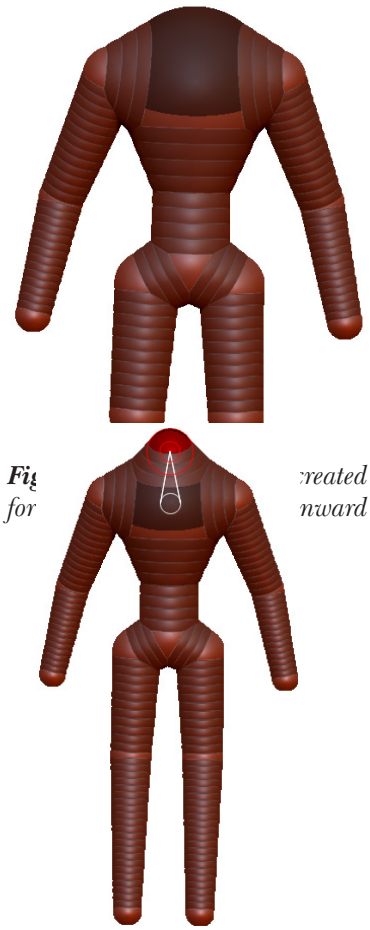
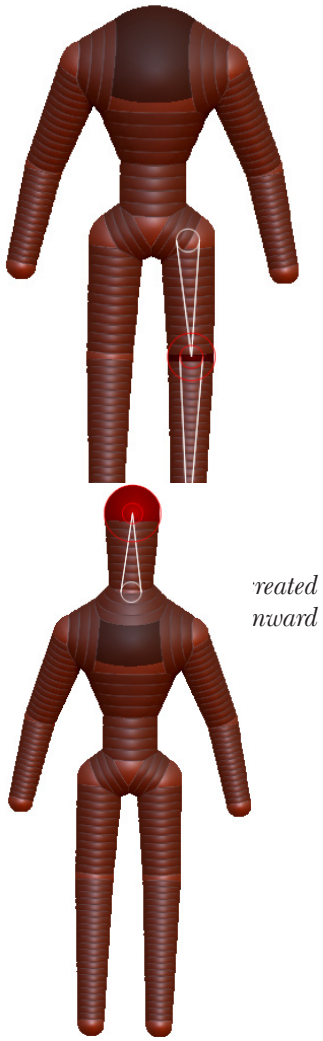


Fig *created*
for *nward*

Figure P1-10 *A ZSphere created for the neck*



F *reated*
fo *nward*

Figure P1-11 *A ZSphere created for the head and moved upward*

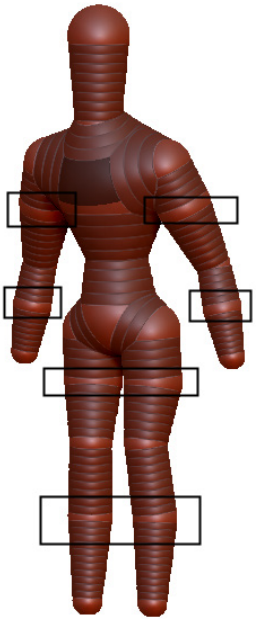


Figure P1-12 *More ZSpheres added to refine the shape*



Figure P1-13 *A ZSphere created for the feet and moved outward*



Figure P1-14 *The shape of the feet refined*



Figure P1-15 *A ZSphere created for the hand*

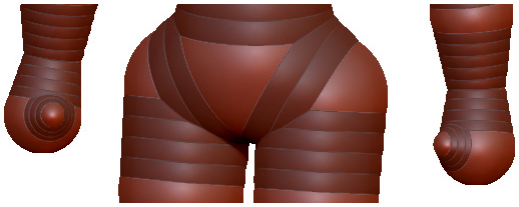


Figure P1-16 *A ZSphere created for the knuckle*

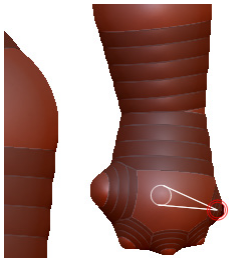


Figure P1-17 *The knuckles created*

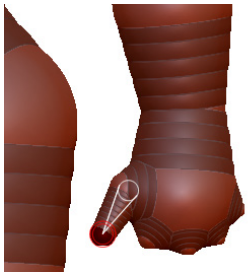


Figure P1-18 *A ZSphere created for the thumb and moved outward*

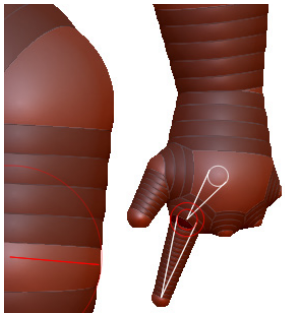


Figure P1-19 *The index finger created*

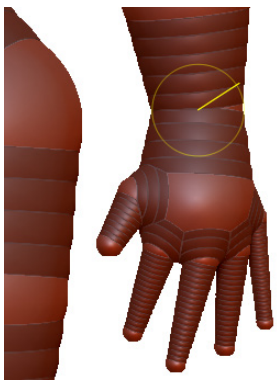


Figure P1-20 *All the fingers created*



Figure P1-21 *The adaptive skin mesh*



Figure P1-22 *The shape of the head created using the* ***Move*** *brush*



Figure P1-23 *The shape of the feet refined using the* ***Move*** *brush*



Figure P1-24 *The shape of the body refined in the side view*

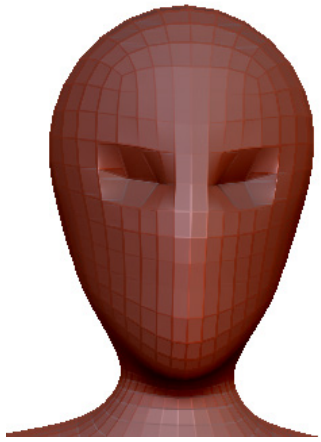


Figure P1-25 *The eye socket created using the* ***Standard*** *brush*

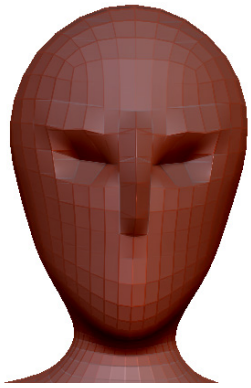


Figure P1-26 *The depth of the nose created using the* ***Standard*** *brush*

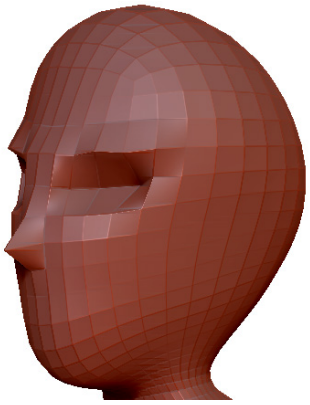


Figure P1-27 *The shape of the nose refined using the* ***Move*** *brush*

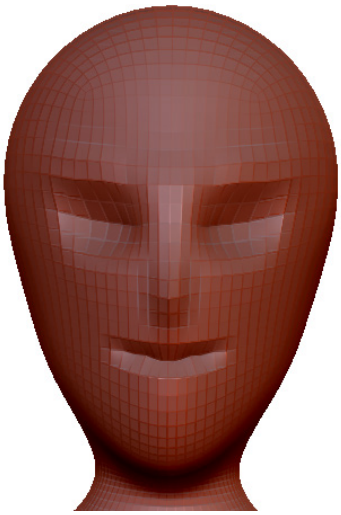


Figure P1-28 *The shape of the mouth created using the* ***Standard*** *brush*

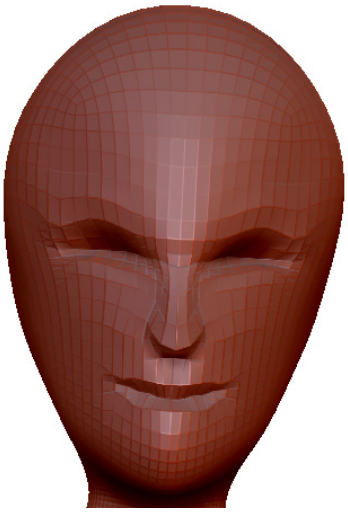


Figure P1-29 *The shape of the eyes, nose, and mouth refined using the* ***Move*** *brush*

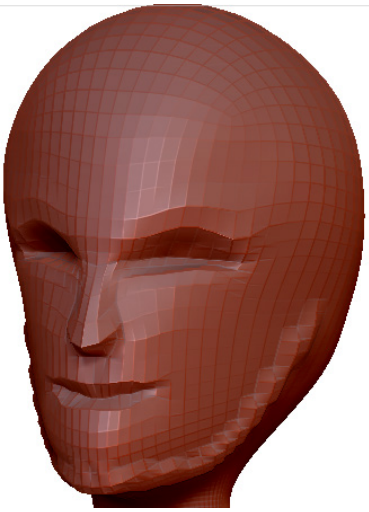


Figure P1-30 *The shape of the jaw line created using the* ***ClayBuildup*** *brush*

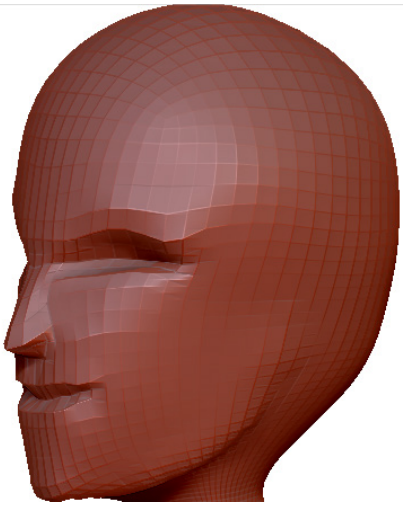


Figure P1-31 *The shape of the jaw line smoothened using the* ***Smooth*** *brush*

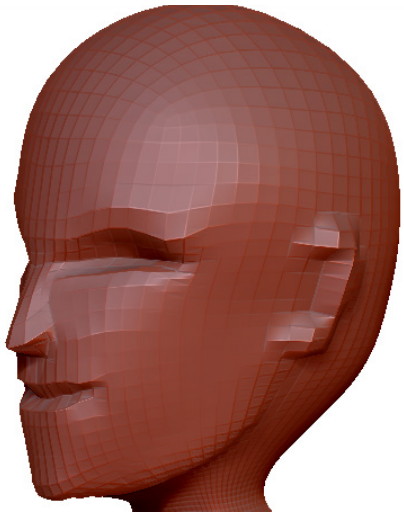


Figure P1-32 *The shape of the ear created using the* ***Standard*** *brush*

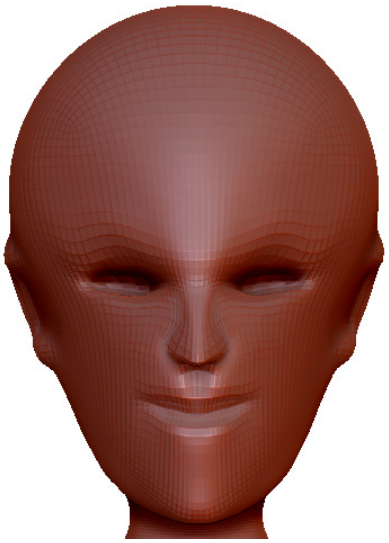


Figure P1-33 *The shape of the eyes refined using the* ***Move*** *brush*



Figure P1-34 *The shape of the lips created using the* ***Standard*** *brush and the* ***Pinch*** *brush*



Figure P1-35 *The shape of the lips refined using the* ***Move*** *brush*



Figure P1-36 *The shape of the lips refined using the* ***Dam_Standard*** *brush*



Figure P1-37 *The eyebrows and eyelids created*

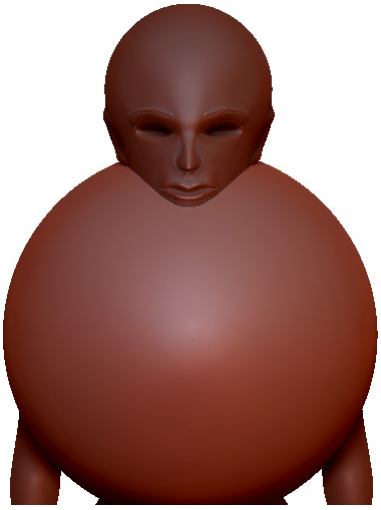


Figure P1-38 *A sphere smoothened*

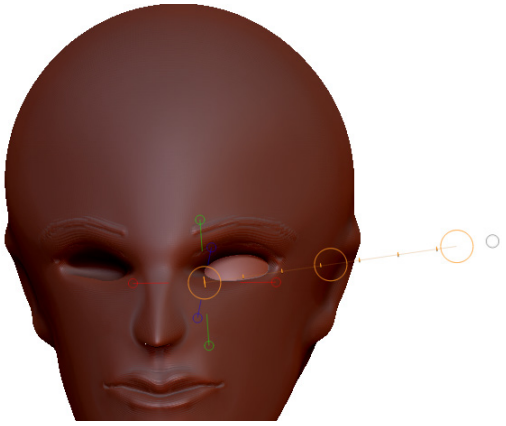


Figure P1-39 *The sphere scaled down and moved inside the eye socket*



Figure P1-40 *The duplicate copy of the eye ball created and moved to the left eye socket*

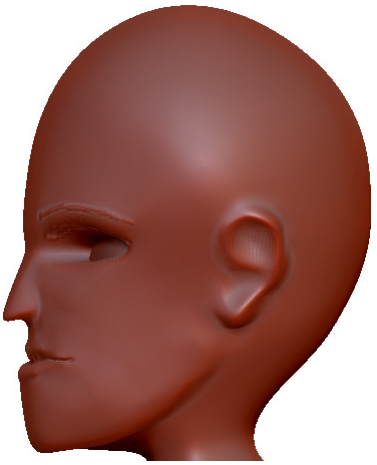


Figure P1-41 *The shape of the ear refined using the* ***Standard*** *and* ***Move*** *brushes*

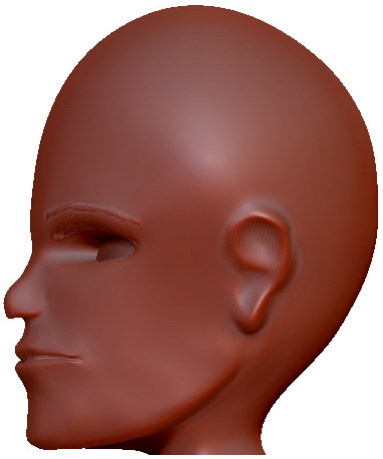


Figure P1-42 *The facial features refined in the side view using the* ***Move*** *brush*



Figure P1-43 *The length of the fibers decreased*



Figure P1-44 *The clothes created using the* ***Extract*** *button*



Figure P1-45 *The shape of the pants refined using the* ***Move*** *brush*



Figure P1-46 *The mask created for the shoes*



Figure P1-47 *The shoes created using the* ***Extract*** *button*



Figure P1-48 *The* ***MatCap Skin06*** *material applied to the body*



Figure P1-49 *The colors applied to the clothes and the shoes*



Figure P1-50 *The texture for the eyes created*



Figure P1-51 *The lips painted*



Figure P1-52 *The mask created for the eyebrows*



Figure P1-53 *The eyebrows created using the FiberMesh*



Figure P1-54 *A pattern created on the shirt*

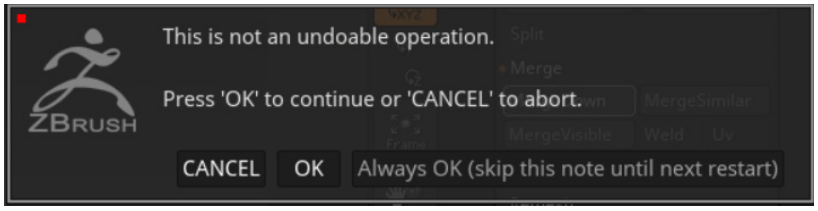


Figure P1-55 *The message box displayed*

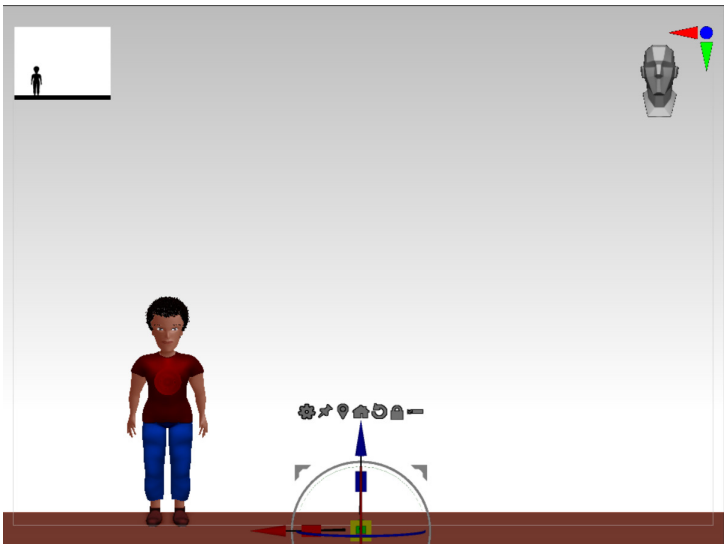


Figure P1-56 *The ground and character scaled and aligned*

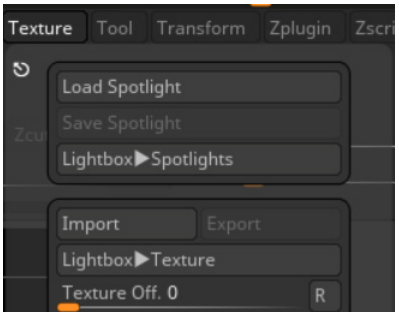


Figure P1-57 *The* ***Lightbox Texture*** *button chosen*

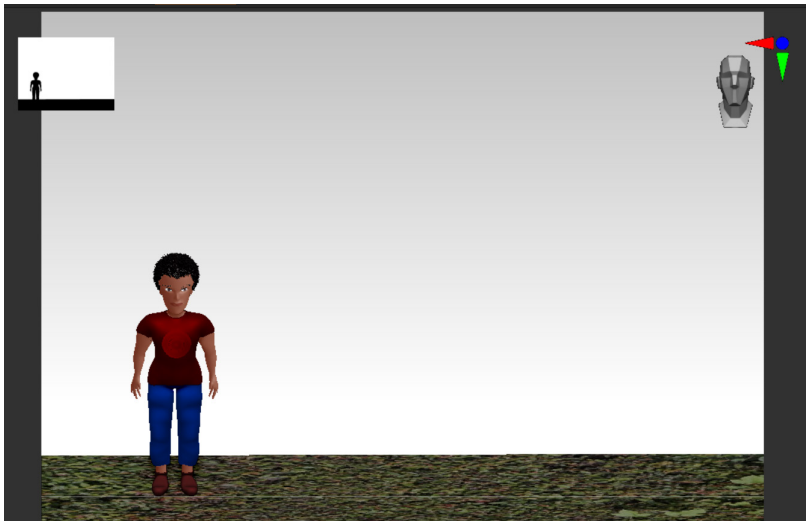


Figure P1-58 *Texture applied to the ground*

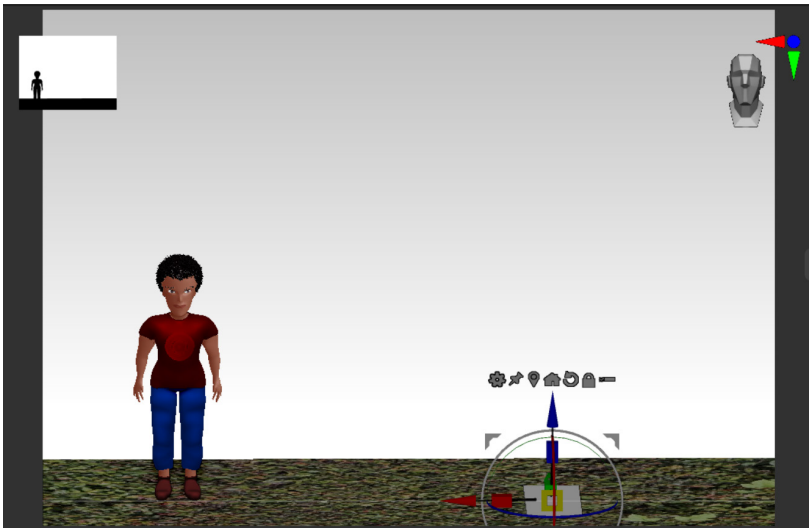


Figure P1-59 *Plane aligned*



Figure P1-60 *Strokes applied to the plane*



Figure P1-61 *Fibers generated on the plane*

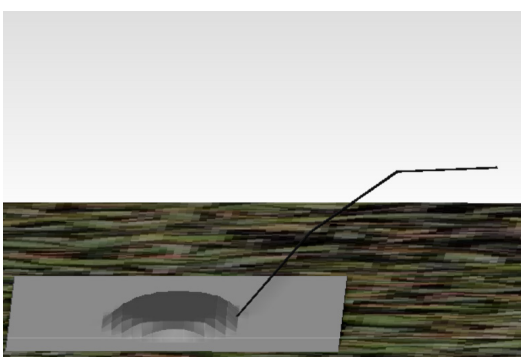


Figure P1-62 *Single fiber displayed*

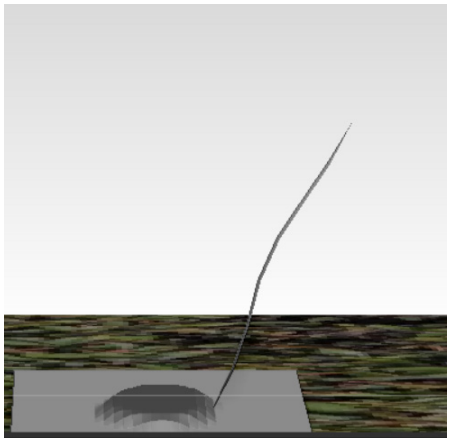


Figure P1-63 *Fiber set to upright position*

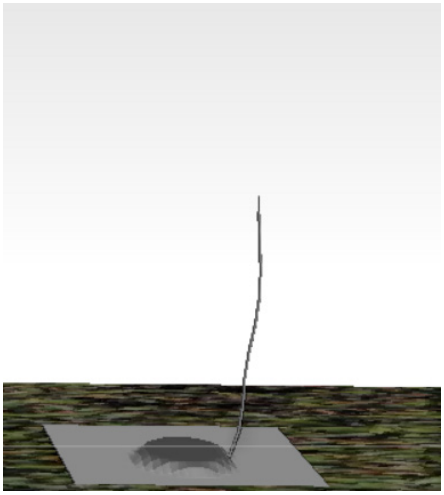


Figure P1-64 *The fiber straightened*



Figure P1-65 *The width profile curve displayed*

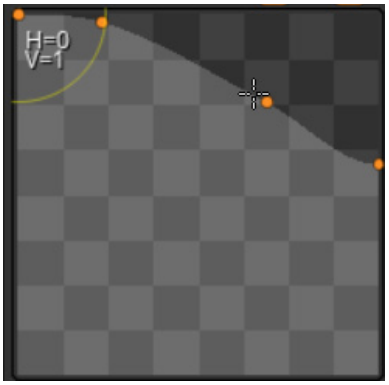


Figure P1-66 *The width profile curve changed*

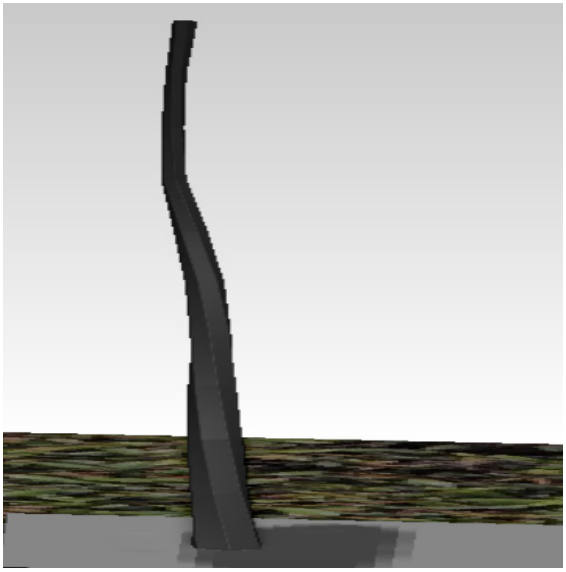


Figure P1-67 *The fiber changed*

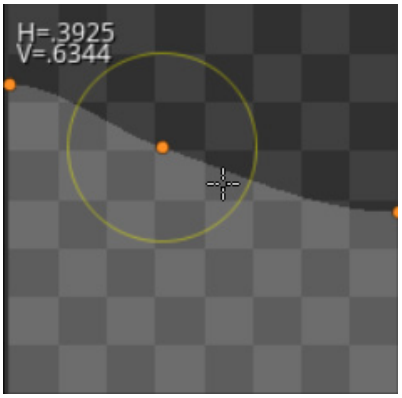


Figure P1-68 *Changed length profile curve*

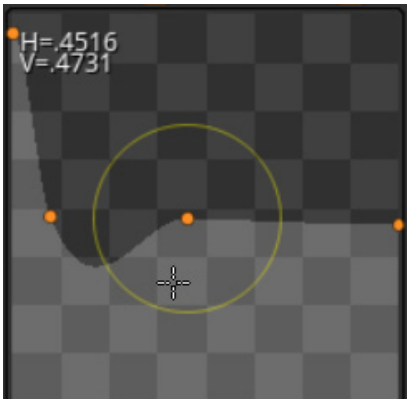


Figure P1-69 *Changed revolve radius profile curve*

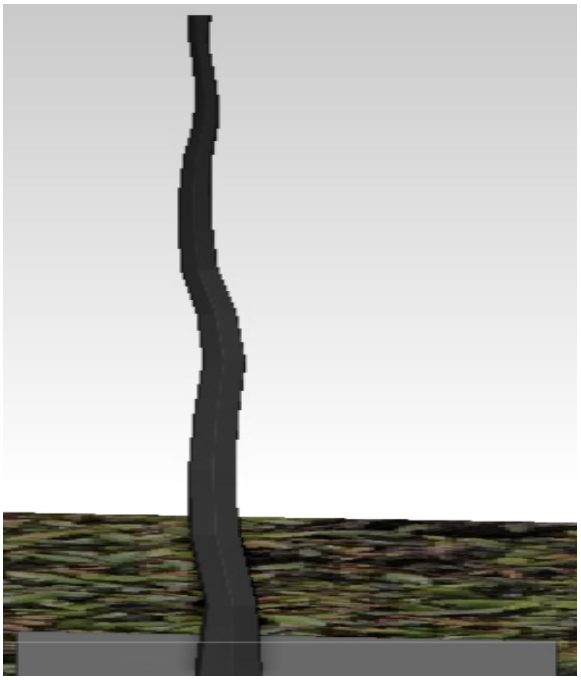


Figure P1-70 *Fiber resembling a tree bark*

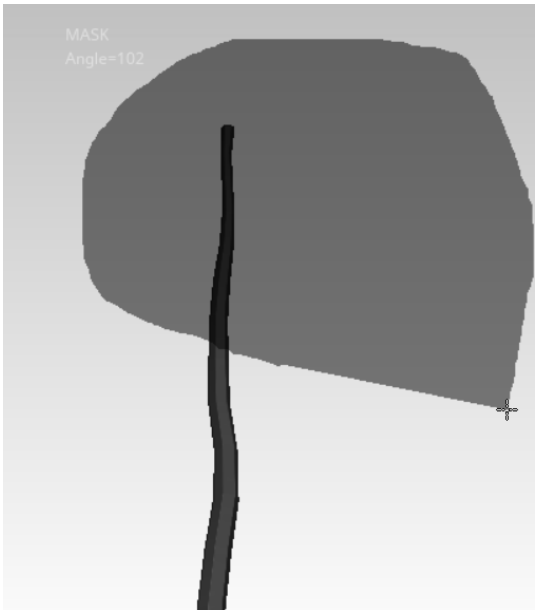


Figure P1-71 *Mask applied on the fiber*

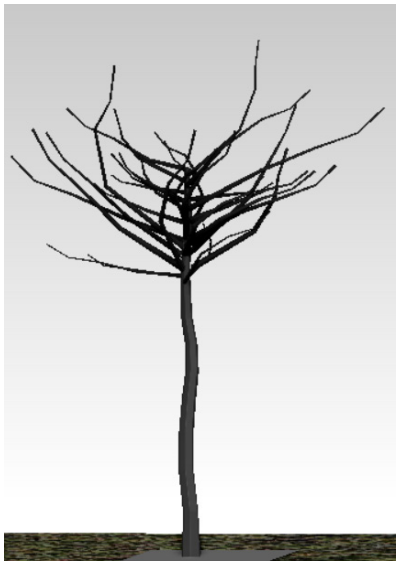


Figure P1-72 *Branches displayed*



Figure P1-73 *Sub branches displayed*

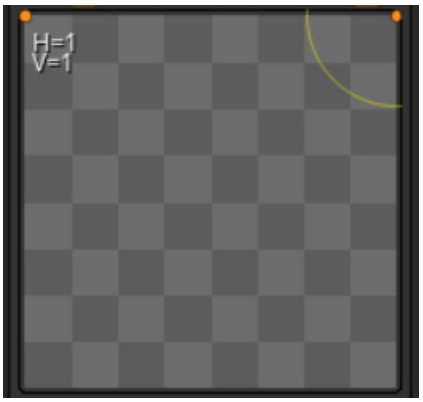


Figure P1-74 *Width profile curve changed*



Figure P1-75 *Tree displayed along with leaves*



Figure P1-76 *Material applied to the tree bark and branches*



Figure P1-77 *Character scaled and aligned*

Project 2

Cartoon Character Model with a Background Scene - II



Figure P2-1 *The model of a cartoon character with a background scene*

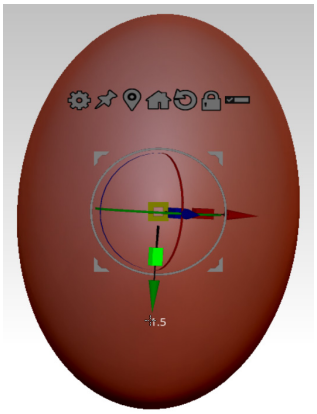


Figure P2-2 *The modified Sphere3D object*

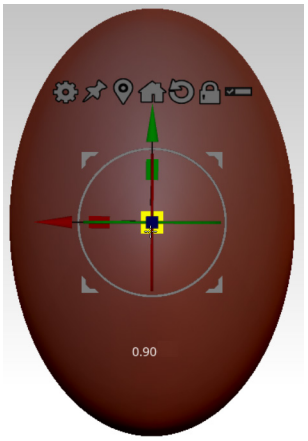


Figure P2-3 *The* ***PM3D_Sphere3D_2*** *subtool scaled down*

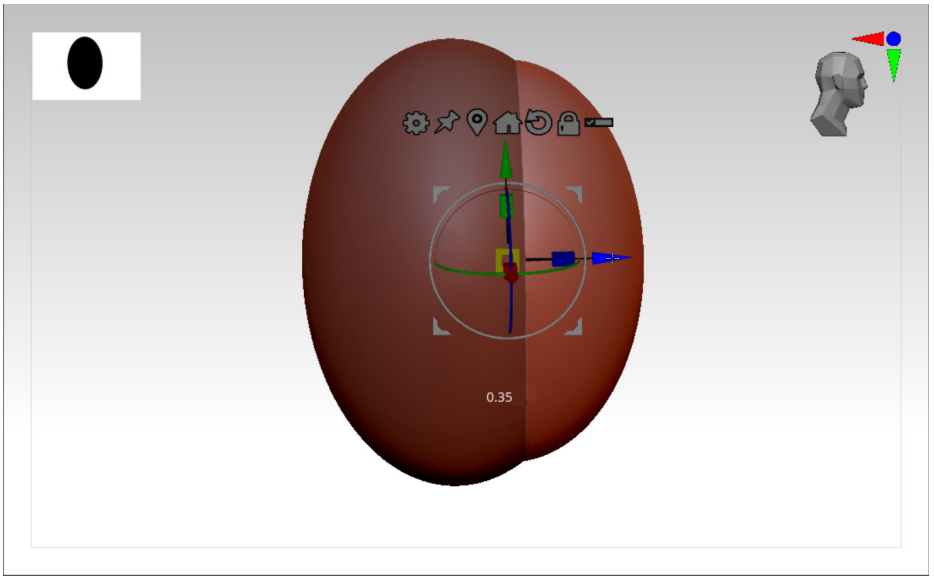


Figure P2-4 *The* ***PM3D_Sphere3D_2*** *subtool moved*

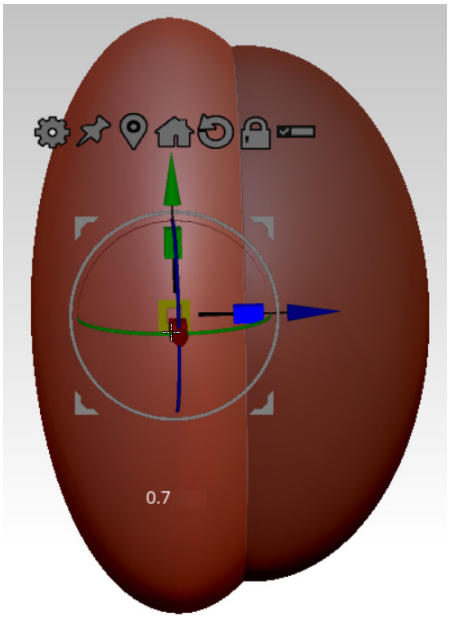


Figure P2-5 *The* ***PM3D_Sphere3D_1*** *subtool scaled down*

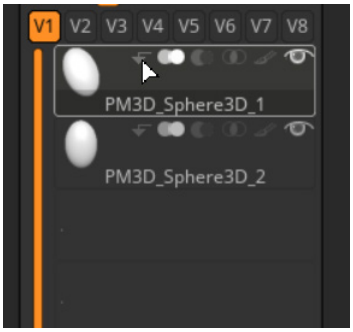


Figure P2-6 *Choosing the arrow button*



Figure P2-7 *Choosing the subtraction boolean operator button*

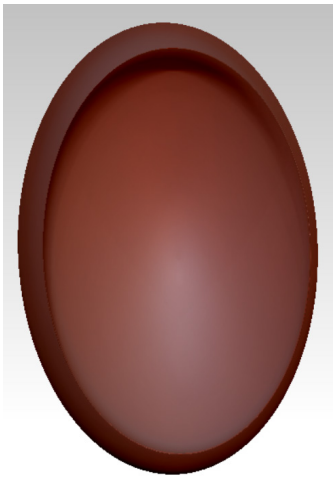


Figure P2-8 *PM3D_Sphere3D_2 subtracted from* ***PM3D_Sphere3D_1***



Figure P2-9 *The* ***UMesh_PM3D_Sphere3D_1*** *tool added to the* ***Tool*** *palette*

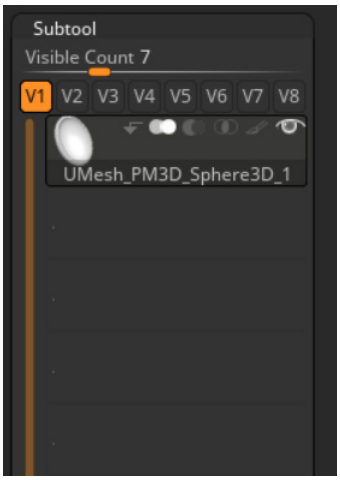


Figure P2-10 *The* ***UMesh_PM3D_Sphere3D_1*** *subtool added*



Figure P2-11 *The* ***DemoGreyHound*** *subtool displayed*



Figure P2-12 *Choosing the* ***MultiAppend*** *button from the* ***SubTool Master*** *subpalette*

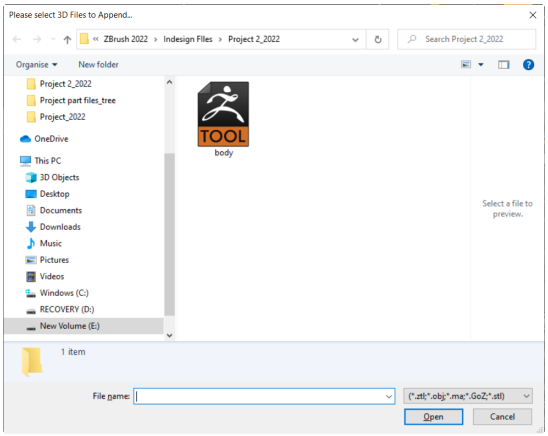


Figure P2-13 *The* ***Please Select 3D Files to Append*** *dialog box*

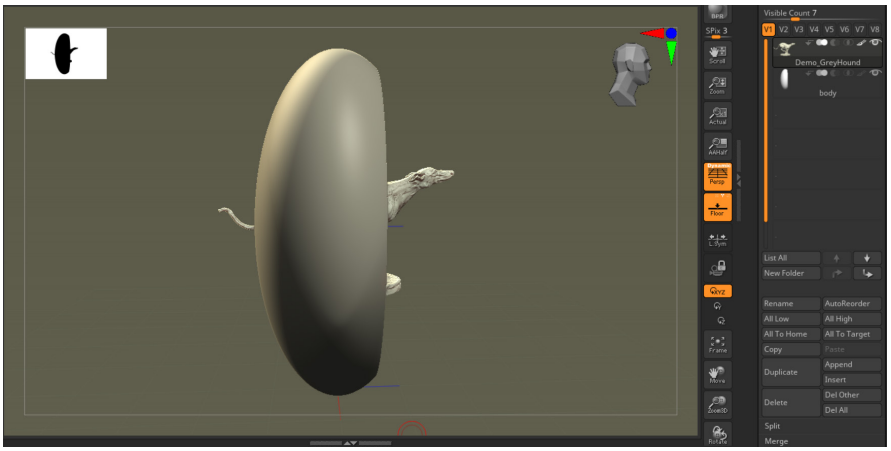


Figure P2-14 *The* ***body*** *subtool added*

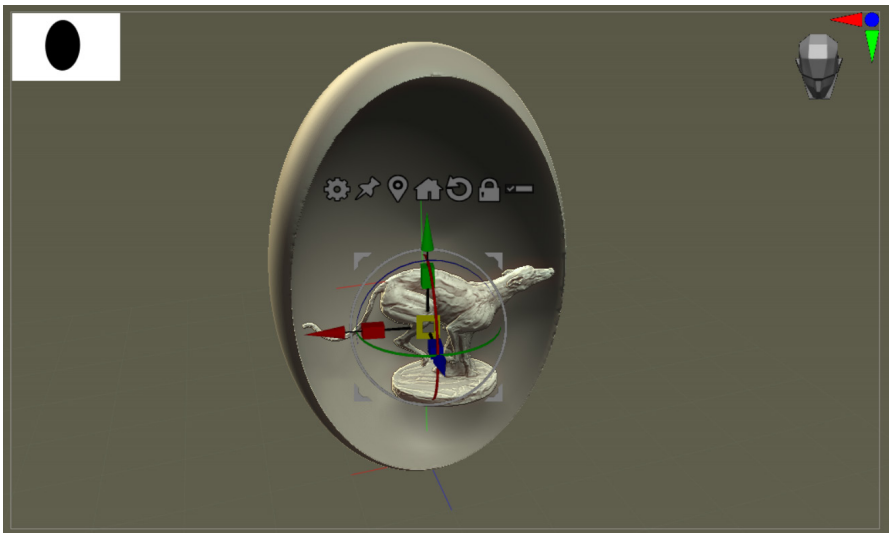


Figure P2-15 *The* ***DemoGreyHound*** *subtool aligned*

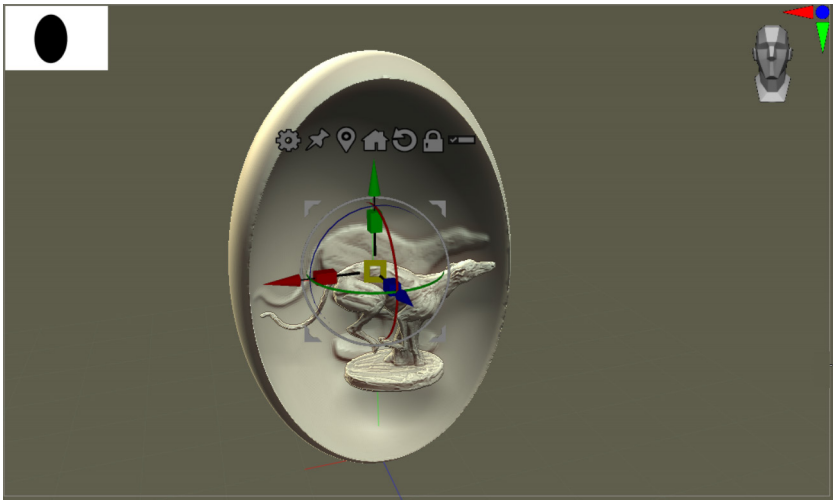


Figure P2-16 *Projected* ***DemoGreyHound***

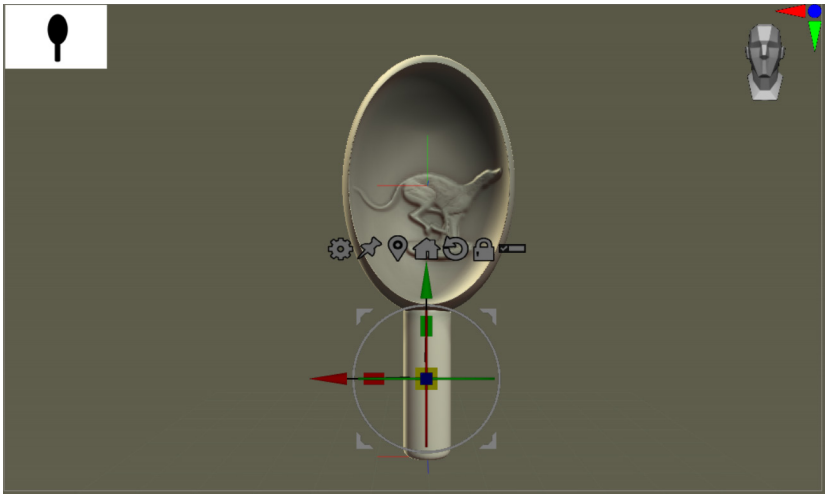


Figure P2-17 ***base1*** *scaled and aligned*

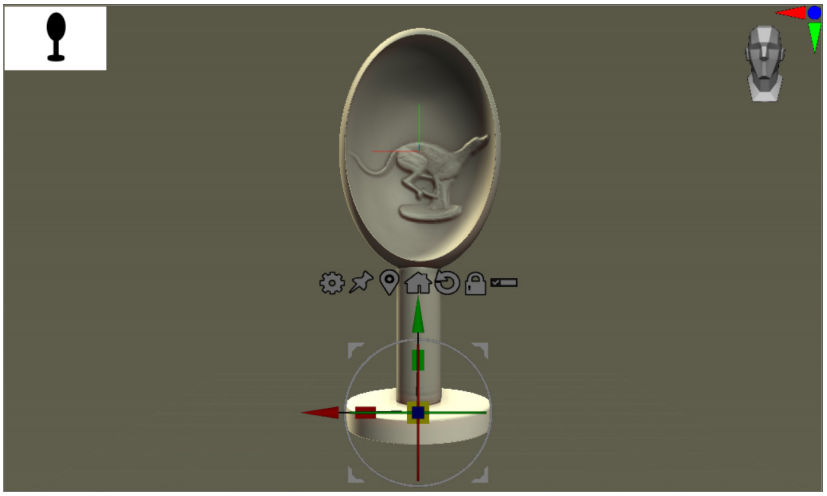


Figure P2-18 ***base2*** *scaled and aligned*

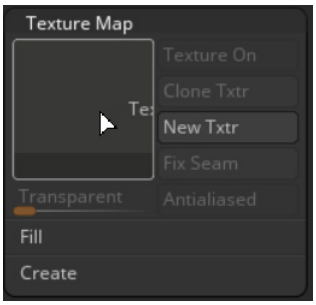


Figure P2-19 *Choosing the* ***Texture Map*** *button*

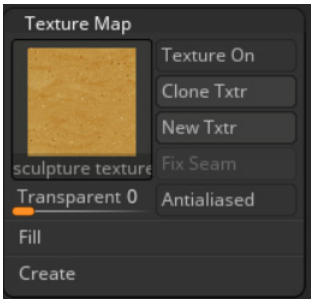


Figure P2-20 *Thumbnail of the image displayed*

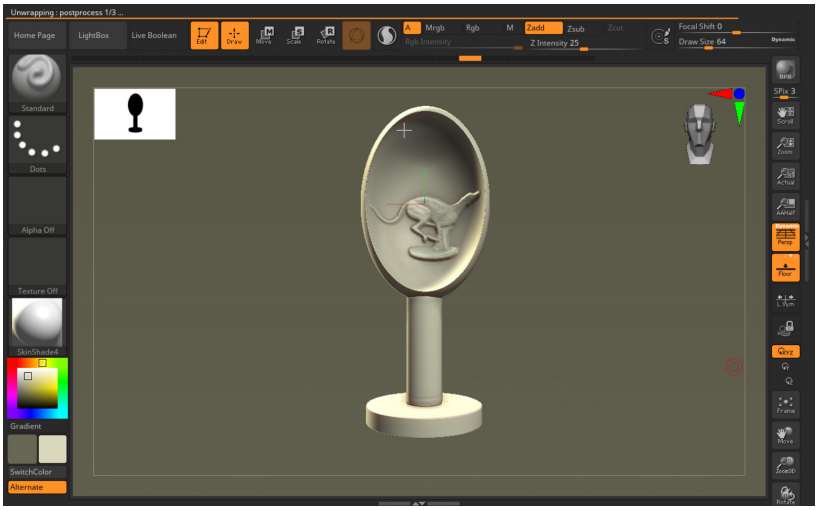


Figure P2-21 *Unwrapping process going on*

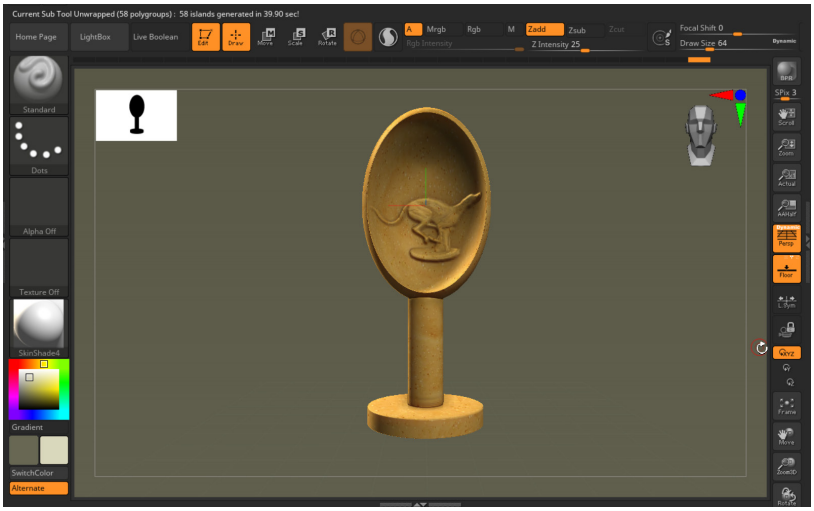


Figure P2-22 *Texture displayed on sculpture*



Figure P2-23 *The scene displayed*



Figure P2-24 *The* ***sculpture*** *subtool displayed*

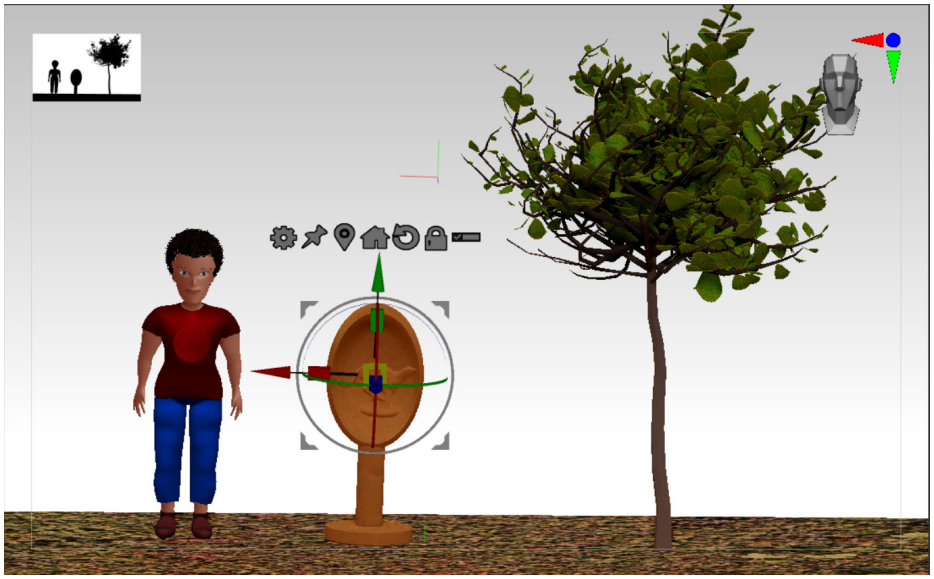


Figure P2-25 *The* ***sculpture*** *subtool scaled and aligned*



Figure P2-26 *The background image added*