Culture seen, Culture experienced, Culture rediscovered

Mícheál MAC AN AIRCHINNIGH, Yaşar TONTA, Yurdagül ÜNAL

Mícheál Mac an Airchinnigh is Senior Lecturer in the School of Computer Science and Statistics, Trinity College Dublin. His research encompasses Computers and Society, and Cultural Heritage. Yaşar Tonta is Professor of Information Management at Hacettepe University, Ankara, Turkey. Yurdagül Ünal is Research Assistant toYaşar Tonta in Information Management.

mailto: mmaa@cs.tcd.ie

Abstract

In this paper we present an account of the (digitized/digital) "culture seen" and the "culture experienced". For each cultural artefact, digitized and brought online, we assume both 1) a formal description (using OWL-DL for example) and 2) a folksonomical description (short text with keywords) will be provided. We anticipate said descriptions to be accommodated within the CIDOC-CRM ISO Standard and expect compatible re-alignments with respect to the Getty Vocabularies. We address the basic research question: how can we re-connect with our cultural roots through what we see on the digital screen and integrate it with our (shared) lived culture today in 2009? A second subsidiary question arises: how can we engage with the culture of another, especially where inter-cultural conflict has historic roots? One resolution is to play "the digital re-discovery of culture (DrDC) game of inquiry" based on the saw "By indirections, find direction out". A key aspect of such resolution crucially depends on the notion of (digital) access. We choose three examples: (a) 2 paintings from two different Art Galleries in Bulgaria, (b) 2 sculptures from the Museum of Anatolian Civilizations, Ankara, Turkey, and (c) 2 contrasting murals from Belfast, Northern Ireland. A new DrDC game is presented.

Keywords: backstory, culture, "game of inquiry", keyimage, ontology

1. Let's play?

All animals play, especially when young (at heart). The organization of play by imposition of rules is generally known as a game (in English). In many languages there is just one word to cover both. For example, in Slavic languages such as Bulgarian and Russian that word is urpa (IGRA). It is axiomatic that play precedes game (Huizinga 1955).

Play in itself is intrinsically ambiguous (Sutton-Smith 1997). Of the seven types of ambiguity which Sutton-Smith covers, that of the Imaginary is singled

out to cover the Arts, wherein "play and games are presented as ways of thinking about culture or as texts to be interpreted (Geertz, 1973)" (Sutton-Smith 1997) p128. We do not know exactly to which part of Geertz's book, Sutton-Smith refers. He gives no page numbers. Our own reading of the text suggests that the Notes on the Balinese Cock-fight (Geertz 1973) p.413-53.

So! Poetry and Theatre, Painting and Sculpture, Speaking and Writing of a certain form are all aspects of the playful nature of human kind. All these aspects are often intertwined and made manifest generally under the rubric of Culture. (And, of course, it is exactly at the point that one must the ongoing debate triggered by C. P. Snow's Two Cultures (W en) at war with each other.)

Let's play a game?

Just as we are wont to speak about two types of gender: male and female, blissfully normally ignoring the reality of "intersexuality" (formerly known as hermaphroditism) (Geertz 1983) p.80-85,(Smith 2009), so we are also wont to speak about two types of game: win-lose-draw type and the social type (undoubtedly being blissfully ignorant of the full non-binary span). It is worthy noting, in this context, of the recent modern spectacular manifestation of the impact of the complexities of gender, of intersexuality, in the Caster Semenya case (The Guardian Unlimited 2009). Might there not be something similar in the game typology? Our thesis is that what we call "the digital re-discovery of culture, game of inquiry" is exactly of the same nature as intersexuality. In the next section, entitled Schema of the Game of Inquiry, we introduce the basic structure of the game. Although our presentation is sited determinedly in the context of the (Semantic) World Wide Web (colloquially Web 2.0), to wit that the game is enacted, unfolds, in the digital social framework, nevertheless each such game can be played out in a digital-free world. The nature of play in the latter has been the norm for most of the "life-time" of humanity. This paper, is de facto, a re-inacting of the play, in such a digital free world.

There are three interlocking games to be described below. Each has been played live at the conference: Digital Resources for the Humanities & Arts - Dynamic Networks of Knowledge and Practice: Contexts, Crises, Futures (DRHA2009 2009), held in Queens University, Belfast, Northern Ireland.

2. Schema of the Game of Inquiry

Details of the nature of the digital re-discovery of culture (DrDC) game of inquiry are readily available (Mac an Airchinnigh, Sotirova, and Tonta 2006) p20-21, (Mac an Airchinnigh 2008) p75-83. The notion of a game of inquiry, which leads to self-identification, is partly rooted in Lyotard's "The Postmodern Condition" (Lyotard 1979, 1979). Here the Wittgensteinian "language game" is augmented and enhanced. There are 5 key elements:

1. the **Backstory**, a narrative which sets the scene; an online **video** might be provided to complement the text. The video is to be regarded as a "modern" form of narrative, complementing the written narrative. For the visually

impaired and semi-illiterate, and not only, one might naturally fall back on an oral narrative, in other words, storytelling, such as a parent might do naturally for a child. The backstory of the "Belfast" game (third in sequence below) is designed to be read out aloud.

- 2. a small set (3) of **Web pages** which provide essential information, together with ...
- 3. a set (3) of **Keyimages** (Mac an Airchinnigh and Sotirova 2007) which provide important visual clues. In 2009 we have explored the possibility of arranging some of these images in the very old visual story-telling structures: the diptych (W en) and the triptych (W en).

The diptych may be considered to be like a book which is opened to show left and right pages. The modern (digital) diptych may be given both variety of internal forms (internal ratios 1:1, 2:1, 1:2, etc.), with respect to the usual variety of similar external forms and variety of senses (opposing, complementary, reading left to right, reading right to left, other). Free of physical constraints, the digital diptych may properly be considered to be two windows on a world locked in conversation and mutuality. The Belfast game of inquiry uses the diptych in a natural way, an image of a mural taken from each of the then warring tribal communities.

The triptych is like a window with two shutters. The main view is at the centre, flanked by left and right supporting views. The modern digital triptych can be given even more freedom for expression. We like to think, in the context of the game, that of the three presented views, one is always central or key.

The keyimage (like keyword or keyphrase) is to be ontologized (a significant aspect of current semantic web research). At present it is described in the usual manner that all images are... with words, a terminology. It is clear that

- 4. The **Goal** ought to be stated clearly. It may be very precise, leading to reasonably early (psychological) closure for the player(s), or it may be openended, much like a social computer game such as the SIMS (W en) or Second Life (W en).
- 5. Practical game-playing experience suggests that **Keywords** (or key phrases) are essential in directing the search. Such keywords may trigger important information already provided in an ontology.

Meta game stuff: In the design of a game one needs to keep track of one's own research resources, that is to say, all those web pages, books, videos, and so on, together with annotations, that led to the outcome. A natural key resource is one's own solution to the game, to demonstrate that the game is playable. Such material is exactly similar to the design of formal examination papers (with solutions) which are required, for example, at degree level in a university. In this paper we must be brief. For each game outline, given below, we add a terse section on the meta game stuff.

Since the game is free and open to all then materials must be freely available online, i.e., only material with a creative commons license (Creative Commons Organization) may be used. In particular we are currently exploring the use of an online Wikibook (Orela 2008) as the delivery vehicle for the DrDC game and by the current rules of Wikipedia, contributors "agree to irrevocably release [their] contributions under the Creative Commons Attribution/Share-Alike License 3.0 and the GFDL." In practice, we recommend that any images to be used in the game are obtained directly from the Wikimedia Commons (Wikipedia).

Semantic Web: A key component of the meta game stuff is the repository of metadata that must be kept for each game. Such metadata must be electronic and conform to some stable standard. For practical work we are currently using the Erlangen OWL (Semantic Web Ontology Language) encoding of the Top-Level CIDOC CRM (Schiemann, Oischinger, and Görz 2009). To show how this is used we give a short relevant example below. We are using version 4.0 of the Protégé OWL editor (W en) from Stanford. One of the nice features is the possibility of using the Dublin Core tag set (DCMI) as annotation. In the analysis of web pages, for example, it is useful to see to what extent they avail of the **15** tags of the Dublin Core. For this purpose, we are using a nice tool, DC-dot, from the University of Bath, UK (Powell 2000).

3. Practical playing

In the construction of the DrDC game of inquiry we begin with the first of 2 paintings from Bulgaria.

DrDC Game 1. Kyustendil woman 1943 (Dimitrov-Maistora 1943; Димитров — Майстора 1943): Why would anyone ever want to go to Smolyan to see the picture of Kyustendil woman?

(Figure 1)



rigure 1. woman from Kjustendii region

She represents, of course, one of the great iconic works of Bulgarian art. Can anything more be said? In the context of Berger's "Ways of Seeing" (Berger 1972), we immediately note that she does not "gaze" (Harris 2006) at the spectator; she seems to portray an innate sense of "modesty".

The second painting is a self-portrait entitled "Memory". There is, in this case, the gaze. But it is not the classical male gaze. The painter is a woman. She is painting herself. The date of the painting is 2006. The name of the painter is Людмила Поптошева (Lyudmila Poptosheva) and she was born in 1942.

(Figure 2)

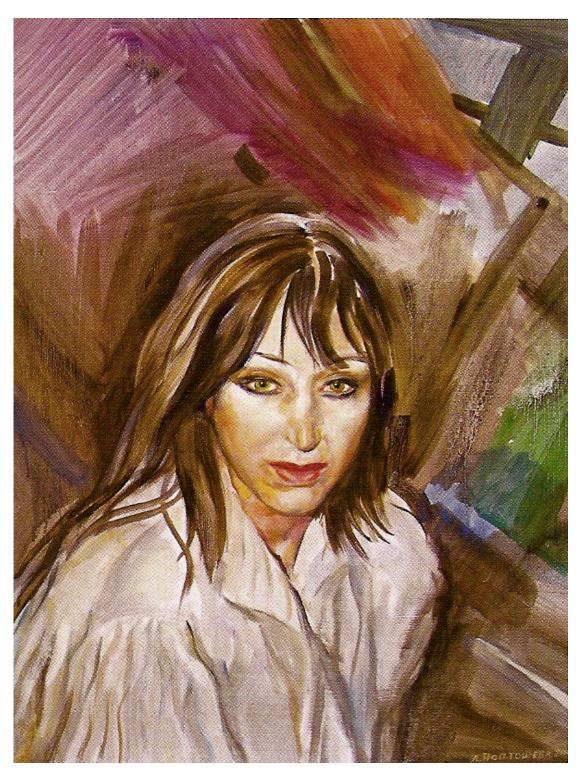


Figure 2. Memory — Self-portrait

Backstory: "In Kyustendil... a young woman named Mati brought her family photo album to the home of a close Gentile friend, Vela. Vela was a fellow resister in the anti-Fascist movement; like Susannah Behar, the rabbi's daughter in Plovdiv, the two friends worked underground in support of the Partizans fighting in the southern mountains near Greece... Mati was crying. 'Vela,' she said, 'if I have the luck to come back, I'll take my album back. But if not, please keep it as a memory for me.' She looked strangely at her friend: 'When you get bars of soap from Poland, please wash your face. Probably this will be soap made from me. And I will touch your face again."' (Tolan 2007) p.37

Video: "Спасяването на българските евреи" (bugurash 2009 (last access))

Web pages:

- (1) http://en.wikipedia.org/wiki/Vladimir_Dimitrov
- (2) http://en.wikipedia.org/wiki/Dimitar Peshev
- (3) http://peshev.org/
- (4) http://bq.wikipedia.org/wiki/Вела Пеева

Keyimages:

- (1) Woman from Kyustendil region, 1943
- (2) Memory Self-portrait, 2006

Goal: to learn to understand the culturally rooted meaning of *memory*

Keywords: gender, memory, transportation, population exchange

Meta game stuff: Vladimir Dimitrov — Maistora is the painter of "Kyustendil woman, 1943." The year 1943 is of special significance for Kyustendil. It was from the railway station of Kyustendil that the Bulgarian Jews were to be transported to Poland. The YouTube video "Спасяването на българските евреи" is specifically chosen (in Bulgarian) to recall a sense of that time. Dimitar Peshev was a key player in their salvation. The self-portrait by Lyudmila Poptosheva, aged 1 at the time of attempted Transportation, is entitled Memory. She could have no memory of 1943. But suprisingly many people later had no memory of Dimitar Peshev and his part in the Salvation. Finally, there is a nice play on names. In the Backstory, the Gentile Vela supports the partizans (sic) and is entrusted with the family album (the book of memories) of Mati. The fourth web page (deliberately given in Bulgarian) is an invitation to explore the life and death of a famous (within Bulgaria) historical young woman named Vela Peeva, a partizan, after whom is named the town of Velingrad in Bulgaria.

DrDC Game 2. Ankara Ceremonial standard (W en): Why would anyone ever want to go to Ankara to see the tiny object (height 24cm) from the 3rd millennium BC?

(Figure 3)



Figure 3. Ceremoniai standard

Fortunately, there is a modern sculpture, the Hatti Monument (also in Ankara) which is immediately accessible and un-missable. It is a massive city monument. Surely anyone who sees it in Ankara will ask why is that there? What does it mean? Where does it come from?

(Figure 4)



Figure 4. Паметник хати, Анкара

Backstory: "İki yıl önce, 2007 yılı sonbaharında, Ankara'da Bölümümüz tarafından gerçekleştirilen başarılı bir sempozyumun ardından Kapadokya'ya "güzel atlar ülkesine" bir gezi düzenlendi. Arkadaşlarımla birlikte ben de bu gezideydim. Sabahın erken saatlerinde başlayan otobüs yolculuğumuz yaklaşık 5 saat sürdü. Kapadokya; güzelliğini anlatmak için kelimelerin vetersiz kaldığı, doğa harikası muhtesem bir ver... Kapadokya'ya daha önceleri de birçok defa gitmiştim fakat bu durum tekrar orda olmanın heyecanını azaltmıyordu. Uçhisar Kalesine çıktığınızda peri bacalarının muhtesem manzarası karsısında müthis bir sonsuzluk ve özgürlük duygusu... Fakat yerin altında 8 kattan oluşan Derinkuyu yeraltı şehrinde ruhunuzun daraldığını, nefes alamadığınızı hissediyorsunuz. Bir taraftan binlerce yıl önce insanların yerin metrelerce altında kurdukları düzeni, yaşama ve düşmandan korunma biçimlerini hayranlıkla izlerken, bir taraftan da yer üstüne çıktığınızda rahat bir nefes almanın ve gökyüzünü görebilmenin mutluluğunu vasıyorsunuz. En kısa zamanda Kapadokya üzerinde balonla gezebilmenin havalini kuruyorum."

Yurdagül ÜNAL

"Two years ago, in the fall of 2007, following a successful symposium put together by our Department in Ankara, an excursion was organized to Cappadocia, the country of beautiful horses. I, too, was in this trip along with my friends. Our journey by bus that started early in the morning lasted about

five hours. Cappadocia; a magnificent place, a wonder of nature that words are incapable of describing its beauty... Earlier, I had been to Cappadocia several times but that was not lessening the excitement of being there once more. When you climb up the Castle of Uçhisar, a marvellous feeling of eternity and freedom against the magnificent scenery of chimney rocks. . . But in the underground city of Derinkuyu which is made up of eight levels, you feel your soul is shrunk and you are short of breath. On the one hand, you admiringly see the order that human beings set up thousands of years ago under several meters of the earth, on the other hand you feel the happiness of taking a deep breath and seeing the sky when you come up. I am dreaming of flying with balloon over Cappadocia as soon as possible.

Trans. Yaşar TONTA

Video:

- (1) Kappadokia Sinasos (Mustafapasa) (mistil 2007)
- (2) Sinasos (Mustafapaşa) 1/9 Yaşayan Tarih Kanal B (Yaşayan Tarih Kanal B 2009)

Web pages:

- (1) http://en.wikipedia.org/wiki/Derinkuyu
- (2) http://tr.wikipedia.org/wiki/Derinkuyu, Nevsehir
- (3) http://en.wikipedia.org/wiki/Cappadocia

Keyimages:

- (1) Ceremonial Standard
- (2) Hatti Monument

Goal: to learn how to celebrate tolerance of the other, living among us

Keywords: human rights, Lausanne, population exchange

Meta game stuff: In the very heart of the capital city of Turkey, in Ankara, one is confronted with the extraordinary Hatti Monument. From Hatti to Hittite and ultimately to Cappadocia... Names change; peoples come and go; religions too. The Hatti monument points to the Hittite treaty: "The peace treaty of Kadesh, between Hittite king, Hattusilis and Egypt's Ramses II, is known as the first recorded international treaty in the world. Civil law was also as important to Hittites as the international law. They recognized equality between men and women, and their law incorporated some rights for even slaves." (*Turquia*) Ankara is located in that part of Turkey, once associated with the Galatians of St. Paul (of Tarsus) in the Christian Tradition. And the Galatians are considered to be Celts, such as those who eventually arrived in Trier, Germany (crossing modern Bulgaria), sacking Rome, and so on... Another sea-faring branch sailed through the Center of the World (= Mediterannean sea) and arrived, one imagines as expected, in Ireland...

DrDC Game 3. Belfast mural (W en): Why would anyone ever want to go to Belfast to see a mural on the street?

(Figure 5)



Figure 5. Belfast mural: Bobby Sands MP

There is a certain fragility to a painted mural, especially in a damp climate such as that of Northern Ireland. To persist it must be re-painted. Such murals are ephemeral by their very nature. In the context of Northern Ireland, each mural belonged to a distinct sort of "tribal area" and celebrated a particular event or person. In a sense, the mural served as territorial marker.

(Figure 6)



Figure 6. Beliast mural: UVF Loyalists

Fortunately, many of the murals have been photographed and archived in digital format before being "lost forever" as murals

In the context of Northern Ireland, each mural often belonged to a distinct sort of "tribal area" and celebrated a particular event or person. "Beginning around 1908, loyalist artisans […] began to paint large outdoor murals each July. In a sense, the mural served as territorial marker. Fortunately, many of the murals have been photographed and archived in digital format before being "lost forever".

Backstory: "When I was young, at the age of eleven, I remember walking down the Falls Road in Belfast, together with my mother and her mother, my granny. We were shopping for the needed school uniform. I had just been awarded a scholarship after passing the Eleven Plus exam. I had chosen to go to school in Belfast. To get there I would have to travel by train daily to and from Lurgan, a market town in another county, different from Down and Antrim, the county of Armagh. And that is what I did for three years, from the age of 11 to the age of 14, travelled to the grammar school in Barrack Street, Belfast, leaving on the 08.05 steam train. Everything was paid for, by the Queen: the clothes, the rail travel, the schooling. In 1964 I left Northern Ireland for ever and never saw a mural while I was there." (Mc Inerney 1961-4)

Video:

(1) "Bits of Belfast — Falls Road" (YouTube), "Bits of Belfast — Shankill Road" (BBC),

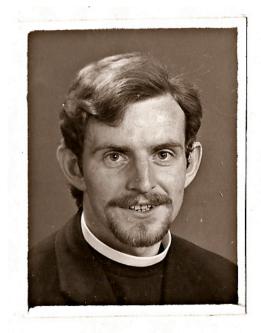
- (2) "Belfast Murals" (YouTube),
- (3) "Murals in Northern Ireland" (YouTube).

Web pages.

- (1) http://www.stmaryscbgs.com/about_the_school/view_content.asp?id=45
- (2) http://en.wikipedia.org/wiki/Murals in Northern Ireland
- (3) http://en.wikipedia.org/wiki/Mary McAleese

Keyimages:

- (1) Belfast mural: Bobby Sands MP
- (2) Belfast mural: UVF Loyalists
- and to lend visual support to the identity of the narrator of the backstory:
- (3) Michael Mc Inerney, circa 1976 (Figure 7)
- (4) Michael Mc Inerney, circa 1978 (Figure 8)
- and to unify the three games presented, to summarize
- (5) Mary McAleese, President of Ireland (Figure 9)



Michael Mc Inerney.
Christian Brothers.
Burrow Road,
Sutton,
Co., Dublin.
323 071

Figure 7. "Michael Mc Inerney", circa 1976



Figure 8. "Michael Mc Inerney", circa 1978

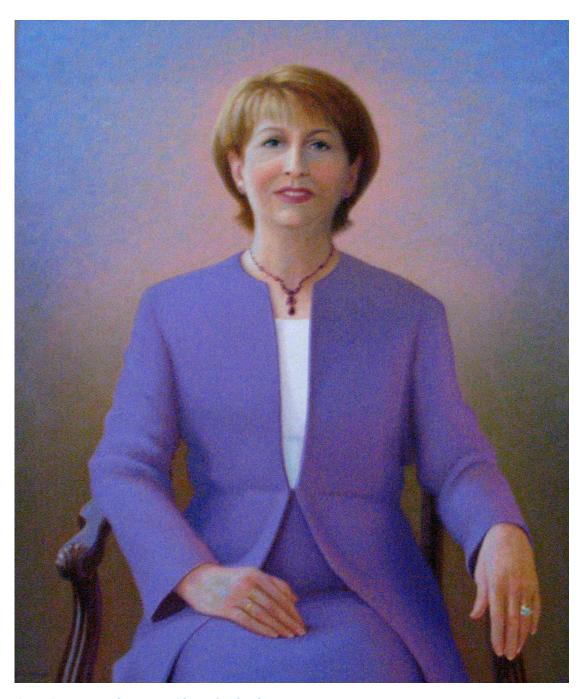


Figure 9. Mary McAleese, President of Ireland

Goal: to understand emigration, immigration, population exchange whether forced by war or commerce or... innocently and voluntary...

Keywords: King Billy, Falls Road, Shankill Road, Belfast, population exchage

Meta game stuff: Does not everyone know now of the tribulations of Northern Ireland since it creation? The game starts out in the traditional way by exhibiting a divided community, divided along religious lines, divided along cultural lines, divided along political lines, divided... The murals of Belfast (and of Northern Ireland, in general) are the key to understanding... Not many

know that the tradition of mural painting began around 1908, a loyalist tradition, of one side of the population, to celebrate the 12th of July, to celebrate Prince William of Orange and the great Battle of the Boyne, of 1690 (Rolston 1995)! The other side, the Catholic side did not do murals until 1981, the year of the great Hunger Strike, the year of the death of Bobby Sands. Artistically, (and this is the unifying key to the triple of games), the real war for hearts and minds was waged by the murals, each of which was not to be seen by the other side, until... TV showed it! So! There was also a different kind of population "exchange" that took place... The young boy Michael Mc Inerney left a county at age 11, to go far away to another county within Northern Ireland. He then left Northern Ireland at age 14 to go to the Republic of Ireland, to join a religious order. In 1969, there was a significant "forced" population movement out of Northern Ireland. The current President of Ireland, Mary McAleese, also came out of Northern Ireland (W en) around 1975(?) when she was appointed Reid Professor of Criminal Law, Criminology and Penology in Trinity College Dublin. Both she, and the young man, McInerney, then named Mac an Airchinnigh, eventually met up, sometime around 1983(?) through the agency of his wife. Isabelle who was a former student of Mary McAleese, In Trinity College Dublin. Curiously, the Mural Theme of King Billy died out around the same time as Bobby Sands.

4. The Play goes on

To design the game is to play the game. If the game is designed well then there is a good chance that one other than the author/designer will be able to play too. The first game was rooted in Bulgaria with the explicit goal: "to learn to understand the culturally rooted meaning of *memory*". Every DrDC game instrinsically involves memory made manifest in some way. This is the reason for the phrase "re-discovery". To re-discover is to bring back into memory, to remember. The act of playing the first game inevitably recalls the present conflict in Israel/Palestine and looks back to roots which in Bulgaria are dated 1943.

The second game appears to be very different. Pictures of objects form the focus. The backstory is given in Turkish (albeit with an English translation) and there is a feeling, a sense, of going back to ancient times. The goal was "to learn how to celebrate tolerance of the other, living among us". The playing of the game throws us into a village: Sinasos (Mustafapaşa), a year 1923, a treaty: Lausanne, when peoples of one culture were transported, uprooted on the basis of religion. This same problem lives on in the Cyprus of modern times, for example.

The third game, of the triptych, was designed, with Belfast in mind. It was, in fact designed first. Here the intrinsic art form was the mural, which seems to date from around 1908 (before Lausanne 1923). The backstory of the young boy, a first person narrative, is the story of the first author of the paper. The story is written from memory, of that time, 48 years ago. That young boy "emigrated" from Northern Ireland. There was no conflict involved. It was choice.

In each of the three games, the keyword "population exchange" was euphemistically given as common link. The purpose of the third game was intended to highlight the intrinsic historical reality that populations are often divided on the basis of ethnicity, religion, culture, language, and so on. It will ever be so.

What then is different today? The DrDC game (played out in the digital world) is specifically intended to foster the re-discovery the culture of the other as much as one's own culture. Such re-discovery will usually entail coping with a "foreign" language, alien ideas, and feelings of disgust and hatred and rejection. But by being played out digitally, there is a good chance that humanism will prevail, understanding will come, the hand will be held out to be shaken.

The three games presented were not imagined. The first author has seen each and everyone of the images presented in each of the games. The narratives used in each of the games were also "first person" narratives. A first person narrative (the eyewitness account) is the most highly prized form for the backstory. Most if not all religions require it. Theatre makes it so by having actors speak... So! Such is the DrDC game! It is an attempt to put together a sort of new-age digital theatre, where the actors are distributed, but involved. The narrative is pre-written, scripted, as in any play.

The player of a DrDC game designed by another is truly an actor. (S)he takes upon (her/him)self the role of player. One enters into the play... One becomes part of the action... Unlike the usual sort of play where every step is predetermined, the DrDC play is open-ended. The actor/player may get lost, walk off stage, or indeed understand too much. To play the DrDC game is to reenter history (in a much more fun way than the usual history lessons)...

It has seemed to us, that "the play is the thing". And so! We have explicitly and deliberately omitted all the usual ontological trappings. To the knowledgeable, the keywords of the game are ontological signifiers...

To ontologize the images is, in the current state of the art to describe them... In other words to reduce the image to words... The DrDC game depends on the concept of keyimage. That is to say, the game has its own visual impact... Descriptions and so on may be incorporated in the backstory. So! Where do we see the future of the game?

Clearly, audio would complement the backstory. Specifically, for the blind the backstory would be spoken. The images would necessarily be described.

For the culturally blind, we are not sure. This is one direction for future research.

Acknowledgements

For support in research and fieldwork into Bulgarian Art (2004-2009) we are indebted to Ms. Kalina Sotirova, Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria.

5. References

- BBC. 2009. Bits of Belfast Shankill Road 1/4. YouTube [cited July 18] 2009]. Available from http://www.youtube.com/watch?v=tCeBmiGOjI0&feature=related.
- Berger, John. 1972. Ways of seeing: based on the BBC television series with John Berger. London: British Broadcasting Corporation and Penguin.
- bugurash. 2009 (last access). Спасяването на българските евреи: YouTube.
- Creative Commons Organization. 2008. Creative Commons [cited Feb 9] 2008]. Available from http://creativecommons.org/.
- DCMI. 2009. Dublin Core Metadata Initiative [cited June 26 2009]. Available from http://dublincore.org/.
- Dimitrov-Maistora, Vladimir. 1943. Woman from Kjustendil region. Smolyan.
- DRHA2009. 2009. Digital Resources for the Humanities & Arts Dynamic Networks of Knowledge and Practice: Contexts, Crises, Futures 2009 [cited Oct 25 2009]. Available from http://dho.ie/drha2009/.
- Geertz, Clifford. 1973. Interpretation of cultures: selected essays. New York: Basic Books.
- ———. 1983. Local knowledge: further essays in interpretive anthropology. New York: Basic Books.
- Harris, Jonathan. 2006. Art history: the key concepts. New York, NY: Routledge.
- Huizinga, Johan. 1955. Homo ludens: a study of the play-element in culture. Boston: Beacon Press.
- Lyotard, Jean-François. 1979. La Condition Postmoderne. Paris: Les Éditions de Minuits.
- ———. 2009. The Postmodern Condition 1979 [cited Mar 28 2009]. Available http://www.marxists.org/reference/subject/philosophy/works/fr/lyotard.ht
- Mac an Airchinnigh, Mícheál. 2008. The Digital Culture. In Balkan Ülkeleri Kütüphanelerarası Bilgi-Belge Yönetimi ve İşbirliği Sempozyumu, edited by Ender Bilar and Y. Ekinci. Trakya Üniversitesi, Edirne, Turkey.
- Mac an Airchinnigh, Mícheál, and Kalina Sotirova. 2007. Kevimage Ontologization & Folksonomy in Web 2.0 Social Space. In Değişen Dünyada Bilgi Yönetimi Sempozyumu, edited by S. Kurbanoğlu, Y. Tonta and U. Al. Ankara: H.Ü. Bilgi ve Belge Yönetimi Bölümü.
- Mac an Airchinnigh, Mícheál, Kalina Sotirova, and Yaşar Tonta. 2006. Digital re-discovery of culture game of inquiry & the physicality of soul. *Review* of the National Center for Digitization 2006 (9):19-37.
- Mc Inerney, Michael. 1961-4. After the 11+ exam, going to school in Belfast. Lurgan, Craigavon, Co. Armagh.
- mistil. 2007. Kappadokia Sinasos (Mustafapasa).
- Orela, Mihal. 2009. Digital Re-Discovery of Culture. Wikipedia 2008 [cited July 25 2009]. Available from http://en.wikibooks.org/wiki/Digital Re- Discovery of Culture.

- Powell, Andy. 2009. *DC-dot* 2000 [cited June 26 2009]. Available from http://www.ukoln.ac.uk/metadata/dcdot/.
- Rolston, Bill. 1995. *Drawing support 2 : murals of war and peace*. Belfast: Beyond the Pale.
- Schiemann, Bernhard, Martin Oischinger, and Günther Görz 2009. *Erlangen CRM Version 2009-03-30*. University of Erlangen-Nuremberg, Department of Computer Science, 2009 [cited Apr 15 2009]. Available from http://www8.informatik.uni-erlangen.de/IMMD8/Services/cidoc-crm/erlangen-crm 090330 5 0 1.owl.
- Smith, David. 2009. Report claims 800m world champion Caster Semenya is a hermaphrodite. The Guardian 2009 [cited Sep 30 2009]. Available from http://www.guardian.co.uk/sport/2009/sep/10/caster-semenya-hermaphrodite-iaaf-test.
- Sutton-Smith, Brian. 1997. *The ambiguity of play*. Cambridge, Mass. ; London: Harvard University Press.
- The Guardian Unlimited. 2009. *Caster Semenya*. Guardian Unlimited 2009 [cited Oct 25 2009]. Available from http://www.guardian.co.uk/sport/caster-semenya.
- Tolan, Sandy. 2009. *The Lemon Tree* 2007 [cited September 7 2009]. Available from http://sandytolan.com/the-lemon-tree.
- Turquia. 2009. 2006-02-22 [cited July 26 2009]. Available from http://www.uned.es/geo-1-historia-antigua-universal/HISTORIA%20GENERAL%20RELIGIONES/HITITAS/turkia.h tm.
- W en. 2009. *Artefact from Museum of Anatolian Civilizations, Ankara* [cited Mar 19 2009]. Available from http://en.wikipedia.org/wiki/File:AnatolianCivMuseum.DO.jpg.
- ———. 2009. *Diptych*. Wikipedia [cited July 20 2009]. Available from http://en.wikipedia.org/wiki/Diptych.
- ———. 2009. *Mary McAleese* [cited Oct 29 2009]. Available from http://en.wikipedia.org/wiki/Mary McAleese.
- ———. 2008. *Near Field Communication*. [cited Nov 14 2008]. Available from http://en.wikipedia.org/wiki/Near Field Communication.
- ———. 2009. *Northern Irish Murals*. Wikipedia [cited Mar 24 2009]. Available from http://en.wikipedia.org/wiki/Northern Irish murals.
- ———. 2009. *Second life*. Wikipedia [cited Mar 27 2009]. Available from http://en.wikipedia.org/wiki/Second_Life.
- ———. 2006. *The Sims 2* [cited Dec 19 2006]. Available from http://en.wikipedia.org/wiki/The Sims 2.
- ———. 2009. *Triptych*. Wikipedia [cited July 20 2009]. Available from http://en.wikipedia.org/wiki/Triptych.
- ———. 2009. *The Two Cultures*. Wikipedia [cited July 21 2009]. Available from http://en.wikipedia.org/wiki/The Two Cultures.
- Wikipedia. 2009. *Wikimedia Commons* [cited July 25 2009]. Available from http://commons.wikimedia.org/wiki/Main_Page.
- Yaşayan Tarih Kanal B. 2009. *Sinasos (Mustafapaşa) 1/9 Yaşayan Tarih Kanal B*: YouTube,.

- YouTube. 2009. *Belfast Murals*. YouTube [cited July 18 2009]. Available from http://www.youtube.com/watch?v=TDzY1TyyEB8.
- ———. *Bits of Belfast Falls Road 1/4*. YouTube. Available from http://www.youtube.com/watch?v=OZqhVk7UDwM.
- ——. 2009. *Murals in Northern Ireland* [YouTube]. YouTube [cited July 18 2009]. Available from http://www.youtube.com/watch?v=WMJ0t-DyA84. Димитров—Майстора, Владимир. 1943. Жена от Кюстендилско.