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Pivoting and Jumping through the Fabric of Çatalhöyük to an Imagined World of People with Faces, Histories, Voices, and Stories to Tell*

Ruth Tringham

Abstract *This chapter is part of an ongoing process in the construction of a recombinant history about Neolithic Anatolia and Southeast Europe called Dead Women Do Tell Tales (DWdTT). It is an extraordinarily complex tangle of fragments about the archaeological construction of Neolithic households, based in the records of the excavations themselves and their published interpretation and interpretive vignettes from my creative imagination. It addresses the question of how to turn this tangle of related fragments into a narrative that is both "landscaped" and "gendered"; and how to make this a narrative that is both engaging for professionals and draws our broader audiences into the glow of engaged curiosity that encourages them to participate in the enterprise of constructing gendered landscapes of the past. The response to these questions is my first step in the design of a serious game based in archaeological research.*

Until the last few months, and for the purposes of an earlier presentation and publication of *Dead Women Do Tell Tales (Tringham forthcoming)*, I made use of a mind-mapping software "The Brain"[1], knowing that this was just a stepping-stone to an interface that would be sharable with a broader audience. This "Brain" version acted as a way to visualize the network of relations between entities taken from the database *Last House on the Hill* and added fragments of creative imagination (Figure 1). It does not claim to be an interpretive interface. As such there is no gendering of landscapes or landscaping of gender in this entangled web. This paper is an exploration of how such an interpretive interface could be achieved from this mass of entities.

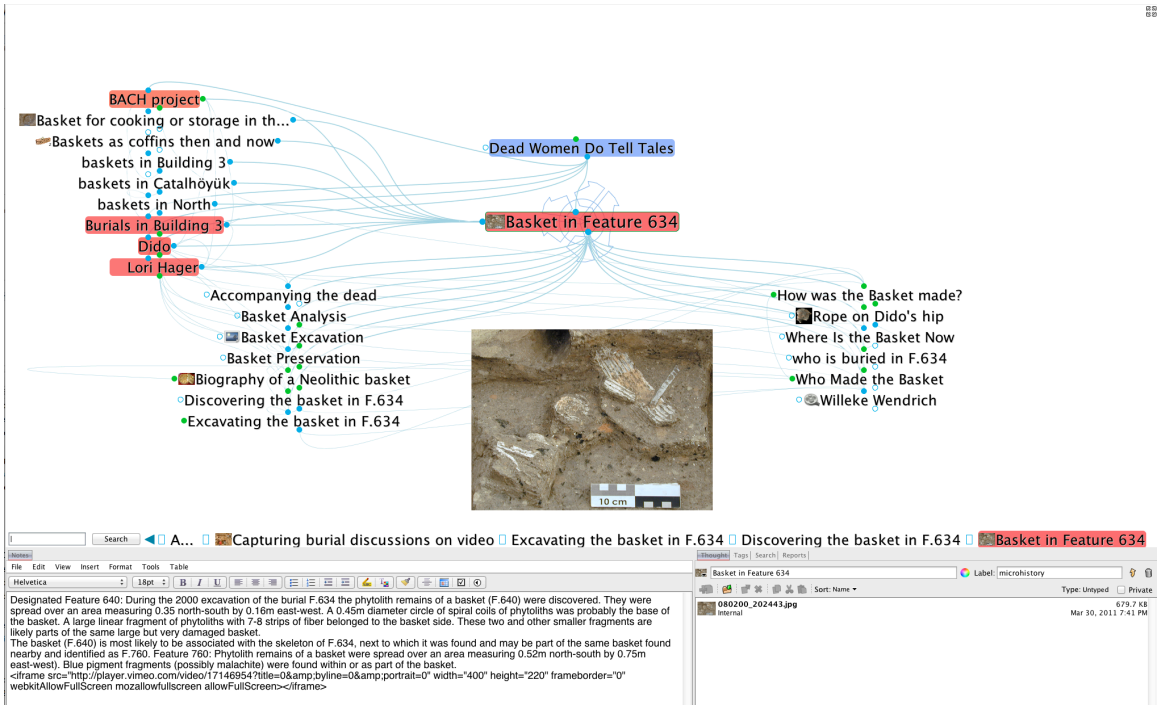

Figure 1. Screenshot of "The Brain" version of *Dead Women do Tell Tales* prepared for the Annual Meeting of the Society for American Archaeology (SAA) 2011 symposium

Engendering Landscapes and Landscaping Gender

For me the engendering of landscapes means almost the same thing as the construction of place; an engendered landscape must involve the presence of people who have histories, histories together and histories in the history of this landscape. The people don't have to be visible, but should be present in their culture, having just passed through, having done something here, created an event to be remembered. Alan Pred's concept of place as the historically contingent and interwoven biographies of "nature", social actors (men and women), and their practices and events (Pred 1984:284; Tringham 1994:184) is one that has continued to color my own concepts of landscape.

To turn this concept on its head, landscaping gender means that when we construct the biographies of gendered actors, or give them voices, we need also to think of them in the context of living breathing places that are full of memories and history of transformations parallel to their own. As we have been arguing since the late 1980s (or in Meg Conkey's case, early 1980s), people do not work, or do things or move in a vacuum. As gendered actors they experience the place (their landscape context) multisensorially, with people or animals and trees and rocks, even though they may be thinking and talking about other things.

So how can I turn a network of related entities that have been harvested from an archaeological database or my creative imagination into a narrative that is both "landscaped" and "gendered"? And, moreover, what kind of narrative could this be that would respond to the rich data and media available and the complex intertwining relationships that can be built between them? To a certain extent I have addressed these challenges in my chapter in the edited volume "Against Objectivized Subjects: Alternative Narratives in Archaeology" (Tringham forthcoming), by discussing the issue of database narratives. A further challenge, however, was issued to me by the editors (Ruth van Dyke and Reiner Bernbeck) of that volume referring to my own chapter: "The potential narratives are more pastiches than creative emplotments, they work almost like a video game except that they have no clear direction. The emplotment of most video games is unrealistically simplistic. But did you consider this issue for the stories potentially resulting from users wandering through DWDTT?"[2]

As a response to this challenge and the two themes of the conference, I feel I have got to the point in this endeavor when I am ready to embark on a radically new (for me) strategy to address the framing of the web of fragmentary narratives (constructed with varying degrees of creative imagination) and their empirical anchors in a narrative format that will retain their fragmentary and non-linear nature, and yet provide a richly landscaped and gendered exploration of the past that will be meaningful and engaging for a variety of audiences.

In other words, as perhaps recommended by Ruth Van Dyke and Reinhard Bernbeck, I am turning to the medium of computer gaming.

The Design of Games about the Past

The literature on the theory and design of computer games is enormous. I cannot do more than skim it here. Much of it is a debate between narratologists and ludologists as to which aspect of games should be privileged (Murray 2004; Wardrip-Fruin and Harrigan 2004). My personal preference has tended to fall on the side of the former. Others discussions revolve around what form the narrative should take (Jenkins 2004; Luers 2013; Murray 1997). Yet others focus on the nature of the "environment" of the game – its landscape – and its navigation (Anderson, et al. 2009; Champion 2011; Roussou 2008). Both Erik Champion and Eike Falk Anderson et al. have specifically addressed serious games with content that is drawn from history, archaeology, and cultural heritage and are, therefore, especially interesting and important for my purposes.

In designing a game from the entities of *Dead Women Do Tell Tales/Last House on the Hill*, I must make a number of crucial decisions (Schell 2008) that I will address below:

1) *What kind of narrative*: does it need a traditional emplotment that creates tensions and engagement through suspense in a linear cause and effect sequence of events, as suggested (above) by the comment of Van Dyke and Bernbeck; or can it be a non-linear experience without heroes and heroines?

2) *What kind of interface and environment*: referring to its genre, but also to whether it should comprise a 3-dimensional virtual world that can be moved through as in the majority of games, or can it be equally engaging as a flat 2-dimensional landscape with multiple layers.

3) *What kind of navigation and interactivity*: what draws a player into the game? exploration, activity, or cultural immersion?

From these questions follow other decisions out of these, but later in the design process, as it approaches the application process, such as what platform, what underlying technology (engine), and how disseminated/marketed. These latter will not be addressed in this paper. Here I am concerned only with the "dream". In the world of film-making this step would be called a "treatment" or "storyline", a dream or a proposal of what the film would be about before proceeding to the more tangible stage of storyboarding and scripting.

Harvesting an Archaeological Database for a Serious Game about the Past

In this section I will consider the first question on the nature of the narrative. The source for most of the content for the game is the *Last House on the Hill (LHotH)* database[3] that comprises the enrichened digital mirror of the printed final report (with the same name) of the BACH (Berkeley Archaeologists @ Çatalhöyük) project at Çatalhöyük (Tringham and Stevanovic 2012). The printed edition, that was published (in November 2012) before the database was launched, is ultimately a work of description and interpretation. That is, its 27 chapters written by 23 authors in 624 pages is dominated by text that selects, describes, synthesizes and makes sense of the products of the excavation for a public who is outside of the realm of the project, but who are likely to work in the domain of archaeology. Out of necessity it comprises a selection of photographs (rendered as black-and-white) and line drawings as its 517 figures, and 73 tables that synthesize and remediate some of the "raw data".

Figure 2. *Dead Women do Tell Tales* harvests entities from *Last House on the Hill (LHotH)* database entities.

The *Last House on the Hill* (*LHotH)* database, on the other hand, claims to have collected together every piece of media (20,000 images, 2750 video clips), raw data of all 150 features and 1200 units, and documents and diaries of every working day of the project, as well as the contents of the printed edition itself. Each item is recorded as a separate entity of place, person, thing, event or representative media in the database with its own URL, and related in a number of different ways to other entities. It is what Janet Murray describes in her book *Hamlet on the Holodeck* (1997) as an "encyclopedic environment" that can provide a huge wealth of potential narratives. It is true, that we feel that we have captured the full documentary evidence of the BACH project. But I have no desire to write an encyclopedic linear narrative history of the project any more than Steve Anderson did in his project of cinema history of Kennedy's assassination (Anderson 2011). The digital version of Anderson's *Technologies of History* is a historical narrative, but without the traditional linear emplotment and privileging text over media characteristic of the printed version. [4] He expects the non-linear entanglement to make people feel uncomfortable, but "The multiplicity of opportunities for revelation or chaos function as both a metaphor for history's own lack of resolution and as a rhetorical strategy for resisting narrative closure."[5] In *Dead Women Do Tell Tales,* the entities of *LHotH* are harvested as intimate fragmentary narratives that can be combined and re-combined to build a tangled network of fragments (Figure 2) of a similar nature to the *Technologies of History*.

On receiving the editors' comments of my draft chapter for *Against Objectivized Subjects* (see above), I toyed with the idea of rejecting the tangled network of fragments model in favor of having a plot and a quest and a linear direction for *Dead Women Do Tell Tales,* with the archaeologists of the BACH project as the heroes, the life-history of Building 3 as the quest, and the prehistoric residents - or perhaps the house itself - along with myself as author as the all-knowing authorities. But I quickly rejected this traditional requirement in favor of moving in the direction of so-called "affective-expressive" narratives – following a tradition of Japanese literature (Miner 1983 quoted in Luers 2013), in which entities/fragments are drawn together without a plot into a lyrical or poetic narrative, often as "episodic 'ensembles' of event, voice and image". Will Luers (2013), moreover, points out that this form of narrative is more appropriate to the construction of "database narratives" – narratives that (like *Dead Women Do Tell Tales*) are drawn out of databases, converting the database logic of entities into narrative algorithms through the infinite layering of interfaces (Manovich 2001; Soar and Gagnon 2013).

The entities of the *Last House on the Hill (LHotH)* database are structured around observable phenomena and their interpretations that do not stray far from the latter. The same entities in the context of *Dead Women Do Tell Tales* - by contrast - are structured as narrative fragments that are likely to be thickened by their association with narratives of creative imagination. I have engaged in a discussion on the use of the imagination in creating narratives about prehistory in several previous publications, so will not repeat it here (most recently in Tringham forthcoming). The impact of these fragmentary narratives, whether created from the database or my imagination is the most engaging, I believe, when they are collected together as a multiply mediated vignette or *microhistory* of a small place explored at a very intimate scale of everyday life (Magnusson and Szijarto 2013).

As can be seen in "the Brain" visualization of *Dead Women Do Tell Tales* (Figure 1), the fragments or entities may comprise images, videoclips, audioclips and texts related in a tangle behind which is a hidden structure of ordering by people, places, and things, and the collection of these into "microhistories" that are focused on everyday people (Dido, Lori, Mira, children, teenage girl, young man, old man, ancestor head), animals (sheep, aurochs, gopher), things (basket, a roof, ladder, doorway). For me – and, I believe, Alan Pred (1984)- the gendering of landscapes means that each of these entities in the landscape of Çatalhöyük and the BACH Area, whether animate or inanimate, has a biography, and a voice, and can be drawn together by events and experiences (burying the dead, re-plastering rituals, cooking, the experience of sensorial perceptions, fetching water), and together these create the larger narrative of the history of this place. The "post-Brain" development of *Dead Women Do Tell Tales*, this same configuration of entities assembled into microhistories is retained, but now the game structure is becoming more clearly defined by a system of rewards, allowing a player to recognize that the narratives (and their knowledge) are cumulative. Thus to understand one microhistory leads gradually to a more richly clothed, noisier, and more colorful unfamiliar culture, whether of the past residents or the archaeological project, as an infinite array of new microhistories to be explored opens up until the player feels quite familiar in this unfamiliar culture (Figure 3).

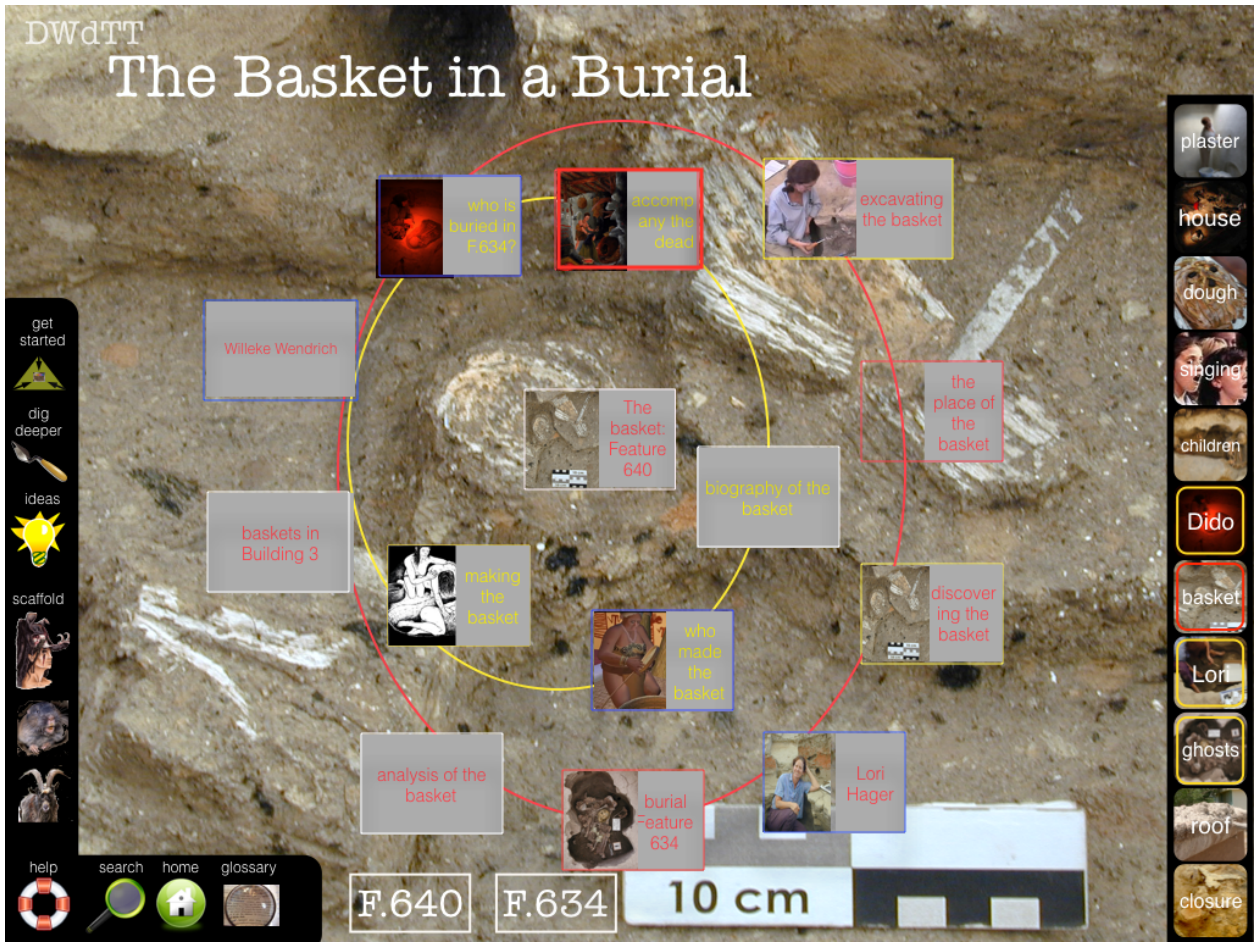

Figure 3. Screenshot of the interface design of the Basket microhistory of *Dead Women do Tell Tales* showing the coding of the entities to indicate people, place, thing event, and the now (red) or then (yellow). In this phase of game play only some of the entities have been filled in with life and only some of the microhistories are available for exploration. Microhistories outlined in yellow are related to the Basket

The Environment or World of *Dead Women Do Tell Tales*

An essential element of a game interface is its environment or "world" (Schell 2008). Erik Champion (2011:51) defines three different kinds of game environments created for heritage and archaeological places.

- *Inert Explorative Environments*, are what we have become most familiar with in archaeological 3-D visualizations, comprising reconstructions of finished, clean, and static spatial configurations, most recently based in detailed laser scans of surviving architecture, through which a visitor can navigate, explore, but little else (e.g., the original *Virtual Egyptian Temple* by PublicVR and other models by Learning Sites/Institute for the

Visualization of History)[6]. Examples of these models abound in archaeology and have become an accepted way of digitally preserving and publishing cultural heritage[7] .

- *Activity-based environments* are created within a game or training context to be played on computers and game consoles. There are various genres (e.g., strategy games, first-person shooters) with a unified aim of pursuing a defined goal (most frequently to survive, overpower, or accumulate wealth). There are many that use historical time/space contexts, such as the Civilization (Watrall 2010) and Age of Empires series, and others that use archaeological contexts (Land of the Spirits[8], Roman Town[9], see also the Society for American Archaeology guide to interactive games for children[10]).
- *Cultural or hermeneutic environments***,** for my own creative pursuits, have the greatest potential for engaging broader audiences in what we do as archaeologists and historians, but they are also the most difficult to engender**.** Nevertheless, this is the kind of "world" that I wish to aim for in *Dead Women Do Tell Tales*. "When we are creating a virtual heritage environment with a notion of a 'place' ....we need to create a virtual environment that evokes and identifies a place that carries cultural indications of inhabitation driven by a different cultural perspective to that of our own." (Champion 2011:46). In other words, in designing such an environment, the aim is to engage the visitor in another culture "where a participant begins to use and develop the codes of other cultures in order to orient and solve tasks, and to communicate the value and significance of those tasks and goals to others." (Champion 2011:55). In the case of *DWdTT* the "other culture" is both that of the prehistoric inhabitants of Neolithic Çatalhöyük and that of the archaeologists investigating them.

I have been searching for a hermeneutic virtual environment that could act at least as a model for *Dead Women Do Tell Tales*. At least half of the examples of such environments that Champion points to in 2011 have disappeared by now, which seems to be a common trend of games in general; many of those that do exist have software and/or hardware requirements that make it their download impossible to my Mac, so that, unless I am a gamer with Xbox or a Windows computer, I can only view them as user walkthrough videos on YouTube. I was especially disappointed not to be able to try out the "alternative history" political mod of *Escape from Woomera* about the experience of living in an immigration detention center. From its YouTube video it would seem to approach a hermeneutic environment.[11]

In his comparison of the heritage case-studies, Champion (2011:151) points to only one example of a cultural hermeneutic environment - *Global Conflict*: *Palestine*, one of the few easily downloadable games; the player takes on the role of a journalist and their mission is to interview different sources from both points of view (pro-Israeli and pro-Palestinian). Interviewing means approaching characters and choosing questions or replies in the dialogue box that appears. The goal is to find the right quotes to make a great story and decide which story and informants to believe. It is a serious "serious game" that aims to help people learn about different cultures. It is a mix of 3D environment (using Unity 3D engine) and flat 2D avatars speaking. Interestingly, with regard to some of the comments about microhistory that I wrote earlier, the latest game created by the Danish producers of the Global Conflict series (Serious Games Interactive) - *Playing History* - is about a little boy who tries to save his mother from the Plague; it is described by the author as a "little history" :"In this small history can influence the world by solving quest, talking to people and completing small mini-games."[12]

Two games that were designed by Brett Leavy and colleagues in Australia would seem to fulfill the requirements of a cultural and hermeneutic environment: *Digital Songlines* and *Virtual Warrane II - Sacred Tracks of the Gadigal.* Unfortunately, I have not been able to experience either at first hand, but only through the medium of YouTube and published articles. The *Digital Songlines* project (Leavy et al 2007) was funded by the Australasian Cooperative Research Centre for Interaction Design starting in 2004. It seems that once funding ceased, some time after 2007, the *Digital Songlines* was no longer available. The project is described as a "virtual reality environment" that "provides an immersive and interactive environment communicates indigenous heritage in an exciting and creative way". It was developed in close collaboration with Australian indigenous communities, which can be seen in the video of game play in which landscape or "country" is an important entity of the game experience, and sound includes instruction in language, storytelling, as well as ambient sounds.

Virtual Warrane II - Sacred Tracks of the Gadigal has been designed by Brett Leavy (himself of Australian Aboriginal heritage), now with a free-lance company called Immersive Landscapes. *Virtual Warrane* provides an immersive interactive experience of Warrane, the name given to the Sydney Harbor Area by the Gadigal, the original aboriginal settlers of the area. From the videos available, it has a similar feel of immersion and engagement to *Digital Songlines*, incorporating language, stories, and music, with beautiful visuals such as the ability to turn on

ghostly overlays of modern Sydney. It was shown in the Sydney Customs House museum for a couple of months in 2012 (although never mentioned as news in their website), but is otherwise invisible on the Web, alas. On looking at the various videos available, I think that a lack of funding prevented *Virtual Warrane* from becoming more than a museum exhibition platform, but I found its ephemerality in that location surprising.

I am also very sorry that the *Desperate Fishwives* is not available even though it was apparently developed to fruition, not only because its seemed to present a hermeneutic world about early modern England within the genre of microhistory, but also because it appeared to be solving or even by-passing the dilemma of whether to construct the world as 2D or 3D[13]

Originally I avoided the idea of having players explore a 3D virtual world, mostly because of my own technical limitations in 3D landscape modeling. Moreover, I thought that moving through a virtual world would detract from in depth problem solving and exploration. Now, after perusing the literature on games, serious and otherwise, I am thinking it is essential to involve exploration of a 3D environment somewhere in the game in order to engage players more intensively in the unfamiliar cultures. So an important change since the presentation in Buffalo is that the heart of the game – the database narratives of Building 3 - can now only be entered through a portal in a 3D virtual environment (Figure 4). Whether the complexity of the database narratives will also be offered as a 3D or flat 2D environment is not yet clear. The player has a choice of three portals:

The first portal is above the building via the roof; the player is set the task of finding the correct ladder through which to climb down into Building 3.

The second portal is at "ground level" along the narrow alleyways between the closely-packed buildings, avoiding dung and garbage (minus points unless you take on the mode of being an archaeologist).

The third portal is found by tunneling through the mound, past the many layers of history and ancestry beneath Building 3.

Figure 4. The new structure of *Dead Women do Tell Tales* showing the 3D portals that give entry into the 2D/3D database narratives of Building 3.

Navigation, Movement, Direction, and Time in *Dead Women Do Tell Tales*

The anticipated audience of *Dead Women Do Tell Tales* are lifelong learners (i.e. any age from 9 to 90), people who have curiosity and imagination, who love small intimate stories of everyday life, who love "aha" moments of solving mysteries, who love to work things out for themselves when presented with information (clues), and people who love to participate in other cultures, learning the language, tasting the food, and listening to stories.

The aim for the explorer of *Dead Women Do Tell Tales* is to experience as participant observers two very different cultural contexts:

- the world of residents of a place – a settlement mound - that is 9000 years old for us and at least 500 years old for them;

- the world - also unfamiliar - of the archaeologists who are revealing the Neolithic residents and constructing the Neolithic world from its material remnants.

In the interface seen in Figure 5, the upper timeline is the world of the "*Now"* (BACH Project time) - the unfamiliar (for many) culture of the Çatalhöyük archaeologists – that proceeds in a traditional linear fashion from start on the left in 1997 to the end in 2004 with the filling in and closure of the BACH Area. The archaeologists do not know the past, but that is the aim of their investigation as they slowly peer into the history of the place going back ever further in prehistoric time as the life of the project proceeds. They reveal the life-history of a building and a neighborhood from the uppermost deposits down towards the earliest deposits.

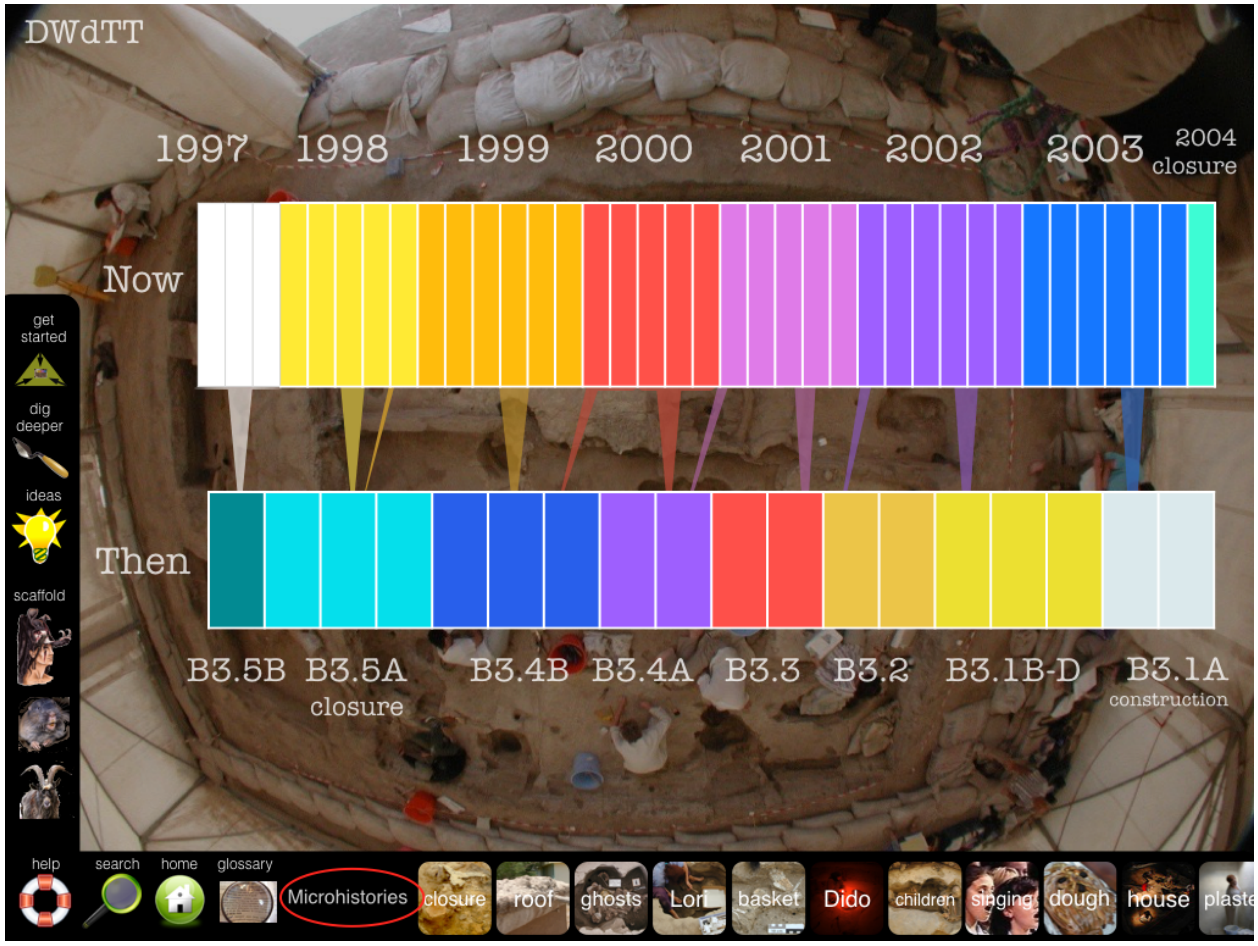

Figure 5. Screenshot of the timeline interface of *Dead Women do Tell Tales.* In the upper timeline the BACH Project time is divided into week-long segments. The lower timeline is divided into less precise time segments that correspond roughly to the varying length of phases in the life-history of Building 3. Arrows show that excavation seasons reveal earlier and earlier phases in the history of Building 3.

The lower timeline is the world of "*Then*" - the 9000-year old Neolithic culture of the even less familiar residents of the BACH Area. The timeline of "*Then*" passing through the lives of the buildings and people of the BACH Area (focusing on Building 3) is read less traditionally with its start as construction at the right and ending with its closure and abandonment on the left. The Neolithic residents of Building 3 are living their history from the first construction of the house forward into an unknown future and the end of its and their own lives. At some magical points these two timelines will coincide and cross perhaps with some surprising results. Discovering "when" you are, as well as where and perhaps "who" you are, is the point of some of the detective work for the player.[14]

Thus although the narrative of the game is non-linear and seemingly without linear direction, there is a certain amount of chronological structuring of the entities. In this interface, the player has access – in non-linear fashion - to all the microhistories available. Each "microhistory" is localized on both timelines and will give access to entities from both timelines. A microhistory assembles entities comprising both fictional narratives of the world of "*Then*" and the empirical documentation, observations and interpretations of the archaeological project ("*Now*") on which the former are based (Figure 6). The menu of assembled entities is contextualized depending on the nature of the particular microhistory, but an entity may be gathered into more than one microhistory, where its contexts may very well transform its affect. For instance the human remains specialist Lori Hager who participated in the excavation of burials from 2000 has her own microhistory – "Lori" - but her biography or videos and images of her excavating and talking are assembled in other micro histories through her relationship with the entities about burial, such as the "Basket", "Dido", "Platform", "Ghosts", where the entities that feature Lori may forefront a person or artifact quite other than Lori.

In both the *Last House on the Hill* database and *Dead Women Do Tell Tales* the entities have been intricately related to each other, enabling us to pivot to a closely related entity in an assemblage (microhistory) of fragments (entities). Or – if we are enticed by an entity that we have discovered along the way of pivoting - we might jump outside of the bounds of our group of more closely knit entities, to explore a different microhistory, for example, a modern archaeologist and her circle of entities ("Lori") who is excavating a prehistoric woman's grave ("Dido") whose circle we were previously engrossed with; or we might jump to explore the *LHotH* database itself, such as the related videoclips of excavating Dido (Figure 7). This choreography of pivot and jump

describes the exploration of our *LHotH* database. But it also describes the movement of an explorer across the web of narrative fragments comprising the recombinant history of *DWdTT*.

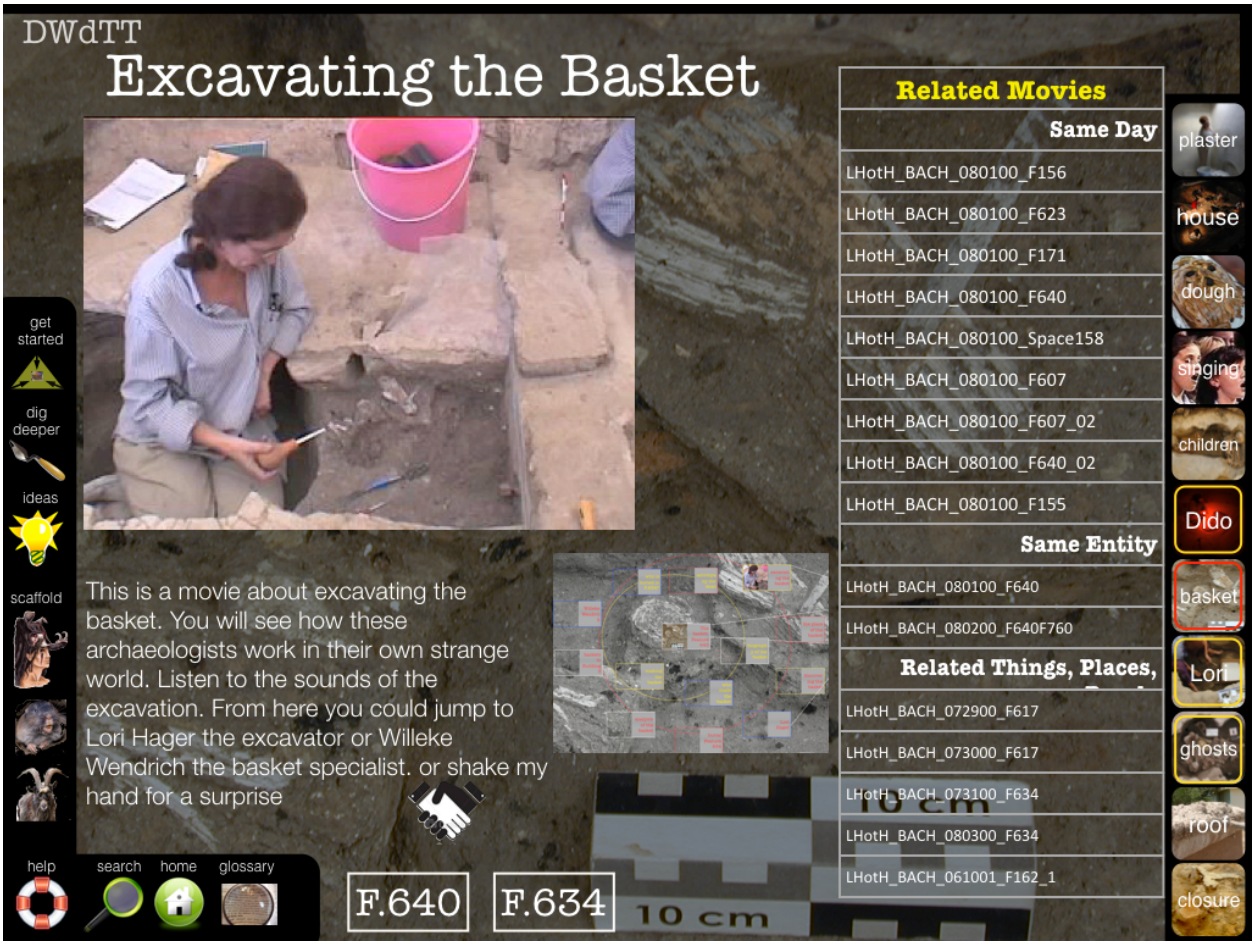

Figure 6. Lori Hager video fragment with related videos

In this very sentence, I have brought to *DWdTT* a kind of virtual landscape of stories and knowledge, whose backdrop is the image of the excavation of the BACH Area or small places within it. Such a landscape is at best two-dimensional, even though it is richly layered and gendered with content. But is it enough to engage "players" or "explorers" with gaming expectations?

Explorers, Guides, and Avatars in *Dead Women Do Tell Tales*

Guides are an essential part of helping the player become familiar with the strange worlds. In all versions of *Dead Women Do Tell Tales* I have always wanted the guides – in keeping with my own pedagogical philosophy - to provide a scaffold, rather than explicit didactism, to the unfamiliar world of the archaeologists and the even stranger world of the Neolithic. In the version of *DWdTT* presented at the SAA 2011 conference, the imagined stories

were expressed as responses to an informant - unseen and unheard - a curious traveller who has landed up at Catalhöyük by accident 9000 years ago. In the version presented at the IEMA conference in the University of Buffalo in April 2013[15], I chose two guides, one for each of the different "worlds"; in the world of the archaeologists you are guided by a wise all-knowing owl; in the world of the imagined past, a familiar figure in the guise of the ever-victorious detective Tin-Tin shares the strange experiences with you. These two guides led us (with comments) through pivots and jumps from the world of *Then* to the world of *Now* and back again in a demonstration of a "what if" dream of what a game might look like.

For this published version, I have had time to think a little further on the intention and design of *Dead Women Do Tell Tales*, including what feedback players will receive as they go deeper into the exploration and knowledge and familiarity with these strange cultures. Thus in the current design, the guides set the first tasks and challenges which prepare the player for the more complex world of the interior of Building 3 and the BACH project. They first make themselves known in the 3D world of the portals, each of which has its specific guide (scaffolder) and chorus (information sources, commentators, backgrounders) (Figure 8).

Figure 7. The guides of the portals to Building 3 in *Dead Women do Tell Tales*

In the roof portal while looking for the correct ladder through which to climb down into Building 3, the player must prove to a shadowy guide with help from a chorus of local brats that

s/he is from these parts by showing a familiarity with what can be seen from the rooftops in terms of how Building 3 sits in its neighborhood and the villages of the mound and in the broader landscape.

In the portal at ground level, while walking along the narrow alleyways between the closely-packed buildings, the player is set the task of finding access through the side-wall of Building 3; while looking for the doorway, the player must show the caprine-looking guide that s/he can tell the difference between real sheep and goats and sheep or goats that are in fact humans in the guise of animals; a chorus of helpful sheep (that gradually become more human) give hints about sacred phrases spoken on special occasions.

In the portal that tunnels through the mound below Building 3, the player is set the task of finding the specific burial pit that will give access to Building 3; this is the domain of the gophers whose attitude to archaeologists is quite ambivalent; the player will need to show a gopher guide – who may or may not be an archaeologist - that s/he knows something about the history of Building 3 and the archaeologists' language (helped by a gopher chorus who are sometimes less than helpful); they may also be required to engage in a debate about the value of digging human remains, or who owns the past.

After gaining access through one of the portals, the guides enter with you into Building 3, at first as shadowy unclear figures that gradually achieve more substance as the player is rewarded for gaining more knowledge of the culture[16].

Currently there is no obvious example in all the virtual worlds and games that I have seen that can act as a model for how to navigate or even design such a world as dreamed here for *Dead Women Do Tell Tales,* although it is possible that some that I do not have access to, like *Desperate Fishwives*, might provide such a model. Like the Global Conflicts series, it is easier for me to imagine a combination of 2D and 3D fulfilling different roles, where the 3D environment, constructed perhaps using Unity 3D game engine, creates the excitement of the alien cultures, the challenge of becoming familiar with them, and introduces you to the emotional affective interactivity, and the richness and variety of the imagined culture. The traveller can pivot and jump back and forth from the 3D environment into the 2D interface of the interior of Building 3, the latter being essentially a database narrative at the heart and soul of the game.

The 2D (or 3D) interface within Building 3 allows in-depth exploration of themes and stories of the history of the house through the medium of "microhistories". Here there are other non-playing characters whose history is intertwined with the history of the house and its investigations. Here the worlds of *Now* and *Then* collide. The richness and complexity of narrative and media content, engaging scales of imagination from highly descriptive to wild creativity always links back and forward to the archaeological materials themselves. There is plenty of movement here, but it is jumping and pivoting through worlds of narrative and data rather than a 3D environment. Originally, in all my designs of database narratives I was aiming for confronting the user with the complexity and ambiguity of the historical process by encouraging confusion in the tangled web of related entities. After reading literature on design (e.g., Champion 2011; Schell 2008) and discussing with designers themselves, I have seen that such confusion impacts negatively on players to the extent that if they get lost or can't find help, they are more than likely to leave the game. I realize now that there are many ways in which this guidance can be achieved without turning the experience into a didactic tour of the Building 3 microhistories.

What has remained as a constant in all the iterations of my thinking through the use of the imagination and documents in the creating worlds of the past, whether in two dimensions or as three-dimensional worlds, is that I am aiming for a surreal representation over realism: "Many virtual environments have aimed for realism rather than for meaningful interaction. Yet this may not be the most effective means of educating and engaging the public." Erik Champion (2011:131). Surreality is achieved through audio-visual and/or textual surprises, often involving unexpected juxtapositioning; it can also be achieved by fragmentation whereby, for example, a complete room is only seen through the lens of a corner, or a piece of furniture, a person by a single eye, a sound whose source cannot be identified, a story that is more poem than narrative. Lest this sounds like a horror film, I am of the firm opinion that all surprises should be playful and lead to constructive thought rather than fear. I am encouraged to hear that "…video games are growing up, too. Developers are using the medium to tell sophisticated, emotionally complex stories" (Larchuk 2014).

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Notes

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[3] http://www.codifi.info/last-house-on-the-hill/ (accessed 11/03/2013)
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[11] http://www.youtube.com/watch?v=BYRJmQvXWSs (visited 1/28/2014)
[12] http://egenfeldt.eu/blog/2009/06/26/playing-history-the-future-og-game-based-learning-is-here/#sthash.Kw8b624z.dpuf ; the game can be viewed at http://playinghistory.eu/front (visited 1/28/2014)
[13] http://hagoodg.wordpress.com (visited 2/20/2014)
[14] The use of the terms "Now" and "Then" to describe the two different cultures that comprise the focus of the game have been adopted from and inspired by their use by Rob Swigart in his book *Stone Mirror* (published in 2007 by Left Coast Press) about a Neolithic settlement.
[15]https://www.academia.edu/3306146/Pivoting_and_Jumping_through_the_Fabric_of_Catalhoyuk_to_an_Imagined_World_of_People_with_Faces_Histories_Voices_and_Stories_to_Tell
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