ZBrush Digital Sculpting Cheatsheet

A comprehensive cheat sheet covering essential ZBrush tools, techniques, and workflows for digital sculpting and 3D design.

Interface & Navigation

Basic Navigation

Rotate View	Click and drag on the canvas (outside the model).
Move View	Hold `Alt` + Click and drag on the canvas (outside the model).
Zoom View	Hold `Alt` + Click and drag on the canvas (outside the model), release `Alt` while still holding the mouse button.
Frame Mesh	Press `A` to frame the mesh in the viewport.
Toggle Perspective	Press `P` to toggle between perspective and orthographic views.
Undo/Redo	`Ctrl+Z` (Undo), `Ctrl+Shift+Z` (Redo)

UI Elements

Tool Palette	Contains brushes, 3D meshes, and other sculpting tools.
Brush Palette	Houses a variety of sculpting brushes with adjustable parameters.
SubTool Palette	Manages individual parts of a model, allowing for separate sculpting and manipulation.
Document Palette	Controls document settings like size, background, and export options.
Draw Palette	Controls draw size, focal shift, and other drawing parameters.
Lightbox	A file browser for accessing projects, brushes, textures, and other assets.

Quick Actions

Save Project	`Ctrl+S` - Saves the entire ZBrush project.
Save Tool	Tool > Save As - Saves the selected tool (mesh).
Import Mesh	Tool > Import - Imports a 3D mesh from an external file.
Export Mesh	Tool > Export - Exports the selected tool (mesh) to an external file.
New Document	`Ctrl+N` - Clears the canvas, starting a new ZBrush document.
Masking	`Ctrl + Drag` - Masks an area, protecting it from sculpting changes. `Ctrl + Alt + Drag` - Inverse masking area.

Sculpting Essentials

Brushes

Standard Brush	The default sculpting brush for adding and subtracting volume.
Move Brush	Used to move large portions of the mesh.
Clay Buildup Brush	Simulates adding clay to the surface, great for building forms quickly.
DamStandard Brush	Creates sharp, clean cuts and creases.
Smooth Brush	Softens and blends the surface, removing sharp edges.
Inflate Brush	Inflates the surface of the model.
Pinch Brush	Pinches the surface of the model.

Brush Modifiers

`Alt` Key	Inverts the brush effect (e.g., adds instead of subtracts).
`Shift` Key	Activates the Smooth brush temporarily.
`Ctrl` Key	Used for masking.
`O` Key	Change brush size.
`U` Key	Change Draw Size.

Sculpting Techniques

Dynamic Subdivision (Dynamesh):
A dynamic tessellation system that creates a uniform polygon distribution, allowing for sculpting without worrying about stretching.
Tool > Geometry > Dynamesh

Subdivision Levels:
Divide and subdivide your mesh to add more detail. Use lower levels for broad forms and higher levels for fine details.
Tool > Geometry > Divide

ZRemesher:
An automatic retopology tool to create clean, animation-ready meshes.
Tool > Geometry > ZRemesher

Polygroups:
Separate parts of your model into Polygroups for easier selection and manipulation.
Ctrl+Shift+Click to isolate a Polygroup.

Creasing:
Preserves sharp edges during subdivision.
Tool > Geometry > Crease

Advanced Features

SubTools

Append	Adds a new SubTool to the current tool.
Duplicate	Creates a copy of the selected SubTool.
Delete	Deletes the selected SubTool.
Merge Down	Merges the selected SubTool with the one below it.
Boolean Operations	Use Live Boolean to combine or subtract SubTools. Tool > Subtool > Boolean
Move Subtool	Move Subtool up/down in the list.

Polypaint

Enable Polypaint	Tool > Polypaint > Polypaint From Mesh
Color Picker	Click on the color swatch to select a color.
Fill Object	Fill the entire object with the selected color. Color > FillObject
Paint Directly	Paint directly onto the mesh with the selected brush.
Export Texture	Export the polypaint as a texture map. Tool > Texture Map > Create > New From Polypaint
Adjust Color Intensity	Adjust the intensity of the color being applied.

Rendering

Best Render	Render > Best - High-quality render with shadows and effects.
Preview Render	Render > Preview - A quick preview render without all the details.
Shadow Settings	Render > Shadow - Adjust shadow parameters like intensity and angle.
Ambient Occlusion	Render > Ambient Occlusion - Add depth and realism with ambient occlusion.
Export Render	Document > Export - Export the rendered image.
Render Passes	Render > Render Passes - Enables different render passes for compositing.

ZBrush Shortcuts

Brush Shortcuts

B	Opens the Brush selection pop-up.
Ctrl + D	Divides the selected SubTool (adds subdivision levels).
Shift + D	Lowers subdivision levels.
D	Raises subdivision levels.
Alt + Tap on Mesh	Samples the color under the cursor for polypainting.
Ctrl + Shift + Drag	Trim or Clip Brushes, hide or show Polygroups

View Shortcuts

A	Frame the model in the viewport.
P	Toggle perspective.
Ctrl + N	Clears the canvas.
Ctrl + Tab	Switch between ZBrush projects.
F	Focus on selected Subtool.

General Shortcuts

Ctrl + S	Save project.
Ctrl + Z	Undo.
Ctrl + Shift + Z	Redo.
Spacebar	Quickly access the brush size and draw size sliders.
W	Activate the Move tool.
E	Activate the Scale tool.
R	Activate the Rotate tool.