

A Bunch of Buzzwords?

Non-destructive, Selective, Non-linear and Non-modal Editing of Photographs



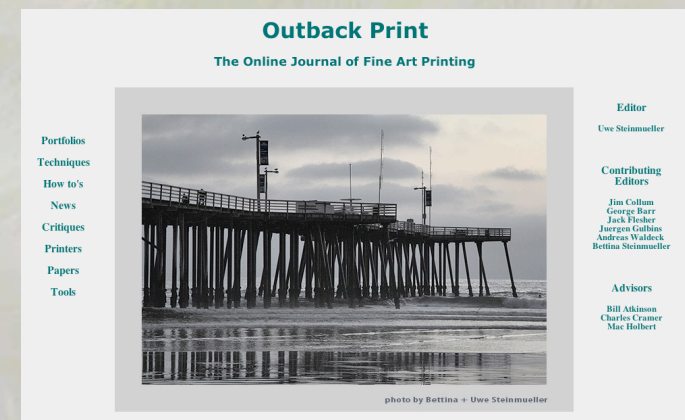
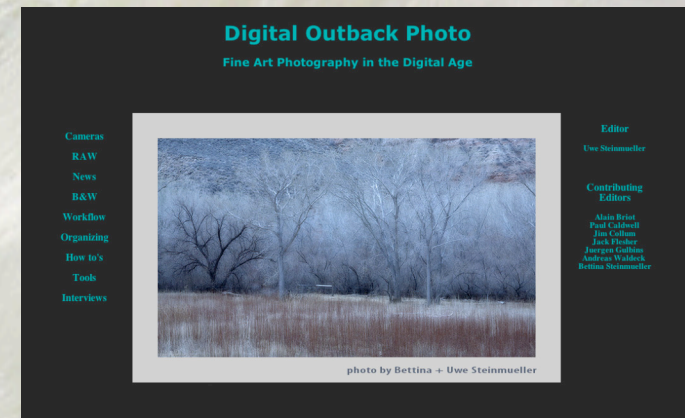
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Program

- Global and Local Editing
- The Editing Workflow
- The need for selective editing: dodge and burn in the digital age
- The layer or operations stack model
- Non-destructive editing
- Non-modal and non-linear
- Q&A (+ at any time)

Uwe Steinmueller is Editor/Owner of
www.outbackphoto.com
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- Magazine about digital photography
- Digital SLRs and also MF backs
- Photographic Workflow E-books
- Fine Art Printing
- Photoshop techniques
- Workflow Technique
- News Groups
- Portfolios
- Industry News
- About 6 million visitors per year



Definition: Global or Selective

- Global
 - All areas of the image are treated equal
 - Means mostly evaluated based on the values of single pixels
- Selective
 - User has control which parts of the image gets involved
 - Mainly done via some sort of masking (manually defined or algorithmic masks)

The background of the slide is a blurred, high-angle photograph of tall, dry grass. The grass blades are long and thin, with a mix of light green and yellowish-brown hues, suggesting a natural, outdoor setting. The blurring effect gives a sense of movement and depth.

Lightzone demo 1: Grass

- Demo 1: Grass and Red Rocks

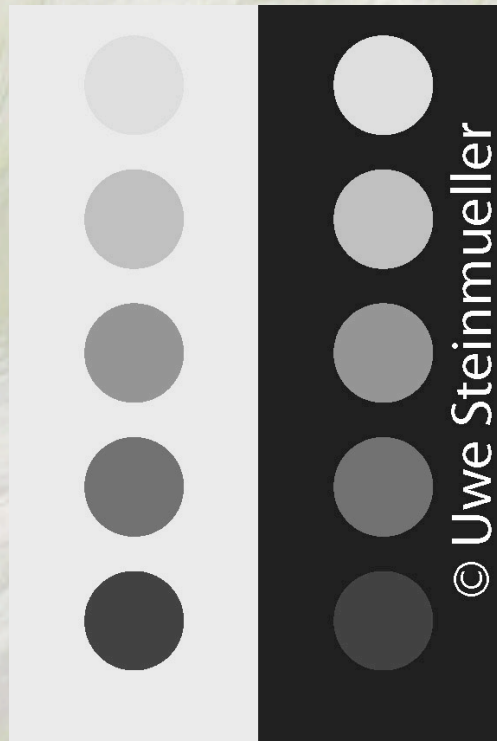
Normal Editing Process

- RAW (WB, Color profiles, Tone Curves,...)
- Global tonality (Levels, Curves)
- Global color correction
- Noise removal and sharpening
- Lens and perspective corrections
- Dust and blemish removal
- Adaptive corrections (like Shadow/Highlight or LZ TonerMapper)
- Selective tonality (dodge & burn)
- Selective color correction

Need for selective editing

- Our eyes work selective (local contrast, see next slide)
- Images capturing introduces selective flaws
 - Haze
 - Corners soft or not in focus
 - Uneven light
 - Different color balances in one image
- Draw attention to image elements
- Dodge and Burn was done in the classic darkroom forever

Contrast & Our Eyes



- Conclusion: Local contrast is important, e.g. Sharpening
- <http://www.outbackphoto.com/booklets/resources/fap/>

Shadows & Dark Pixels



- Shadows are not the same as dark pixels

Lightzone demo 2: Antelope

- Demo 2: Antelope Canyon

Ways to create selections

- Geometric shapes with feathering area
- Select by tonal range
- Select by color range
- Painting masks
- Other algorithmic created masks

Layer or operation stacks

- Solution for selective editing
 - Layers or operation stacks with layer masks
 - Blending modes
- The Photoshop layer model
 - Most layers are pixel layers and also masks are mainly pixel masks (grayscale images)
 - Most layers are destructive (except adjustment layers)
- The Lighzone layer Model
 - Operation layers
 - Geometric masks with feather range (no pixel masks)
 - All operations are non-destructive

Editing a bunch of slider settings?

- More of a side note
- Most RAW converters provide a lot of sliders (of course grouped in categories)
- Looking at the settings hardly documents what has changed to the default
- Operation stacks or layers way more document what you do

The background of the slide is a blurred, close-up photograph of tall grass, likely a type of wild grass or reed, with long, thin blades in shades of green and yellow. The motion blur gives a sense of wind or movement.

Lightzone Demo 3: Antelope Canyon

- Demo: Antelope Canyon #2

Non-modal and non-linear

- Non-modal
 - No or hardly any modal dialogs
 - Modal dialogs slows down for editing iterations
 - Prevents iterative editing which is the norm
- Non-linear
 - Tools can be changed in any order
 - Tools can be rearranged in the stack

Non-destructive editing

- The final image is actually :
 - Start image
 - Set (stack) of instructions (order matters a lot)
- What is the benefit?
 - Space
 - All steps can be modified later in any order (non-linear)
- Why is not all editing non-destructive?
 - Computing limitation (real-time updates)
 - Not all operations are easy to map to this model (pixel based masks)
- Is non-destructive editing the future?
 - Yes :-)
 - Lightzone shows the way
 - I expect all editors need to be this way in latest 2 years

Non-destructive editing 2

- Challenges
 - Computing speed
 - Incorporating computing expensive operations
 - Staying compatible with older controls (read the same stack in 10 years?)
 - Integration with other applications
 - Non standard tools and layer structures

Q&A

- All your questions belong here

Local (adaptive) operations

- Many editing tools work global (means only based on a single pixel value)
- Adaptive operation work reflecting neighbor pixels
 - Sharpening
 - Shadow/Highlight
 - ToneMappers (e.g. Photomatix or Lightzone)
 - More complex and computing intensive