



Re: Breakthrough in Processing Livingstone

Monday, December 20, 2010 12:27 PM

From: "Dr. Adrian S. Wisnicki"

To: "Jr. Roger L. Easton"

Cc: "Keith Knox"

"Roger Easton"  
, "Doug Emery"

, "MB Toth"

2 Files (424KB)



Keith's\_de...



Roger's\_d...

Roger,

Thanks for this clarification. As I said, I agree with you, both images (yours and Keith's 592) are close and certainly fit the bill for Mike's 80% solution, meaning I could use either for most of the transcription. Yours does, as you indicate, also suppress the undertext better. However, for a more problematic area, say middle of the image, left side, when you get up close, the overtext is easier to read on Keith's 592 and more clear despite the presence of more undertext. See the two comparative images I attach. But, going back to my point from yesterday, there will no doubt be areas that Keith's processing doesn't clarify sufficiently and so a more tailored approach may produce better results at that point.

Anyway, hope this helps.

Adrian

--- On Sun, 12/19/10, Roger L. Easton, Jr. <rlepaci@rit.edu> wrote:

From: Roger L. Easton, Jr.  
Subject: Re: Breakthrough in Processing Livingstone  
To: "Dr. Adrian S. Wisnicki"  
Cc: "Keith Knox", "Roger Easton", "MB Toth", "Doug Emery"  
Date: Sunday, December 19, 2010, 11:04 PM

Adrian

I think it generally suppresses the printed text more, but Keith's second image (DLC297b\_149-146\_012r\_0\_A\_0592\_0940\_div.jpg) is very comparable, and (as I said) has the advantage of likely being quicker to generate. The PCA also seems to me to do a better job across the entire image, which isn't surprising to me since its statistics come from across the entire page.

RE

Dr. Adrian S. Wisnicki wrote:

> Roger, Keith,

>

> Before I weigh in, I'm curious, Roger, to know your criteria for liking the PCA hue angle rotation more. What elements of the image, exactly, do you prefer?

>

> In terms of legibility, I do agree that these are close though I find the most problematic areas a bit easier to read on Keith's image. So I wonder if the best way forward isn't to use Keith's method first, since it can be batched (is that correct, Keith?), and then use Roger's (since it requires more custom hand work) to zero in on those areas that remain problematic after Keith's processing?

>

> Adrian

>

>

> --- On \*Sun, 12/19/10, Keith Knox /-/\* wrote:

>

>

> From: Keith Knox

> Subject: Re: Breakthrough in Processing Livingstone

> To: "Roger L. Easton, Jr."

> Cc: "Dr. Adrian S. Wisnicki" , "Roger Easton"

> , "MB Toth" , "Doug

> Emery"

> Date: Sunday, December 19, 2010, 9:15 PM

>

> Roger,

>

> I hadn't seen the complete page. The paper excerpt only had the upper portion of the right-hand column. In comparing that region, I felt that the IR ratio gave a clearer rendition. On the other hand, the PCA hue angle rotation gives a more uniform appearance across the page. I assume, though, that the adjustment of hue angle was different across the page.

>

> In the paper, I will indicate that we are still developing methods to handle the problems of these letters, i.e. show through, printed text and water stains. I plan to show three methods, the hue angle rotation, the IR ratio and the pseudocolor with the reverse side scan for show through suppression. We don't know any definitive methods for these effects, yet.

>

> Keith

>

> On Dec 19, 2010, at 3:32 PM, Roger L. Easton, Jr. wrote:

>

> > Keith,

>

> > I hate to say it because they are actually pretty close, but I still like better the PCA hue angle rotation followed by extracting one color channel ( e.g., attached). Of course, this requires significant custom hand work to get it this good, so the ratios may be very useful for most.

>

> > Need any more input from me on the paper? I will be around at least through tomorrow (M)

>

> > RE

>

> > Keith Knox wrote:

> >> Adrian,

>

> >>

> >> I just processed the 24 leaves of DLC297b. In all cases, taking the ratio of the separations with the 940 nm separation reveals the handwriting and suppresses the printed text. I am using three versions: 450/940, 592/940 and 850/940. You can find the three files for two of the leaves, DLC297b\_141-154\_009v and

> DLC297b\_149-146\_012r on the web page: <http://www.cis.rit.edu/~ktkpci/LivingstoneProcessed.html>  
> <<http://www.cis.rit.edu/%7Ektkpci/LivingstoneProcessed.html>>.  
> >>  
> >> There are three versions, because different parts of the leaves  
> are revealed in each version. With a little more experimentation,  
> it might be possible to combine them into one image. We'll have  
> to see.  
> >>  
> >> Take a look at the images online and let me know what you  
> think. You should have very little trouble reading these pages.  
> >>  
> >> Keith  
> >  
> > --  
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> >  
> > <DLC297b\_149-1460\_012r\_mask02\_PCA12bands-R2G1B2\_hue180-7b-green.jpg>  
>  
>

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