Universal Multiple-Octet Coded Character Set International Organization for Standardization Organisation Internationale de Normalisation Международная организация по стандартизации

Doc Type: Working Group Document

Title: Proposal to encode Xiangqi game symbols

Source: Andrew West

Status: Individual Contribution

Action: For consideration by JTC1/SC2/WG2 and UTC

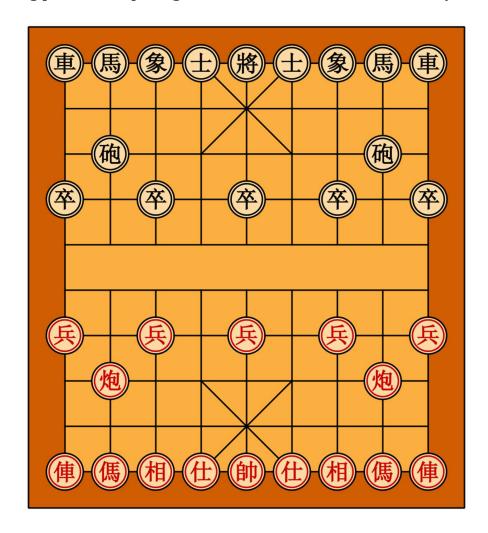
Date: 2016-09-12

1. Introduction

The Unicode and ISO/IEC 10646 standards include a variety of characters representing chess pieces and draughts men (checkers pieces), as well as symbols for Mahjong tiles, domino tiles, playing cards, card suits, and dice. However, there are no characters encoded for the game of Chinese Chess (Xiangqi 象棋). Xiangqi is a widely-played traditional board game with a long history, and encoding a set of characters representing Xiangqi game pieces (7 red pieces and 7 black pieces) would be advantageous for notation and commenting of Xiangqi games.

Recently the Emoji Unicode Subcommittee proposed adding the Emoji property to a large number of game-related characters, including chess pieces and draughts men (see L2/16-021). This has highlighted the desire of many users to be able display emoji related to traditional board games, and clearly it is problematic for users to be able to display emoji for chess and draughts (checkers) but not emoji for other widely-played board games such as Xiangqi (Chinese Chess) and Shogi (Japanese Chess). In order to increase the international coverage of board game symbols in the Unicode and ISO/IEC 10646 standards, it is highly desirable that characters representing Xiangqi and Shogi game pieces be encoded at the earliest opportunity.

Xiangqi Board at Opening Position with Coloured Game Piece Symbols



Seven distinct black pieces and seven distinct red pieces

2. Encoding Model

In 2010 the China National Body proposed encoding 22 Chinese Chess symbols (see WG2 N3910). The US National Body agreed in principle with their encoding, but suggested that they should be encoded as circled ideographs (CIRCLED IDEOGRAPH XXX) in the Enclosed Ideographic Supplement block, with compatibility mappings to the corresponding CJK unified ideographs (see WG2 N3966). In the end nothing came of this proposal.

We believe that encoding Xiangqi characters as circled and negative circled ideographs is not the correct approach, for the following reasons:

- Circled ideographs have a compatibility mapping to the corresponding CJK unified ideograph, and it is not appropriate that Xiangqi symbols should ever decompose into CJK unified ideographs, especially if the Xiangqi symbols are represented in emoji presentation.
- There is a high probability that one or more vendors will represent Xiangqi symbols in emoji presentation, with colour and possibly 3D depiction, and it would be inappropriate for the underlying representation of such emoji to be circled ideographs.
- Xiangqi symbols may be represented either as CJK ideographs or as pictures (a picture of a cannon, chariot, horse, etc.), and a circled ideograph could not reasonably be used to represent a picture style symbol.
- Xiangqi symbols are traditionally depicted in black and white only, with red pieces represented by a black design (ideograph or picture) on a white background, and black pieces represented by a white design (ideograph or picture) on a black background; but in modern contexts where there is no restriction on the use of colour, red pieces may be represented with a red design, and black pieces may be represented with a black design, and these colour representations do not correspond to simplistic mappings to circled and negative circled ideographs.
- There is considerable variation in the use of Chinese ideographs to represent individual pieces (see discussion in the section below), and representing all the attested characters used for black and red pieces would require encoding 30+ circled and negative circled ideographs. However, encoding multiple characters for the same game piece would make it problematic to interchange Xiangqi game data, and to search for particular Xiangqi game pieces either on the internet or in applications.

For these reasons, we think the best approach would be to encode a single dedicated symbol character for each of the fourteen logical game pieces (seven red pieces and seven black pieces), and make the choice of design a font decision. A traditional Chinese font might use traditional form ideographs, a simplified Chinese font might use simplified form ideographs, and a non-Chinese font might use pictures. We believe that this approach is the best solution from an encoding perspective, and the least confusing solution from the point of view of the end user. If there is a need to specify the general design (traditional ideograph, simplified ideograph, or picture) at the encoding level, variation sequences could be used, and this document discusses a possible application of standardized variation sequences for this purpose.

3. The Pieces

There are two sides in a game of Xiangqi, Black and Red. Each side has a total of sixteen game pieces, representing seven different types of piece: 1 general, 2 mandarins, 2 elephants, 2 horses, 2 chariots, 2 cannons, and 5 soldiers. In Xiangqi sets the black pieces are usually coloured in black, and the red pieces are usually coloured in red. In printed game diagrams, the black pieces are traditionally represented as white Chinese characters inside a filled black circle, whereas the red pieces are traditionally represented as black Chinese characters inside a white circle. The pieces are listed in the table below.

Table 1. Xiangqi Game Pieces

English Name	Ideograph*	Notes
Black General	jiāng 將 or 将	
Red General	shuài 帥 or 帅	
Black Mandarin	shì ±	The mandarin may also be called an Advisor, Guard or Minister in English.
Red Mandarin	shì 仕	The red mandarin may also be written \pm , with the same character used for the black mandarin.
Black Elephant	xiàng 象	
Red Elephant	xiàng 相	The red elephant uses a Chinese character meaning 'minister' that is homophonous with the character meaning 'elephant'.
Black Horse	mă 馬 or 马	
Red Horse	mă 馬 or 马	The traditional character for the red horse may also be written with a person radical, as 傌, to distinguish it from the black horse.
Black Chariot	jū 車 or 车	
Red Chariot	jū 車 or 车	The traditional character for the red chariot may also be written with a person radical, as 俥, to distinguish it from the black chariot.
Black Cannon	pào 砲	The character normally used for black cannon (with a stone radical) means 'trebuchet' (see Fig. 17). Red and black cannons are often both depicted with the character 炮 (with a fire radical).
Red Cannon	pào炮	The red cannon may also be written using the character 礮. It is sometimes also written as 砲, with the same character used for the black cannon.

English Name	Ideograph*	Notes
Black Soldier	zú 卒	
Red Soldier	<i>bīng</i> 兵	

^{*} Where two ideographs are shown, the first is the traditional form and the second is the simplified form.

As noted in the above table, in addition to the choice between traditional and simplified form ideographs, there is some variation in the traditional form ideograph that may be used for the red horse and red chariot pieces, and the choice of ideograph for the black and red cannon pieces is not fixed.

Historically, there is even more variation in the use of ideographs on pieces, as can be seen in the Yuan dynasty and Ming dynasty game diagrams shown in Fig. 9 through Fig. 13. In both the Yuan and Ming diagrams, the characters for black and red soldier are reversed with respect to modern usage (black = 兵; red = 卒). In the Yuan diagram, both black and red general use the same character (將), and both black and red elephant use the same character (象). In the Ming diagram, the red cannon is written as 包.

Encoding a separate character for each ideograph that has ever been used for each colour of piece is unnecessary, and would make it problematic to interchange Xiangqi game data, and to search for particular Xiangqi game pieces either on the internet or in applications. Rather than encoding an open-ended set of characters based on the variable ideographic designs that may be used today or have been used in the past, it would be much better to encode a fixed set of 14 characters corresponding to the 14 game pieces, and making the choice of design a font decision.

4. Design

Traditionally, printed texts have represented red Xiangqi pieces as circled black-coloured ideographs, and black Xiangqi pieces as negative circled white-coloured ideographs (see Fig. 2, Fig. 5, and Fig. 11). However, on the internet, where there is no restriction on the use of colour, Xiangqi pieces are often represented differently, for example as white ideographs on a black or red background (see Fig. 3), or as red and black ideographs on a light background (see Fig. 4 and Fig. 7). With the advent of colour fonts, it is likely that font designs for Xiangqi pieces will not be restricted to black-on-white and white-on-black designs, but will be equally varied.

Furthermore, there is a long tradition of using pictures as well as ideographs on Xiangqi pieces, with a picture on one side and the corresponding ideograph on the other side (see Fig. 16 and Fig. 17). Sometimes, especially in publications targeted at a Western audience, circled and negative circled pictures rather than ideographs may be used as symbols of Xiangqi pieces (see Fig. 1). Some Xiangqi board diagrams aimed as a Western audience even use symbols based on International Chess pieces (see Fig. 8).

Thus, there is a wide range of possible design styles for Xiangqi pieces, and they cannot all be represented using circled ideographs or negative circled ideographs. Examples of acceptable designs for Xiangqi pieces are shown in Table 2, where:

- **A** = Traditional design using black ideographs on a white background for red pieces, and white ideographs on a black background for black pieces.
- **B** = Using white ideographs on a red background for red pieces, and white ideographs on a black background for black pieces (see Fig. 3).
- **C** = Using blue ideographs on a white background for black pieces, and red ideographs on a white background for red pieces (see Fig. 6).
- **D** = Using black ideographs on a white background for both red and black pieces, but with the black and white pieces distinguished by using different ideographs for the horse and chariot.
- **E** = Using red ideographs on a light background for red pieces, and black ideographs on a light background for black pieces (see Fig. 7).
- **F** = Using pictures instead of ideographs, with black pictures on a white background for red pieces, and white pictures on a black background for black pieces.
- **G** = Using abstract pictures based on international chess symbols (see Fig. 8).

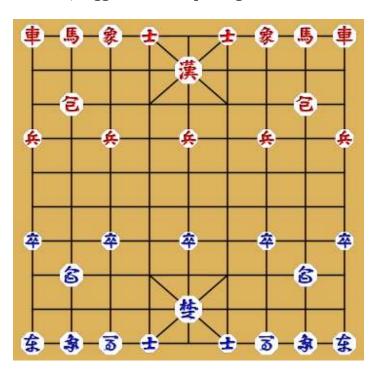
Table 2: Acceptable Design Variation for Xiangqi Game Pieces

Piece	A	В	С	D	E	F	G
Red General	帥	帥	帥	館	館		
Red Mandarin	仕	仕	仕		仕		
Red Elephant	相	相	相	相	相	(Z)	
Red Horse	馬	馬	馬	傌	傌		3
Red Chariot	車	車	車	俥	俥	2 7	
Red Cannon	炮	炮	炮	炮	炮		
Red Soldier	铁	兵	兵	兵	兵		
Black General	將	將	將	將	將		
Black Mandarin	0	•	(±)	(±)	(±)		
Black Elephant	象	象	象	象	象		

Piece	A	В	С	D	E	F	G
Black Horse	馬	馬	馬	馬	馬		
Black Chariot		車	車	車	車	₽	
Black Cannon	图	砲	砲	他	他		
Black Soldier	茶	茶	茶	卒	卒		

5. Korean Chess

There is a variant of Xiangqi played in Korea called Janggi (장기). It uses the same basic board and pieces as for Xiangqi, but there is some difference in the rules of play and the initial placement of pieces (the general is placed in the centre of his castle, and the horse and elephant may be swapped).



Janggi Board at Opening Position

The design of Janggi pieces is also somewhat different from Xiangqi, with one side using red pieces, and the other side using blue or green pieces. The pieces are also octagonal rather than round, and vary in size according to their value. Each piece is identified by a Chinese ideograph, which differs from the corresponding Chinese ideograph in some cases, as shown in Table 3. The ideographs on the blue pieces are normally written in cursive script. The main difference in the names of the pieces is that the two Janggi generals use the ideographs for the ancient Chinese states of Chu 楚 and Han 漢, which famously contended for supremacy over China in the late 3rd century BC.

Table 3: Janggi Game Pieces

English Name	Xiangqi Piece	Janggi Piece	Xiangqi Ideograph	Janggi Ideograph
Red General	自中	漢	shuài 帥	han (한) 漢
Red Mandarin	仕	4	shì仕	sa (사) ±
Red Elephant	相	象	xiàng 相	sang (상) 象
Red Horse	馬	E	mǎ 馬	ma (마) 馬
Red Chariot	車	車	jū 車	cha (차) 車
Red Cannon	炮	(Fig.	pào炮	po (포) 包
Red Soldier	兵	A	<i>bīng</i> 兵	byeong (병) 兵
Black General	將	婪	jiāng 將	cho (초) 楚
Black Mandarin	<u>+</u>	1	shì 士	sa (사) ±
Black Elephant	象	**	xiàng 象	sang (상) 象

English Name	Xiangqi Piece	Janggi Piece	Xiangqi Ideograph	Janggi Ideograph
Black Horse	馬	5	mă 馬	ma (마) 馬
Black Chariot	車	4	jū 車	<i>cha</i> (차) 車
Black Cannon	砲	\$	pào 砲	po (포) 包
Black Soldier	茶	*	zú 卒	jil (졸) 卒

We propose unifying Janggi game symbols with the corresponding Xiangqi game symbols, and leave it to the font to use the appropriate design for its target audience. Thus, a Chinese font would use round symbols with Xiangqi ideographs, but a Korean font would use octagonal symbols with Janggi ideographs.

6. Tangut Chess

A Tangut version of Xiangqi is attested by a single bronze chess piece discovered in Gansu in about 2002. This piece has the Chinese character $shì\pm$ 'mandarin' on one side, and the Tangut character i, meaning a type of general, on the other side.





Chinese character \pm on one side and Tangut character $\overline{\mathbb{A}}$ on the other side

Reconstructed Tangut Chess Set



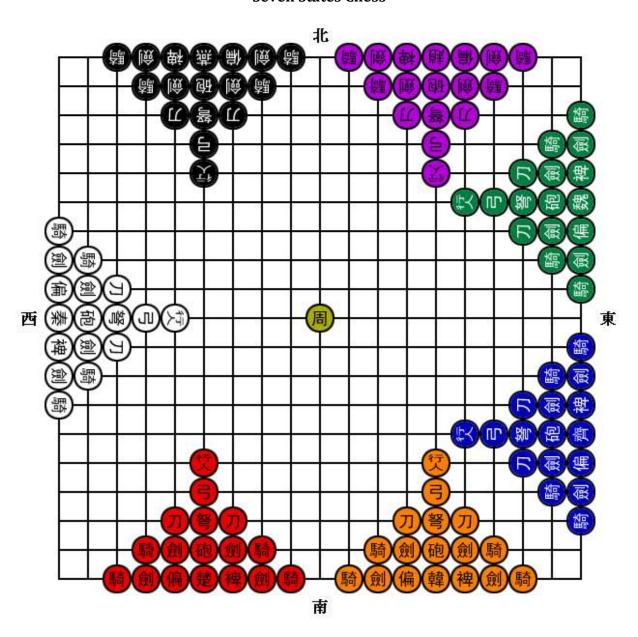
http://pic.people.com.cn/GB/73694/8358639.html

Although other Tangut chess pieces have not yet been discovered, Tangut chess sets have been reconstructed in recent years, so it is possible that some people will want to use Tangut chess symbols in text. We suggest that Tangut chess symbols can be unified with the corresponding Xiangqi game symbols, so that a Tangut font could use the appropriate Tangut ideographs instead of Chinese ideographs for Xiangqi characters.

7. Other Varieties of Xianggi

Several exotic and rarely-played multiplayer varieties of Xiangqi are known. The most famous is **Seven States Chess** ($q\bar{\imath}gu\acute{o}$ $xi\grave{a}ngq\acute{\iota}$ 七國象棋), devised during the Song dynasty by Sima Guang 司馬光 (1019 –1086). This is a seven-player version, with each player representing one of the seven states of the Warring States period of Chinese history (Qin 秦, Chu 楚, Han 韓, Qi 齊, Wei 魏, Zhao 趙, and Yan 燕). The game is played on a Go board, with the rump state of Zhou in the centre (and inactive), and the seven warring states arrayed in triangular formations around the sides of the board.

Seven States Chess



Each player has the following 17 pieces:

- 1 general named after the state (Qin 秦, Chu 楚, Han 韓, Qi 齊, Wei 魏, Zhao 趙, or Yan 燕)
- 1 general of the left (piān 偏)
- 1 general of the right (bì 裨)
- 4 swords (jiàn 劍)
- 4 cavalrymen (jì 騎)
- 1 cannon (pào 砲)
- 2 daggers (dāo 刀)
- 1 crossbow (nǔ 弩)
- 1 bow (*gōng* 弓)
- 1 runner (xíngrén 行人)

Other historic multiplayer variants of Xiangqi include **Three Kingdoms Chess** (sānguóqí 三國棋) and **Three Friends Chess** (sānyǒuqí 三友棋), the latter devised in the Qing dynasty by Zheng Jinde 鄭晉德. Both are three-player games played on a hexagonal or three-sided board in which each player represents one of the three states of the Three Kingdoms period of Chinese history (Wei 魏, Shu 蜀, and Wu 吳). In both games each player has 18 pieces, most the same as for ordinary Xiangqi, but with the addition of several new pieces. See https://en.wikipedia.org/wiki/Game of the Three Friends for more information.

None of these historic variants are commonly played, and we consider that there is no need to encode characters for additional pieces used in these games.

8. Proposed Characters

We propose encoding fourteen Xiangqi symbols in a block named "Xiangqi Symbols" in the SMP at 1FA00..1FA0F, as shown in Table 4 below.

Table 4. Xiangqi Pieces

Code Point	Glyph	Character Name	Annotations
1FA00	帥	XIANGQI RED GENERAL	=hong shuài * design typically shows 5E25 帥 or 5E05 帅
1FA01	仕	XIANGQI RED MANDARIN	=hong shi * design typically shows 4ED5 仕
1FA02	相	XIANGQI RED ELEPHANT	=hong xiàng * design typically shows 76F8 相
1FA03	馬	XIANGQI RED HORSE	=hong ma * design typically shows 99AC 馬 or 9A6C 马
1FA04	車	XIANGQI RED CHARIOT	=hong ju * design typically shows 8ECA 車 or 8F66 车
1FA05	炮	XIANGQI RED CANNON	=hong pao * design typically shows 70AE 炮
1FA06	兵	XIANGQI RED SOLDIER	=hong bing * design typically shows 5175 兵
1FA07	將	XIANGQI BLACK GENERAL	=hei jiang * design typically shows 5C07 將 or 5C06 将
1FA08	•	XIANGQI BLACK MANDARIN	=hei shi * design typically shows 58EB \pm
1FA09	象	XIANGQI BLACK ELEPHANT	=hei xiàng * design typically shows 8C61 象
1FA0A	馬	XIANGQI BLACK HORSE	=hei ma * design typically shows 99AC 馬 or 9A6C 马
1FA0B	(1)	XIANGQI BLACK CHARIOT	=hei ju * design typically shows 8ECA 車 or 8F66 车
1FA0C	砲	XIANGQI BLACK CANNON	=hei pao * design typically shows 7832 砲 or 70AE 炮
1FA0D	卒	XIANGQI BLACK SOLDIER	=hei zu * design typically shows 5352 卒

Representative Glyphs

For the representative glyphs, we suggest using white traditional form ideographs on a black background for the black pieces, and black traditional form ideographs on a white background for the red pieces, with the black and red cannon using different ideographs. We suggest using traditional form ideographs rather than simplified ideographs because Xiangqi sets and game diagrams in PRC commonly use traditional form characters for the pieces (see Fig. 6), but Xiangqi pieces in Hong Kong, Taiwan and elsewhere do not normally use simplified ideographs. Thus, traditional form ideographs are most widely known internationally.

Character Names

For the character names we suggest using the common English name prefaced by 'Xiangqi'. In the case of the mandarin piece there is no universally accepted name in English, but we suggest using 'mandarin' as it seems to have widest currency. The red elephant is sometimes called a 'minister' in English as that is the literal meaning of the Chinese character, but as the 'minister' character (xiàng #) is only used to graphically distinguish the piece from the black elephant (xiàng #) piece, and both pieces are represented pictographically as elephants, it is more logical to call both black and red pieces elephants.

Character Properties

```
1FA00; XIANGQI BLACK GENERAL; So; 0; ON; ;; ;; N; ;; ;; 1FA01; XIANGQI BLACK MANDARIN; So; 0; ON; ;; ;; N; ;; ;; 1FA02; XIANGQI BLACK ELEPHANT; So; 0; ON; ;; ;; N; ;; ;; 1FA03; XIANGQI BLACK HORSE; So; 0; ON; ;; ;; N; ;; ;; 1FA04; XIANGQI BLACK CHARIOT; So; 0; ON; ;; ;; N; ;; ;; 1FA05; XIANGQI BLACK CANNON; So; 0; ON; ;; ;; N; ;; ;; 1FA06; XIANGQI BLACK SOLDIER; So; 0; ON; ;; ;; N; ;; ;; 1FA07; XIANGQI RED GENERAL; So; 0; ON; ;; ;; N; ;; ;; 1FA08; XIANGQI RED MANDARIN; So; 0; ON; ;; ;; N; ;; ;; 1FA09; XIANGQI RED HORSE; So; 0; ON; ;; ;; N; ;; ;; 1FA0B; XIANGQI RED CHARIOT; So; 0; ON; ;; ;; N; ;; ;; 1FA0C; XIANGQI RED CANNON; So; 0; ON; ;; ;; N; ;; ;; 1FA0C; XIANGQI RED SOLDIER; So; 0; ON; ;; ;; N; ;; ;;
```

Line break: ID

Script: Common

Annotations

Suggested code chart annotations and aliases for each character are listed in Table 4. In addition, we suggest adding a general annotation for the block to the effect that the design of each character may use a traditional form ideograph, a simplified form ideograph, or a picture. The block introduction should also explain that this block unifies Xiangqi and Janggi symbols.

9. Variation Sequences

It is possible that users may wish to be able to specify whether the design of Xiangqi symbols shows traditional form ideographs, simplified form ideographs, Korean style ideographs, or pictures. Standardized variation sequences would allow for this choice, and enable users to select a particular design style from a font that support multiples designs of Xiangqi symbols. The following variation selectors could be defined to have the following behaviour when applied to any Xiangqi symbol:

- VS1: Selects a design using a traditional form ideograph;
- VS2: Selects a design using a simplified form ideograph (where available);
- VS3: Selects a design using an ideograph appropriate for Janggi (Korean chess);
- VS4: Selects a design using a picture rather than an ideograph.

The variation selector would only select the high-level design style, and not specify the details of the design. So Red Horse + VS1 would specify a design with a traditional form ideograph, but that design could use either 馬 or 傌; Red Cannon + VS4 would specify a pictorial design, but the picture could be a cannon or a trebuchet.

Only the generals, horse and chariot use ideographs with traditional and simplified forms, so VS2 would be only applicable to these symbols.

This section is included for discussion only, and this document does not propose any standardized variation sequences for Xiangqi symbols.

10. Figures

Fig. 1: Terence Donnelly, *Hsiang Ch'i* (Wargames Research Group, 1974) Inset

THE PIECES						
Symbol			Name	Initial Position	Allowed Move	
将	钟	A	general	Black: 50 Red: 59	One point along a rank or file within the nine-point castle indicated by the "X".	
a	往	泉	mandarin	B: 40, 60 R: 49, 69	One point diagonally within the castle.	
*	相	R	elephant	B: 30, 70 R: 39, 79	Two points diagonally; may not leap a piece, and may not cross the river.	
B	(E)	\$	horse	B: 20, 80 R: 29, 89	One point along a rank or file, then one point diagonally; may not leap a piece.	
中	車	\$7	chariot	B: 10, 90 R: 19, 99	Any distance along a rank or file; may not leap a piece.	
砭	66	Þ	cannon	B: 22, 82 R: 27, 87	Like a chariot when not capturing; when capturing there must be a single piece of either colour between it and its target.	
4	兵	6	soldier	B: 13, 33, 53, 73, 93 R: 16, 36, 56, 76, 96	One point directly forward; once across the river it may move one point directly forward or sideways, but never diagonally or backwards.	

Fig. 2: Terence Donnelly, *Hsiang Ch'i* (Wargames Research Group, 1974) p. 13

Fig. 3: Hong Kong Chinese Chess Association http://www.hkcca.org.hk/gamesrecord/

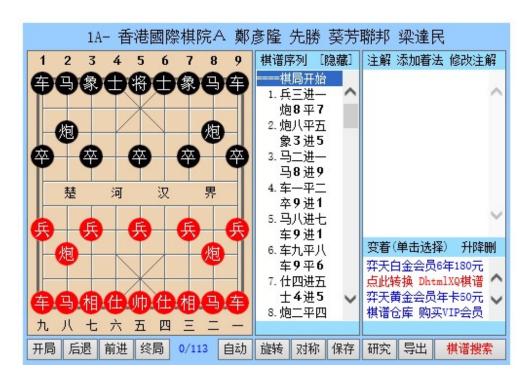


Fig. 4: World Xiangqi Association http://wxf.ca/wxfc/index.php/2015-08-06-23-21-55

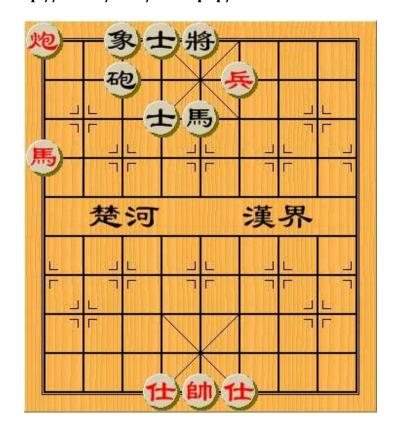


Fig. 5: Guangdong Chess http://www.gdchess.com/bbs/dispbbs.asp?boardid=56&Id=116440

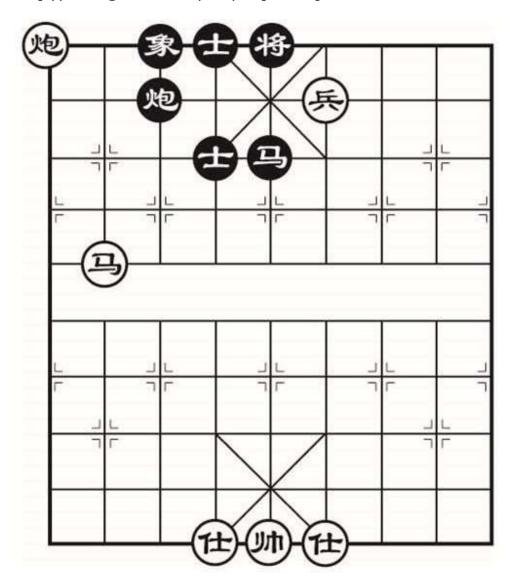


Fig. 6: Guangdong Chess http://www.stqiyuan.com/game_view.asp?id=05502765CF4478



Note that the Xiangqi pieces are depicted with traditional form characters, even though this is a PRC site using simplified Chinese characters.

Fig. 7: Wikipedia article on Xiangqi https://en.wikipedia.org/wiki/Xiangqi

Fig. 8: "An Introduction to Xiangqi for Chess Players" http://www.crockford.com/chess/xiangqi.html

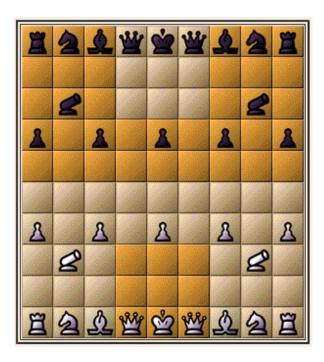


Fig. 9: Shìlín Guǎngjì 事林廣記 (1330 - 1333 ed.) Xu v. 4 p. 17b

Fig. 10: Shìlín Guǎngjì 事林廣記 (1330 - 1333 ed.) Xu v. 4 p. 18a



Fig. 11: Wànbǎo Quánshū 萬寶全書 (1610) v. 10 p. 2b

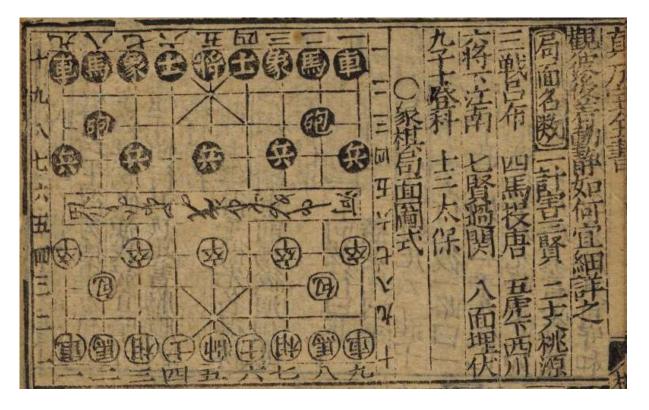


Diagram showing initial position of pieces

Fig. 12: Wànbǎo Quánshū 萬實全書 (1610) v. 10 p. 3a



Fig. 13: Wànbǎo Quánshū 萬寶全書 (1610) v. 10 p. 10a

Fig. 14: Thomas Hyde, *De Ludis Orientalibus* (Oxford, 1694) vol. 2 pp. 166–167

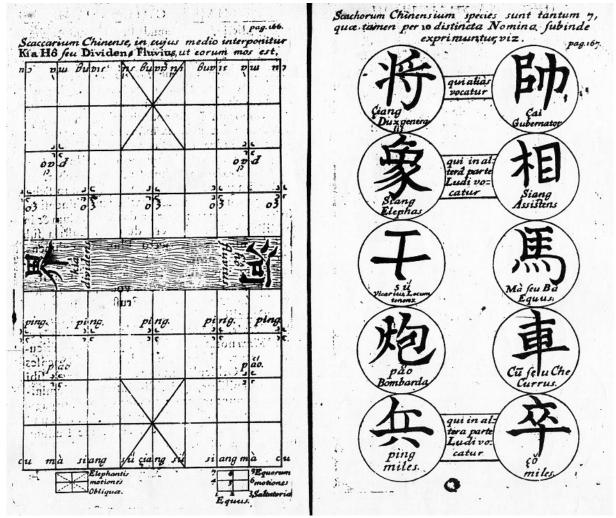


Fig. 15: Eyles Irwin, "An Account of the Game of Chess, As Played by the Chinese"; Transactions of the Royal Irish Academy (1793–1794) vol. V section 3 pp.53–85



Fig. 16: Set of Northern Song Bronze Xiangqi Pieces



Chinese ideographs on one side, and pictures on the other side

Fig. 17: Bronze chess piece found at Gaochang by Albert von Le Coq in 1904-1905





Chinese character 砲 on one side and picture of a trebuchet on the other side

11. Proposal Summary Form

SO/IEC JTC 1/SC 2/WG 2

PROPOSAL SUMMARY FORM TO ACCOMPANY SUBMISSIONS FOR ADDITIONS TO THE REPERTOIRE OF ISO/IEC 10646.1.

Please fill all the sections A, B and C below.

Please read Principles and Procedures Document (P & P) from http://www.dkuug.dk/JTC1/SC2/WG2/docs/principles.html for guidelines and details before filling this form.

Please ensure you are using the latest Form from .http://www.dkuug.dk/JTC1/SC2/WG2/docs/summaryform.html . See also .http://www.dkuug.dk/JTC1/SC2/WG2/docs/roadmaps.html . for latest Roadmaps.

A. Administrative Proposal to encode to Xiangqi game symbols 1. Title: 2. Requester's name: Andrew West 3. Requester type (Member body/Liaison/Individual contribution): Individual contribution 4. Submission date: 5. Requester's reference (if applicable): 6. Choose one of the following: This is a complete proposal: (or) More information will be provided later: B. Technical – General 1. Choose one of the following: a. This proposal is for a new script (set of characters): Proposed name of script: Xiangqi Symbols b. The proposal is for addition of character(s) to an existing block: Name of the existing block: 2. Number of characters in proposal: 3. Proposed category (select one from below - see section 2.2 of P&P document): A-Contemporary X B.1-Specialized (small collection) B.2-Specialized (large collection) C-Major extinct E-Minor extinct F-Archaic Hieroglyphic or Ideographic G-Obscure or questionable usage symbols 4. Is a repertoire including character names provided? a. If YES, are the names in accordance with the "character naming guidelines" in Annex L of P&P document? b. Are the character shapes attached in a legible form suitable for review? YES 5. Fonts related: a. Who will provide the appropriate computerized font to the Project Editor of 10646 for publishing the Andrew West b. Identify the party granting a license for use of the font by the editors (include address, e-mail, ftp-site, etc.): Andrew West a. Are references (to other character sets, dictionaries, descriptive texts etc.) provided? YES b. Are published examples of use (such as samples from newspapers, magazines, or other sources) of proposed characters attached? 7. Special encoding issues: Does the proposal address other aspects of character data processing (if applicable) such as input, presentation, sorting, searching, indexing, transliteration etc. (if yes please enclose information)? 8. Additional Information: Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script.

Submitters are invited to provide any additional information about Properties of the proposed Character(s) or Script that will assist in correct understanding of and correct linguistic processing of the proposed character(s) or script. Examples of such properties are: Casing information, Numeric information, Currency information, Display behaviour information such as line breaks, widths etc., Combining behaviour, Spacing behaviour, Directional behaviour, Default Collation behaviour, relevance in Mark Up contexts, Compatibility equivalence and other Unicode normalization related information. See the Unicode standard at http://www.unicode.org for such information on other scripts. Also see Unicode Character Database (http://www.unicode.org/reports/tr44/) and associated Unicode Technical Reports for information needed for consideration by the Unicode Technical Committee for inclusion in the Unicode Standard.

[.]¹ Form number: N4102-F (Original 1994-10-14; Revised 1995-01, 1995-04, 1996-04, 1996-08, 1999-03, 2001-05, 2001-09, 2003-11, 2005-01, 2005-09, 2005-10, 2007-03, 2008-05, 2009-11, 2011-03, 2012-01)

C. Technical - Justification

Has this proposal for addition of character(s) been submitted before?	NO
If YES explain	
2. Has contact been made to members of the user community (for example: National Body, user groups of the script or characters, other experts, etc.)?	YES
If YES, with whom? If YES, available relevant documents:	
3. Information on the user community for the proposed characters (for example:	
size, demographics, information technology use, or publishing use) is included?	NO
Reference:	
Peference:	common
	YES
If YES, where? Reference:	
6. After giving due considerations to the principles in the P&P document must the proposed character	rs be entirely
in the BMP?	NO
If YES, is a rationale provided?	
If YES, reference:	
7. Should the proposed characters be kept together in a contiguous range (rather than being scattere	ed)? YES
8. Can any of the proposed characters be considered a presentation form of an existing	/
character or character sequence?	NO
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
9. Can any of the proposed characters be encoded using a composed character sequence of either	
existing characters or other proposed characters?	NO
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
10. Can any of the proposed character(s) be considered to be similar (in appearance or function)	
to, or could be confused with, an existing character?	NO
If YES, is a rationale for its inclusion provided?	
If YES, reference:	
11. Does the proposal include use of combining characters and/or use of composite sequences?	NO
If YES, is a rationale for such use provided?	
If YES, reference:	
Is a list of composite sequences and their corresponding glyph images (graphic symbols) provide	ded?
If YES, reference:	
12. Does the proposal contain characters with any special properties such as	
control function or similar semantics?	NO
If YES, describe in detail (include attachment if necessary)	
13. Does the proposal contain any Ideographic compatibility characters?	NO
If YES, are the equivalent corresponding unified ideographic characters identified?	
If YES, reference:	