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Research Note

Philippine Sungka and Cultural Contact in Southeast Asia

A study of game rules, playing practices, and four game boards in the American Museum of Natural History collections illustrate the early history and characteristics of the Philippine mancala game known as sungka. The distribution of comparable Southeast Asian mancala games suggests two waves of distribution. The first took place prior to the late nineteenth century and included different configurations of boards found in Indonesia, Malaysia, and the Maldives; the second concerns the migration of Philippine people in the twentieth and twenty-first centuries that only includes the sungka variant. Both exemplify cultural diffusion patterns in Asia that are extensive and based on a complex cultural phenomenon.

KEYWORDS: cultural history—dispersal—mancala—game board—play

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m OARD}$ games are ideally suited to study cultural diffusion since they consist of sets of playing rules, boards, playing pieces, and a context of play. Together they form a complex phenomenon that is not likely to be found in two different places without any previous contact (ROWE 1966, DE VOOGT 1999).

In the case of mancala board games, the geographical diffusion patterns are particularly extensive and have been looked at through the study of boards, rules, and playing practices (CULIN 1896, MURRAY 1951, DELEDICQ and POPOVA 1977, DE VOOGT 1997). The diffusion patterns are difficult to interpret since the dating of mancala games is complicated by the few historical examples of extant boards and the limited information on rules from early written sources.

The Philippine game of sungka is part of a particularly extensive dispersal pattern. The written sources, in combination with the identification of early game boards in the collections of the American Museum of Natural History (AMNH), allow a better understanding of the dispersal of this game. A comparison with similar games in the region shows that sungka has been part of two separate waves of distribution in Southeast Asia.

HISTORY OF MANCALA IN SOUTHEAST ASIA

The recorded history of mancala games goes back to the seventeenth century. The first written sources from this time provide enough detail to identify it as a mancala game. It is most likely that mancala games existed much earlier but the absence of rules makes such suggestions only speculative. As noted in MUR-RAY's seminal work on mancala games, the outstanding feature of mancala games in Southeast Asia is the inclusion of each player's store, which is an enlarged hole at each end of the board, among the holes in which counters are placed (1951, 173). In other regions the enlarged holes are optional and not a necessary part of the playing board. The number of rows, holes per row, playing counters, and the rules for moving around and capturing counters differ widely. Often multiple variants of mancala boards and rules are popular in one area, village, or household.

Mancala games are characterized by rows of cup-shaped holes and a proportionate number of playing counters such as seeds, shells, or stones. Most variants are played by two people only. One particular set of rules is shared by players in Indonesia, Malaysia, the Maldives, and the Philippines. In Indonesia and Malaysia the game is known as congka or dakon (DONKERS, DE VOOGT, and UITERWIJK 2000, 79) where it is played on two rows of three with up to two rows of nine or more holes with two store holes at each end. The number of holes per row varies from three up to nine or even more (DE VOOGT 1997, 72–73). A change in the size of the board does not require a change in the rules. If the number of counters in each hole is identical to the number of holes in the row most of the strategies that are employed in the game remain the same as well. In the Maldives the game is called ohvalhu (DE VOOGT 2000b, 174), which means "game of eight [holes]." Boards with rows of six and ten holes are popular in the Maldives and in recent times plastic versions with two rows of seven holes have been imported from Malaysia. Finally, there is a game best known as sungka in the Philippines that is almost exclusively played on two rows of seven.

Research on mancala games in Southeast Asia and the Philippines is limited, and the variations in these areas are now biased toward the information available in limited museum collections and early fieldwork reports. Variations may have disappeared for any number of reasons and this prevents us from indicating a direction of dispersal on the basis of the presence of variations. The Dutch explorer of Ambon Island, Indonesia, noted the game of tsjoncka in the late 1600s when describing the use of a certain seed in *The Ambonese Herbal*. He speaks of "a small oblong block, with twelve holes in two rows, into which one tells these marbles or Klitsjis according to certain rules" (RUMPHIUS forthcoming, 625).

Penelope FLORES (1998, 58) states that in 1617, Father Jose Sanchez, a missionary who travelled with the Spanish to the Philippines, mentioned a game called kunggit in which players scooped and distributed seashells across a row of bins on a wooden, boat-like board. What we can derive from these early written sources is that a mancala game was already being played in Southeast Asia in the seventeenth century with a name that is cognate with today's game of sungka or congka. However, the rules are not described in enough detail to conclude that this game is the same game found today, and early descriptions of game rules are scarce for any mancala game. Yet, a description of these rules is essential to show the existence of a pattern of dispersal of mancala in Southeast Asia.

Southeast Asian mancala rules

Stewart CULIN (1900) was the first to mention and describe the rules of the Philippine mancala game sungka. Although his rules were incomplete, they show all the characteristics of today's game as highlighted, for example, by DE LA CRU , CAGE, and LIAN (2000). Complete game rules were provided as early as 1937 by BERNARDO, who also documented complete matches between two players. At that time, Culin had already noted that mancala games in South and Southeast Asia were mainly played by women and children. Despite the absence of male players—which is indeed a biased indicator—the game has been played at a high level by women in the Maldives (DONKERS, DE VOOGT, and UITERWIJK 2000). The mathematics of the game have been illustrated by MANANSALA (1995) and the game appears to be much suited for educational purposes as well (DE LA CRU , CAGE, and LIAN, 2000). The playing rules as shared by most players can be summarized as follows.

I. The purpose of the game is to capture the majority of the playing counters. The player who collects most of the counters in their store commonly wins the game. A player moves by taking the contents of one hole and distributing the counters one-by-one in each consecutive hole around the board. Each hole contains as many counters as there are holes in a row. The counters are distributed in a counter-clockwise direction (or in a clockwise direction in the Maldives) around the board, including the store. The store or end-hole is the enlarged hole at the end of the board. The player puts a counter in his or her own store but always excludes the store of the opponent. The player distributes counters in the direction of his or her store at the far end of the board, that is, the player's store is located on the left if playing in a counter-clockwise direction. If the last counter of such a move has been dropped into a hole the following possibilities present themselves.

2. If the last counter drops into an empty hole, the distribution of the counters ends. If this last counter is dropped on the player's side the contents of the hole on the opposite side are taken and added to the player's store contents. There are variants concerning when this is allowed. After capturing the counters from the opponent's row and adding them to the ones in his or her store, it is the opponent's turn.

3. If the last counter drops into the store of the player (that is, the opponent's store is not played into) then the player may distribute counters from one of the holes on his or her side. It is possible for the player to accumulate many counters before the opponent gets a chance so long as the player can calculate how to end up in their own store with each subsequent distribution of counters (DONKERS, DE VOOGT, and UITERWIJK 2000). In the Philippines it is common for both players to start the game at the same time while the start of the next move is determined by the player who continued longest with his or her first move.

4. If the last counter drops into an occupied hole on either side of the board (excluding the stores) then the counters are picked up and distributed in the same way until the last counter drops into an empty hole.

When there are no counters left to play, the player with the largest number of counters in the store wins the game. A new game is then started and many variations exist that allow the previous winner certain privileges, such as being able to use more holes in the board.

Although a number of variations of this game exist, the characteristics of the game are easily recognizable. The role of the store is essential and is not found with this combination of rules with other types of mancala games.

Different configurations of boards with a different number of playing counters only influence the duration of the game, for which the rules do not need an amendment. In some areas, however, players prefer certain configurations to others, such as the Maldivians, who commonly play on two rows of eight holes, or Philippine players, who play almost exclusively on two rows of seven.

THE DISPERSAL OF SUNGKA

BERNARDO (1937) noted the wide distribution of sungka, also recorded as chonca or chongca. On the basis of the name of the game, he suggested that related games were found in Malaysia, Indonesia, Sri Lanka, and India. In all these areas, the cognate names, such as congklak, were recorded in the literature. Recent studies of India (RAMASWAMY 2006) and Sri Lanka (DE VOOGT 2000a) no longer confirm the presence of the game that Bernardo documented, but studies of the Maldives indicate that an identical game may also have a rather different name, ohvalhu. Also, it is not uncommon that games with the same name feature rather different playing rules (MURRAY 1951; DELEDICQ and POPOVA 1977).

The rules of the game that BERNARDO (1937, 12–16) recorded are limited to those of the Philippine game of sungka. They are much more detailed than most of the sources he used for the rest of South and Southeast Asia. He mentions locally-made boards as being boat-shaped and with only the configuration of two rows of seven holes with one store at each end.

The Philippine community has taken the sungka game to other destinations where it has caught on as a pastime for the local population as well. Reports of sungka, under the name congka, being played in Guam (BORJA 2008) and by the Philippine community in Taiwan (LIU 2003, 3) are most striking. In both cases, the game is associated with the large immigrant Philippine community.

DE LA CRU, CAGE, and LIAN (2000) introduced the game in American schools and highlighted the educational value of the game. Other authors, such as ZASLVASKY (1973, 130–31) and TANO (1985 and 1989) have also demonstrated this for mancala in general. This relatively recent introduction of the game to Taiwan, Guam, and the US shows that migration has brought about the dispersal of mancala. The many variations of Southeast Asian boards have not been used or introduced in these areas and players are only familiar with a board of two rows of seven holes. This fixed set of playing holes has now become a characteristic of sungka.

The much earlier distribution of the game to the Philippines included variations that are occasionally but not systematically found in the Philippines. VANOVERMERGH (1927, 236) mentions a configuration of two rows of five holes with two end-holes on which similar rules are played. The rules for distributing counters are slightly different (when ending in an occupied hole, the next hole is used to continue the move) but the remaining rules are still found today on the larger board. It was also called sonka (n=velar nasal) but with its prefix and infix it was reported as (ag)s(inn)onka.

The variation of boards, which is so characteristic of this type of mancala game, is found most dramatically in Indonesia and Malaysia yet less so in the Maldives. Although it is tempting to conclude that in the Philippines the game must have originated in Indonesia since this area has the largest variation, it is not possible to make this argument with absolute certainty.

Philippine mancala Boards in the amnh collection

Museum and private collections assist in finding variations of playing boards. Philippine boards have largely been absent in museum catalogs and mancala studies. There are no examples in the British Museum, which contains the most extensive collection of mancala boards in the world (DE VOOGT 1997), the University of Pennsylvania Museum (DE VOOGT 2001), or even the Tropenmuseum in Amsterdam that houses a large collection of other Southeast Asian boards (DE VOOGT and DONKERS 2002). The Philippine collection of the AMNH has for a long time been one of the most extensive of its kind in the United States and Europe (CASINO et al., 1981). It features four mancala boards, which makes it an important historical source of Philippine sungka. It is the first collection in which Philippine boards are being described.

Three boards were collected from the Visayan on Leyte Island and they form part of a group of objects collected by Morris K. Jesup, a former president of the AMNH, in 1905. There is no additional documentation that explains the context in which they were found and Jesup was not known for his travels in the Philippines. In 1954 a fourth board was collected by Harold Conklin, an anthropologist working in the Philippines, and he connected the game to Bikol and Tagalog, although he had doubts about the latter.

All boards in this collection have a configuration of two rows of seven holes with an enlarged hole at the end of each row. A brief description of the boards illustrates the variety of carving styles employed in making these boards. One of the boards (FIGURE I) collected by Jesup has a basic design found for many mancala boards, such as those in the British Museum. It is a solid board with a rectangular base in the center. The holes are 65mm wide, which makes them an ideal size to fit in one's hand. They are perfectly cup-shaped (that is, 32mm deep) and are slightly worn, making them smooth with traces of so-called finger-grooves (DE VOOGT 1997, 43) that occur when shells or seeds are frequently taken from these holes.

The board in FIGURE 2 is distinctly carved but appears to be a miniature version. Its base is in the shape of a sheep lying down. Its head is turned and both eyes and ears are fully carved. The animal has a yellow-brownish color. On its back is a dark brown board with holes that are 27mm wide and 10mm deep. The enlarged stores are 55mm wide and 20mm deep. Although it looks like a decorative piece unsuitable for play, the holes contain 3mm seeds. Such small seeds are also used in India and Sri Lanka where similarly small boards can be found (DE VOOGT 2000a).

The third board collected by Jesup (FIGURE 3) is similar in size to the first board with holes that are approximately 58mm wide, and end-holes that are 85 and 80mm wide. The underside of the board has an owl-like bird carved at each end and the beak, eyes, head, and feathered wings are clearly distinguishable. The side of the board has an abstract decorative motif. A closer look at the playing holes shows that they are approximately 50mm deep while the end-holes are only 35mm deep. The extensive wear of the playing holes has turned the originally flat-bottomed holes into the shape of cups. The cup-shape element of the holes starts at a depth



FIGURE I: Sungka board, the AMNH (70.1/2362).



FIGURE 2: Sungka board, the AMNH (70.I/236I).



FIGURE 3: Sungka board, the AMNH (70.1/3159).

of 35mm, suggesting that the original depth of the holes was identical to that of the end-holes.

Finally, the board collected by Conklin (FIGURE 4) has a modern appearance since it is largely unused and has been finished in varnish. It comes with a bag of cowry shells. As shown in FIGURE 4, the bases of the board at either end are 100mm to 120mm, and the underside is curved. The punctuated decoration covers most of the sides while some cross-cutting geometrical design is found between the rows of holes. The rows are scallop-shaped on the outside, giving each hole a distinct rounding inside and outside. The rim of the playing holes and the store is approximately 8mm. The playing holes are about 55mm wide and 47mm deep and the end-holes are 105mm wide and 70mm deep. The rim of the holes directly next to the end-holes curve upwards so that their depth increases from about 45mm to 60mm.



FIGURE 4: Sungka board, the AMNH (70.I/9779ab).

All four designs were produced for play as is shown by the size and depth of the playing holes. Two of them show marks of intensive play, even though one of them was elaborately carved. There are four different carving styles, suggesting a long tradition of making sungka boards, and only the configuration of holes links them together.

CONCLUSION

The early sources on Philippine mancala and the collection of Philippine playing boards in the AMNH show that sungka is a game that has privileged one configuration of playing holes since at least the beginning of the twentieth century. This configuration of two rows of seven holes and two stores is also found elsewhere in Southeast Asia. In areas with a long tradition of mancala, this is just one of many configurations of holes. In other areas where the game has been recently introduced, the game is closely associated with the local Philippine community and only one configuration of holes can be found.

The configuration of holes is a helpful indicator of the direction of geographical dispersal in the second wave of Philippine emigrants, while the limited variation of configurations in the Philippines suggests the relatively late arrival of the game in this area. Cultural influences have reached the Maldives in the west and Taiwan and Guam in the north. Further research on games in Southeast Asia may confirm that mancala is a productive source of identifying historical contacts so it may further our understanding of cultural influences in the region.

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References

BERNARDO, Gabriel A.

1937 Sungka: Philippine variant of a widely distributed game. *The Philippine Social Science Review* 9: 1–36.

Borja, T.

- 2008 First Chamorro games and toys festival at UOG. *Marianas Variety*, 27 June, http://www.mvarietynews.com/ (accessed 15 August 2009).
- CASINO, Eric S., Father Gabriel CASAL, Regalado Trota JOSE, GEORGE R. ELLIS, Wilhelm G. SOLHEIM
 - 1981 *The People and Art of the Philippines.* Los Angeles: Museum of Cultural History, University of California.

CULIN, Stewart

- 1896 Mancala, the National Game of Africa. In Annual Report of the Board of Regents of the Smithsonian Institution, ... for the year ending June 30, 1894, 595–607, plates 1–5. Washington: Government Printing Office.
- 1900 Philippine games. American Anthropologist 2: 643–56.

DELEDICQ, André, and Assia POPOVA

- 1977 Wari et solo: Le jeu de calcul africain. Paris: CEDIC.
- DE VOOGT, Alex
 - 1997 Mancala Board Games. London: British Museum Press.
 - 1999 Distribution of mancala board games: A methodological inquiry. *Journal of Board Games Studies* 2: 104–14.
 - 2000a Mancala boards (Olinda Keliya) in the National Museums of Colombo. Journal of Board Games Studies 3: 91–99.
 - 2000b Mancala rules and cultural changes in Maldivian history. *Journal of Indian* Ocean Studies 7: 174–82.
 - 2001 Mancala: Games that count. *Expedition* 43: 38–46, University of Pennsylvania Museum of Anthropology and Archaeology, Philadelphia.

DE VOOGT, Alex, and Jeroen DONKERS

2002 *Mancala, A Digital Catalogue* (CD-Rom). Includes text, photographs, and software from the exhibit "Mancala, a worldwide game." Amsterdam: Coproduction Tropenmuseum, ICAS and IIAS.

DONKERS, Jeroen, Alex DE VOOGT, and Jos UITERWIJK

- 2000 Human versus computer problem-solving: Winning openings in dakon. *Journal of Board Games Studies* 3: 79–88.
- FLORES, Penelope V.

1998 Sungka: A game full of holes. *Filipinas*, 58, 59, 66 (March).

DE LA CRU, R., C. E. CAGE, and M. G. J. LIAN

2000 Let's play mancala and sungka! *Teaching Exceptional Children* 32: 38–42. LIU, R.

2003 Foreign laborers hold sungka challenge. *Taipei Times*, 25 August, page 3.

MANANSALA, Paul

1995 Sungka mathematics of the Philippines. *Indian Journal of History of Science* 30: 13–29.

- MURRAY, Henry J. R.
 - 1951 *A History of Board Games Other than Chess.* Oxford: Oxford University Press.
- RAMASWAMY, Balambal V.
 - 2006 Folk Games of Tamilnadu. Chennai: The C. P. Ramaswami Aiyar Foundation.
- Rowe, John Howland

1966 Diffusionism and Archaeology. American Antiquity 31: 334-37.

- RUMPHIUS, Georgius Everhardus
 - Forthcoming *The Ambonese Herbal*, *Volume 111*. Trans. E. M. Beekman. New Haven, CT: Yale University Press.

Tano, J.

- 1985 Activités de jeux et développement cognitif. Doctorat d'Etat ès Lettres et Sciences Humaines, Université René Descartes, Paris V.
- 1989 Activité de jeux et développement cognitif. In La recherche interculturelle, ed. J. Retschitzki, M. Bossel-Lagos and P. Dasen, vol. 2, 72–81. Paris: L'Harmattan.

VANOVERØERGH, Morice

1927 Iloko games. Anthropos 22: 216–43.

ZASLAVSKY, Claudia

1973 Africa Counts: Number and Pattern in African Culture. Boston: Prindle, Weber and Schmidt.