PROCESS IMAGES AND FIX THE COLOR

Process Images

ScanTailor will be used. Launch it, click New Project and select the input folder containing scanned images. From the list take out the covers if this is the case (separate processing). If you got stuck eith the Fix DPI dialog read this. Follow all steps in ScanTailor (Split, Deskew, Content, Margins). Split sometimes returns wrong cropped pages so if you're not using it, set it to **Manual** for all pages. The same for Content. If you don't have the time to check each page, set the content box to **Manual** and drag the rectangle almost to the edges. It is very important to leave a small true white margin otherwise the following processing will have almost no effect.

Let's get to the output:

- **Resolution (DPI)**: if monochrome is double than input file resolution otherwise the same

- **Mode**: *Black and White* creates 1-bit monochrome images, *Color/Grayscale* leaves color depth the same as input and *Mixed* mode processes the text as monochrome but outputs color/grayscale images with automatically detected pictures in page content (not recommended). In *Color/Grayscale* mode, *White margins* must be checked (very important).

- **Dewarping**: this is not the best time for dewarping because the page size is defined by the content selected in the previous step (it should have been done before content selection). The content selection rectangle will be altered by the result of dewarping process. Don't use it unless you have to. The best way is to make correct photos that don't need dewarping.

Don't forget to apply each settings to pages.

Fix the color

If the output mode from ScanTailor is *Black and White* there is no need for this step. This is a very broad topic because the settings vary a lot depending on the image. Here is an example:

b. *Epiteliile pluristratificate* pot fi:

— *pavimentoase stratificate*, avînd celulele din stratul superficial turtite, cheratinizate (epiderma) sau necheratinizate (epiteliul mucoasei bucale, eso-fagiene);

— *cilindrice stratificate*, formate din mai multe straturi celulare, dar numai cele superficiale sînt cilindrice (canalele excretoare ale glandelor salivare, epiteliul ureterelor și vezicii urinare);

— *pseudostratificate* — cu celulele așezate pe membrana bazală într-un singur strat, dar cu nucleii situați la înălțimi diferite, ceea ce dă aparență de falsă stratificare (epiteliul traheal, al bronhiilor mari).

2. Epiteliile glandulare

Aceste tipuri de epitelii sînt formate din celule care au capacitatea de a elabora produși de secreție. Epiteliile secretoare se asociază cu țesut conjunctiv, vase și nervi, formînd glande. Există trei tipuri de glande:

— *exocrine* — produsul lor de secreție este eliminat printr-un canal la suprafața pielii (sebacee, sudoripare) sau în diferite cavități (salivare, gastrice);

— *endocrine* sau cu secreție internă — produsul lor de secreție — hor-monul — este eliminat direct în sînge (tiroidă, suprarenale etc.);

epiteliu unistratificat   epiteliu pluristratificat

glande exocrine

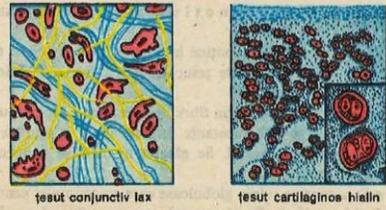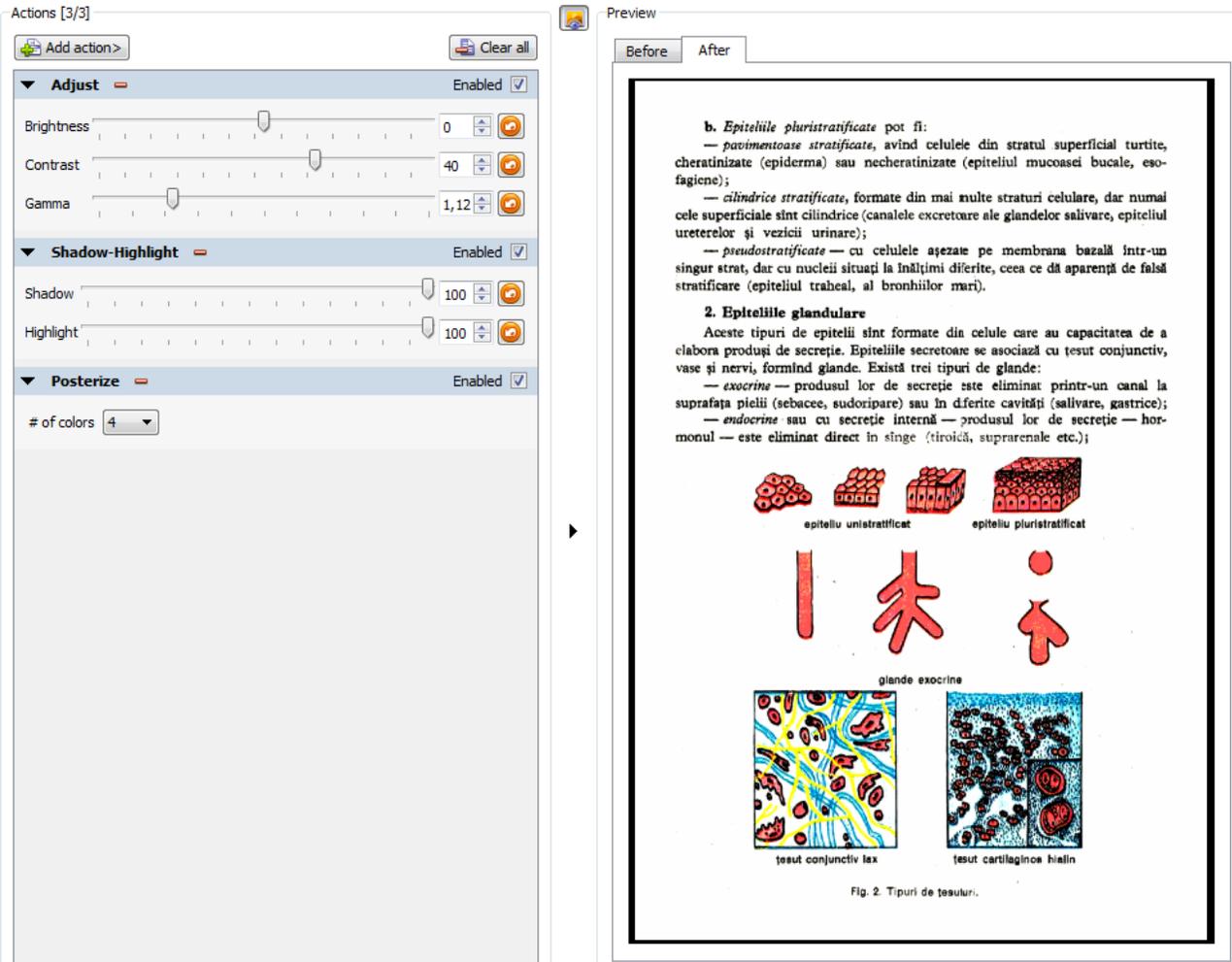țesut conjunctiv lax   țesut cartilaginos hialin

Fig. 2. Tipuri de țesuturi.

Example output from ScanTailor (downsampled). Note the white margins!

The page background used to be white. This what we must do. Also the drawings on the page have a few colors, so a 4 color palette should be OK. Here are my settings and the output:

Color settings and image preview

The most important for color is *Shadow* = 100 and *Highlight* = 100. The most important for size is *Posterize* = 4 (you could use instead the more configurable action **Change color depth**). Set *Contrast* and *Gamma* for the best results.

Source: http://onetransistor.blogspot.in/2014/11/high-quality-scanning-and-low-file-size.html