On the Possibility of Time Travel

BY CORNELIUS HOLTORF

Abstract


Time travel can be defined as an experience and social practice in the present that evokes a past (or future) reality. In this paper I introduce popular time travel as a significant phenomenon of the Experience or Dream Society and the fast-developing Experience Industry, benefiting from new technologies such as virtual reality. I also consider in what way time travel can be said to be real rather than imaginary. Discussion is offered concerning the experience in time travels of a seemingly non-mediated “presence” of pastness, denoting a perceived contemporary quality or condition of being past. The final part of the paper addresses some implications and issues associated with the ubiquity and popularity of time travel in present-day society, and points to a number of important issues that warrant further discussion in the future.

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A new way of approaching the past

Time travel can be defined as an experience in the present that evokes a past (or future) reality. What is characteristic of time travel is thus experiencing the presence of another period. In the second part of this paper I will discuss in more detail whether it is really possible to experience another period that is not the present in which we live, and what I mean by the term “presence”. I will also raise some serious questions concerning time travel that will need to be addressed in depth in the future. But first I need to introduce the contemporary phenomenon of time travel in more detail.

Time travel has become a widespread desire among both adults and children, and our society increasingly offers opportunities to satisfy that desire. Examples of popular forms of time travel in contemporary society and popular culture are living history, historical role play and re-enactment, first-person interpretation, fiction (from Donald Duck to Doctor Who), movies, historical TV docu-soaps and reality shows, and last but not least interactive virtual realities and computer games with historical themes. Over the past one or two decades, all these different forms of time travel have become increasingly significant in tourism, entertainment and education, especially museum and heritage pedagogy (Gustafsson 2002; Petersson 2003, chapter 5; Agnew 2004; Westergren 2006; Holtorf 2007a). Time travel is also depicted in advertising campaigns which more than other visual genres tend to reflect the dreams and desires of at least those parts of the population that are potential customers. As these examples illustrate, time travel is a collective term for a wide range of different present phenomena. What they share is not only an association with another time period but usually also a commitment to story-telling – stories that are told by evoking a past or future reality.
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An example of the currency of time travel experiences is the recent change of name of what was formerly known as Historisk-Arkæologisk Forsøgscenter i Lejre (Historical-Archaeological Experimental Centre, Lejre) near Copenhagen in Denmark (Fig. 1). This attraction revolving around experimental archaeology is one of the oldest archaeological open-air museums and widely known in Scandinavia and beyond. But it is also a theme park that needs to attract more visitors. From 1 March 2009 it has thus been rebranded and is now formally called Sagnlandet Lejre: Historisk-Arkæologisk Forsknings- og formidlingscenter (Land of Legends: Center for Historical Archaeological Research and Communication). The official reason given is that the terms antiquity, prehistory, and history are widely associated with something that is dusty, boring and passive, whereas focus groups confirmed that the term “Land of Legends” is associated with a place that is far away, fantastic and full of activities. According to director Lars Holten (Sagnlandet 2009), the archaeological open-air museum offers a world with precisely these characteristics – thanks to it being inhabited with people from different historical periods who tell visitors about life in the past. It is thus not time travel experiences in themselves that are being moved centre-stage, replacing the educational and scientific overtones in the open-air museum’s former official name; in that case a name like “History Land” and a slogan such as “Experience the Past” would have been chosen. Instead, Land of Legends emphasizes properties and values that time travel experiences are particularly well suited to express. This is actually a far more radical step: the overarching core properties of the historical and archaeological theme park have not merely been adjusted from rather academic and educational to more experiential and interactive but the theme itself has been redefined. Whereas previously the Centre told stories about the past in an exciting way, now it is telling exciting stories in a way that evokes the past. The Lejre Experimental Centre investigating and presenting prehistoric lifeways has become a mainstream visitor attraction where appealing stories are told about a distant, fantastic world associated with the past, a land of legends. That these stories are to a considerable extent based on academic research and popularize scholarly knowledge is seen as an additional strength of the entertaining stories being offered to visitors, endowing it with “a wonderful authenticity” as the official statement puts it (Sagnlandet 2009). At this point it is not intended that the overall purpose and range of activities carried out at Land of Legends are going to change as a consequence of its rebranding, although some of them might be reinterpreted by visitors.

People have of course long been fascinated by imagining what life in another period may have been like, as reflected, for instance, in the well-established popular pastimes of consuming historical biographies and novels or visiting heritage sites and open-air museums. In his classic account of Interpreting Our Heritage, the American writer and conservationist Freeman Tilden stated back in 1957 that one

Fig.1. Sagnlandet Lejre. A modern family temporarily living in the Iron Age. Photograph: Ole Malling, Sagnlandet. Reproduced by permission.

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of the goals of heritage interpretation should be to re-create the past in the present by somehow conveying “the notion to the visitor that the ancients who lived here might come back this very night” (Tilden 2007, p. 102). In our age, mainly thanks to new technologies and increased demand, time travel has acquired a level of popularity and social significance that warrants further study. Current time travel...

- manifests itself widely in popular mass media such as television, movies, the Internet, and computer games
- offers more credible experiences than before by using cutting-edge computer technology (virtual reality)
- is part of mainstream culture (definitely in the so-called developed world) and high in demand, in part thanks to the population’s increased affluence and mobility paired with more available time and sophisticated electronic media of communication that have become widely available.
- matches larger current social and economic trends that have been described as constitutive for the Experience Society (Schulze 1993), the Dream Society (Jensen 1999), or the Experience Economy (Pine & Gilmore 1999).

Elsewhere (Holtorf 2007a; 2007b) I have explained these current social trends in more detail and discussed why I think that the current popularity of time travel matters to archaeologists. I argued that the trend towards time travel represents a novel way of approaching the past (or, I hasten to add, the future) in current society. Whereas previously the most common approaches to the past foregrounded either knowledge and insight or critique and perspective, now credible experience and sensual immersion feature more prominently than ever before. These current developments in popular culture require close attention by all academics working in historical disciplines.

Even within academia, recent years have seen the emergence of “an archaeology of the senses” (e.g. Hamilakis 2002) so that the burgeoning sensual interest in the past now corresponds to an academic interest in past sensualities. But even other disciplines can make important contributions. Besides cognitive psychology, which will be able to shed more light on our experiences as such, and information technology, which to some extent is able to augment our experiences, I am thinking of the social sciences.

The emphasis on experiences in my definition and discussion of time travel reflects its most novel characteristic compared to other approaches to the past: the significance of the human senses and the first-person perspective which govern time travel. Yet from an academic third-person perspective it makes sense to see sensual experiences not only as phenomena that occur within people’s interconnected minds and bodies, as it were but equally as the result of social practices that support, and indeed allow time travel experiences. Relevant questions include the following: who wishes to travel in time? Who facilitates time travel in what way? What motivates time travel providers to offer their services – altruism, enlightenment, ideological tenets or financial gain? Which media are available to whom for making time travel possible? What are time travelling people really hoping to find if not themselves? In order to incorporate questions such as these, we may want to rephrase the definition of time travel which I gave at the start of this paper in the following way: Time travel is an experience and social practice in the present that evokes a past (or future) reality. This modified definition places the phenomenon of time travel firmly in the social sciences, making it a legitimate object of study for scholars based in anthropology, sociology, economics, and in media, tourism and heritage studies, among other fields.
Is time travel actually possible?

Now I can return to the question I asked at the beginning of this paper. If time travel is an experienced presence of another period, what does this actually mean? How can another period, whether past or future, become “present” and a subject of human “experiences”? Is time travel merely a clever metaphor or can it be said to describe a social and cultural reality?

Initially, it seems obvious that a discussion of time travel carried out while being firmly based in the present can only be either pure magic or a product of the imagination, thus being unreal and contra-factual. No one can really travel either into the past or into the future. The previous sentence is less self-evident than it first appears, however. I need to discuss some of the issues in more depth.

To start with, it is essential to ask what is actually meant by “really” travelling in time. The statement that real time travel is impossible employs a commonsense definition of reality, referring to physical reality. According to this definition, real is what we can physically investigate, whether that may be an apple, a brain, or an ancient sword. Within contemporary physics as we know it, there is no time travel — although there certainly are some other anomalies regarding time, such as the fact that it slows down when travelling at high enough speed…. The problem is however that physical reality is not the only way of understanding reality, and it may not even be the one that is most significant to human beings. Reality can also be defined as the sum of human experiences and social practices. Reality, in this alternative view, is whatever humans experience during their lives and practice as social beings. This definition of reality is particularly pertinent here as it implies that all reality is virtual and all time travel is real.

If I define time travel as an experience and social practice in the present that evokes a past or future reality and then understand reality as the sum of human experiences, I am really here talking about time travel as an experience and social practice in the present that is capable of evoking other human experiences and social practices in the past and the future. Restricting reality (and time travel) to experiences and practices of living people might be seen, however, as running the risk of trivializing significant events and processes of both the past and the future. What sense does it make to speak of travelling into the past or into the future, if all we really mean are play-like and not seldom commercially exploited time travel experiences in the present? Again, in order to be able to answer this question satisfactorily we need to scrutinize how past and future are defined. If past and future are understood to be other physical realities that are different from our own physical reality primarily due to their distance in linear (measurable, physical) time, then the question posed is rhetorical because the answer is obvious: time travel is impossible and to promise it is at best entertaining and at worst conning people in order to make them part with their money. However,
earlier I suggested an alternative definition of reality as the sum of human experiences and social practices. I argued that this definition actually allowed for real time travel as it was precisely experiences and associated practices that made up reality.

According to this view, past and future are not physical realities distinct from our own, but dimensions that contribute to shaping different human experiences and social practices in the present. Some contemporary human experiences and social practices may be set at specific points in the past or the future. For example, the annual Medieval Week on Gotland is a present event that comes to a large extent in the shape of how we today evoke the Middle Ages, e.g. in the form of knights’ tournaments (Gustafsson 2002; Sandström 2005). By the same token, a science-fiction novel like Jack McDevitt’s Deepsix (2001) contains a story that is very much about our own present yet flavoured by elements, such as space travel, that we associate with the future. Past and future are not being trivialized here (in relation to a real past that once happened) but they flavour in important ways contemporary human experiences and shape associated social practices. They do not necessarily refer playfully to the realities of a lost past or coming future, but contribute decisively and substantially to a very present contemporary reality.

It might be said that time travel as I understand it does not so much evoke the past and the future as something that has been called pastness and futureness (Lowenthal 2002, p. 17; Holtorf 2005, pp. 127–9). For the sake of simplicity, in the following I will restrict my argument to pastness, even though it is equally applicable to futureness (see Fig. 2). Pastness is the contemporary quality or condition of being past. This quality or condition comes with the perception of something being past and is thus little to do with actual age.

A case in point is the Neumarkt area in Dresden. Here, largely through a citizens’ initiative in the form of a private foundation, an entire historic quarter of the city that was completely destroyed by Allied air raids in February 1945 is currently being rebuilt to match old views of the area (Fig. 3). The Frauenkirche at its centre and a large area around it have already been completed. The aim of this grand project has been clearly stated by the foundation behind it: “We should not lose our unique chance to regain at the Neumarkt a piece of historical identity for our town, for the sake of our children and grandchildren.

Fig. 3. The rebuilt past at Dresden Neumarkt: escapism or utopia? Photograph: © 2009 cityscope GmbH Berlin im Auftrag des Stadtplanungsamtes Dresden. Reproduced by permission.
Let us give the new old Frauenkirche its old setting!” (cited after Holtorf 2007c, p. 42). The terms "regain”, “historical” and “old setting” are not used here in a way compatible with linear, physical time. Indeed, most of the buildings referred to were not even built yet when the aim was formulated. Instead, the initiative is about creating a setting at the heart of contemporary Dresden that has the quality (if not the condition) of being past. In other words, the aim is to create buildings that are not old but emanate pastness. It is a very similar notion of pastness that is meant to flavour visitor experiences at the rebranded Land of Legends in Lejre, even though those experiences are otherwise rather different from those provided by an urban environment like Dresden.

Time travel has a lot to do with the presence of such pastness. But what does presence actually mean in this context: a vague reference to something old, a persuasive allusion that something is old, or a seemingly complete immersion into the past? Presence is not an innocent term but an issue that in recent years has attracted a considerable amount of research within a range of academic disciplines including IT science, theatre, performance and media studies.1 The defining notion of presence is a perception of non-mediation or immediacy, even though the experience may at the same time be mediated to a considerable extent. For example, a sophisticated virtual environment provides a sense of presence when it convincingly suggests that you are visiting an actual place or meeting other people rather than looking at one or more digital screens which is what you actually do. As with encountering such virtual places or people, whether or not pastness in time travel is perceived as non-mediated will depend on the extent to which

- the reality presented is consistent and understandable,
- we are familiar with the medium and willing to suspend any disbelief,
- our senses are persuaded through rich and vivid impressions (immersion), i.e. the underlying technical sophistication,
- our pre-understandings and expectations (often stereotypical) are matched,
- we are involved and engaged in a meaningful way (modified after Lombard & Ditton 1997).

For children with their vivid imaginations it often takes far less to create believable realities set in the past or in the future (Fig. 4). Provided these conditions are satisfactorily met, even for adults a perceived presence of pastness and time travel evoking the past become entirely possible. As a matter of fact, as I indicated earlier, they have for some time now been a part of many people's realities already. It is these realities that urgently need to be taken seriously and investigated by suitable academic disciplines in the humanities and social sciences. The other papers in the present issue offer examples of the kind of research needed in order to make sense of this popular and increasingly significant way of evoking other time periods.

Some implications and issues surrounding time travel

The current trend in society towards experiencing other periods through time travel carries interesting implications for some central issues in archaeology and heritage studies. The conservation of heritage has often been justified by stressing its significance both as a source for future academic study and thus new historical insights and as a resource for future generations to develop or maintain a historical awareness that situates their own present in a
larger perspective of past, present and future. Few didactic means are as effective in providing pastness as material remains evoking realities of other periods through seemingly unmediated sensual experiences. But, as I argued earlier, the presence of pastness is not dependent on actual age, and David Lowenthal (2002, p. 18) suspected accordingly that our contemporaries really “crave imagined locales more than … actual ones”. Authenticity is in the eye of the beholder. But does that mean that even the professionals should value heritage and past material culture explicitly for their potential to evoke pastness? Does that mean that the past is renewable and that original heritage can be replaced by “regained” or “rebuilt” heritage without a significant loss perceived by non-academics? These are issues of considerable currency, linking time travel to the way our society relates to the past in general (Holtorf 2005).

A similar point can be made about the social significance of archaeology in society. Traditionally, general human curiosity as well as the need to gain critical insights into the processes of human and social evolution have been enlisted in archaeology’s support. But perhaps archaeology is actually most valued nowadays for letting people to some extent travel to the past and experience past realities, for example by uncovering prehistoric artefacts or by immersing visitors in reconstructed scenes of past life. Arguably, both archaeology as a profession and the past as its subject matter are socially increasingly valued for the exciting stories and practices they supply society with (see also Holtorf 2007a; 2007b). Whether you are thinking of academic explorers hunting for clues that allow them to bring ancient civilizations back to life or of the remains of a Viking settlement once inhabited by sailors and traders who shaped Northern European history, it is the imaginary trip through time regaining what was lost that is most appreciated. In one case you follow the expert in the analysis and reasoning that leads to insights about the past, in the other you observe remains of the past and visualize what the same place may once have looked like. Should academic methodology be told as a detective story rather than a carefully constructed argument? Should we offer Viking Age experiences instead of visualizations of current hypotheses about Viking daily life? These questions have been posed in our society for some time now, and most recently by the re-emergence of Lejre Experimental Centre as Land of Legends. There is no definitive answer to date but it looks increasingly as if both perspectives will increasingly be combined with each other and eventually not be considered mutually exclusive.

If time travel has become possible and popular in recent years, there are a number...
of critical issues that now urgently need to be discussed in more detail. One is about the criteria by which different time travel experiences should be judged. Are time travels good or bad depending on the degree to which they are generally most persuasive? … academically true? … emotionally touching? … aesthetically pleasing? … commercially viable? … ethically acceptable? … or politically correct? The answer will in part depend on which specific time travel experience we are talking about, but I ask myself whether or not we should acknowledge certain qualities in time travel that are inherently more valuable than others (Fig. 5). Should time travels to Atlantis or Valhalla be enjoying the same exposure in society as those to ancient Athens or Rome? Is it worrying or encouraging when tens of thousands are visiting the Swedish region of Västergötland in the footsteps of the fictitious historical character Arn deriving from Jan Guillou’s bestselling novels and subsequent movies?2 Should the state provide public-service time travels to carefully vetted destinations with particularly beneficial learning outcomes? Can time travel actually lead to inappropriate destinations? I am wondering, for example, whether people should travel in time to experience Nazi extermination camps such as Auschwitz-Birkenau. Should a trip like this be discouraged or even prohibited out of respect for the victims and their legitimate expectation of respect? Or should it rather be encouraged to remember the victims and keep the

Fig. 5. The popular annual monch-ball match, refereed by the Pope, during Medieval Week in Visby in 2003 (Sandberg 2005, p. 61 and this issue): genuine engagement with medieval heritage, luring tourists to Gotland, or nonsense in bad taste? Photograph: Cornelius Holtorf.
memory of the Holocaust alive? How realistic could it be anyway? By the same token, what should we be doing about trips to imaginary future scenarios involving as yet unheard-of terrors and moral turpitudes? The problem is precisely where to draw the line, as other time periods are littered with mass murder and all sorts of terrible things that ought to be witnessed but must not be trivialized. Perhaps we have a particular human duty to travel to unpleasant destinations as we may in that way take important lessons and indeed emotions back to present reality.

Another important issue is whether there are any risks or dangers in time travel, or in other words what a critical perspective on time travel may have to contribute. Time travel makes for experiences that are potentially very persuasive, memorable as well as enjoyable and even delightful (Lombard & Ditton 1997). Whereas these qualities may in many circumstances be celebrated, I have already indicated that the latter two of these qualities may not necessarily be desirable when travelling to certain destinations and are thus likely to be controversial. What is more, many manifestations of the popularity of time travel are arguably very little other than commercial exploitations of popular desires. Although in the present paper I have been content with focusing mostly on contributing to an increased understanding of time travel as a contemporary phenomenon, it must at the same time be examined in the wider socio-political context of the experience industry, the heritage industry and their commercial overtones (time travel sells). Although nothing may be wrong in supplying people with what they desire, surely we ought to be wary of exploitations of people’s genuine desires and dreams in order to advance the financial and ideological interests of a few. Another important question I have not explored here is whether or not time travelling should in fact be seen as a form of escape from the present. As such it would compensate for the deficiencies of present society rather than contribute to social change, thus rendering time travel inherently conservative. We may feel compelled to emphatically recall any time traveller to the here and now where urgent problems await them! However, it could also be argued that time travel is not an escape from present society at all, but rather its fulfilment. If we really live in an Experience or Dream Society, an escape from that society would mean abstaining from experiences and dreams, whereas their proliferation, for example in the form of time travel, corresponds to its true character (Fig. 3). Also, time travel experiences of other realities may precisely popularize social utopias and instil in people very concrete models of alternatives to present society, so that their social impact might be rather revolutionary. All these issues warrant further discussion in the future.

Conclusions

In this paper I have discussed the relevance of time travel as a characteristic contemporary way of approaching the past. Time travel experiences and associated social practices have become ubiquitous and popular, in some cases replacing formerly more academic ways of packaging the past for popular consumption. They have become a phenomenon of our present society that urgently requires further study from the different perspectives of several academic disciplines within the humanities and social sciences. I have argued that time travel experiences are not necessarily purely imaginary. If reality is defined as the sum of human experiences and social practices, all reality is virtual and all time travel is real. Time travel facilitates the presence of pastness and futureness in people’s lives, flavouring their experiences and to some extent shaping social practices.
I discussed some of the implications and problems associated with the ubiquity and popularity of time travel. They include a possible changing significance of both heritage and archaeology and the question by which criteria time travels should actually be assessed and evaluated in society. Are there time travel destinations that we should be warned of or prevented from reaching because of ethical concerns? And precisely what are we to make of the often commercial overtones of offers to travel in time? Finally, I asked whether time travel is inherently conservative because of its escapist tendencies, whether it might instead be considered as the true fulfilment of the contemporary Experience or Dream Society, or whether time travel might even popularize utopian visions that could make people want to work actively for a different society.

To conclude, I offer one final thought. Given that there is a history of time travel, it is conceivable that contemporary time travel includes journeys that have already taken place in the past or that are actually awaiting us in the future. Maybe the most satisfying way of accounting for the history and indeed future of time travel is by time travel itself. An equally persuasive and thought-provoking cinematic experience is Paul Verhoeven’s movie Total Recall (1990) featuring Arnold Schwarzenegger and Sharon Stone. In the film we travel to the year 2084 in which the commercial company Rekall sells pleasant memories which are implanted into the brain... Attractive as such a product line might be, it is not necessarily safe. We find out that things can go terribly wrong. As the intriguing story proceeds, it becomes increasingly unclear both to Schwarzenegger’s film character and to the film’s audience exactly which scenes are real experiences and which are implanted memories – and precisely what the difference actually means as temporalities collapse. Does a similar total ambiguity await us in future time travels to the past?

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Notes


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