Land Use Policy 62 (2017) 280–289

Contents lists available at ScienceDirect

Land Use Policy

journal homepage: www.elsevier.com/locate/landusepol

Maps as Coasian coordination tools: Heritage conservation and map representation

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ARTICLE INFO

Article history:
Received 24 August 2016
Received in revised form
28 November 2016
Accepted 31 December 2016
Available online 11 January 2017

Keywords:
Coasian coordination
Transaction costs
Heritage conservation
Mapping
NGOs

ABSTRACT

This paper is an original attempt to apply transaction cost reasoning to interpret map representation as a Coasian organizational coordination tool, the essence of Coase's (1937) theory of the firm, in modern active heritage conservation planning by the state as a firm. It is argued that maps, which have been used by voluntary organizations to promote their causes in heritage conservation, is pivotal in reducing transaction costs of heritage identification, grading and planning, by *non-market means*, in contrast to the case of commercial dealings in small artifacts and relics. Two Hong Kong examples of heritage conservation by NGO mapping, one backed by government and the other recipient of a UNESCO Asia-Pacific award, are used to demonstrate this proposition in terms of twelve functions maps can serve in organisational coordination.

1. Introduction

Heritage, in terms of economics, can be broadly classified into two types: heritage items that are traded as chattels or personal properties as "antique works"; and heritage items whether physical, non-physical or the same as or referable to a "place" or "places", entailing immovable or real property. Examples of the latter are the pyramids of Egypt or the Great Wall of China. While expert opinions and comments are pivotal in the evaluation of the former, society accepts the price mechanism as the final arbiter of the values of these things. Records of the market are indicative of their values and prospect of preservation as private assets. In sharp contrast, there is no general social approval of commercial dealings in the latter, even if their *de jure* owners may want to sell and non-market means of evaluation by experts, appointed by government or non-government organisations, are relied on to grade (i.e., to classify and prioritize or commit resources) and devise rules to take, conserve or abandon them in a process that is not coordinated by market prices but directions and discretion. This paper explores the usefulness of maps in this process of non-market evaluation of a heritage place by an organisation. Two key words are theoretically highly critical for this exploration in relation to maps. The first is the concept of an "organisation"; which in Coasian economics (Coase, 1937) is referred to as "a firm"; understood as a means of "coordination" based on discretion and commands; as distinct from a "market" which uses price signals for the same purpose.[1] The second concept is that of a "place"; which refers to an area of land with a recognizable "boundary". The meaning(s) of a "place" was considered important in heritage conservation by many researchers for instance Collins-Kreiner and Gatrell (2006); and Yung and Chan (2012). Both Articles 7.2 and 12 of the Burra Charter of the International Council on Monuments and Sites refer to "a place" in conservation policy formulation (Wan, 2010). The role of the map as a tool of delineating the boundary of a place in non-market coordination is the focus of this paper. To set the context for this economic inquiry into this role; there is a need to survey the extant literature on maps in heritage conservation research.

2. Mapping research

In heritage research, maps are sometimes ignored due to an exclusive concern with the names of individuals or the appearance of the subject. When maps are forgotten, the places they represent are often overlooked too (Stilgoe, 1976; Lai, 2016).

There is usually no need for someone who visits an ordinary or unimportant place to use a map (which this paper refers to as a two-

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[1] Lai (2000) distinguished the Coasian firm and Coasian market in terms of the types of contract. The former is characterised by the presence of employment contracts.

http://dx.doi.org/10.1016/j.landusepol.2016.12.032
0264-8377/

dimensional map), as the former may be well-known to him/her and the latter probably ignored. However, for places that were once so locationally important that maps were produced, but are hardly remembered, their maps may be lost as well. Maps, whether rediscovered or newly-produced, will help boost public recognition of otherwise obscure places as heritage promotion sites. Three types of maps are relevant for a discussion. The first type are those connected with a heritage site which can be a past place of significance that, as a result, was mapped and we are invited to consider both some heritage place and whatever old maps (themselves also heritage) that belong to that same past and, properly understood, help decode or narrate that past. A 1845/46 map of the top of Sai Wan Hill showing a planned "Keep" is a good example used by Davies et al. (2016) in their research on the history of Sai Wan Redoubt. The second type are the maps of today created explicitly for a heritage tourism purpose. The maps prepared by NGOs in the two case studies in this paper belong to this type. Of course that then also raises the question of a third kind of map, namely a present map NOT geared to any tourism purpose but to some other purpose (cadastral/planning/zoning/topographic/geological/etc.) which may cast light on the PRESENT fate and status of an old building and why, perhaps, its heritage properties have been overlooked (if they have).

To begin with, the accuracy or details of any map that can be used to enhance public recognition of a site are not that important. What matters is that the map can help promote a site for public use. It is amazing that "maps have an air of authority" (Hauck et al., 2013: p.25) and have been used heavily in ecological conservation research (see, for instance, Isler, 1997; Meir and Kareiva, 1998, Hauck et al., 2013); landscape studies (say, by Kent and Elliott, 1995; Ihse and Lindahl, 2000; Dramstad et al., 2001; Ewald, 2001; Perrin et al., 2001; Shafer, 2004; Peterson, 2005; Agnoletti, 2014; Fry et al., 2004) and behavioural studies (Meier et al., 2011). However, although heritage conservationists often use maps in their practice, they seldom have any focused discussion of two-dimensional (not to mention more sophisticated three-dimensional) maps in their *research publication*. The situation is like field construction management. In the whole life of the prestigious journal *Construction Management and Economics*, only one paper, by Winch and Carr (2001), focused specifically on "maps" for the industry. Yet, these "maps" are not the two-dimensional geographical maps we refer to here, but pertain to "process mapping" (i.e., a form of "mind mapping"). In this sociology of knowledge connection, an important research issue is the paradigm of "counter-mapping," which emerged as a social critique of official mapping as a power-biased representation and endorsed counter-mapping a means to promote social justice (Peluso, 1995; Hodgson and Schroeder, 2002; Harris and Hazen, 2005; Harrison, 2011; Mitchell and Elwood, 2016). However, counter-mapping, like mapping itself, presumes the importance of mapping, taking that as an unelaborated generic. Counter-mapping is thus "alternative planning" in the words of Peluso (1995: p.385) or, more vividly, "advocacy mapping" (Townson et al., 2007, borrowing the term from mainstream town planning), that is, mapping deliberately used to present an alternative way of seeing the same topographically represented space. Having provided a portrait of the research landscape on maps, we may now examinetwelve reasons for the important contributions of maps to heritage conservation, albeit too often potential rather than actual, as a matter of Coasian economics.

3. Mapping sites in organisational conservation processes: an economic perspective

A site with a ground or subterranean building more easily attracts heritage conservation efforts than a footloose object (like a ferry or a train) because the former is reducible to a scaled map representation. The rationale behind this is deceptively simple: mapping is basic to the government's efforts at conservation planning (Poor and Smith, 2004; Corcoran et al., 2012). But this statement needs further and better elaboration. There are many important reasons why mapping is crucial for heritage conservation and they go beyond the mere "rent-seeking" propaganda of cartographers or map enthusiasts. The twelve considered here are not exhaustive, but are alternative ways to state that "knowledge is power". Famous map theorist Denis Wood stressed that mapping is power (Wood, 1993a,b; Belyea and Wood, 1992). He explained, "Power is the ability to do work. Which is what maps do: they work." (Wood u.d.: p.6) The position here is that they work to reduce transaction costs of "organisational coordinaton" through twelve clear and normal functions of maps. These "coordination costs" are "organisational" as government and heritage accreditation bodies are Coasian firms (Coase, 1937) and do not rely on the price mechanism to make decisions.

3.1. Property rights delineation

First, maps show a significant aspect of property rights in land (Lai and Davies 2016). Any entity concerned with heritage conservation, whether government or independent heritage authority needs to be able to demarcate exactly what it seeks to conserve. That has an evident practical purpose: our responsibilities to conserve start and stop along this boundary and they focus on THIS building HERE and THAT ancient trackway THERE, etc. But that purpose itself is dependent on a prior establishment of a right to discharge those responsibilities for those objects within the boundary identified. In short, the key requirement for any exercise in heritage conservation is a map or plan showing topographically the legal/property boundaries that demarcate where the conservationist has rights to act and where she/he does not. In short, the government or a heritage grading institution needs to carefully demarcate the ownership of a place that is considered to have heritage significance (UNESCO, 2016). It needs to know if (and what portion of) the place is legally private or under its exclusive control and the legal and administrative umbrella that applies. The "Guidelines for Project Description" of the UNESCO Asia-Pacific Awards for cultural heritage conservation do not mention "maps" explicitly. However they admit "drawings" and illustrations like photo submissions, and note that a location captured in a photo should be pinpointed on a to-scale "plan." They also specify under the heading "management and institutional matters," that "ownership issues" be addressed (UNESCO, 2016). This entails the submission of maps both in order to show the location of points illustrated and to show property boundaries.

3.2. Product promotion

Second, "marketing" or heritage branding. More importantly as a promotional strategy, an accurate and user-friendly map, as a place marker and reference for the reconstruction of a location's history, will help bring visitors there (Nousala et al., 2011). This is especially the case when the heritage in question is an underground system, whether as large as the Catacombs in Rome and Paris or as small as the Shing Mun Redoubt along the Gin Drinker's Line (Lai et al., 2011). That a heritage site is underground is conveys the obvious point that it cannot be seen. This is particularly significant when some development is intended to be *built above* these underground features, for fear of unintended destruction or pollution. As maps drawn based on optical aerial photos only record ground features, site surveys to add a layer of map information on underground things are essential. However, that is also always true of anything of any significant size where most of it is, by defi-