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"Seeing Narratives, Researching through Story" Project Development

SECTION I - PLAN AND ADJUSTMENTS

"Seeing Narratives..." is an ongoing project intended to 1.) develop a nonfiction filmmaking methodology which uses the *narrative literacy* at the heart of film production practices to generate a data set of perceived causality (narrative); and 2.) to develop a software toolset to qualify, categorize, and visualize this narrative data toward improving research and comprehension around complex human systems. The RISD Research Bridge Grant was proposed to help fund continued work on a proof-of-concept project, begun in Wintersession 2015. Just prior to that, RISD hosted a design charrette, in collaboration with MASS Design Group, USAID, and the CDC, to work on developing solutions to problems encountered during the international response to the West African Ebola outbreak.

Assisted by a group of FAV students and faculty, we gathered dozens of hours of participatory documentation footage - audio and video - and then set about logging, organizing, and curating the media according to a handful of narrative criteria. The Bridge Grant was to fund a student research assistant, Conner Griffith, FAV 2016, to complete this logging, and arrange the media into an algorithmic media sequencer such as Korsakow (korsakow.org) - which can create edited sequences of media based on like/unlike keyword and metadata matching - and then to generate a sample visualization of how one might navigate through the data set based on narrative content. Conner had already served as one of the recording participants at the charrette, and one of the two editorial assistants during the preliminary Wintersession project, and in his own work has explored how metadata and visual similarity and difference can create new and undiscovered pathways through sets of media.

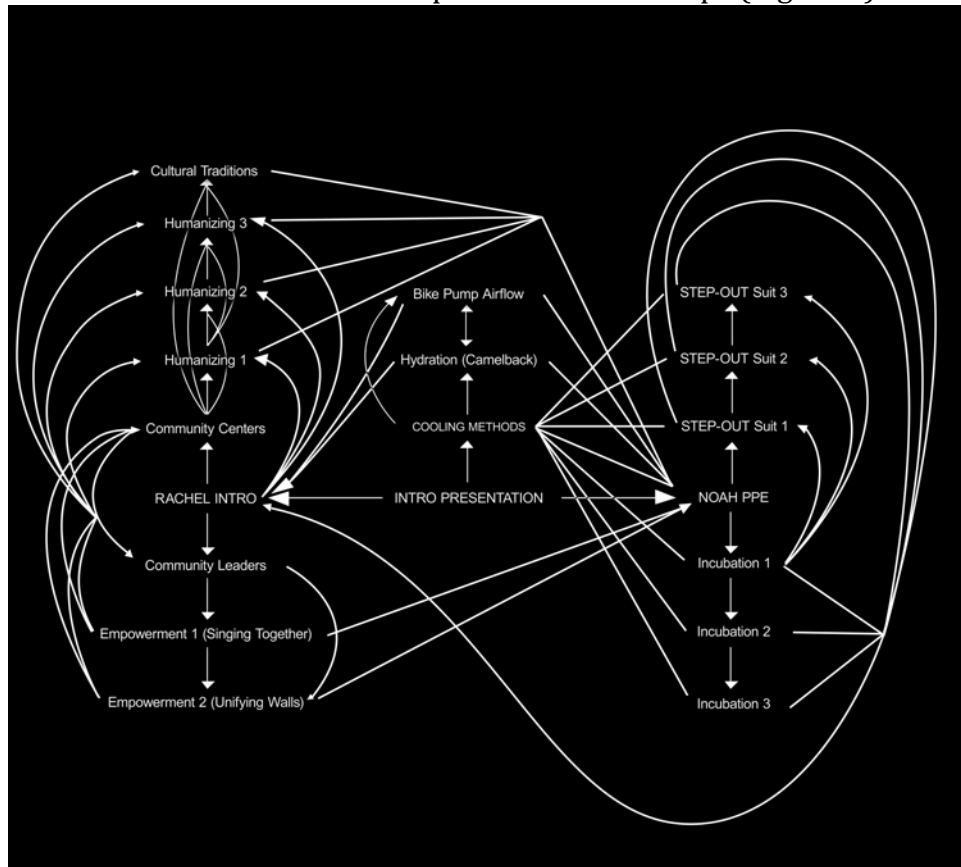
Additionally, we proposed to use part of the grant to seek and secure technical assistance as we begin to develop our own software features and standalone solution to the curation and visualization of these media-based data sets - specifically to develop an API for Korsakow to permit the in- and outflow of data from other video editing and media visualizing tools, as well as to begin design of a possible original software suite.

This proof-of-concept project was also scheduled to feed into a prototype-stage project projected for 2015-16, with the participation of USAID, where we would be provided access to a highly complex problem set, and given an opportunity to generate a large-scale media-based dataset and attempt to apply the tools and methodology to it, in the hopes that this process would uncover new knowledge. Specifically, USAID proposed we study the multilateral response to endemic wildlife poaching in East Africa, in the hopes that by looking at this system *narratively* it might be possible to make better sense of the shortcomings in this response, leading to continued eradication of species in the region. Therefore, throughout the proof-of-concept project funded by the Bridge Grant, we have also been looking at eventual connection to a larger-scale version of it, and perceiving

the Ebola design charrette proof-of-concept project in light of seeking future funding for a more fully-fledged, and widely applicable project.

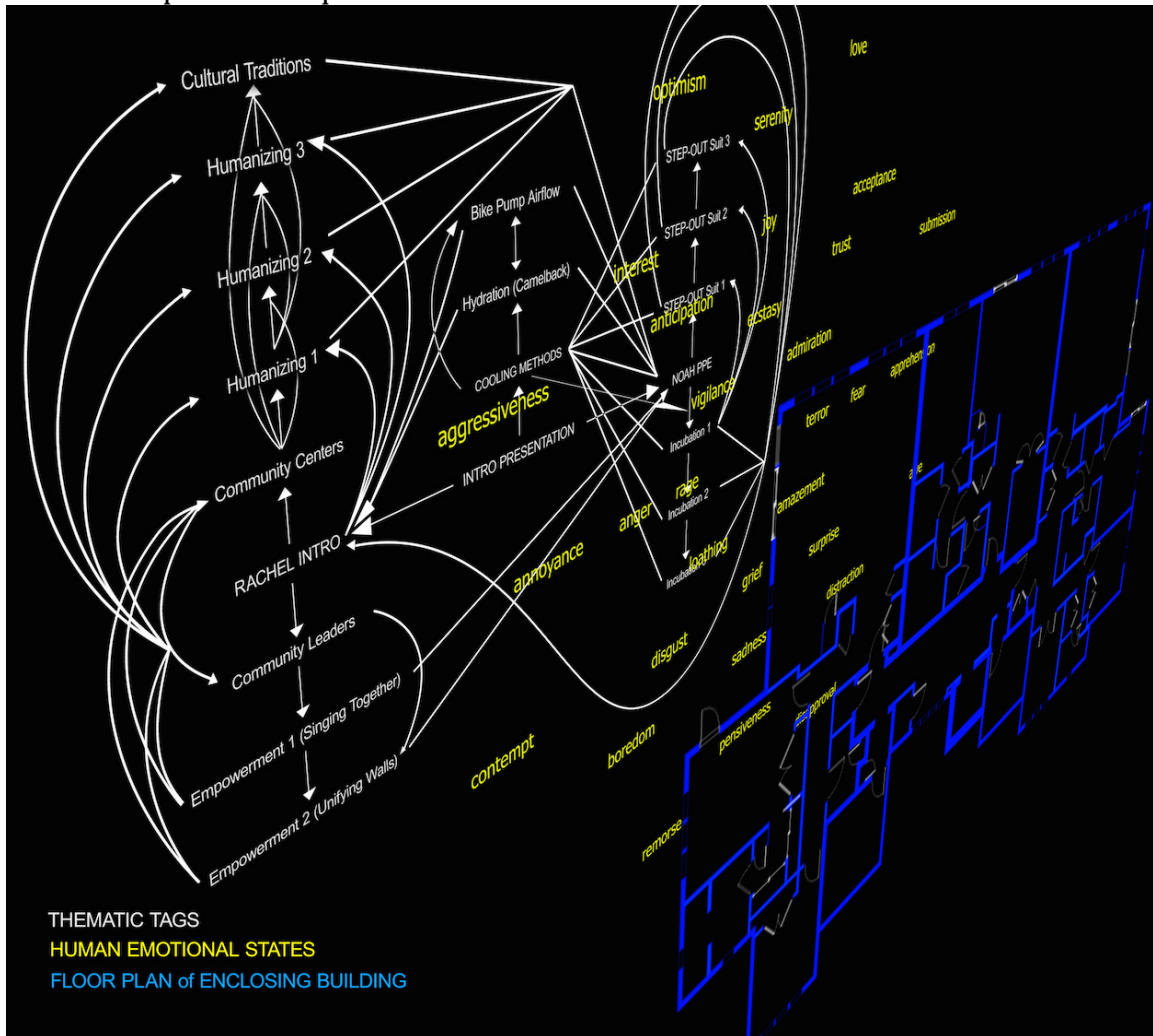
SECTION II - STATUS

Student research assistant Conner Griffith processed all the footage from the Ebola design charrette, applying thematic and other tags throughout and applying his understanding of narrative literacies to generate short curated sequences of media, which were then themselves tagged with a rich variety of metadata. In the parlance of the software tool Korsakow, these were the Shortest Narrative Units (SNUs), a kind of mini-scene of a few beats of action, defined by the human editor. It is, at this stage of the technology, labor-intensive to fill in all the metadata one wants to associate with each SNU, and this was the bulk of Conner's labor during the grant period. Once these SNUs are all tagged, Korsakow can algorithmically generate sequences of media for playback in a browser, and Conner can also apply text titles to the images to help users navigate the media thematically. He then studied *all* the possible pathways a viewer might take through this set of media and set out to create a visualization of this 'cloud' of possible relationships (Figure 1).



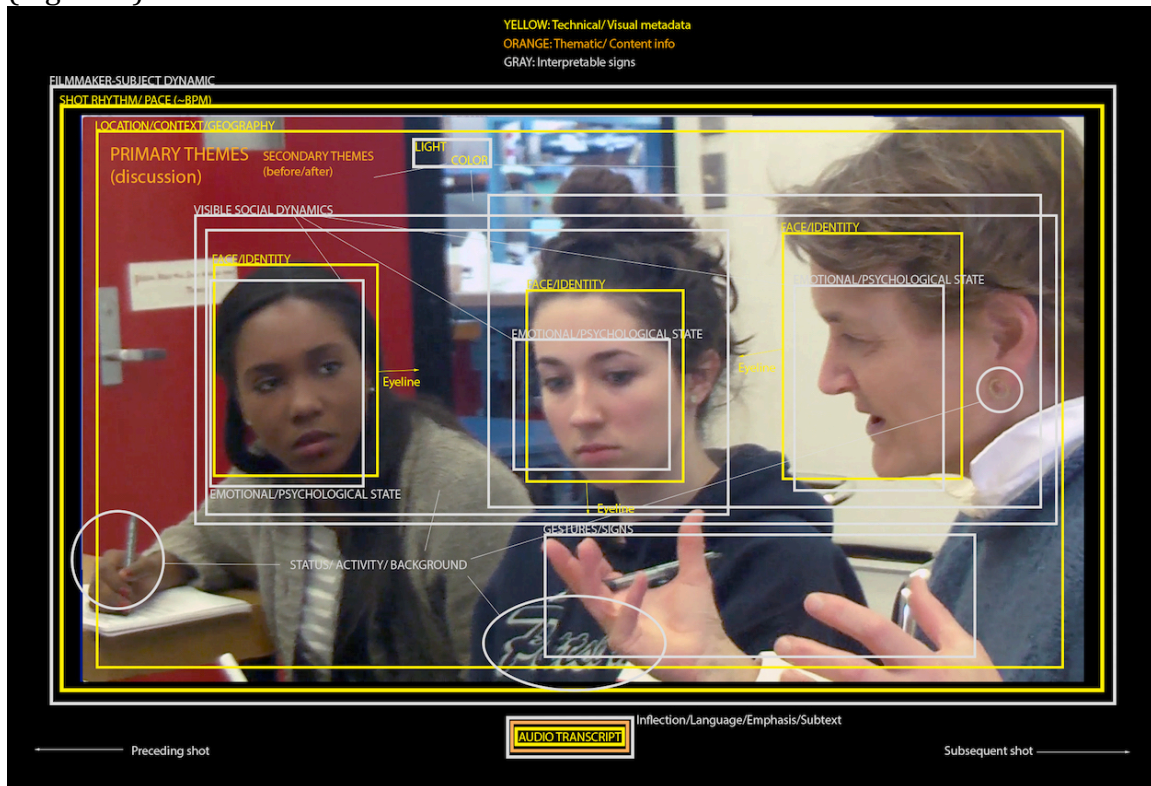
It is important to note that *thematic* relationships are not to be the sole criteria for relating clips together narratively - there is a rich field of information in any moving image that editors and filmmakers must consider when constructing story from narrative components, the details of which delve into countless fields of study including anthropology and ethnology, history, psychology, architecture,

biology, and more. For the proof-of-concept we decided to limit our work to thematic relationships, mainly so we could illustrate the forms taken by relating pieces of media in this way, and then to imagine how superposing new sets of criteria over the 'merely' thematic would make the possible narrative pathways even more rich and multidimensional. But we can envision countless layers of metadata-mapping (Figure 2), the interconnection of which can inform a vast network of possible sequences.



These algorithmic sequences, of course, would still not completely be narrative at their core - though they would be informed by a rich set of connecting tags. The most important piece of metadata is that grading on a scale of *perceived causality* that must be provided by a human actor literate in narrative evaluation of image and sound. This literacy is a complex - but teachable - matrix of sign-reading, subjective interpretation, and informed cognition, which we can begin to visualize as an articulation of how a filmmaker looks at and interprets his or her footage.

(Figure 3)



Meanwhile we extended a number of inquiries to possible collaborators on the development of the Korsakow API and the software tool, including conversations with Florian Thalhafer at the Korsakow Institute, Berlin, and Matt Soar, Associate Professor of Communication Studies at Concordia University, Montreal, who are the inventor and co-developer, respectively, of the Korsakow project. Preliminary discussions on collaboration have been opened with a number of private programmers, Brown University Library's Center for Digital Scholarship and its Computer Science Dept, and with Georgia State University's Dept of English and Communication. Dovetailing with these conversations have been a number of leads toward funding this work fully, through grants, government and private sector investments, and academic opportunities.

While we made great strides in carrying these conversations on and in greatly expanding our field of possible technical assistance and conceptual collaboration, we were also faced with the challenges of international communication and schedule coordinating with members of the academic community during the summer months, and so as the Bridge Grant period is closing we do not yet have a single solid relationship secured for the Korsakow API or software development aspect of the project; rather we have a greatly enlarged network of parties in discussion, as well as a clearer picture of the budget, timeframe, and technical requirements this part of the project will require. This is an ongoing pursuit and we are enthusiastic that we can prepare the API and the preliminary software design according to the USAID/East Africa prototype timeline, alongside the funding required to accomplish it fully.

The need for software development was further reinforced by the technical issues faced by Student Research Assistant Conner Griffith in his work with Korsakow this summer. Korsakow is a nonprofit, free, open-source platform managed by a very small community of coders and filmmakers scattered around the world. We were fortunate to receive direct technical support from the Korsakow Institute's lead programmer, but nevertheless time and productivity were lost due to bugs and the challenge of wringing a new kind of functionality out of this highly specialized tool.

SECTION III & IV - OTHER SUPPORT

Throughout the grant period and going forward, we are pursuing additional technical, financial, and institutional support.

Technical support is coming now from the Korsakow Institute, and has been solicited from Brown University, Rhizome, Georgia State University, as well as from within RISD and from personal connections and private sector programmers. The full measure of technical support we'll require will also be dependent on the financial support received.

Financial support has been solicited from numerous granting programs, including but not limited to the MacArthur Foundation, the Sundance Institute, and the Knight Fund; as well as other potential granting partners including the Case Foundation, the Carr Foundation, the Ford Foundation, and funding mechanisms within USAID itself. We continue to pursue several other funding opportunities, including federal grants in progress.

The project enjoys, at this point, the greatest support from an institutional standpoint. Besides RISD and in particular the Dept of Film, Animation, and Video, USAID is very supportive and interested in moving it forward through the granting of access, references, recommendations, and logistical support - this now extends to USAID missions in Ghana, Mozambique, and Tanzania, where they are exploring ways such a tool might be applicable to any of the countless challenges communities face in those places. We are also poised to continue working with the Korsakow Institute to adapt their software to our purposes, and to share their experience as we go forward developing new tools. We are hopeful that a number of other organizations and institutions, including foundations, NGOs, and academic institutions will be lending us their formal support in the coming months - and that this can lead to more concrete forms of assistance.

SECTION V - LOOKING AHEAD

As the Bridge Grant period comes to a close, we have achieved our goal of a working proof-of-concept media object created in Korsakow and viewable offline in a web browser. This proof-of-concept demonstrates, primarily, the possibility of a multidimensional, contextually-rich view of a complex system (in this case, a one-day design charrette involving over a hundred participants). Looking forward we hope to build on the front end of this view a more rigorous methodology for data-gathering and media management/tagging; and at the back end an intuitive, viable, and informative visualization and interaction toolset which would allow end-users a new and dynamic perspective on the system in question.

The project moves ahead in two directions:

1.) connecting to technical collaborators who can perform the work of designing and realizing the new digital tools needed: an API to help the flow of data into and out of Korsakow, and a visualization engine and interactive UI for the end-user researcher. In the coming months we are focused on funding this work and connecting to active partners to build the tools.

2.) developing the research methodology more fully, through a larger-scale prototype project. USAID has been actively interested in supporting this direction and we are working toward a research model involving RISD students and faculty conducting a specific study of a USAID-provided problem set: wildlife conservation and counterpoaching efforts in Mozambique, a problem which is complex, human-driven, and has so far vexed the best efforts of a quantitative data-driven problem solving methodology. We expect this model will be put to work in the coming academic year; which provides a timeframe ambition for our work on the first part, the tool-development.

Andrew Freiband

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APPENDIX 1 - Student Research Assistant Final Report - Conner Griffith FAV 16

In working on the Korsakow Ebola Charrette project, the primary issue that I came across was dealing with multiple forms of interactive narrative structure in a single project.

Korsakow can allow the viewer a freedom to move from clip to clip in a 'random', non-linear fashion. At its most 'free', this form of storytelling can be likened to an out-door music festival. The viewer/listener progresses through a curated space, making their own decisions concerning where they will go, how long they will stay, and whether or not they should choose to return to a particular venue.

Korsakow also has the capacity to direct the viewer in a more linear fashion. Should the filmmaker need to educate the viewer with one clip before proceeding to another, SNU's can be organized such that one cannot be accessed without having opened another or even having reached a certain point in another. This is a valuable tool that can be likened to moving through a string of rooms in a building.

The two structural languages can work to complement each other and create educational experiences that are engaging. The problem comes when trying to visualize this data behind the experience in a way that is accessible and can work to enrich both the development process of the filmmaker and the viewer's understanding of the piece as a whole.

The Ebola Charrette project is essentially broken up into three 'chapters', each with a set of SNU's that follow a particular theme. The Personal Protective Equipment (PPE) chapter begins with an intro video of a donning and doffing process of the Ebola PPE and then breaks into two possible approaches to solving the problem that were discussed by the same group. These sets of SNU's (each approach with 3 videos) are best watched consecutively, as the development of the discussion was integral to understanding each viewpoint. Korsakow allows this linear viewing structure to work, yet can get tricky should the viewer choose to bounce between sets of linear structures. It seems that there should be an 'if/then' statement that could allow or prevent the viewer from accessing certain videos. There may be a way to go about this within Korsakow, but I could not seem to figure it out. This is an instance where the editing system for Korsakow could benefit from a more

intuitive, visual interface, allowing filmmakers to work seamlessly between multiple narrative structures.

The Empowering Community/Humanizing 'chapter' has a more loose structure, as it is comprised of SNUs from multiple discussions and rooms from the Charrette. It is less formally educational and each video does not require prior knowledge, making this 'chapter' a melting pot of ideas that the viewer is free to navigate at their own curiosity. This narrative structure seems to be what Korsakow was made for, and can make the viewer experience all the more engaging.

For the most part I have been exploring the idea of viewing the SNU's relationships to each other as a node-based system in two dimensions. Early on I worked to create maps that organized the titles of each video across a plane and included arrows that made each possible connection between videos with joining keywords. This process can make sense of the project to a certain extent - yet when 'supporting' arrows are included (arrows that prevent the project from dead ending) an already complex map becomes far too convoluted. One solution I attempted with this map was to make it interactive - to show the organized titles without the arrows and have the user select what arrows (or color coordinated titles) he/she is interested in. Another map I explored was a three-dimensional interpretation of the project. This perspective may aid the filmmaker or viewer in understanding the project as a whole.

Also, if the project could have a menu system, alongside the video and thumbnails, the viewer could more seamlessly and intentionally navigate through the project. This would eradicate the issue of dead ends and redundancy.