

non-humane sight

V.Douka-Doukopoulos
ArtScience Interfaculty, Royal Academy of Art, The Hague, Netherlands (doukavictoria@gmail.com)

Abstract

‘non-humane sight’ is a film investigation project that uses the RAW and CALIBRATED image data of the AMIE sensor on board the SMART-1 mission. With particular interest in the RAW image data, the work uses a processing patch to load the data from IDL to an image format and explore noise. Noise in all of its formats in captured space CCD photography: shot noise, object noise, sky noise, dark noise and dark current noise, the work wonders about what happens to all this captured information that gets eliminated when the data is properly calibrated. Would it be possible to subtract the calculated data from the raw data and what we are left with will it be clear noise ? How come we build mechanical eyes that can see all the things we can’t and then calibrate them to only see what we can see ? What do all the things we can’t see look like ?

2. Figures

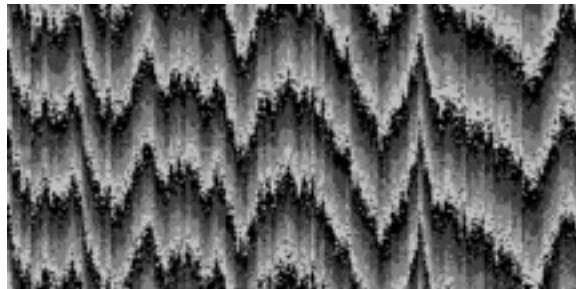


Figure 1: first RAW capture of Bandpass filter 750 nm of the AMIE instrument from the Earth Escape Phase of the SMART-1 mission on 18/11/04 exposed for 10 ms pointing towards the moon

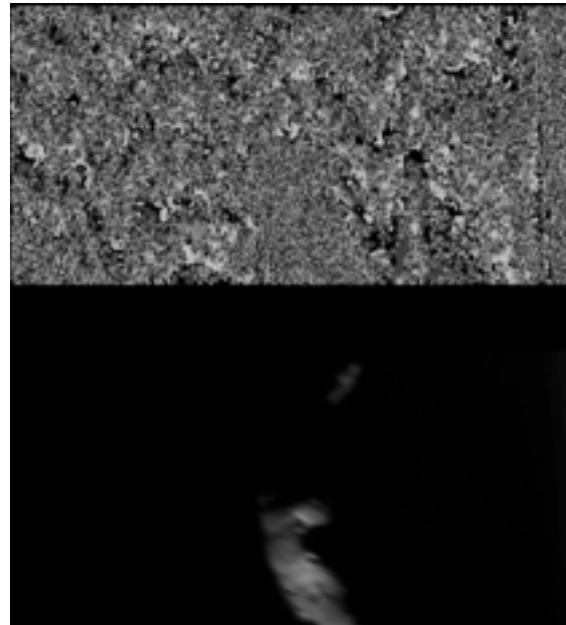


Figure 2: (above) RAW capture of Bandpass filter 750 nm of the AMIE instrument from the Lunar Phase of the SMART-1 mission in orbit R00099 exposed for 1000 ms point towards the moon (below) calculated image after processing

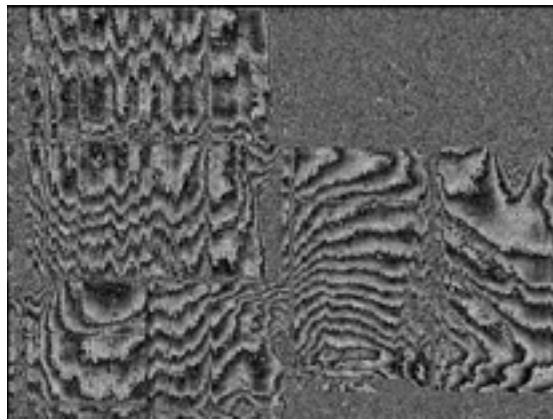


Figure 3: joined picture of all RAW captures of the filters : Bandpass 750 nm, Bandpass 915 nm, AR coating, Longpass 960 nm, Bandpass 847 nm, Bandpass 915 nm of the AMIE instrument from Earth Escape Phase of the SMART-1 mission on 03/10/03 with exposures ranging from 1 to 10000 ms pointing towards the moon

Acknowledgements

This work was developed in the frame of Art-Science & Space class 2015 between ArtScience Interfaculty The Hague and ESTEC. This work wouldn't have been possible without the kind help of Marcus Graf, Principal Investigator of SMART-1 mission data Jean-Luc Josset (Space Exploration Institute, Neuchatel, Switzerland) and the European Space Agency for making the data available to the wide public.

I would also like to thank Bernard Foing, Evelina Domnitch and Dmitry Gelfand for their support in the advancement of this project

References

- [1] <http://sci.esa.int/smart-1/>
- B. Foing et al, SMART-1 mission to the Moon: Status, first results and goals, *Advances in Space Research* Vol 37, 1, 2006, 6–13
<http://www.sciencedirect.com/science/article/pii/S0273117705014304>