MeshLab Painting

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MeshLab Tutorials
Painting – a brief overlook

- A simple “Photoshop style” painting tool is available
- Works with graphics tablet (which are compatible with wacom): pressure can be mapped to the various parameters
- The features are the typical ones: - Pen - Bucket - Gradient - Stamp - Some “funny” geometric stuff
- It also has the **UNDO***!!
Coloring Tools
Painting – base (1)

- Base painting 🖌️
  - Two colors painting
    - mouse left button -> foreground color
    - mouse right button -> background color
  - Usual stuff
    - switch 🍊
    - reset to default colors 📦
Painting – base (2)

- **Params**
  - **Opacity**
    - how much the new color will cover the old one
  - **Brush**
    - head shape
  - **Hardness**
    - how much “strong” is the brush pressure
  - **Size**
  - **Paint on**
  - **Vertex search**
    - If mesh is really big use *fast*
Painting - filling

- Filling
  - gives to the mesh a uniform color
  - If the mesh has multiple connected components, it will color only the one clicked by the user
  - If the user click inside a selection, only the selected area will be colored

- Params
  - Opacity
  - Vertex search
Painting - gradient

- Gradient
  - interpolation between colors

- Params
  - Opacity
  - Type
    - selected colors
    - foreground color to transparency
  - Form
    - interpolation type
Painting - blurring

- Blurring
  - blurs the mesh’s colors
  - **WARNING:** selected colors are ininfluential!!!

- Params
  - Percentual
  - Brush
  - Hardness
  - Size
  - Paint on
  - Vertex search
Z-Painting - stamp

- Stamp 🕊
  - Colors mesh using an image file as a color source
  - Right click on the mesh will "snap" the current view, which will be used as the color source

- Params
  - Load from file
  - Opacity
  - Brush
  - Hardness
  - Size
  - Paint on
  - Vertex search

Z-Painting – color picker

- **Color Picker**
  - Picks a color and use it
    - mouse left button -> foreground color
    - mouse right button -> background color

- **Params**
  - Picking mode
    - nearest vertex
    - pixel
  - Vertex search
Z-Painting – perlin noiser

- Perlin noiser
  - colors the mesh using perlin noise algorithm

- Params
  - Opacity
  - Brush
  - Hardness
  - Size
  - Paint on
  - Noise scale
    - perturbation value
  - Type
  - Vertex search
Geometric Tools
Painting – faces selector

- Faces selector 🎨
  - Selects mesh’s faces painting on them
  - **WARNING:** selected colors are influential!!!

- Params
  - Brush
  - Hardness
  - Size
  - Paint on
  - Vertex search
Painting – geo smoother

- Geometric smoother
  - Applies smooth algorithm to painted faces

- Params
  - Percentual
  - Brush
  - Hardness
  - Size
  - Paint on
  - Vertex search
Painting – geo extruder

- Geometric extruder
  - displaces the vertices along normals (left mouse button raises, right button lowers)

- Params
  - Displacement
  - Direction
    - vertex normal
    - averaged normals
  - Brush
  - Hardness
  - Size
  - Paint on
  - Vertex search
Painting – a real example