Landschaft, pueblo and altepetl: a consideration of landscape in sixteenth-century Central Mexico

Federico Fernández-Christlieb

Published online: 29 Jun 2015.

Submit your article to this journal

Article views: 71

View related articles

View Crossmark data

Landschaft, *pueblo* and *altepetl*: a consideration of landscape in sixteenth-century Central Mexico

Federico Fernández-Christlieb*

Institute of Geography, National Autonomous University of Mexico, Mexico D.F., Mexico

In 1521, the Spanish conquistadors defeated the Nahuas of Central Mexico. Spain was ruled at the time by the House of Habsburg, and its administrators became familiar with the German concept of *Landschaft*. By 1570, they used this concept to prepare and launch a survey of the indigenous communities which called themselves—and their lands—*altepetl*. The purpose of this paper is to show to what extent the terms *Landschaft* and *altepetl* are equivalent since modern scholars have described both as organized "communities" subject to a customary "law" and possessing a specific piece of "land". The main obstacle for this comparison is that in the sixteenth century the Spaniards did not have a word equivalent to *landscape,* and they used words like *pueblo*, *pago* and *pintura* instead, depending on the context. This paper describes the general characteristics of the *altepetl* in Central Mexico and focuses on its representation by analysing some maps made after the conquest in the area of Cholula, current State of Puebla. The comparison of *Landschaft*, *pueblo* and *altepetl* in historical context is pertinent for cultural geographers since it was during the sixteenth century that the concept of landscape, as we know it today, was taking shape.

Keywords: landscape; *Landschaft*; Mexico; *paisaje*; *altepetl*; Cholula

Introduction

When the conquistadors arrived in Central Mexico in 1519, the concept of *Landschaft* (German for landscape) was already in use in Germanic languages in Europe (Olwig 2002). That same year Charles I, the Flemish king of Castile, was elected as the Holy Roman Emperor, and thus Spain became a part of a predominantly Germanic empire (Kamen 2003; Carrasco 2005; Espinosa 2009). In the years that followed, through the process of conquest of the Aztec Empire, the Spaniards learned that the landscapes they encountered were called *altepetl* and they translated this term as *pueblo* (town, people) since they did not yet have in Castilian a synonym of *Landschaft*.[1] As a

*Federico Fernández-Christlieb is a Professor of Geography in the Instituto de Geografia at the Universidad Nacional Autónoma de México (UNAM), Circuito exterior Ciudad Universitaria, México D.F. 04510, Mexico. Email: fedfer@unam.mx

cultural geographer of Mexico, I am interested in the origin of the concept *paisaje* (Spanish for landscape) and the uses this term had in Central Mexico as early as I can excavate in the sources. The Spanish language was introduced to Mexico in the sixteenth century at the same time that the concept "landscape" was taking shape in Europe, both in Germanic and in Romance languages. The equivalent terms for landscape like *Landschaft* (in German) and *paysage* (in French) were coined in the sixteenth century whereas the Spanish term *paisaje* appeared only in the eighteenth century (Corominas 1983).

If Spaniards did not use the word *paisaje*, what kind of concepts were they using in Mesoamerica at the historical moment when they were dramatically transforming the landscape? Furthermore, if the Nahua people of Central Mexico had equivalent concepts to denote landscape, what did they call their communities, territories and environment, and how did they represent them? I used a combination of three approaches to address these questions.

First, I examined the definition of landscape in Germanic and Romance languages in the sixteenth century. Then I compared the definition of *Landschaft* given by the geographer Kenneth Olwig (1996, 2002) with the indigenous term *altepetl*, studied by several scholars who have specialized in Central Mexico. The purpose of this comparison was to examine the extent to which the German concept is equivalent to the Nahua concept in the sixteenth century given that an *altepetl* has also been described as an organized community whose members were tied to the land by a customary law and who have an interaction with the environment (Licate 1980; Gibson 1983). The comparison focuses on the moment of the conquest and the decades after it for which information is available. This paper presents for the first time a comparison between the sixteenth-century German and Nahua concepts.

The third approach involved analysing some representations of specific *altepetl*. A graphic representation is fundamental to complete the notion of landscape because such representations help to reflect and retain memories of the community, manifest power and hierarchy, and provide information about some of the land-use rules and habits (Duncan 1990; Gruffund 2003; O'Connor and Kroefges 2008). This is part of the aesthetic aspect of the concept (Berque 2000; Cosgrove 2002; Donadieu 2006).

These approaches necessitate that I study colonial Nahua maps, first because pre-Hispanic maps are extremely rare (many were destroyed by the Europeans), and second because colonial ones show the process of hybridization that was also taking place on the lands of New Spain. I selected the case of Cholula, so the final part of this article will be devoted to the study of several representations of that *altepetl* and some of its immediate neighbours. The selection of Cholula, in the Atoyac River valley (Figure 1), is justified because it has been continuously inhabited for the last 3000 years (Carrasco and Sessions 2010), and the evolution of the term *altepetl* is inherent to this place; that is to say Cholula is one of the sites where the concept *altepetl* may have been invented (McCafferty 2008). In order to better understand the
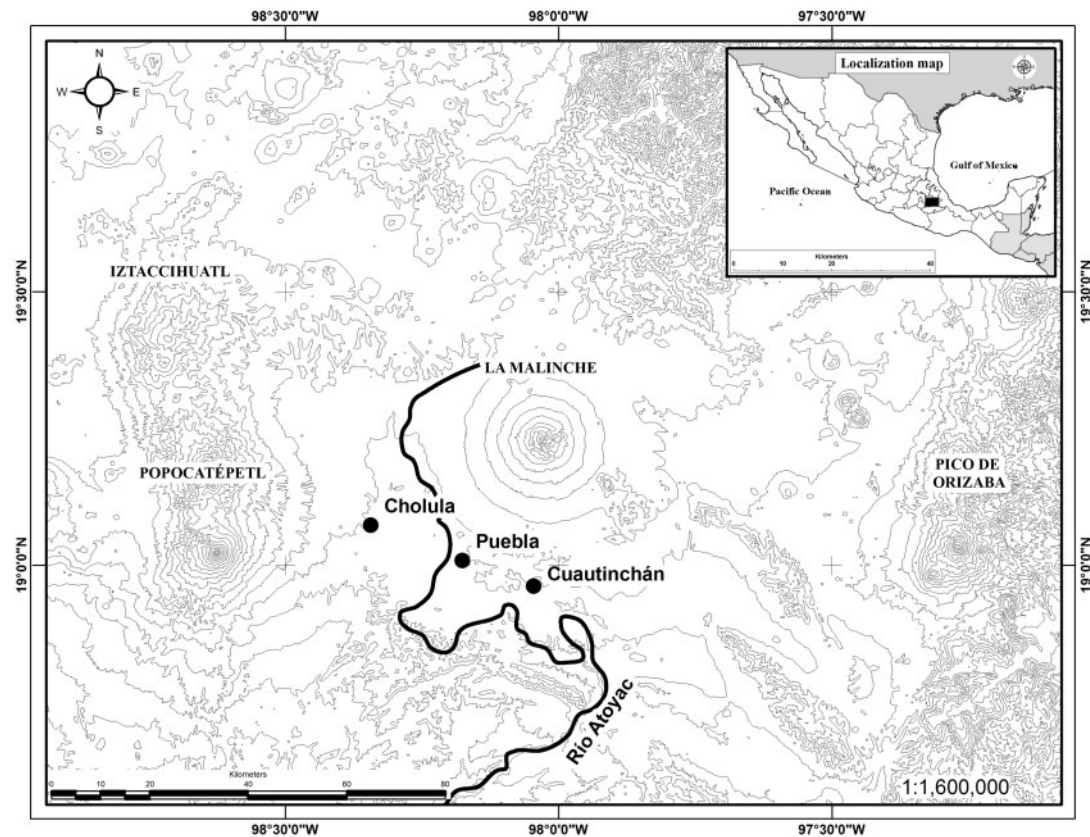
Figure 1. Map of the Basin of Atoyac River and main places named in the article. Map by Luis Fernando Gopar Merino, 2013.

altepetl of Cholula, I made several site visits so that I could compare the features of the landscape represented in the ancient maps with the landscape today. These site visits also allowed me to interact with local residents which provides great insight into the landscape being studied, as my colleagues and I have found in other places in Central Mexico (Fernández-Christlieb *et al.* 2006; Chávez-Peón-Herrero *et al.* 2010).[2] Scholars who previously did fieldwork in the area (Bonfil-Batalla 1988; Reyes-García 2000; Kobayashi 2012) observed that Nahua culture is still strong in Cholula's wards, neighbouring towns and traditional institutions; consequently, some of the traditional organization of space is still visible today. Nevertheless, it is important to evaluate the information carefully and not assume that the inhabitants today behave like the inhabitants 500 years ago (Knab-H 2012).

The German concept of *Landschaft* was certainly less clear for the Spanish-speaking first conquistadors than for the King himself. From the moment the Habsburgs acquired complete control of the Empire in 1521 (Lovet 1986; Carrasco 2005; Espinosa 2009), decision-makers—in Spain as well as in the Americas—had to understand the kind of information that the Habsburgs required in order to imagine the *Landschaften* of New Spain. *Landschaft* was a concept that would facilitate the description of lands and the understanding of indigenous communities; it would be useful for planning the colonial administration. For that purpose, the Spanish administrators based in Madrid launched surveys and obtained descriptions and representations of the indigenous as well as Spanish settlements in Central Mexico though the task was huge and they never completed it. This article argues that *Landschaft* and *altepetl* could be considered as synonyms although there was no direct contact between the German and the Nahua languages except perhaps for the group of German colonists that negotiated an agreement with the Spanish Crown before 1546 to cultivate woad (*Isatis tinctoria*) some 200 km east of the area we are studying (García-Martínez 2005).

Pueblo, Pago *and* Pintura*: terms integrated in* "Landschaft"

Anglophone cultural geographers have amply studied the concepts of landscape and *Landschaft* (Relph 1981; Cosgrove 1984; Duncan 1990; Tilley 1994; Haber 1995; Mitchell 2007; Jackson 2008; Sauer 2008) while French geographers have explained *paysage* quite sufficiently (Avocat 1982; Berque 1984; Berque 1990; Roger 1997; Claval 2003, 2012). Nevertheless, cultural geographers have given less attention to the equivalent terms in Spanish.[3] The original term *Landschaft* that is crucial to this discussion has been reconstructed by Kenneth Olwig who started by contesting the general idea that landscape was a notion used to refer to a "restricted territory" or the "appearance of a land as we perceive it" (Olwig 1996, pp. 630–631). Furthermore, his latest book dismantles the broadly accepted assertion that the concept of landscape and the words for it in both Romance and Germanic languages emerged around the turn of the sixteenth century to denote

"a painting whose primary subject matter was natural scenery" (Olwig 2002, pp. xxiv–xxv). Olwig states rather that the concept of *Landschaft* was used in Europe before the sixteenth century to refer to a political community whose members were united by legal bonds. So the elements "community", "law" and "land" (land in its two meanings as "territory" and as "environment") are present in the original German definition of landscape. In this section, I identify the terms that Spaniards used to refer to the same elements found by Olwig within the word *Landschaft*. These terms are: *pueblo* (people), *pago* (country) and *pintura* (painting). As a brief introduction, *pueblo* was a synonym of "community", *pago* a synonym of "land" and *pintura* was the representation of the land as well as a legal instrument to claim it.

Before being reduced to a scene in a painting, landscape was a rich concept vital to the social organization of Germanic Europe. *Landschap* in Flemish and Dutch, *landskab* in Danish, *landskap* in Swedish and *Landschaft* in German were concepts designating a community organized politically over the base of customary law (Olwig 2002). As a consequence of living together for generations in the same place, the place itself would be assimilated legally by the members of the community, and even the boundaries of the place could be fixed by them and recognized by others as a territory. Thus, community, law and land were part of the original definition of *Landschaft*; later the land could be represented in a canvas also named *Landschaft*. Retaining only this last part of the definition—painting as *Landschaft*—misses the richness of a historical concept that has long been central to geography.

Very often, the landscape paintings made by Flemish and Dutch painters consist of representations of the habits of the people living in a place, their economic activities and the organization of labour and social life. In these paintings, it is possible to identify farming lands and urban areas, preserved woods and clearings, roads and castles, and the boundary of communal territory. The observer of the painting could also read in it some of the rules that tied the community together. Olwig says that *Landschaft* was conceived as a combination of community, justice, nature and environmental equity (Olwig 1996). He illustrates his analysis with Pieter Brueghel's 1565 painting called *Haymaking* (Olwig 2002). There are mostly cultural features of the place painted although it is also possible to distinguish also natural elements like the shape of the hills on the horizon and the location of the river. This interaction of people and nature captures the etymology of the word composed by the elements *Land* (land, soil, country, environment) and *shaffen* (to create, to transform) (Haber 1995; Jackson 2008).

The evolution of the idea of *Landschaft* from medieval times up to the Renaissance coincides with the *Reconquista*, that is the struggle of the Spanish kingdoms to expel the Arab and Berber Muslims from the Iberian Peninsula. The historian Henri Kamen (2003) has explained how the success of the last stage of the *Reconquista* was assured by the support of the Christian countries that saw that war in terms of a European crusade. Funds, soldiers and war techniques arrived from different corners of Europe,

including the decisive help of Flemish artillery. After the unification of Spain in 1469 and the expulsion of Muslims in 1492, Charles of Habsburg became king of Spain in 1516. Born and educated in Flanders, Charles I learned Spanish later and united an important number of realms including parts of current Germany, Austria, Hungary, Italy, Belgium and the Netherlands. As previously noted, he became the Holy Roman Emperor Charles V. He brought his own bankers from the Netherlands to Spain as well as the knowledge to administer the kingdom more efficiently.[4] According to Kamen, "everything … demonstrates the prior position occupied by the Netherlands in the minds of the early Habsburg rulers of Spain" (Kamen 2003, p. 78).

Graphic techniques useful to administer the lands of the kingdom, like cartography and painting, were well developed in Flanders (Links 1972; Kagan 2000). Some works were launched under the reign of Charles V to produce a better cartography of Spain, like the *Atlas de El Escorial* in 1539 or the *Mapa de Esquivel* in 1555 (Crespo-Sanz 2005, 2009). In addition, Philip II, son of Charles V, fostered the activity of *Landschaft* painters within the Iberian Peninsula in order to create a graphic record of the territories controlled by his crown (Brown 1972; Kagan 2008). Another term used for this type of painting was "vistas" (views). The Flemish landscape painter Anton van den Wingaerde arrived at the Spanish court commissioned to describe the cities of the realm on the Iberian Peninsula. He toured Spain for some years from 1561 and drew a collection of more than 60 *vistas* of the most important towns and cities (Haverkamp-Begemann 1969; Galera-i-Monegal 1998). In these *Landschaft* drawings, it is possible to discern some of the activities of the people and their imprints on the land. The Spanish term, *la ciudad* (the city), referred to both the members of the community and their activities. *Ciudad* was defined before the Renaissance as a "group of persons united by social bonds". This is the definition provided by the most important source of Spanish laws for medieval time: *Las siete partidas* by Isidoro de Sevilla. This author explains that the city or *civitas* is formed by the "citizens [*cives*], that is the inhabitants of the urban [*urbs*]. The urban refers to the material fabric of the city while the *civitas* refers, not to its stones, but to its people" (Sevilla 1994, p. 227).[5] This definition is also applicable to smaller settlements called *pueblos* (towns). The etymology of *pueblo* derives from Latin *populus* meaning the ensemble of citizens (Corominas 1983). *Pueblo* was the word used in the sixteenth century to denote the gathering of all men in community (Alfonso-X 1974). Like the concept *ciudad*, *pueblo* also signified the ensemble of streets, churches, squares, houses and all the material elements of the town.[6] So these medieval conceptions of *ciudad* and *pueblo* may underlie the future notion of landscape in the sense that "community" and "land" make up part of the same entity.

Wingaerdes' drawings were not the only initiative conducted by King Philip II to record the geography of territories and peoples controlled by the Spanish Crown. The decade of 1570 was intense for cosmographers, cartographers and chroniclers working on the production of data to give a more accurate idea of the realm that at the time covered important parts of the

Americas, including the Antilles. For the purpose of this article, I focus on the surveys, known as *relaciones* that were organized in Spain as well as in the Americas. Juan López de Velasco, the chronicler-cosmographer of the court of Philip II, launched one survey in Spain and another in Central Mexico almost simultaneously (Portuondo 2009). The first is known as *Relaciones Topográficas de Felipe II* (Blázquez-Garbajosa 1983; García-Guerra and Vicioso-Rodríguez 1993), and the second is known as *Relaciones Geográficas del siglo XVI* (Cline 1972; Mundy 1996). Both consisted of some 50 questions—about history, demography, laws, economic activities and physical geography. In Central Mexico, the survey had to be answered by the Spanish councils or priests with information provided by local elders (Acuña 1986, p. 13 and 17). These surveys are good examples of the Habsburg intention to obtain high-quality reports in order to better control the new territories.

By reading the responses to the *Relaciones Geográficas* (RG) of Central Mexico, one can gain a very good idea of the *Landschaften* of the places called *pueblos* and their surroundings. For example, questions 1, 2, 9, 13 and 14 are about the history of the community (meaning of the place name, founder of the town, ancient ceremonies, ancient rulers, old habits); questions 5, 13, 17, 23, 26, 31, 32 and 37 are about the structure and function of the community (population, language, illness, remedies, buildings, agriculture, etc.). Questions 7, 8, 11, 15, 33 and 34–36 are about the customary laws (local and Spanish authorities, religious authorities, hierarchy of towns, governance, taxes, territorial borders and regional enemies). Finally, the theme of the land is also subject to the inquiry: questions 4, 6, 8, 26, 27, 29 and 30 ask about the territory (extension and limits, altitude, positions of the sun, animals, plants, mines, quarries, salt mines, woods, waters, soil, etc.), and questions 3, 4, 19–22 and 49 ask about the environment (water springs, rivers, lakes, volcanoes, hills, caves, forests, skies) (Acuña 1986).

As noted previously, in Spanish, *pueblo* means "people" as well as "town" (Real Academia Española 1992). There was another word in Spanish used to denote a community, a place of human habitation and environmental interaction: *pago*. Isidoro de Sevilla (1994) defined it as a group and concentration of many people in a single place, and other sources of the early seventeenth century stated that *pago* implied for its settlers the obligation to pay (*pagar*) rent to the landlords (Covarrubias-Orozco 1979). In New Spain, often the word *pago* referred to a specific piece of land within the territory of a *pueblo* (Martínez 1984; AGN 1617). In all Romance languages, *pago* (or *pagus* in Latin) is the origin of the modern word for "country": *país* in Spanish, *paese* in Italian, *pays* in French and *pais* in Portuguese. *País* was sometimes used in New Spain to describe the relief at the local scale and the characteristics of the landforms (Acosta 2003). The same root was used to coin *paisaje* (landscape) in Spanish but that only happened in the early eighteenth century (Corominas 1983). In other Romance languages, landscape does have earlier equivalents: *paesaggio* in Italian,

paysage in French and *paisagem* in Portuguese (Avocat 1982; Cosgrove 1984; Roger 1997; Cortelazzo and Zolli 1999).

By the time the Spaniards were fighting the Muslims to expel them from Europe, *pago* had come to mean the space where one was born or where a person is rooted, and by extension place, town and region. That is exactly the meaning that *pago* still has in some parts of Argentina, Uruguay and Peru (Real Academia Española 1992). *Pago* was also used to mean an "agricultural district" and a small "town or village" as opposed to a "city" (Corominas 1983; Ramírez-Ruiz 2006). During the *Reconquista*, *pago* had rural connotations and its inhabitants were known as *paganos* (pagans) (Alonso 1986). As the Spanish troops advanced across the Iberian Peninsula, the process of Christianisation was relatively fast in cities, but in smaller towns and in the countryside the people put up greater resistance and often remained outside the wave of acculturation. For this reason, living in the countryside, that is being a peasant, became synonymous with being a pagan. The same word was used for both notions in Spanish (*pagano*), French (*païan*), Portuguese (*pagão*), Italian (*pagano*) and Catalan (*payén*), and they became different concepts only later (Corominas and Pascual 1981).

The Flemish administration of Spain took advantage of the process of Christianisation in Mesoamerica to ask for better information about the places discovered. The authorities of New Spain were instructed to make representations on paper of all the *pagos* or *pueblos* found in New Spain. The chronicler-cosmographer López de Velasco asked the authorities of Central Mexico for a painting to illustrate the answers of the RG questionnaire. Question number 10 explicitly requests a *pintura* (Acuña 1986). The term *pintura* comes from "*pictura* or *fictura* (fiction), an image that represents the figure of something and which once seen leads the mind to remember it" (Ramírez-Ruiz 2006, p. 206). Covarrubias in his dictionary published in 1611 defines *pintar* (to paint) as "imitating natural or artificial things in several colours on a flat surface" (Covarrubias-Orozco 1979, p. 589). The 1737 dictionary still defines *país* as: "the painting in which villas, places, fortresses, country houses and fields are painted" (Real Academia de la Historia 1737, vol. 5, p. 81). In this definition, painting and country are synonyms. It is likely that, under the influence of the Dutch and Flemish *Landschaft* painters who took on the task of representing *pueblos*, the understanding of *pintura* and *pago* came to include urban elements.

As we see, in the sixteenth century, the German *Landschaft* was functionally equivalent to the Spanish words *pueblo-pago-pintura* combined, but on the other hand Augustin Berque maintains that whatever the language is, if there is no word to express landscape, then the landscape does not exist (Berque 2000). Arguably, since Castilian speakers could express the concept with three established terms, a single equivalent to *Landshaft* was not entirely necessary and was slower to evolve. In any case, the elements defining the German notion of landscape by the end of the sixteenth century were: (1) community, (2) law and (3) land. In the next part of this article, I will

compare these elements with the concept *altepetl* used by the indigenous peoples of Central Mexico.

Altepetl *as* Landschaft

When the Spaniards arrived in Nahua lands, they were informed by their translators that the societies they interacted with were called *altepetl*. In Nahuatl, the main language spoken in Central Mexico, the word *altepetl* referred to a highly organised and corporate community established in a territory (Licate 1980; Lockhart 1992; Noguez 2001; García-Martínez 2005; Florescano 2009). As indicated, the Spaniards translated *altepetl* as "*pueblo*" (town or people) because it denoted both the buildings and the population; primary sources provide us with some other translations for *altepetl*: "houses of water", "mountain of water" (Sahagún 1999) and "king" (Molina 2001). Historians have translated *altepetl* also as "ethnic state" (Lockhart 1992), "city-state" (Hicks 2012), "community" and "polity, kingdom, province" (Marcus 2000). The roots of the word are: *atl* (water) and *tepetl* (mountain) (Bernal-García and García-Zambrano 2006). I would argue that, from the perspective of cultural geography, the Spanish concept that best encompasses the full meaning of *altepetl* is *paisaje*.

   Describing the full territorial and environmental complexity of the *altepetl* in pre-Hispanic times is beyond the scope of this paper. Instead, I point out the general features of the landscape of an *altepetl* after the conquest insofar as it is possible to contrast them with the three mentioned elements that make part of the definition of *Landschaft*: community, law and land.

Altepetl *as community*

The bonds between the members of the *altepetl* were not evident to the Spaniards since the groups of houses where the people lived were often scattered over the land and sometimes interspersed with other *altepetl*'s groups of houses (Lockhart 1992). We know that every *altepetl* was a well-organized community ruled by a chief known as *tlatoani* and composed of wards, *calpolli* (Gibson 1983; García-Martínez 2001; Florescano 2009). The families within a *calpolli* had the same ethnic origin, a patron god who protected them, and its members were specialized in a particular activity useful for the whole *altepetl*. The population of the *altepetl* was divided in two different social groups: the *pipiltin* (nobles) and the *macehualtin* (common persons) (Lockhart 1992; Hicks 2012). All of the *altepetl* had pre-Hispanic histories of alliances and confrontations. Many of them were part of larger communities known as *hueyaltepetl* (great *altepetl* or confederation), and within these alliances specific *calpolli* established links with a *calpolli* of the other *altepetl* through marriage (Licate 1981). The ruler of the *hueyaltepetl* was called *hueytlatoani* (great *tlatoani*) (Lockhart 1992). Spaniards put themselves on the top of the hierarchy, but they respected the indigenous

social and territorial organization because that was the way in which they could control the local population, taxing and evangelizing them. The Spaniards made an alliance with the noble social group as far as that was convenient. The *altepetl* or the *hueyaltepetl* was then called *pueblo* (town) and sometimes *ciudad* (city, when the Spanish authorities considered that it had the merits). The *hueytlatoani* was called *cacique* or *señor* (lord), and the word *calpolli* was translated as *barrio* (ward) (Marcus 2000).

Altepetl *as law*

Before the conquest, the relationships between all members of the *altepetl* and *hueyaltepetl* were regulated by customary law (Noguez 2001). Every *altepetl* had clear community commitments like paying tribute, organizing festivities and providing a labour force such as peasants or builders. In order to accomplish these collective tasks, there was a rotation system in which one *altepetl* organized a celebration one year, for example, and another *altepetl* organized it the next year, and the third year the celebration was organized by another one and so on: until all *altepetl* had taken their turn and the cycle started again (Lockhart 1992). Following the rotation system, every *altepetl* also had the right to provide the ruler for the confederation, so the centre of the *hueyaltepetl* used to move physically from one place to another depending on which *altepetl* the current *hueytlatoani* came from (García-Martínez 2005). Rotation is the best example of how customary law was essential to the *altepetl*.

When the Spaniards arrived, they identified the place where the ruler was at that time as the number one place of the territorial hierarchy; therefore, they named that *altepetl* "cabecera" (head-town) and the rest of the *altepetl* forming the *hueyaltepetl* "sujetos" (subject-towns) (Gerhard 1977; Gibson 1983). They did not fully understand the rotation system and ignored it for government purposes and generally only kept it for religious and social festivities. From that time on, land possession was carefully regulated by the Spanish authorities. It is important to note that even if the Spaniards misunderstood the legal richness of the concept *altepetl*, they used this Nahua institution as the basis of new land regulations, particularly with respect to *pueblo* boundaries. As a result of this, many municipalities today still have the same limits as the original *altepetl*.

Altepetl *as land*

By the beginning of the sixteenth century, there were more than 300 *altepetl* in Central Mexico (García-Martínez 2001). Most of the *altepetl* were mythically or historically linked to a particular environment defined by the presence of hills and water sources (López-Austin 1989; Albores and Broda 1997; López-Austin 1999; López-Austin and López-Luján 2009). Central Mexico is a region in which three great mountain ranges converge and where

there are summits over 5000 metres above sea level. There are also large plateaus and valleys with gentle slopes at high altitudes and an abundance of water which rises in small springs and forms streams which flow into shallow lakes. Hunting, gathering and lake fishing were good sources of food. Within their lands or not far from them, indigenous communities had easy access to a broad variety of fauna and flora.

In pre-Hispanic times, the land of the *altepetl* was called *altepetlalli,* and its pictorial record was preserved by the authorities of the *altepetl* or *hueyaltepetl*. The land of every *calpolli* was called *calpollalli,* and its cartographic records, including the names of the possessors, were kept by the *calpoleque* (office-holders of the *calpolli*) (Lockhart 1992). Every *altepetl* had three public buildings in its territory: a *tecpan* (palace), a *teocalli* (temple, pyramid) and a *tianquiztli* (market) (Lockhart 1992; Noguez 2001). The population used to live in small groups of two or three family houses distributed around a patio where they had access to its little agricultural field (Escalante 2004). Ownership of the land was corporate but every *altepetl* had land enough to cultivate, obtain wood, hunt and gather.

The connection the Nahua communities felt to their land is articulated in myth. Each community had its own explanation of their creation and establishment, and they all share an account of an arduous migration and search for the lands they now occupy. These myths place emphasis on the common physical features of the landscape of origin (e.g., Aztlan, Chicomoztoc) and the landscape they settled in (e.g. basin of Mexico, Cholula). Ritually, the newcomers would walk around the land to possess it (García-Zambrano 2006). That walking tour imitated the movements of the sun through the day and through the year, and in some cases that motion determined the order in which the *altepetl* and *calpolli*'s commitments and rights rotated. This ritual reconnaissance of the territory was often repeated annually, in some cases up to the present day, to mark certain festivities and reaffirm the community boundaries.

The *altepetl*'s space was not divided into rural and urban. The concepts urban and rural were clearly imported from Europe. Spanish chroniclers said that Nahuas lived scattered "like beasts on the fields" (Solórzano y Pereyra 1930), so they promoted their civilization by concentrating them in new towns (Ramírez-Ruiz and Fernández-Christlieb 2006).[7] This urban development was also a consequence of the mortality rate caused by the epidemics in Central Mexico (Gerhard 1977; Torre-Villar 1995). The process of gathering the surviving indigenous population in grid-pattern towns is well documented (Sartor 1992; Chanfón-Olmos 1997; Fernández-Christlieb and Urquijo-Torres 2006), and it dramatically transformed the Mexican landscape. Another European idea introduced to Mexico that also transformed the landscape was that of marking boundaries for the *altepetl* and protecting them from trespassers. That is one of the ways in which indigenous land also became "territory" as Europeans understood it. Moreover, with the introduction of European livestock, the landscapes changed radically in some parts of Central

Mexico because it became necessary to set walls, fences, railings and enclosures to keep cattle, goats and pigs. Some valleys of Central Mexico were transformed from forested areas with subsistence agriculture to open prairie with extensive livestock rearing (Crosby 1976, 2007; Melville 1997).

The Nahua concept of the cosmos in the sixteenth century was of a mountain full of water, which also contained all the elements needed for life: seeds and plants to gather, animals to hunt, and wood and stone for building and warmth (López-Austin 1989; López-Austin 1999; Sahagún 1999; Broda and Báez-Jorge 2001; López-Austin and López-Luján 2009). This ideal was perceived to be recreated or reflected in an *altepetl*, and each one was always associated with one or more mountains. The position occupied by the physical objects of the *altepetl* was carefully selected. Pyramids were always orientated towards a particular spot in the landscape such as a peak, a ravine, a volcano, a solstice or a constellation in the night sky (Broda *et al.* 1991). All these natural features played a role in their idea of the cosmos and simultaneously were horizon markers of their local agricultural calendar (Staller 2008). When the Spaniards arrived, they did not notice the importance of the orientation of pyramids, and they frequently used these buildings as quarries to obtain stones to build chapels and churches. The *altepetl* of Cholula is a clear example of pyramids that were used as quarries and also an example of church building. There are nearly a hundred churches and chapels in Cholula dating from colonial times (Kubler 1968). Jack Licate (1981) has documented how the foundation of new towns funded by Europeans modified the landscape of some *altepetl* of the Cholula area basin. Their graphic representation changed as well. The next section of this article gives an example of the indigenous representations of an *altepetl* and its colonial transformation.

Cholula and the representations of the *altepetl*

Well before the *Landschaft* painters produced systematic representations of specific landscapes in Europe, the Nahua communities had cartographic records of *altepetl* lands in Central Mexico. When, in 1577, Philip II's cosmographer-chronicler sent the request to the Spanish administrators to produce *pinturas* to illustrate his RG questionnaire, there were no Flemish painters in New Spain to represent the landscape and population's activities according to the Western, Renaissance-influenced aesthetic (Toussaint 1948; Kubler 1984).[8] So, the Spanish had to place their trust in the skills of the *tlacuilo* (scribe, painter) and in the long-standing tradition of Mesoamerican pictography. The *tlacuilo* was the person responsible for preparing paper and inks, and for painting the documents of his *altepetl* (Lockhart 1992; Molina 2001). It seems that every *altepetl* had its own *tlacuilo* who knew the history, traditions, rules, environment, topography and signs for representing the landscape. These were often the painters to whom the order was given to represent the *pago* or *pueblo* exactly as it was, but actually what they did was represent the *altepetl* as they understood it after the Spanish conquest. In the

tlacuilo's *pinturas,* one can know the story of lineages that have governed the community; the amount each *calpolli* paid as a tribute; the main hills, caves and water sources; the boundaries of its territory; and some other features of the geography of the *altepetl* including the place where the people had migrated from (Galarza 1991; Mundy 1996; Russo 2005; Ramírez-Ruiz 2006).

I will briefly analyse three colonial documents produced in the Cholula area in order to demonstrate how some of the characteristics of *Landschaft* were explicit in these Nahua representations. The first document includes the plates 4 and 5 of the *Historia Tolteca-Chichimeca* (4HTCh and 5HTCh) made between 1545 and 1563. This is the best known document related to the

Figure 2. Glyph of Cholula from plate 4 of the *Historia Tolteca-Chichimeca* (4HTCh) 1545–1563. The frog on top of the hill represents the water jumping. The reeds on the left indicate that it is a populated city. Bibliothèque numérique Gallica, folio 25. Courtesy Bibliothèque nationale de France.

Figure 3.   Map of the *Relación Geográfica de Cholula* (RG), 1581. The representation of *Tlachihualtepetl* as glyph of Cholula is indicated by (T) and head towns of the *hueyaltepetl* are numbered (1, 2, 3, 4, 5 and 6). Courtesy Nettie Lee Benson Latin American Collection, University of Texas Libraries, the University of Texas at Austin.
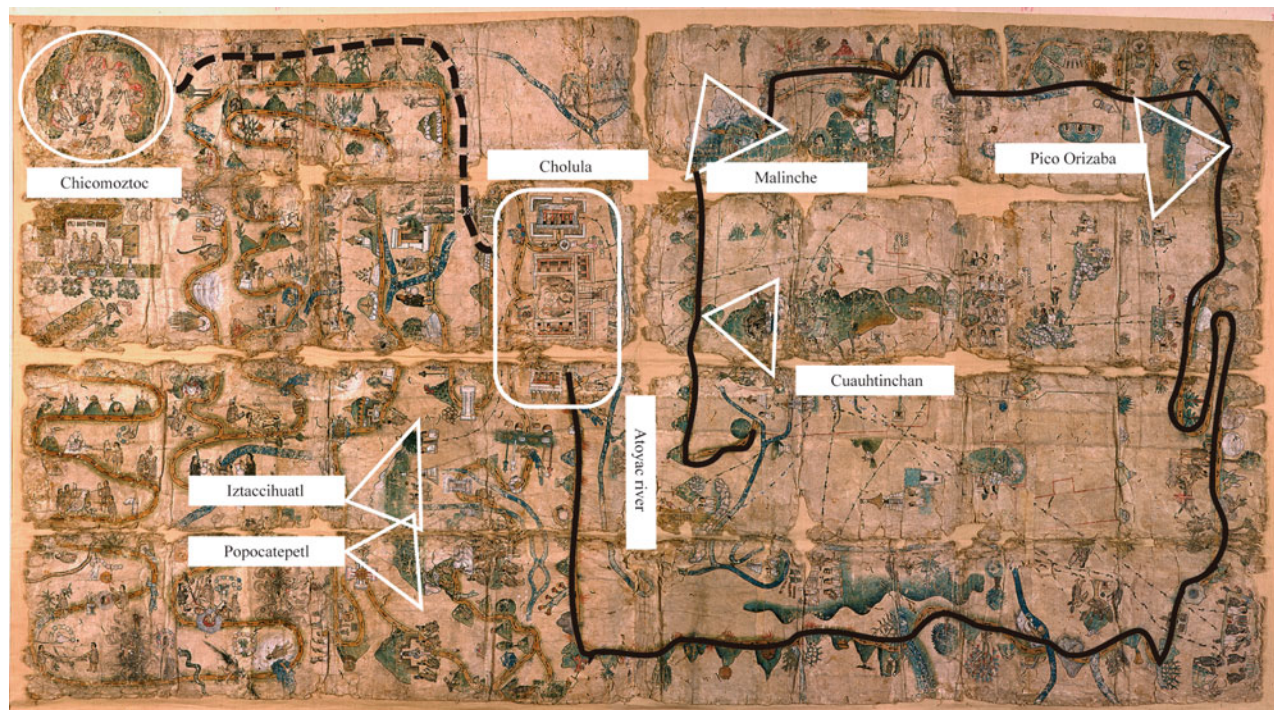
Figure 4. *Mapa de Cuauhtinchan número 2* (MC2). The map is a representation of the story of how the inhabitants of Cuauhtinchan obtained their lands in the twelfth century painted by a local scribe about 1580. Reproduction authorized by Instituto Nacional de Antropología e Historia, Biblioteca INAH, Mexico.
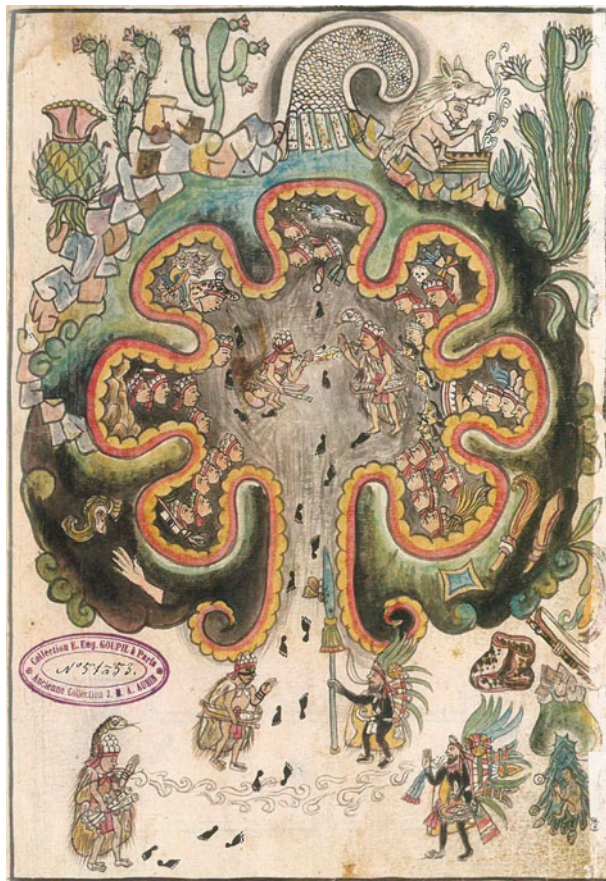
Figure 5. Chicomoztoc, the hill of the seven caves from plate 5 of the *Historia Tolteca-Chichimeca*, 1545–1563 (5HTCh). Bibliothèque numérique Gallica, folio 29. Courtesy Bibliothèque nationale de France.

ancient history of Cholula. The second is the *Relaciones Geográficas* map of Cholula dated 1581 (RG), and the third is the *Map of Cuauhtinchan 2* (MC2) made around 1580; Cuauhtinchan was an *altepetl* 25 km east of Cholula. I chose these representations because they express quite clearly the notions of "community", "law" and "land", and support the definition of *Landschaft* provided by Olwig. The early conquistadors burnt almost every indigenous document they found in the area of Cholula. According to González Hermosillo (2012), only four other illustrations made by *tlacuiloque* (plural for *tlacuilo*) are well known: the *Manuscrito del aperreamiento* (Boornazian-Diel 2012), the map of *Chalchiapan* (Deylen 2003), the *Lienzo de Cuauhtlantzinco* (Wood 2012) and the *Códice de Cholula* (González-Hermosillo and Reyes-García 2002). Nevertheless, the three documents I

Figure 6.   Glyph of Cuauhtinchan and Sierra de Tepeaca from *Mapa de Cuauhtinchan número 2*, c.1580 (MC2). Reproduction authorized by Instituto Nacional de Antropología e Historia, Biblioteca INAH, México.

Figure 7.   City of Cholula with the two Tolteca priests on the square, from *Mapa de Cuauhtinchan número 2* (MC2), c.1580. Reproduction authorized by Instituto Nacional de Antropología e Historia, Biblioteca INAH, México.

have chosen are better sources to discuss landscape. Georgina Enfield (2001) has studied the sixteenth-century lawsuits supported by maps representing lands in Michoacán, and a future work like hers for Cholula would be very useful.

Figure 8. Church of Nuestra Señora de los Remedios on top of the pyramid of Cholula, 2013. Photograph by the author.

Figure 9. View of the Sierra de Tepeaca, east of Cuauhtinchan, taken looking north, 2014. Photograph by the author.

Representation of community

The glyph of *altepetl* ultimately represents the community (Mundy 1996). In the case of Cholula, the glyph painted in 4HTCh (Figure 2) has a frog on top of a hill: it is "the place where the water jumps" (Bernal-García 2006, p. 252), probably named after one of the water sources that still exists at the site (Carrasco and Sessions 2010). It also has a bunch of *tules* (reeds) that evoke the time when Cholula was ruled by the Toltecs and the name of the city was Tollan-Chollolan (Leibsohn 2009). Reeds also represent a populated city; Cholula was one of the largest concentrations of people in pre-Hispanic times (Cortés 1970; Díaz del Castillo 1998). The glyph of Cholula in RG (Figure 3) took the image of the *tules* from that tradition in order to design the glyph in a different way: the hill surrounded by reeds with a trumpet on the summit. The trumpet reminds us of the sound produced by snail shells that Spaniards found buried on top of the main pyramid of Cholula after the destruction of the temple that existed there. On the painting, the Cholula pyramid is also the glyph; I mark it with a "T" in Figure 3. The aim of RG is to explain the organization of the surviving communities of Cholula's confederation after the 1519 war and the epidemics of 1540 and 1576 (Kubler 1968; Rojas 1985; Kubler 1968).

The most important role that this kind of map plays for the community is to provide its members with an identity based in history, in myth, or both. The MC2 (Figure 4) is the chronicle of two Toltec priests (bottom of Figure 2) travelling from Cholula to *Chicomoztoc*, the hill of the seven caves (Figure 5), a sort of cosmic mountain-womb where the seven legendary Nahua tribes were born (Carrasco and Sessions 2010). The priests went there to ask the Chichimec warriors for help to defeat the Olmeca-Xicalanca that governed Cholula in the twelfth century. I indicate the journey of the priests with a dotted line in Figure 4, and in Figure 5 it shows them entering the seven caves. Then some Chichimecs migrated, enduring many painful ordeals, to the area of Cholula. This amazing scene is represented in the left half of the MC2, and unfortunately I cannot dedicate space in this paper to describe it, but see Carrasco and Sessions (2010). Once the Chichimecs helped the Toltecs to defeat their enemies in Cholula, they obtained lands in the same valley as a reward (Yoneda 2008; Boone 2010); in that land the Chichimecs founded the *altepetl* of Cuauhtinchan (Boone 2010) (Figure 6). As we see, part of the narrative happened in real places and another part happened in mythological places: both parts constitute the sacred geography of the communities of Cholula and Cuauhtinchan to strengthen their identities (Montero-García 2008). These identities were based in a specific territory and were protected by customary law.

Representation of the law

In RG, the rotation of communal commitments and power is stated by numbering every head town that forms part of the colonial *hueyaltepetl* of

Cholula. I have marked them with a larger number in Figure 3, because the reproduction is hard to decipher. These communities are: San Miguel Tianguisnahuac (1), Santiago Mixquitla (2), San Juan Calvario Texpolco (3), Santa María Xixitla (4), San Pablo Tecama (5) and San Andrés Colomochco (6) (Kobayashi 2012). Every head town represents one *altepetl,* and each one of them is symbolized by a little mountain with a number written on the top of the glyph corresponding to the turn in the order of succession (Mundy 1996). In addition, the region of Cholula played an important jurisdictional role in pre-Hispanic times. Cholula was the city to which rulers of many other *altepetl* came to celebrate trials and solve their legal disputes.

Cholula's authorities were traditionally invested as judges (Rojas 1985). They were used to reading and writing these kinds of *pinturas*. After the conquest, the indigenous representations were used in trials and in land disputes (Enfield 2001). The maps I am analysing are good examples of the juridical cartography of the area (Boone 2010). The *Historia Tolteca Chichimeca* (4HTCh and 5HTCh) is a document elaborated for Alfonso de Castañeda, lord of Cuauhtinchan, to demand that the Spanish authorities recognise the pre-Hispanic boundaries of his *altepetl* (Leibsohn 2009). The intention of MC2 is from the Chichimec perspective to remind the Spaniards that Cholula formally gave them their lands where they founded Cuauhtinchan in the twelfth century (Bernal-García 2006; Yoneda 2008).

Representation of the land

MC2 depicts the territory claimed by Cuauhtinchan; the boundary is represented as a path with human footprints. I highlighted this path with a black line in Figure 4, but examples of footprints are more visible and more extensive in Figures 6 and 7. The territory claimed by Cuauhtinchan covered an extended portion of current State of Puebla up to the limits with Veracruz (east), Tlaxcala (north) and Guerrero (south). Two of the highest peaks of Central Mexico are included as limits: Pico de Orizaba and La Malinche. All along the border, the map describes the neighbouring *altepetl*, each represented as a small hill. This map also depicts the landscape of the Atoyac River valley including the highest volcanoes on the western horizon: Popocatepetl and Iztaccihuatl. Showing the main peaks of the landscape gave Cuauhtinchan prestige. These volcanoes are marked in Figures 1 and 4. The most important city of the valley is also represented: Cholula (Figure 7). It is a religious and commercial regional centre where many roads and paths converge (Carrasco and Sessions 2010). In addition, no other city is represented in MC2 with such magnificent buildings. One of them is the Temple of Quetzalcóatl that in sixteenth century had more relevance than the high pyramid of Cholula itself (Lind 2008). When Spaniards conquered Cholula, they built the Monastery of San Gabriel over the ruins of the Temple of Quetzalcóatl (as seen in the centre of RG map, Figure 3). So MC2 is like a topographic map oriented to the north. In MC2, we can read the history of the

community of Cuauhtinchan, and some of the political organization and the boundaries they claimed according to that history. We can also read the environment and the most visible landforms.

The case of RG is different. It is not a topographic representation of the territory but a scheme of communities forming the *altepetl* of Cholula in 1581. The six hills painted in the RG map are not "views" as *Landschaft* painters would have understood them: they are glyphs of communities representing pieces of land, and all of them have in common that they are settled over flat land. The area where Cholula was founded is an alluvial plain with no hills. The horizon with the volcanoes is far away; the distance from Popocatepetl to Pico de Orizaba is 150 km. One exception occurs in the centre of the city, but that hill is an artificial one. Its name is *Tlachihualtepetl* (shown as a mountain-glyph in Figure 2 and marked with a "T" in Figure 3) that means "mountain made by hand" (Solís *et al.* 2006). Indeed the glyph clearly represents a hill made with bricks in another sixteenth-century map: the *Códice de Cholula* (González-Hermosillo and Reyes-García 2002). This is one of the largest pyramids ever built in human history, but at the time the Spaniards arrived the pyramid had lost its importance, and today it looks like a natural hill (Uruñuela y Ladrón de Guevara *et al.* 2009) (Figure 8).

As previously mentioned, the mountainous landscapes of Central Mexico were the environmental basis of the Nahua cosmovision (Broda and Báez-Jorge 2001; López-Austin and López-Luján 2009). MC2 represents one of the core locations, Cholula and the surrounding area, where this cosmovision was probably conceived (McCafferty 2008). In MC2, communities and mountains are represented as stylized hills. The community of Cuauhtinchan, for instance, is represented as a stylized mountain in a range of hills, that is at the same time the glyph (with a jaguar and an eagle in the mouth of a cave in Figure 6) of the community whose territory is depicted in the right half of MC2 (Figure 4). In one of the field trips to the region, I found that the silhouette of that range of hills, located towards the east of the modern town of Cuauhtinchan, is astonishingly similar to the one represented in the MC2 (Figure 9). Some parts of MC2 are really like *vistas* of the landscape while others are more like pre-Hispanic codices.

Cholula is represented as the most urbanized spot on the map (Figure 7). The relationship between the Popocatepetl volcano and the city of Cholula in the landscape was special. In the MC2, the only volcano with a smoke plume is Popocatepetl, and in the pre-Hispanic landscape the other mountain that used to emit smoke was the *Tlachihualtepetl*, the pyramid that had a temple on its summit where priests often performed sacrifices and rituals using fire and *copal* (resin). The Sierra Nevada mountain range in which Popocatepetl is the most conspicuous peak is the regional source of water (Delgado-Granados 2002), and it was worshiped as the main food provider as well. The pyramid of Cholula is the projection of the volcano (López-Austin and López-Luján 2009). Through the year, the sun as seen from the top of that pyramid hides behind the Popocatepetl, and the pyramid is the last spot of the entire valley

illuminated by the sun (Carrasco and Sessions 2010). According to a sixteenth-century source, the environment was perceived to focus on the pyramid as the theatre of many religious festivities (Durán 2002). Still today the pyramid and the church of *Nuestra Señora de los Remedios* built on top of it is the object of many celebrations each year, attracting hundreds of thousands of pilgrims (Knab-H 2012). The pyramid faces the volcano and they appear to have a permanent dialogue, establishing a bond between nature and culture.

Conclusion

The concept of landscape emerged in some different European languages simultaneously and coincides with the encounter between Western and Mesoamerican cultures in the sixteenth century. The exception was Castilian, the language of the conquistadors and the consequent question this paper tried to answer was: what concepts were the Spaniards using to denote landscape? Many documents show that they used *pueblo* instead, which is not an exact synonym. Nevertheless, I conclude that *pueblo* had a broader meaning than simply "town" or "people" for the Habsburg's bureaucrats who prepared the RG questionnaire in Spain. This questionnaire was conceived by chronicler-cosmographer López de Velasco under the supervision of Philippe II, and the king's notion of *Landschaft* (as community, law and land) helped form the basis of its 50 questions. The Crown wanted to know detailed information about the *pueblos* as communities, as subjects of law and as pieces of land. On the ground however, the interrogators had a narrower notion of *pueblo,* so they supplemented it with words such as *pago* or *país* and some others (*tierra, término, asiento*) that I could not analyse in this paper. I also demonstrated the relevance of *pintura* as the representation of the *Landschaft*. On the one hand, we see that all the aspects of the German definition are present in practice, but on the other hand there is a lack of a proper term to capture the fullness of the concept in Spanish.

The second question inquired about whether the Nahua had equivalent concepts to landscape. This paper offers the notion of *altepetl* as an acceptable synonym of *Landschaft* at least after the conquest. I have argued this by comparing *altepetl* with the key elements of *Landschaft* defined by Kenneth Olwig: community, law and land. I supported this statement by analysing not only the way the Nahua used the concept *altepetl* but also the way they represented the three elements in paintings. The paintings I show allow me to confirm the equivalence of the German and Nahua concepts after the conquest.

Geographers interested in *paisaje* may find here an examination of the background of the concept before it was coined. So far, research into the Spanish term has been guided by French discussions (Maderuelo 2006) ignoring the enormous field for research in the sixteenth century when the Spanish were transforming the landscape of the New World. Furthermore,

scholars now have new elements to compare the definitions in European languages with equivalent notions in Indigenous tongues. Of course, this is not the first time that a geographer has stated that in other traditional cultures the notion of landscape existed before the sixteenth century. Augustin Berque has shown us how the Chinese used this concept long before the Europeans and, by a striking coincidence, the Chinese term *Suonging* also meant "water-mountain" (Berque 1995), just like *altepetl*.

Acknowledgments

Notes

1. Some linguistic clarifications are in order. I use "Castilian" and "Spanish" as synonyms in terms of language although in the sixteenth century they were not yet the same. I use the German term *Landschaft* (plural: *Landschaften*) as a gloss for the various equivalents in Germanic languages, such as *Landschap*, which is the equivalent term in Flemish. Finally, "Nahuatl" is the language of the Aztecs or Mexicas; "Nahua" is the adjective and the name of its ethnic group (plural: "Nahuas").
2. For this case study, I visited Cholula, Cuauhtinchan, Tepeaca and other neighbouring towns several times between 2012 and 2014. I met with local people to learn about their views and the place names of the surrounding landscape. I am particularly grateful to Señora Verónica and Señora Clotilde in Tepeaca and to Erasmo Velázquez in Cuauhtinchan.
3. There are geographers who have analysed the modern Spanish concept of *paisaje* (Bolós 1992; García-Romero and Muñoz-Jiménez 2002) but none of them go as far as the sixteenth century to examine the roots of the term and the background from which it was conceived. A good analysis has been written by Javier Maderuelo (2006) from a pictorial point of view.
4. Historians have explained that Flemish and Dutch influences over the Spanish administration started long before the Habsburgs gained power (Jago 1981; Lovet 1986; Espinosa 2009). Nevertheless, when Charles arrived for his first visit to Spain

in 1517, he was impressed by the "Spanish rusticity" (Nader 1988, p. 301). After he became Holy Roman Emperor, he and later his son Philip II had to negotiate permanently with the courts, the Church and the Spanish elites.

5. All translations were made by the author.
6. The word *pueblo* had and still has these two meanings in Spanish: "town" and "people". One example from our case study is this: in the text of the RG of Cholula of 1581, Gabriel de Rojas, the Spanish Authority in Cholula writes that "Hernando Cortés … al tiempo que venía a descubrir la ciudad de México, llegó a este *pueblo* " [Hernando Cortes … when he came to discover the city of Mexico, arrived at this *town* (emphasis added)] (Rojas 1985, p. 125) and a few paragraphs later "a este ídolo … le hacían una fiesta general cada año, donde concurría todo el *pueblo*" [… they prepared a festivity to this idol each year, which all the *people* attended (emphasis added)] (p. 132).
7. Cities like Tenochtitlan, Cholula or Huexotzingo were famous for their size and demography in pre-Columbian times, but they were rather exceptional. Most of the indigenous population used to live scattered on rural lands (Ramírez-Ruiz 2006).
8. There were Flemish painters in Mexico, some of them painting in indigenous towns: Simon Pereyns arrived in 1566 and Adrian Suster arrived in 1573, but none of them represented landscapes (Toussaint 1948; Kubler 1984). In 1571, Philip II sent to New Spain a Portuguese cosmographer called Francisco Domínguez to represent cities and towns, but there is no evidence of his work (Mundy 1996).

References

Acosta, J.D., 2003. *Historia natural y moral de las Indias*. Madrid: Dastin.

Acuña, R., ed., 1986. *Relaciones Geográficas del siglo XVI: Tlaxcala*. México: UNAM.

AGN, 1617. *Diligencias sobre un sitio de estancia para ganado menor en tierras de Ecatzingo Y S. Miguel Atataco que pidió por merced el casique D. Pedro Alvarado*, Tierras, vol. 2677, exp. 6.

Albores, B. and Broda, J., 1997. *Graniceros: cosmovisión y meteorología indígenas de Mesoamérica*. México: UNAM/El Colegio Mexiquense.

Alfonso-X, 1974. *Las siete partidas del sabio rey don Alfonso*. Madrid: Andrea de Portonaris/Boletin oficial del Estado.

Alonso, M., 1986. *Diccionario medieval español*. Salamanca: Universidad Pontificia de Salamanca.

Avocat, C., 1982. Approche du Paysage. *Revue de Géographie de Lyon*, 1982 (4), 333–342.

Bernal-García, M.-E., 2006. Tu agua, tu cerro, tu flor: orígenes y metamorfosis conceptuales del altepetl de Cholula, siglos XII y XVI. *In:* F. Fernández-Christlieb and A.J. García-Zambrano, eds. *Territorialidad y paisaje en el altepetl del siglo XVI*. Mexico: Fondo de Cultura Económica/Instituto de Geografía, UNAM, 231–349.

Bernal-García, M.-E. and García-Zambrano, A.-J., 2006. El altepetl colonial y sus antecedentes prehispánicos: contexto teórico-historiográfico. *In:* F. Fernández-Christlieb and A.-J. García-Zambrano, eds. *Territorialidad y paisaje en el altepetl del siglo XVI.* México: Fondo de Cultura Económica/Instituto de Geografía, UNAM, 31–113.

Berque, A., 1984. Paysage-empreinte, paysage-matrice: éléments de problématique pour une géographie culturelle. *L'espace géographique*, 19 (1), 334.

Berque, A., 1990. *Médiance, de milieux en paysages*. Montpellier: Géographiques Reclus.

Berque, A., 1995. *Les raisons du paysage: de la Chine antique aux environnements de synthèse*. Paris: Hazan.

Berque, A., 2000. *Écoumène, introduction à l'étude des milieux humains*. Paris: Belin.

Blázquez-Garbajosa, A., 1983. La población de la provincia de Guadalajara a la luz de la Relaciones topográficas de Felipe II (1575–1581). *Wad-Al-Hayara: revista de estudios de Guadalajara*, 10, 117–136.

Bolós, M.D., 1992. *Manual de la ciencia del paisaje: teoría, métodos y aplicaciones*. Barcelona: Masson.

Bonfil-Batalla, G., 1988. *Cholula: la ciudad sagrada en la era industrial*. Puebla: Universidad Autónoma de Puebla.

Boone, E.H., 2010. La casa del Águila. *In:* D. Carrasco and S. Sessions, eds. *Cueva, ciudad y nido de Águila: una travesía interpretativa por el mapa de Cuauhtinchan núm. 2*. Alburquerque: University of New Mexico Press, 27–47.

Boornazian-Diel, L., 2012. El manuscrito del aperreamiento. Castigos abominables. *Arqueología Mexicana*, 71–73.

Broda, J. and Báez-Jorge, F., 2001. *Cosmovisión, ritual e identidad de los pueblos indígenas de México*. Mexico: Fondo de Cultura Económica.

Broda, J., Iwaniszewski, S., and Maupomé, L., eds., 1991. *Arqueoastronomía y etnoastronomía en Mesoamérica*. Mexico: Instituto de Investigaciones Históricas UNAM.

Brown, C., 1972. *Dutch townscape painting*. London: National Gallery.

Carrasco, D. and Sessions, S., 2010. "Lugar del Medio," laberinto y circunvalación. El papel peripatético de Cholula en el Mapa de Cuauhtinchan núm. 2. *In:* D. Carrasco and S. Sessions, eds. *Cueva, ciudad y nido de Águila: una travesía interpretativa por el mapa de Cuauhtinchan núm. 2*. Alburquerque: University of New Mexico Press, 427–453.

Carrasco, R., 2005. *Charles Quint*. Paris: Ellipses.

Chanfón-Olmos, C., 1997. *Historia de la arquitectura y del urbanismo en México*. México: Facultad de Arquitectura UNAM.

Chávez-Peón-Herrero, A.E., Garza-Merodio, G., and Fernández-Christlieb, F., 2010. Pintura de Atlatlauca, 1588. *In:* F. Roque de Oliveira and H. Mendoza-Vargas, eds. *Mapas de metade do mundo: a cartografia e a costrucao dos territorios americanos, seculos XVI a XIX*. Lisboa/México: Universidade de Lisboa/UNAM, 131–148.

Claval, P., 2003. *La géographie culturelle: une nouvelle approche des sociétés et des milieux*. Paris: Armand Colin.

Claval, P., 2012. *De la terre aux hommes: la géographie comme vision du monde*. Paris: Armand Colin.

Cline, H.F. 1972. The Relaciones Geograficas of the Spanish Indies, 1577–1648. *In:* R. Wauchope, ed. *The handbook of Middle American Indians*. Austin: University of Texas Press, 183–242.

Corominas, J., 1983. *Breve diccionario etimológico de la lengua castellana*. Madrid: Gredos.

Corominas, J. and Pascual, J.A., 1981. *Diccionario crítico etimológico castellano e hispánico*. Madrid: Gredos.

Cortelazzo, M. and Zolli, P., 1999. *Il nuovo dizionario etimologico della lingua Italiana*. Bologna: Zanichelli.

Cortés, H. 1970. *Cartas de Relación*. México: Porrúa.

Cosgrove, D., 2002. Observando la naturaleza: el paisaje y el sentido europeo de la vista. *Boletín de la A.G.E.*, 34, 63–89.

Cosgrove, D.E., 1984. *Social formation and symbolic landscape*. London: Croom Helm.

Covarrubias-Orozco, S.D., 1979. *Tesoro de la lengua castellana, o española*. Madrid: Clásicos Tavera.

Crespo-Sanz, A., 2005. Un mapa olvidado: el Atlas de El Escorial. *Catastro*, 55, 59–89.

Crespo-Sanz, A., 2009. El Atlas de El Escorial. Ciudades, *Universidad de Valladolid*, 12, 251–264.

Crosby, A.W., 1976. Virgin soil epidemics as a factor in the aboriginal depopulation in America. *The William and Mary Quarterly*, 33 (2), 289–299.

Crosby, A.W., 2007. *Ecological imperialism: the biological expansion of Europe, 900–1900*. Cambridge: Cambridge University Press.

Delgado-Granados, H., 2002. *Los volcanes de México*. Mexico: Universidad Nacional Autónoma de México.

Deylen, W.V., 2003. *Ländliches Wirtschaftsleben im spätkolonialen Mexiko. Eine mikrohistorische Studie in einem multiethnischen Distrikt: Cholula 1750–1810*. Hamburg: Hamburg University Press.

Díaz del Castillo, B., 1998. *Historia verdadera de la conquista de la Nueva España*. México: Porrúa.

Donadieu, P., 2006. *La sociedad paisajista*. La Plata: Universidad de La Plata.

Duncan, J.S., 1990. *The city as a text: the politics of landscape interpretation in the Kandyan kingdom*. Cambridge: Cambridge University Press.

Durán, D., 2002. *Historia de las Indias de Nueva España e Islas de Tierra Firme (Tomo II)*. México: Consejo Nacional para la Cultura y las Artes.

Enfield, G.H., 2001. Pinturas, land and lawsuits: maps in Colonial Mexican legal documents. *Imago Mundi*, 53, 7–27.

Escalante, P., 2004. La ciudad, la gente y las costumbres. *In:* P. Gonzalbo-Aizpuru, ed. *Historia de la vida cotidiana en México I: Mesoamérica y los ámbitos indígenas de la Nueva España*. Mexico: Fondo de Cultura Económica/El Colegio de México, 199–230.

Espinosa, A., 2009. *The empire of the cities: Emperor Charles V, the Comunero Revolt, and the transformation of the Spanish System*. Leiden: Koninklijke Brill NV.

Fernández-Christlieb, F., et al., 2006. El altepetl de Metztitlán y su señorío colonial temprano. *In:* F. Fernández-Christlieb and A.J. García-Zambrano, eds. *Territorialidad y paisaje en el altepetl del siglo XVI*. Mexico: Fondo de Cultura Económica/Instituto de Geografía UNAM, 479–530.

Fernández-Christlieb, F. and Urquijo-Torres, P.S., 2006. Los espacios del pueblo de indios tras el porceso de congregación, 1550–1625. *Investigaciones Geográficas, Boletín del Instituto de Geografía, UNAM*, 60, 145–158.

Florescano, E. 2009. *Los orígenes del poder en Mesoamérica*. México: Fondo de Cultura Económica/Arqueología Mexicana.

Galarza, J., 1991. Lienzos o mapas aztecas. Manuscritos pictóricos mexicanos de contenido cartográfico. *Chicomoztoc*, 1991, 5–27.

Galera-I-Monegal, M., 1998. *Antoon van den Wijngaerde, pintor de ciudades y de hechos de armas en la Europa del Quinientos. Cartobibliografía razonada de los*

dibujos y grabados, y ensayo de reconstrucción documental de la obra pictórica. Barcelona: Fundación Carlos de Amberes/Institut Cartogràfic de Catalunya.

García-Guerra, M.E. and Vicioso-Rodríguez, M.D.L.Á., 1993. *Relaciones topográficas de Felipe II: Madrid, 4 volúmenes*. Madrid: Consejería de Cooperación/Comunidad de Madrid.

García-Martínez, B., 2001. Community kingdoms: Central Mexico (Nahua). *In:* D. Carrasco, ed. *The Oxford encyclopedia of Mesoamerican cultures*. Oxford: Oxford University Press, 238–239.

García-Martínez, B., 2005. *Los pueblos de la Sierra. El poder y el espacio entre los indios del norte de Puebla hasta 1700*. Mexico: El Colegio de México.

García-Romero, A. and Muñoz-Jiménez, J., 2002. *El paisaje en el ámbito de la geografía*. México: Instituto de Geografía UNAM.

García-Zambrano, A.J., 2006. *Pasaje mítico y paisaje fundacional en las migraciones mesoamericanas*. Cuernavaca: Universidad Autónoma del Estado de Morelos.

Gerhard, P., 1977. Congregaciones de indios en la Nueva España antes de 1570. *México: Historia Mexicana*, 26, 347–395.

Gibson, C., 1983. *The Aztecs under Spanish rule: a history of the Indians of the Valley of Mexico 1519–1810*. Stanford, CA: Stanford University Press.

González-Hermosillo, F. and Reyes-García, L., 2002. *El códice de Cholula: la exaltación testimonial de un linaje indio*. Puebla: INAH/CIESAS/Porrúa.

González-Hermosillo, F., 2012. Códice de Cholula. *Arqueología Mexicana*, 115 (1), 66–70.

Gruffund, P., 2003. Building sites: cultural geographies of architecture and place-making. *In:* A. Blunt, ed. *Cultural geography in practice*. London: Arnold, 238–254.

Haber, W., 1995. Concept, origin and meaning of landscape. *In:* B.V. Droste, ed. *Cultural landscapes of universal value*. Stuttgart: Gustav Fischer and UNESCO, 38–41.

Haverkamp-Begemann, E., 1969. The Spanish views of Anton van den Wyngaerde. *Master Drawings*, 7, 375–399 & 438–450.

Hicks, F., 2012. Governing smaller communities in Aztec Mexico. *Ancient Mesoamerica*, 23 (1), 47–56.

Jackson, J.B., 2008. The word itself. *In:* T.S. Oakes and P.L. Price, eds. *The cultural geography reader.* London: Routledge, 153–158.

Jago, C., 1981. Habsburg absolutism and the Cortes of Castile. *The American Historical Review*, 86 (2), 307–326.

Kagan, R.L., 2000. *Urban images of the Hispanic world 1493–1793*. New Haven, CT: Yale University Press.

Kagan, R.L., 2008. *Las ciudades del siglo de oro: las vistas españolas de Anton van den Wingaerde*. Madrid: Ediciones El Viso.

Kamen, H., 2003. *Spain's road to empire: the making of a world power 1492–1763*. London: Penguin Books.

Knab-H, T.J., 2012. Reinventing the millennial myth: the great pyramid of Cholula and the virgin of the remedies. *In:* S. Sugiyama, S. Kabata, T. Taniguchi, and E. Niwa, eds. *Constructing, deconstructing and reconstructing social identity: 2000 years of monumentality in Teotihuacan and Cholula, Mexico*. Aichi: Cultural Symbiosis Research Institute/Aichi Prefectural University, 107–118.

Kobayashi, T., 2012. History engraved on the urban landscape: formation of the sacred city and construction of traditional festivals in Cholula, Mexico. *In*: S. Sugiyama, S.

Kabata, T. Taniguchi, and E. Niwa, eds. *Constructing, deconstructing and reconstructing social identity: 2000 years of monumentality in Teotihuacan and Cholula, Mexico*. Aichi: Cultural Symbiosis Research Institute/Aichi Prefectural University, 119–132.

Kubler, G., 1968. La traza colonial de Cholula. *Estudios de Histroria Novohispana*, 2, 1–30.

Kubler, G., 1984. *Arquitectura mexicana del siglo XVI*. México: Fondo de Cultura Económica.

Leibsohn, D. 2009. *Script and glyph: pre-Hispanic history, colonial bookmaking and the Historia Tolteca-Chichimeca*. Washington, DC: Dumbarton Oaks.

Licate, J.A., 1980. The forms of Aztec territorial organization. *Geoscience and Man*, XXI, 27–45.

Licate, J.A., 1981. *Creation of Mexican landscape: territorial organization and settlement in the eastern Puebla Basin, 1520–1605*. Chicago: The University of Chicago Department of Geography.

Lind, M., 2008. La Gran Cuadra de la ciudad: el gobierno prehispánico de Cholula. *Arqueología*, 39, 65–76.

Links, J.G., 1972. *Townscape painting and drawing*. London: Batsford.

Lockhart, J., 1992. *The Nahuas after the conquest. A social and cultural history of the Indians of Central Mexico, sixteenth through eighteenth centuries*. Stanford, CA: Stanford University Press.

López-Austin, A., 1989. *Cuerpo humano e ideología: las concepciones de los antiguos nahuas*. México: UNAM.

López-Austin, A., 1999. *Tamoanchan y Tlalocan*. México: Fondo de Cultura Económica.

López-Austin, A. and López-Luján, L., 2009. *Monte sagrado: Templo Mayor*. México: Instituto Nacional de Antropología e Historia/Instituto de Investigaciones Antropológicas-UNAM.

Lovet, A.W., 1986. *Early Habsburg Spain 1517–1598*. New York, NY: Oxford University Press.

Maderuelo, J., 2006. *El paisaje: génesis de un concepto*. Madrid: Abada editores.

Marcus, J., 2000. Towards an archaeology of communities. *In:* M.A. Canuto and J. Yaeger, eds. *The archaeology of communities: a new world perspective*. London: Routledge, 231–242.

Martínez, H., 1984. *Tepeaca en el siglo XVI. Tenencia de la tierra y organización de un señorío*. México: SEP/CIESAS.

McCafferty, G.G., 2008. Altepetl: Cholula's great pyramid as "water-mountain." *In:* L. Steinbrenner, B. Cripps, M. Georgopulos, and J. Carr, eds. *Flowing through time: exploring archaeology through humans and their aquatic environment*. Calgary: University of Calgary Press, 20–25.

Melville, E.G.K., 1997. *A plague of sheep. Environmental consequences of the conquest of Mexico*. Cambridge: Cambridge University Press.

Mitchell, D. 2007. Landscape. *In:* D. Atkinson, P. Jackson, D. Sibley, and N. Washbourne, eds. *Cultural geography: a critical dictionary of key concepts*. London: Tauris, 49–56.

Molina, A.D., 2001. *Vocabulario en lengua castellana y mexicana y mexicana y castellana*. México: Porrúa.

Montero-García, I.-A., 2008. Apuntes al Mapa de Cuauhtinchan II desde la geografía simbólica. *In:* T. Tucker and A. Montero, eds. *Mapa de Cuauhtinchan II: entre la ciencia y lo sagrado.* Puebla: Mesoamerican Research Foundation, 91–144.

Mundy, B., 1996. *The mapping of the New Spain: Indigenous cartography and the maps of the Relaciones Geográficas.* Chicago: University of Chicago Press.

Nader, H., 1988. Habsburg ceremony in Spain: the reality of the myth. *Historical Reflections/Réflexions Historiques*, 15, 293–309.

Noguez, X., 2001. *Altepetl. Oxford encyclopedia of Mesoamerican cultures.* Oxford: Oxford University Press.

O'Connor, L. and Kroefges, P.C., 2008. The land remembers: landscape terms and place names in lowland Chontal of Oaxaca, Mexico. *Language Sciences*, 30 (2), 291–315.

Olwig, K.R., 1996. Recovering the substantive nature of landscape. *Annals of the Association of American Geographers*, 86 (4), 630–653.

Olwig, K.R., 2002. *Landscape, nature, and the body politic.* Madison: University of Wisconsin Press.

Portuondo, M.M., 2009. *Secret science: Spanish cosmography and the new world.* Chicago: University of Chicago Press.

Ramírez-Ruiz, M., 2006. Territorialidad, pintura y paisaje del Pueblo de Indios. *In:* F. Fernández-Christlieb and A.J. García-Zambrano, eds. *Territorialidad y paisaje en el altepetl del siglo XVI.* Mexico: Fondo de Cultura Económica/Instituto de Geografía UNAM, 168–227.

Ramírez-Ruiz, M. and Fernández-Christlieb, F., 2006. La policía de los indios y la urbanización del altepetl. *In:* F. Fernández-Christlieb and A.J. García-Zambrano, eds. *Territorialidad y paisaje en el alteptl del siglo XVI.* México: Fondo de Cultura Económica/Instituto de Geografía UNAM, 114–167.

Real Academia de la Historia. 1737. *Diccionario de la lengua castellana,en que se explica el verdadero sentido de las voces, su naturaleza y calidad, con las phrases o modos de hablar, los proverbios o refranes, y otras cosas convenientes al uso de la lengua.* Madrid: Colección Clásicos Tavera.

Real Academia Española. 1992. *Diccionario de la lengua Española.* Madrid: Real Academia Española.

Relph, E., 1981. *Rational landscape and humanistic geography.* Totowa, NJ: Croom Helm.

Reyes-García, C., 2000. *El Altepetl, origen y desarrollo: construcción de la identidad regional náhuatl.* Zamora: El Colegio de Michoacán.

Roger, A., 1997. *Court traité du paysage.* Paris: Gallimard.

Rojas, G.D., 1985. Relación Geográfica de Cholula. *In:* R. Acuña, ed. *Relaciones Geográficas del siglo XVI. Tlaxcala.* México: UNAM, 125–145.

Russo, A., 2005. *El realismo circular: tierras, espacios y paisajes de la cartografía novohispana, siglos XVI y XVII.* México: Instituto de Investigaciones Estéticas UNAM.

Sahagún, B.D., 1999. *Historia general de las cosas de la Nueva España.* México: Porrúa.

Sartor, M., 1992. *Arquitectura y urbanismo en Nueva España, siglo XVI.* México: Azabache.

Sauer, C. 2008. The morphology of landscape. *In:* T.S. Oakes and P.L. Price, eds. *The cultural geography reader.* New York, NY: Routledge, 96–104.

Sevilla, I.D., 1994. *Etimologías.* Madrid: Biblioteca de Autores Cristianos.

Solís, F., *et al.*, 2006. *Cholula: la gran pirámide*. México: CONACULTA/INAH/ Azabache.

Solórzano y Pereyra, J., 1930. *Política indiana*. Madrid/Buenos Aires: Compañía Ibero-Americana de Publicaciones.

Staller, J.E., ed., 2008. *Pre-columbian landscapes of creation and origin*. New York, NY: Springer.

Tilley, C., 1994. *A phenomenology of landscape. Places, paths and monuments*. Providence, RI: Berg.

Torre-Villar, E.D.L., 1995. *Las congregaciones de los pueblos de indios. Fase terminal: aprobaciones y rectificaciones*. México: Instituto de Investigaciones Históricas UNAM.

Toussaint, M., 1948. *Arte colonial en México*. Mexico: Imprenta Universitaria.

Uruñuela y Ladrón de Guevara, G., Plunket-Nagoda, P., and Robles-Salmerón, A., 2009. Art and architecture of an archetypal city. *In:* W.L. Flash and L. López-Luján, eds. *The art of urbanism. How Mesoamerican kingdoms represented themselves in architecture and imagery*. Washington, DC: Dumbarton Oaks Research Library, 133–171.

Wood, S., 2012. *Transcending conquest: Nahua views of Spanish Colonial Mexico*. Norman: University of Oklahoma Press.

Yoneda, K., 2008. Proyecto los mapas de Cuauhtinchan. De la historia cartográfica a la cultura chichinmeca. *In:* T. Tucker and A. Montero, eds. *Mapa de Cuauhtinchan II entre la ciencia y lo sagrado*. Puebla: Mesoamerican Research Foundation, 1–26.