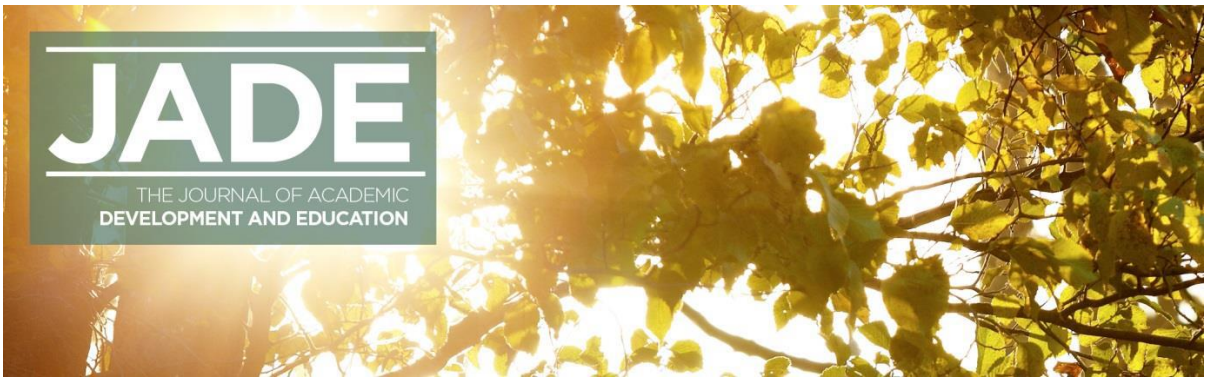

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Visual Grammar Towards Virtual Behavioural Pathways

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Introduction

The aim of this paper is to further my understanding of visual image analysis, which will contribute to a future 'critical visual methodology towards an understanding of behavioural pathways in online education'. Consideration will be given to, in this instance, Gillian Rose, 'Researching visual materials: towards a critical visual methodology' (2007), and Christian Leborg, 'Visual Grammar' (2006).

Process for Analysis

My process for analysis involved, firstly, identifying my theoretical and critical context, and a possible data set for analysis. This was arrived at by identifying two appropriate and contrasting texts (i) Gillian Rose (2007) "Researching visual materials: towards a critical visual methodology", supported by (ii) Christian Leborg's 'Visual Grammar' (2006).

The chosen dataset for analysis for this formative study has been taken from the E-learning and Digital Cultures MOOC (EDCMOOC), Edinburgh University, November 2013 tutor blog (EDCMBlog). The EDCMOOC was delivered via the Coursera[1] MOOC[2] platform. Permission to use this data set has been gained from the MSc Digital Education course team, Edinburgh University.

After acquiring access to EDCMBlog it was necessary to select visual data for analysis. This process of elimination was informed by Rose (2007), and Leborg (2006). A single image was eventually chosen from EDCMBlog for analysis, that of Robert McCall's 'Clavius Base' (1968).

The process of analysis of McCall's image consisted of an identification and investigation of the sites and modalities of image, these being technological, compositional, and social (Rose, 2007), and a deconstruction of visual grammar, abstract and concrete (Leborg, 2006).

My more practical process in analysis entailed a visual deconstruction of image, and the application of Dedoose 'codes' [Appendix 18]. I expected that this process would enable me to locate the sites and modalities of image, metaphor and narrative, furthering my understanding of pedagogical and behavioral pathways. My grammatical, and compositional deconstruction of McCall's image relies heavily on a 'Visual Grammar' (Leborg, 2006). My process of deconstruction, and analysis of structure, underpins the location of narrative and metaphor, allowing for a deeper understanding of agency within image composition. The systematic development of Dedoose codes, in analysis, will be used to complement that agency by creating a deeper understanding of the compositional, technological, and social implications of that analysis, relating to narrative and metaphor in behavioural pathways for online education.

[1] Coursera, Massive Open Online Course (MOOC) platform (http://www.coursera.org)
[2] Massive Open Online Course

Presentation of Results of Analysis

A more detailed view (and notation) of images in this section can be found in appendices 1 to 17 (**HERE**).

Table 1 (mobility) - four locations of McCall's 'Clavius Base' (1968).

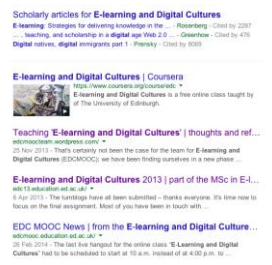
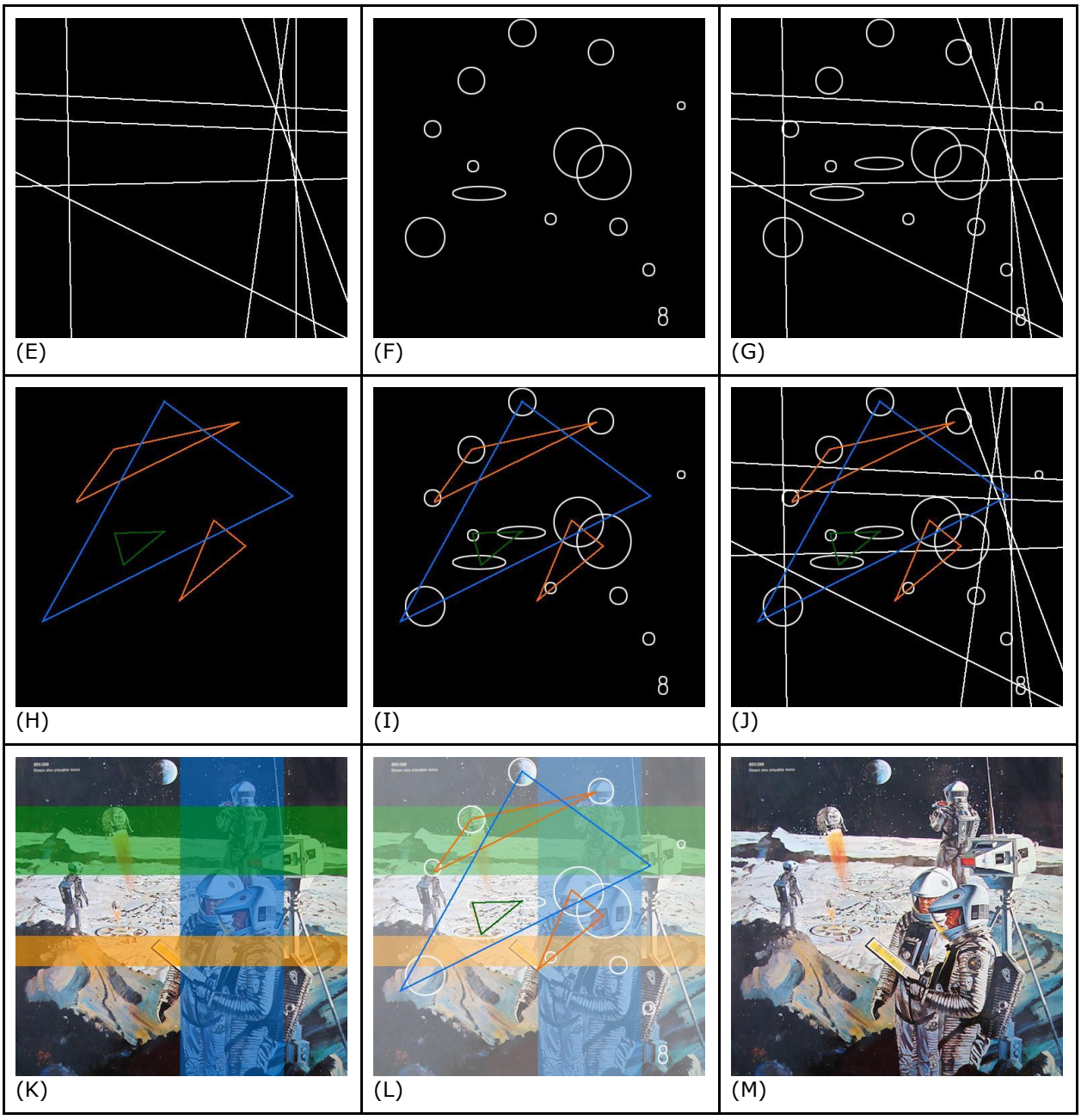
(A)	(B)	(C)	 (D)

Table 2 (visual grammar) - an analysis of visual grammar in McCall's 'Clavius Base', 1968 (E to M), and (K) the application of Golden Ratio ((a+b/a)=a/b).

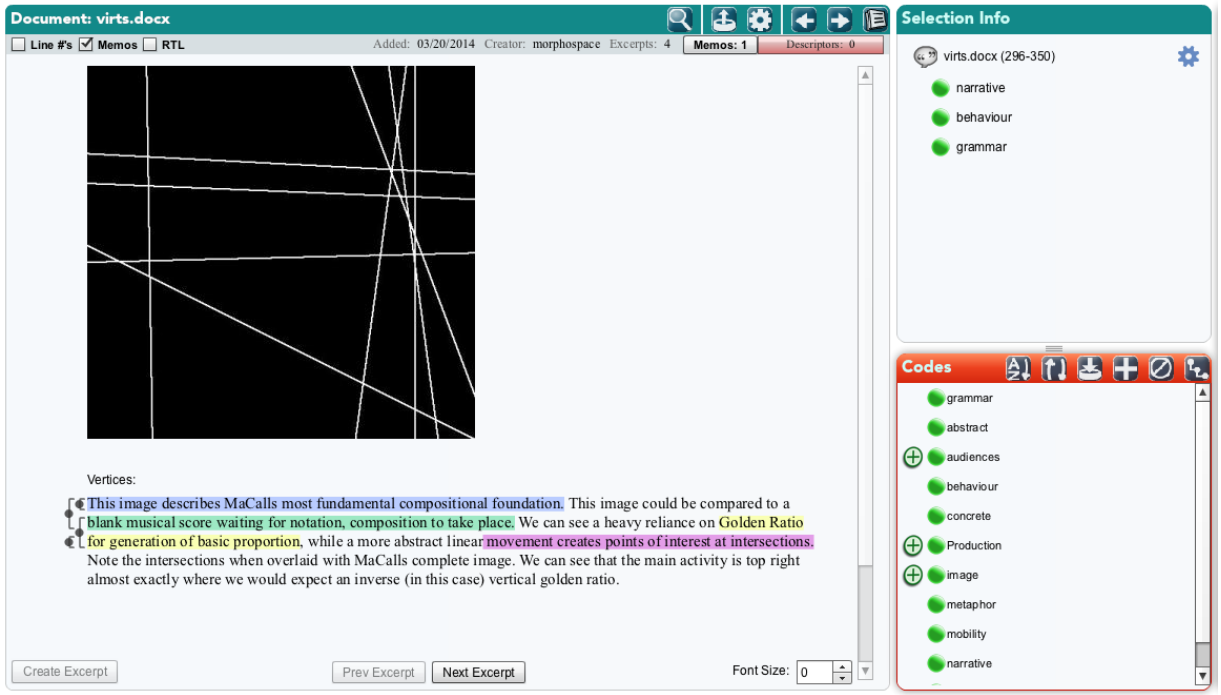


(E) (F) (G)

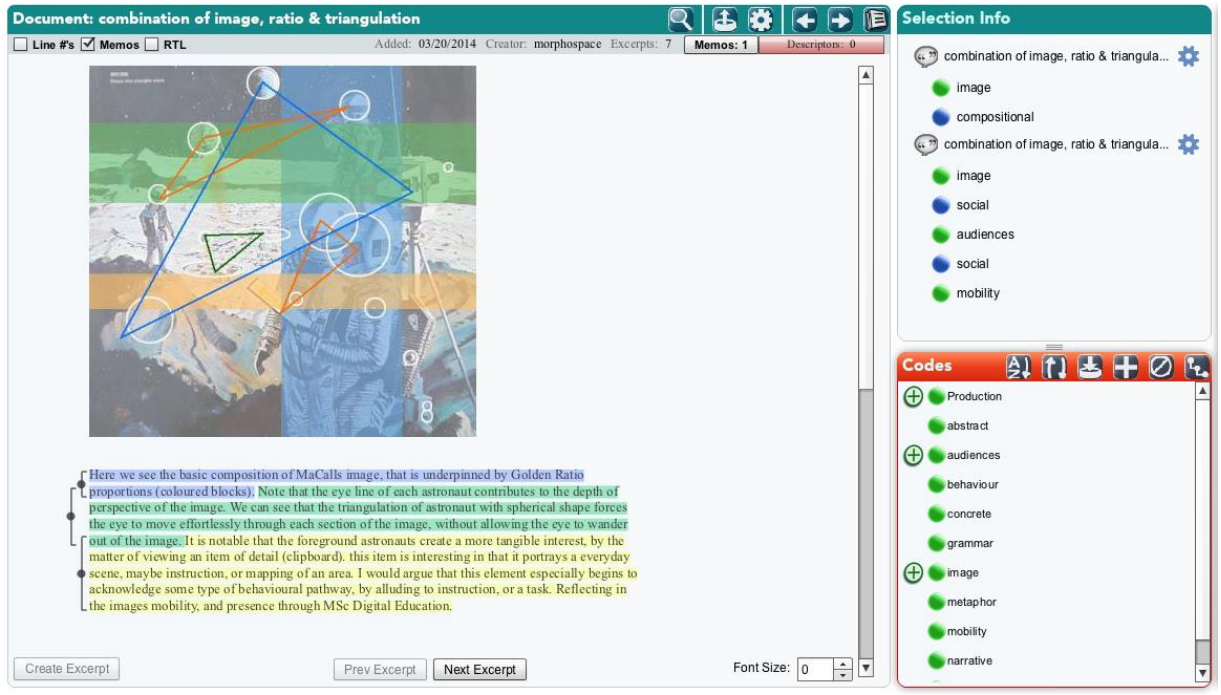
(H) (I) (J)

(K) (L) (M)

Table 3 (application of Dedoose codes) - analysis of McCall's 'Clavius Base' (1968) within Dedoose.

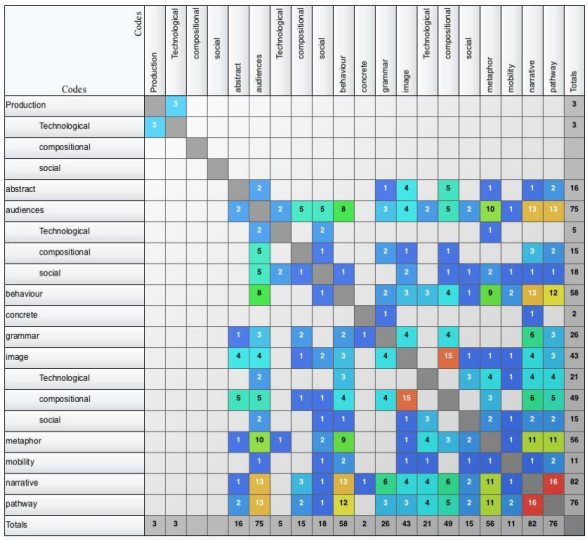


(N)

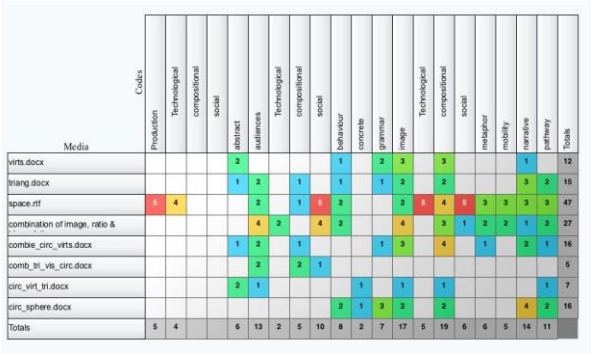


(O)

Table 4 (occurrence and co-occurrence of codes) - applications of Dedoose codes across media.



(P)



(Q)

Interpretation of Results

The results of my analysis have been interpreted through the conjoined lens of Rose's "Sites and Modalities", and Leborg's 'Visual Grammar' (2006).

Table 1, Mobility.

The images in table 1 identify mobility in visual image analysis. McCall's 'Clavius Base' is apparent throughout MSc in Digital Education (online presence) and both 2012 and 2013 EDCMOOC. Mobility of this nature, I would suggest, represents a systematic use of image that alludes to a projection of academic identity and, in part, a negotiation of pedagogical and cohort behavioral pathways (within an online learning context), thus making McCall's image a suitable choice for investigation. Having identified McCall's 'Clavius Base' as being suitable for investigation, my process of analysis could now take into account the possible social, technological, and compositional relationships within that image, as well as that image's grammatical organisation.

Table 2, visual grammar.

The set of images in table 2 suggest a grammatical interpretation of the underlying structure of McCall's image. This application of visual grammar demonstrates the underlying narrative that connects the abstract and concrete elements within McCall's image, then maps the activities and relationships of those elements. This application of visual grammar to McCall's image allows us to understand, in greater depth, the relationship of composition to visual metaphor and narrative; that being the connection and engagement of the viewer, the student, with the apparent metaphor of

'technological pioneering' and the narrative of space travel.

Table 3, application of Dedoose codes.

The images in table 3 identify the process of application of 'code' in Dedoose. We can see within these images the application of 'codes' that overlay meaning on image, connecting visual grammar to sites and modalities (Rose 2007); thus defining a concrete link between image construction and visual sites and modalities, towards a better understanding of the use of image (critical visual methodology) in understanding behavioural pathways in online education.

Table 4, occurrence and co-occurrence of codes.

Image (Q) represents the occurrence of codes, and image (P) represents the co-occurrence of codes. Both images demonstrate the importance of specific meanings (through the use of codes) within my analysis. These meanings are applied to both the most fundamental grammatical attributes of McCall's image (E), and the complete render (M). More importantly, the occurrence, and co-occurrence, of codes (derived at through my notation of image in Dedoose) make transparent a comprehensive 'weight' of meaning connecting all image sites (Rose, 2007) and visual grammar (Leborg, 2006).

Conclusion

The aim of this paper has been to further my understanding of visual image analysis, with the intent of developing a critical visual methodology towards an understanding of behavioural pathways in online education. My investigation has been supported by the conjoined lenses of Gillian Rose, 'Researching visual materials' (2007), and Christian Leborg, 'Visual Grammar' (2006). Rose provided a potentially valuable framework for discussion through her sites and modalities of visual materials, while Leborg has provided me with a grammatical visual framework (and methodology) that allows me to understand and map meaning in what I observe, and maybe, in future, design meaning in what I create. I would envisage developing this critical visual framework further by relating my findings to musical score analysis (which could provide similar structural principles, and observation analysis), visual grammar in literature, and by introducing the writings of Natasa Lackovic, specifically, 'Creating and Reading Images' (2010).

References

Rose, Gillian, (2007) "Researching visual materials: towards a critical visual methodology" from Rose, Gillian, Visual methodologies : an introduction to the interpretation of visual materials pp.1-27, London: Sage ©

Leborg, C. Visual Grammar (2006). Series, Design Briefs. Princeton Architectural Press, 2006. ISBN 1568985819, 9781568985817.

Natasa Lackovic (2010). Creating and reading images: towards a communication framework for Higher Education. learningSeminar.net - International journal of media, technology and lifelong learning Vol. 6 – Issue 1 – 2010.

Appendices (see **HERE**)

1) Table 1 (mobility) image (A).

2) Table 1 (mobility) image (B).

3) Table 1 (mobility) image (C).

4) Table 1 (mobility) image (D).

5) Table 2 (visual grammar) image (E).

6) Table 2 (visual grammar) image (F).

7) Table 2 (visual grammar) image (G).

8) Table 2 (visual grammar) image (H).

9) Table 2 (visual grammar) image (I).

10) Table 2 (visual grammar) image (J).

11) Table 2 (visual grammar, Golden Ratio) image (K).

12) Table 2 (visual grammar) image (L).

13) Table 2 (visual grammar) image (M).

14) Table 3 (application of Dedoose codes) image (N).

15) Table 3 (application of Dedoose codes) image (O).

16) Table 4 (application of Dedoose codes) image (P).

17) Table 4 (application of Dedoose codes) image (Q).

18) Dedoose. A qualitative digital online analysis tool. http://www.dedoose.com.