

# *Pragmatism and Ceramics in Maluku, Indonesia*

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*May, 27, 2015*

## *Introduction*

For the purpose of this paper, I will read Chung Ching Shiung's dissertation, which explores changes in ceramic assemblages in the Maluku region of Indonesia. A copy of his dissertation has been uploaded to the source folder on github. I have selected Shiung's dissertation because of its focus on ceramics and its comprehensive nature, as it will be of direct influence on my own research. The goal of this exercise is to both delve into the existing literature on Maluku ceramic industries, and to explore Shiung's theoretical frameworks in the hope that it will inform my own interpretations.

This dissertation, titled, "The Implications of Social, Cultural, Economic, and Political Interactions for Ceramic Evolution on the Banda Islands, Maluku Province, Indonesia", explores the relationships between external factors like culture contact and trade, and internal factors like changes to cultural material. The research goals of Shiung's dissertation are to determine:

- 1) whether the external and internal factors affect Banda's material culture, particularly its ceramics
- 2) how we can measure and monitor their influence on Banda's ceramic changes, and
- 3) the broader implications of ceramic changes in connection with Banda's cultural history. (Shiung 2011:6)

## *Archaeological evidence*

Ceramic materials are the unit of analysis for this dissertation. Shiung argues that ceramic assemblages could be used to understand the social, political, and economic rationale of the people who produce and distribute the ceramics. Previous approaches, such as Bellwood's Austronesian expansion model has long been used to explain the movement and distribution of people and goods (utilitarian and trade) throughout Island Southeast Asia (ISEA).

Ceramics remained largely unchanged for millenia in ISEA, however, the development of pan-regional trade with Chinese and Muslim traders during the past one thousand years may have disrupted this continuity. If that is true, then increased culture contact as a result of growing trade relationships could induce changes in local material culture. Shiung focuses particularly on the specialization

of ceramic production in the Banda Islands in the context of a growing maritime spice trade during the last one thousand years in the Maluku region. Specifically, this study looks at changes in lip-rim thickness of ceramics vessels as its proxy for specialization.

The earliest pottery in this region dates to about 3400 BP (Shiung 2011:307). Around 3000 BP changes in temper style, a decline in exterior decoration and slip, and changes to the style of rims occurs in the Banda Islands. Convex lip rims are the most common lip rim style during the lower periods of occupations at all the sites. Everted lip rims are prevalent throughout occupation, indicating that although some styles faded in and out, the assemblages as a whole remain remarkably consistent. One of the relevant changes for this study is the shift towards burnished lip rims during the 6th to 16th centuries, which Shiung attributes to cultural diffusion between the Banda Islands and North Maluku (Shiung 2011:309-310).

In Pulau Ay, there is no evidence for foreign earthenware, so this shift to a North Maluku style of lip rim is likely a result of people moving across the landscape, rather than simple exchange of materials (Shiung 2011:310). The appearance of lime tempers in parts of Maluku at this time is also attributed to the movement of people and their associated pottery production methods. The local quartz temper remains in use at several sites in Pulau Ay and Banda Neira, suggesting the two tempers could be used to indicate social boundaries, since the external morphology of the ceramics became increasingly similar (Shiung 2011:315).

Aside from the shift towards a North Maluku lip design, Shiung was unable to find strong evidence to support his hypothesis of craft specialization in Banda Islands ceramics. Intra-regional trade and the movement of people across the landscape likely brought new production methods, but despite foreign contact during the 6th to 16th centuries as a result of early nutmeg trade, ceramics in the Banda Islands remained an inalienable product.

### *Link between evidence and behavior*

It is expected that as specialization increases, there will be a corresponding reduction in variation of lip-rim thickness within the recovered ceramic assemblages. Ethnographic evidence demonstrates that ceramic specialization has occurred in Maluku during the past few centuries (Shiung 2011:40). Shiung proposes that social boundaries and trade networks are mechanisms that could affect ceramic assemblages (Shiung 2011:41). However, these behaviors often do not present archaeologically. Behaviors like culture, society, contact, adaptation, migration, and specialization do not always produce con-

crete traces that can be empirically measured. Ceramics, however, are a useful way of answering these questions because of their multiple levels of function and style, their ubiquity and durability, and the fact that both the production and distribution of ceramics can leave evidence in the archaeological record.

### *Different scales of behavior*

Shiung proposes that social networks and social boundaries may be mechanisms that would impact the variation of a ceramic assemblage. Discovering these mechanisms can be accomplished by tracing the historical context of the spice trade in Maluku (Shiung 2011:58).

The written history of Maluku is somewhat patchy and often filled with contradiction, but it is clear that Maluku was in contact with western Indonesia, and in particular, Java, by at least the 13th century. This contact likely continued up to the Colonial Period and the expansion of the global spice trade (Shiung 2011:73). This implies that eastern Indonesia, and Maluku, was the center of eastern Indonesian products for Java and western Indonesia. As a result, it is very likely that specific regions or ports within eastern Indonesia became important loci for this trade network (Shiung 2011:76). The creation of spice plantations during the Colonial Period undoubtedly interrupted any local ceramic production in the Banda Islands. During this period Banda became increasingly dependent on imported goods, with labor focused on the **perkebun** (spice plantations) established by the Dutch East Indies (VOC). Local ceramic production during the Colonial Period, therefore, were discouraged and it is not likely that any local Bandanese ceramics will be visible in the archaeological record of that time (Shiung 2011:90).

It is less clear how the 16th century conversion to Islam affected local ceramic production and trade in Maluku. Both Javanese communities and eastern Indonesian communities in Maluku participated in this conversion (Shiung 2011:94), so it is possible that ceramic production was not heavily impacted by this phenomena.

### *Explanatory model*

Shiung employs a pragmatic explanatory model to explore the relationship between cultural material, trade goods, and social and economic contexts in which changes to those archaeological proxies will occur. Shiung's pragmatic models calls for a contextual interpretation of ceramics, paying particular attention to the historical, economic, social and cultural contingencies of the Maluku region. In particular, this means understanding changes to ceramic produc-

tion and styles within the context of existing local trade as well as the emergence of more regional and global trade. Carnelian beads in Maluku, for example, were first import goods. However, eventually these beads were produced locally rather than imported (Shiung 2011:3). Therefore, interpreting all Carnelian beads as evidence of foreign trade and “Indianization” ignores the more intricate causal mechanisms and context of the event.

The primary goal of Shiung’s model is to uncover the causal mechanisms behind any potential changes to ceramics assemblages in Maluku. Shiung is primarily interested in what external or internal factors could motivate any changes to the ceramic assemblages, stating that “[i]gnoring local developments prevents us from revealing the “black box” and leaves the mechanisms of cultural evolution a mystery” (Shiung 2011:3).

### *Explanatory model and relevant philosophy of science literature*

Pragmatism was first promoted by Van Frassen in the 1980s. The approach uses an anti-scientific realism method to avoid overly reductionist and quantitative form of explanation. Some of the most problematic features of explanation, namely asymmetries and rejections, can be resolved by using van Frassen’s three-part approach to answering why-questions. In order to be successful, a theory of explanation needs to accommodate and account for rejections and asymmetries. Rejections consist of cases in which sufficient conditions don’t produce the same result in all situations. The paresis example is a classic case, in which syphilis is a required condition for the development of paresis, but not all patients who suffer from syphilis will develop paresis. Asymmetries present in an explanation in the instance that conditions do not equally explain each other (asymmetric direction of the causal process).

Pragmatism uses the relationships between three factors - the **theory**, the **fact**, and the **context** of the question. Rather than discussing explanation in terms of a relationship-like description between theory and fact, van Frassen sees explanation as a tripartite relationship between theory, fact and context. By ignoring the context of the relationship, explanations of relationships between theory and fact will fail to fit more than a few case studies (van Frassen 1988). The goal of pragmatism, then, is to create relationships between the facts and the theory that will provide sound explanations independent of whether the evidence for that relationship exists in the real world. An excellent example of this is the explanation for the length of giraffe necks. Evolutionary theory proposes that the long neck is a result of evolutionary pressure in which a long neck is adaptive for survival.

Although there is no evidence of food shortages that would select for that phenotypes, the facts and the theory provide sound explanations. The general paucity of archaeological data in comparison to other fields is well suited to this type of explanation. In terms of ceramic assemblages, in which the entirety of the vessel or even the entirety of the assemblage may not be available for study, pragmatism allows for a sound abstraction of evidence into explanations.

The causal relationship and causal process are also important for how van Frassen conceptualizes scientific explanation. Causality supplies the “story” behind the explanation, but causality must be contextualized. The answer to the question “Why did ceramics change”, for example, has many potential answers depending on the context in which the question is asked. Explanatory theories, then, in the pragmatist fashion, can be described in these general terms: 1) Events are enmeshed in a net of causal relations (2) What science describes is that causal net (3) Explanation of why an event happens consists (typically) in an exhibition of salient factors in the part of the causal net formed by lines leading up to that event (4) Those salient factors mentioned in an explanation constitute (what are ordinarily called) the cause(s) of that event. (van Frassen 1980:124)

Van Frassen believes that explanations are not propositions or arguments, but are answers to why-questions. Therefore, a theory of explanations must be a theory of why-questions. Many models have been used to understand explanation, the simplest being logic models (eg. A then B, therefore A caused B) can be inadequate because of its reductionist approach. However, van Frassen advocates for a simplifying hypothesis, which identifies propositions and arguments within their context, allowing multiple propositions to be considered while keeping the structure of the explanation simple. This will, naturally, only work if phenomena are simple enough for such a simple model to fit.

Van Frassen identifies three factors that are integral to answering a why-question 1. the topic (one of the facts/observations of the question) 2. the contrast-class (alternative propositions), and 3. the relevance relation (how relevant the propositions are to the question being asked).

With these in mind, a why-question has three assumptions - that it's topic is true, that in its contrast-class (of the alternatives) only its topic is true, and that at least one of the propositions is relevant to the topic.

### *Critique of Shiung's model*

Pragmatism has been criticized as not being a broad enough method of explanation, and for its inability to provide the best approach to explanation (Kitcher 1989). Pragmatism's erotetic approach (Wylie 2002) provides causal mechanisms, and every suitable explanation must cite causal mechanisms in at least some part of the explanation (Woodward 1989). Even if deficient, the use of an explanation style, such as Salmon causality or Van Fraassen's pragmatism, allows the archaeologist to pinpoint areas of explanatory weakness (Woodward 1989). Shiung's original hypothesis, that changes to ceramic lip rim thickness could indicate craft specialization, was rejected. Pragmatism is ideally equipped to handle rejections, as noted above, therefore Shiung's ability to produce a reasonable and logical explanation that local diffusion of production methods and temper type can account for any visible changes, is a very useful explanation. This explanation is generative, in that it may not provide the complete story, but it nonetheless helps to explain the unexpected lack of overall change to Maluku ceramics, yet accounts for the slight changes to lip style and temper type that are noted in the assemblages.

### *Conclusion*