The Mesoamerican codex re-entangled : production, use, and re-use of precolonial documents

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7. Conclusions and Reflections

Throughout this work, the cultural biographies of the Mesoamerican codices have been followed. Each chapter approached specific episodes in these biographies from a different angle. The relations that these books were caught up in, whether in the form of the dependences or the form of affordances defined by Hodder (2012), can be seen to change over time. In over five hundred years the codices have travelled thousands of kilometres and have been transformed from sacred objects, to books of the devil, to worthless colouring books, and, finally, to celebrated relics of "lost" cultures and important sources for future research.

In chapters 1 and 2, the initial stages of the chaîne opératoire of these books were central. It was shown that a large amount of materials, skills, and people were needed to make one of these books. The implications of this may be far reaching. The tribute system of the Aztec empire was based on providing materials for all sorts of activities, which may have included the production of codices. This is not to say that the codices were the cause for this tribute system, but they were definitely entangled with it. If, for example, turquoise, Maya Blue, cochineal, or jaguar skins all of a sudden were no longer available, then codices simply could not have been made in the same way. As was shown in chapter 2, these resources were highly valued and securing access to them even led to military action. It is lamentable that there are no older codices left, because this appears to mean that there is no way to observe how the Mesoamerican codex production technology developed. It would be interesting to see if there is a way around this obstacle by undertaking a study of the integration of cross-craft production in general. Although there are not many examples of other objects that are the result of such extensive cross-craft interaction, there are older artefacts that may embody specific parts of the total set of interaction. It would thus be very interesting to connect the research on the codices with the study of, for example, Mesoamerican mural, pottery, textile, and mosaic production.

The amount of codices that have remained is so low that a statistically significant statement about recognised types of codices cannot be justifiably made. Nonetheless, there are some observable differences between the codices. The Maya codices are made on paper covered with a layer of chalk; while the central and southern Mexican codices are made on leather covered with gypsum. Furthermore, the Maya books seem to be made with predominantly mineral pigments; while in central and southern Mexico the use of cochineal and other organic paints has been evidenced. The choice to use cochineal over red minerals like ochre seems to be a purely aesthetic one, as red ochre is freely available throughout Mexico, while cochineal requires arduous farming and processing of the cochineal lice. Thus, as a material cochineal has a much greater entanglement than ochre. In fact, the use of cochineal as a paint for the codices may have been the reason for the use of gypsum as a writing surface, because the acidity of the cochineal dye would have had a detrimental effect on a chalk surface.

With the approach taken in the first two chapters, the limit of what can be achieved in a non-invasive investigation of the codices has on some level been reached. It is clear that further non-invasive investigation of the original codices is needed, so as to get a better understanding of the similarities and differences in the corpus. However, many materials have been shown to be organic and not accurately specifiable using the non-invasive methods now available. Consultation of the historical sources has supplied researchers with ideas about likely candidates for these materials and the experimental replication has provided further support for the notion that a codex can be made with materials identified. However, the question remains: how are we to make the step from likely candidate to secure identification? At this moment there is no way to do that without taking samples. But this poses a dilemma. The no-sample policy of the museums and libraries that guard these codices closely is understandable,

however, there are some colours that continue to fade whether samples are taken or not. This especially applies to the blues and by extension many of the greens: these colours are at risk of fading to the point of being perceptually undetectable. In the codex Añute, this can be seen most dramatically with the colour blue, which is only visible in very few places. It is clear that once it is completely discoloured, it can never again be identified, as the fading process is the result of disintegration on a molecular level. Consequently, this may justify the taking of samples on some of the codices in the areas of highest risk. What's more, the taking of samples in this instance need not be greatly damaging to the codex at all. The reason for this is because the technological capabilities of some advanced HPLC techniques requires only that micro samples are taken, which do not leave a trace on the sampled object that is visible to the naked eye. Ultimately, then, it is going to be a tough decision for the conservators of the institutes to make one way or the other. It is hoped that the contents of this work can help the institutions to make a more informed and considered decision.

The relationship between people and these codices in their original intended context was the central focus of chapter 3. It was argued that one of the codices main uses was the creation and sustainment of community. The issue with this part of the work is that it can only be based on inference as no context of use can be directly accessed. Since these codices do not preserve well once they are buried, it is unlikely that one will ever be recovered in an archaeological context. The complex combination of materials makes this only possible in a completely dry environment such as a cave, and even here (micro-)biological deterioration may not leave such a book unharmed. Although there are descriptions of books being placed in cave and in the ground as part of the mortuary ritual, it seems unlikely that this was the primary context of use for these books. For the living use of these books even less hard evidence exists. Their highly religious nature – even for the historical codices – makes it the case that all colonial descriptions and depictions need to be taken with a grain of salt. A context of use, therefore, has to be reconstructed based on the inscribed meaning in these books. Knowledge of the inscribed meaning may lead to a better understanding of the affordances of these books; i.e. what they allowed people to do with them. It has also been argued in this chapter that these books were part of performance. By combining the inscribed meaning with the physical evidence of the contexts in which they could have been used, it may be possible to get a better picture of what part these books had to play in the performances that were taking place. Even though for some codices, especially the historical ones, it is clear where they came from, the lack of good archaeological investigation of these sites limits the ability to reconstruct the contexts of use. Hopefully, future archaeological discoveries will help to improve upon this, presently uncertain, state of affairs.

As was shown in chapter 4, one of the main reasons for the current lack of precolonial documents was the destruction wrought in colonial times. The new colonial context was essentially a medieval one, inspired by fears of the non-Christian that arose from European struggles. In this new context, the affordance of a codex was not the creation of community, but, rather, the worship of demons. No matter what the original inscribed meaning of the books was, the writing style itself was a perfect fit within the European model of demonology and thus justified this ad hoc identification. Because of this ideologically driven identification, a new way of looking at these books emerged and their continued existence started to depend upon more than just physical preservation. If a document was to stay in a community under colonial rule, then it would have to be edited and transformed into something acceptable, or kept secret. Keeping a document that is meant to be used for the benefit of the community secret, however, is contrary to its purpose. In such a context the object itself will start to lose its meaning. Thus, besides the active persecution of the writing system, a lingering danger to these books was simple neglect. It has been shown in this chapter that the current damaged state of one codex – the codex Iya Nacuaa – may be understood as an active indigenous adjustment to the new Spanish-imposed worldview. This document was not kept secret, but rather made safe – or acceptable by colonial standards – through the removal of all animal elements which could have been interpreted as evidence of heretical behaviour.

After this removal process was complete, a new layer of meaning was added to the codex in between the images in alphabetic script. It is interesting to see how this one codex continued to function as an important document for the community for centuries after the conquest. Even though the art of reading the pictorial part of the manuscript was lost, as late as the 19th century there was a shared community memory that this document had something to do with a great ancient king. In this case, then, the transformation undergone in colonial times did not completely erase the meaning inscribed in precolonial times. Instead, the context of use became different such that even if the codex was primarily used in colonial courts to resolve land disputes, the old meaning lingered on below the official and sanctioned relations in which the object was embedded.

The books that were brought to European collections lost their meaning soon after their arrival. For some, it was even unknown from which continent they originated. These books were only revived with the reproductions that were made starting in the 19th century. These facsimiles allowed the codices to leave the confines of the institutes in which they were kept, thus allowing their reinterpretation. Although the development of new techniques for reproduction allowed for more truthful replication, it also further separated the images contained in these books from their physical originals. Because of this separation, some aspects of the documents were completely overlooked. Besides the physical composition of the originals, most of these forgotten aspects have to do with the three-dimensional nature of the originals. Although techniques to record this are still in their infancy, it is likely that such registration will eventually be the only way to preserve the information encoded in the original codices. The fragile nature of the gesso or chalk layer means that eventually it will break off and the codex will be lost. 3D recording techniques can help to not only record the present state, but also to track future deterioration.

The codex Añute can be considered as a perfect example of an object that was and still is influenced by all the entanglements that it was ever caught up in. The materials used to make it not only caught it in a web of relations with people, skills, and raw materials, but also influences the techniques that can be applied to recover its palimpsest today. Although there is not enough known about the covered text to understand what the relation is between it and the known codex Añute, using an old document was a conscious decision. It may be that there was not enough material available to make a new document or that the older codex was too far worn to be useful. In any case, the creation of the later codex Añute is in itself a prime example of both worlds of entanglement discussed in chapter 3 and 4. The neighbouring community of Yanhuitlán made a book in European style, and so the codex Añute is both an expression of the precolonial importance of these books, but also an expression of the act of resistance against the new colonial forms of writing.

This work has shown the applicability of the cultural biography approach for the precolonial codices. In doing so, an added dimension of these books has been explored which makes them even more interesting as archaeological artefacts. With the better understanding of the chaîne opératoire of these books this work has provided, it becomes possible to relate them to a whole range of crafts and cross-craft interactions. Some of these are very well known archaeologically, while for others these codices yield rare insights. Understanding the use of these books in the context of ritual performance may also have significant consequences for archaeological interpretation. Rather than seeing these books as isolated oddities in European archives, they may be better interpreted as highly significant objects used in those performances that go to the heart of community creation. In this light, other ritual behaviour may also have to be reinterpreted. The bringing of sacrifice, for instance, is at its core also a community creating performance. That so much literature on Mesoamerican culture still focusses on the bloody and macabre side of Mesoamerican religion can be explained in the light of processes similar to those that led to the destruction of the codices. Thus, contemporary investigations of the religious world of the Aztecs, Mixtecs, Maya, and other Mesoamerican peoples can proceed from a new vantage point. A vantage point, that is, that does not suffer from the tendency prevalent among the earlier researchers to reinterpret Mesoamerica from within

the paradigm that at least tacitly accepts the picture that is grounded in Medieval Europe's internalised attitudes towards a supposed demonic world.

Cultural biography is aggregative or, in other words, the present-day situation of an ancient object is the result of continuous entanglement, disentanglement, and re-entanglement of materials and people. The material dependencies that entangled and restrained the codices use in the original context are still present today in the form of conservation issues. The attitude of demonisation in the colonial period expresses itself today on three levels. The most obvious is the rarity of the objects, due to their destruction and neglect, although it has been shown that this may also be partially due to precolonial policies of disposal. The second consequence of colonialism in general is the rift that has been created between the decedents of the creators of these books and this form of cultural heritage. The perceived inferiority of indigenous cultural expressions has been engrained in present-day communities and is still perpetuated by state-wide education. It is still taken for granted, for example, that it was the Europeans who brought culture and the light of Christianity to the Americas. This attitude has also engrained a type of fear directed towards the state in those communities that still possess precolonial or colonial documents. It is feared in this case that if the existence of these documents becomes known, official agents of the state – in Mexico these agents are often taken to be the researchers of the INAH – will come and take the documents away. The progress made in terms of reproductions – as discussed in chapter five – has done little to bridge the gap between the precolonial codices and present-day indigenous communities. An exception, perhaps, is the recent efforts by Jansen and Pérez Jiménez who distributed their interpretations of the codex Añute (Jansen & Pérez Jiménez, 2007b) in the community of Jaltepec (Añute). An objection raised during presentation of this book in the community was that it was still not the members of the community itself that were creating their own new interpretations. Although the way in which this critique was levelled at these authors made it clear it was more an act out of spite by a political or scientific opponent, it does signal a general problem.

Because of the impact of colonialism and the fact that most of these codices are in European collections, there is little if any knowledge about them in many Mesoamerican communities. At the same time, the knowledge stored in the language, narrative, songs, and rituals (to name a few) of the Mesoamerican peoples, has its roots in precolonial times. Clearly, then, this knowledge could help researchers to come to a much better understanding of these codices. Bridging the gap between the precolonial codices and present-day indigenous communities is not only the next logical step for research on the codices, but is also ethically the right way to deal with these important pieces of indigenous heritage in the future. But to successfully bridge the gap will require navigating a veritable quagmire of stakeholders, each of whom has their own interest in these documents. In this final part of this work, some practical issues will be discussed that would have to be considered and resolved in order to give access to these works and facilitate indigenous knowledge production.

The first issue is how to disseminate the material in the first place. As has been shown in Chapter 5, physical reproduction of the codices is less cost-effective than digital reproduction. Unless it becomes possible to make a lot of prints and hand those out for free, therefore, the solution must be found in media such as the Internet, which takes care of distribution by its very nature. However, this does mean that those that do not have access to a computer with an Internet connection will never even hear about them. Moreover, even if people do have access to the internet, simply setting up a website and hoping people will stumble upon it will obviously not work effectively. Thus, direct outreach or collaboration with local institutes will be necessary. It follows, then, that to allow people to see and interact with the full range of precolonial codices without spending hours finding them and bringing them all together, a centralised digital space needs to be created. Such a platform would have to be easy to find and easy to use.

What is disseminated is as important an issue as how it is disseminated. The spread of low resolution scans of reproductions only exacerbates the problems of interpretation already mentioned, but dissemination

of those facsimile editions that are of a good quality will also have to deal with the problems of scanning and file compression. The newer scans recently made suffer in most cases from the problems that all photographs suffer from, because such things as colour, quality, and file size are often not standardised. In order to create a good photographic record of all the codices, a number of standards would have to be set and metadata presented, which would allow for these standards to be checked. Creating such standards would require the active collaboration of all the institutes with codices in their collection. In order to achieve such a collaboration, differences in policy, conservation strategy, and budget would have to be negotiated to create sufficient quality access for the long-term. As has been shown in Chapter 5, photography alone may not be enough to adequately access these objects. But as many indigenous peoples live in areas where high-speed internet and computers are not available, there has to be a constant weighing of quality versus accessibility in dissemination efforts. And the reality is that some data may never be able to be effectively made accessible to non-specialists. The hyperspectral data presented in chapter 6, for example, requires not only software, but also expertise, to interpret. The challenge, therefore, is to present this data in such a way that it becomes accessible and valuable.

Beyond a simple display of an image, there needs to be some form of introduction that accompanies those images. Although there is a lot of knowledge in indigenous communities about subjects that are incorporated in these codices – such as the calendar and certain narratives, the way in which these things are encoded in the documents requires some specialised knowledge to be accessed. Since this kind of specialised knowledge has crystallised in the course of over a century of research, it would make little sense to make users of these images re-invent the wheel and do such work all by themselves. However, in order to allow new interpretations to develop, one would have to take care not to over-interpret or fully project a dogmatic Western view of these books. Thus, a balance needs to be struck between distributing a tool for interpretation and distributing one's own version of the narrative.

In order to have indigenous people truly involved in the process of interpretation, the platform would have to incorporate an open space for discussion or reaction to what is presented. There are multiple formats from which such a space could be chosen, which each have their own advantages and disadvantages. In any case, there would have to be a form of moderation. Who would oversee and implement this moderation is again a difficult question, as it is the moderator who has the final say on what does and does not remain on the site. Competing and contrary interpretations will inevitably arise. Present-day social issues – such as conflicts over land – may penetrate into some interpretations, as members of different communities may choose to present distinct versions of history that best suit their particular social, political, or economic agendas. It also has to be taken into account that indigenous people will not be the only audience, as other interested people will inevitably find the website and could contribute to the open space. Inevitably, non-indigenous people will also interpret these books from their own religious and cultural background. What is clear, however, is that the choice of moderator will be influenced by the choice of which languages to use. On the one hand, much of the research done is either in English or in Spanish. However, in order to reach a large indigenous audience there are many more languages that would have to be considered, and at the very least, the languages in which Mesoamerican people would likely comment would have to be included.

These are only some of the issues that can be expected when setting up such a multilingual interactive digital platform for dissemination of the codices. During development, more issues will undoubtedly arise. If such a platform can be made, however, the codices will regain some of their original intended purpose: it will be possible to put these books to work again in the formation of community identity. Rather than presenting precolonial society as something savage and uncivilised, these books can help to validate precolonial heritage. The total corpus of precolonial Mesoamerican codices is small, thus clearly defining the scope of this endeavour. However, European institutes are full of objects that were taken from communities from all over the world where similar problems are at work. An increasing amount of

digital data is being produced, both on the side of analysis of the objects and on the representations of the artefacts. The next step is to explore what can actually be done with all this data, and to determine how it can be effectively used for the improvement of both science and society.