PRACTICAL RECOMMENDATIONS FOR DIGITIZATION

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Within the framework of EuropeanaPhotography, KU Leuven organized a content seminar in Leuven, Belgium (April 2012). During the seminar the partners visited the digitization facilities at the Central Library. The university's workflow on digitizing photographic materials was discussed and commented. This factsheet provides some **practical recommendations on digitization**.

RECOMMENDATIONS
Setup
- Create a dedicated workspace for digitization
- Make sure walls and ceiling have a neutral tone, if possible dark grey
- A reprostand is specifically designed to make reproductions, use one
- Make sure it is heavy enough and stable
- Make sure your camera is fixed tightly, avoiding camera shake and vibration
- Use studio strobes
  – Short exposure time
  – No heat
  – Constant color temperature
- Try to bundle the same type of material so you can make a setup that doesn't change during digitization
  – Lighting shouldn't change in order to keep the intensity constant
  – Same shutter and aperture values
  – Same camera settings
  – Same color reproduction
  – Same camera and lens combination
  – An incredible timesaver and less prone to errors
  – Uniform results during the whole process of digitization

Digitization
- If possible, use a camera
- A camera has no limitations in terms of the size of the object
- Use a macro lens as it is optimized for close-up photography and has virtually no distortion or chromatic aberration
- Use an aperture value of 8 or 11. Larger apertures can cause vignetting, smaller apertures can produce diffraction (loss of sharpness and contrast)
- Photograph at the cameras base ISO/ASA value (e.g. 50, 100 ASA)
- Cameras without AA filter have a higher risk producing moiré. Moving your camera closer or further will reduce this
- Set your camera in Manual mode as your exposure doesn't change with a fixed setup

Workflow

- Try to digitize the same type of objects or materials in one batch
- Use a good monitor and calibrate it (X-Rite, Datacolor, ...)
- Photograph in RAW
- Photograph tethered (camera connected to computer through USB or Firewire)
  - No messing around with memory cards
  - You see the result immediately
  - You can automatically apply your settings through presets (white balance, contrast, tone curve, camera calibration, ...) and compare to the original immediately (as you work in a fixed setup)
  - You can back up automatically
- Delete bad shots immediately
- Rename your images as early as possible in your workflow
- Photograph at regular intervals a color target for input profiling (Colorchecker Passport or SG, IT8 target, ...) and apply those settings (see the factsheet on input profiling)
- Apply the unsharp mask at the end, check at 100% and don't oversharpen
- Use AdobeRGB as output colorspace
- Output:
  - TIF as archival copy if the original (RAW) file is deleted
  - JPG as working copy with either TIF or RAW file as backup
  - Convert your RAW files to DNG format as RAW files have a proprietary coding while DNG is an open format

Input profiling with a color reference target (colorchecker)

What you need
- a SLR camera set to RAW shooting mode
- ColorChecker or ColorChecker Passport
- ColorChecker Passport Camera Calibration Software (included when you buy the ColorChecker Passport)
- Photoshop, Lightroom or Aperture

How to proceed
- Photograph the ColorChecker under identical circumstances as those under which you digitize your originals
- Convert your RAW image to the DNG format
- Close Photoshop: this is an important step as Photoshop can only implement the newly created profile when starting up from scratch
- Open the ColorChecker Calibration Software and make a profile
- Relaunch Photoshop and save a preset
- Apply the preset. As long as you don't change anything in your digitization setup (lights, camera, lens combination) you can apply the preset to all the images taken that day or week for a perfect color and white balance

**An illustrated and step-by-step guide is available at:
www.europeana-photography.eu**