

URBAN ECOLOGIES: “IN THE CITY OF THE APIS QUEEN”

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This locative media project combines digital technologies, scientific research, artistic innovation and real-time interactivity. We discuss the urban migration of the European honeybee and networked activities in city environments. It develops a futuristic socio-cultural narrative and combines such diverse disciplines as visual arts, new media practice, literature, computer science and the biological sciences.



Through an expanded description of the media project, *mellifera* [1][2] the artists will explain their interdisciplinary concerns, research methodologies and the ways in which their approach lends itself to flexible, hybrid practices. They will outline potential strategies for moving on from *mellifera* to develop a locative media project: “In the City of the Apis Queen,” which will fall within the framework of contemporary urban ecologies.

The *mellifera* project consisted of an on-line interactive environment in Second Life (SL), which was linked to a complimentary series of real-time exhibitions in gallery and museum spaces. Central to this innovative, ecologically sensitive artwork was the artist's direct engagement with various aspects of bee behavior at Queensland Brain Institute, The University of Queensland (UQ); [3] where researchers investigate cognition, navigation and communications in the honey bee. The artist's poetic and scientific interactions with the bees inspired *mellifera*'s experimental series of human/computer interfaces. These provided modes of sensory delivery for both virtual and real-world participant interactivity. A primary rationale behind this project was the artist's desire to find interactive tropes and strategies that would provide artwork participants with an interface, which enabled them to seamlessly interact with the virtual environment. Adams and Burrell were conscious of the limitations presented by software systems such as SL, in particular the constraints inherent in its closed structure. Furthermore, they viewed it as one of the many tools at their disposal for creating a contemporary artwork that pushed boundaries. At that time it successfully enabled them to explore the issues raised in *mellifera* but it is no longer suited to their creative needs for subsequent projects such as “In the City of the Apis Queen.”

Adams and Burrell chose to collaborate on *mellifera* as a result of their shared interest in the self and its construction in physical and virtual environments. Consequently, through both metaphor and subjective

focus, their collaborative projects have shed light upon a wide range of themes relating to identity, narrative and corporeality. These works have both breached and bridged the spatial, physical and systemic aspects associated with virtual platforms and embodiment. *Terra.mellifera*, the *mellifera* SL virtual environment, consisted of a generated, balanced ecosystem that accommodated remote participation via avatars and responded to the interactive engagements of physically present participants. Following in the footsteps of the grand tourist and explorer – whose reports evoked new virtual worlds within the minds of their listeners – an exciting aspect of Adams and Burrell’s collaborative practice, for both themselves and their audience, has been the creation and exploration of parallel universes that evolve – generating realms within which to discover new frontiers. Through narrative and real time interactive technologies Adams and Burrell have created a hybrid physical/virtual space via technical & ecological interconnectivities, making analogies between the behaviors of humans and communities of honeybees that emphasize observations of interspecies links. [4]

The underlying code of the *terra.mellifera* environment investigated the complexity that can be obtained through the combination of less complex elements. Ultimately, the whole process was about the system, from which emerge the individual creatures and life forms. Rather than setting about creating an environment with fixed goals and outcomes, the artists proceed to create a spectrum of behaviors and processes that became inextricably linked with one another and which imparted their own identities and parameters upon each other from the ground up. A question that the artists consistently asked themselves throughout their creative collaboration was, what makes any new addition to the system an integral and logical part of the system, continually adding complexity to the whole? The artists did not want to recreate a bee in the virtual world. They were investigating creating a creature with aspects of ‘beeness’ that was very much a native of its virtual ecology.

Interest has been developing since the nineteenth century in insect communities, behaviors and social structures. [5] This has led to a recent focus on the relationship between etymology and networked media technologies, which has informed Adams and Burrell’s recent research. For the project – “In the City of the Apis Queen” – the artists will compare the relationships between urban ecologies and the behaviors of a community of European honeybees. The project combines such diverse disciplines as visual arts, new media practice, literature, computer and biological sciences to develop a futuristic socio-cultural narrative within a citywide networked space. The artists aim to generate a networked project consciousness that grows out of the recorded ‘energies’ of participant engagement and evolves to resemble a ‘hive-mind-whole’ artwork system. In the “Apis Queen” project other key areas of honeybee behavior, such as the building of a productive community, the need for aggressive responses and the role of the queen bee will inform the programming and construction of the artwork networked system. The whole work seeks to transcend conventional spatial boundaries; materially immersing participants in a very physical way .

Through the use of custom-made wearable devices that self organize into a local network and communicate with each other in real time, and a digitally programmed system of web portals aimed at mobile browsers, the artists will immerse participants in what is an essentially an open-ended system. These systems will both create, and highlight existing urban ecologies as networks. As part of this system, through a quasi-gaming structure, “Apis Queen” participants are provided with hand crafted network devices and invited to collaborate with one another. They become immersed within a network that forms as a result of this process; which then becomes part of the overall pre-existing network to create narrative data, which is native to it. This process leads to the local becoming global and the private, public. These networks will be temporary and exist only while participants are active. However, the data

that is created will be allowed to continue its evolution within a perpetual virtual environment accessible through a web portal. Reminiscent of the *mellifera* ethos, one might ask whether the artists are trying to uncover a networked mind or life form arising within this expanded ecology? Ultimately the “Apis Queen” project creates a space for the investigation of future narratives at the nexus of science fiction and everyday urban reality. This unique intervention into networked environments represents new explorations into uncharted territories of urban and data ecologies. The artists’ role as tourist and explorer of these new frontiers is an ongoing one, and as the interface between the physical and the virtual continually shifts, they will encounter many unknowns.

References and Notes:

1. *mellifera* Project Web Site, Home Page, <http://mellifera.cc> (accessed March 1, 2012).
2. *mellifera* has been assisted by Australian Government through the Australia Council for the Arts, it’s arts funding and advisory body. For more information, visit http://www.australiacouncil.gov.au/artforms/inter-arts/news_items/melifera_-_a_mixed_reality_project
3. Queensland Brain Institute Website, “Professor Mandyam Srinivasan FAA, FRS - Visual and Sensory Neuroscience,” <http://www.qbi.uq.edu.au/professor-mandyam-srinivasan-faa-frs> (accessed March 26, 2012).
4. Donna Haraway, *When Species Meet* (Minneapolis: University of Minnesota Press, 2008).
5. Jussi Parikka, *Insect Media* (Minneapolis: University of Minnesota Press, 2010).