The Regular Grouping of the Hexagrams before the *Yi jing* - The King Wen Groups

by József Drasny

(with omissions)

The omitted sections are replaced by five asterisks *****

Introduction

A question about the order of the sixty-four hexagrams in the Chinese classic *Yi jing* 易经 has come to the fore in recent decades. Namely, are the hexagrams arranged randomly or according to a conscious design?

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The Main Features of the Early Hexagram Arrangements

Before investigating some order in the received sequence, it is necessary to review the arrangements by the old scholars to gain an understanding of their general concepts.
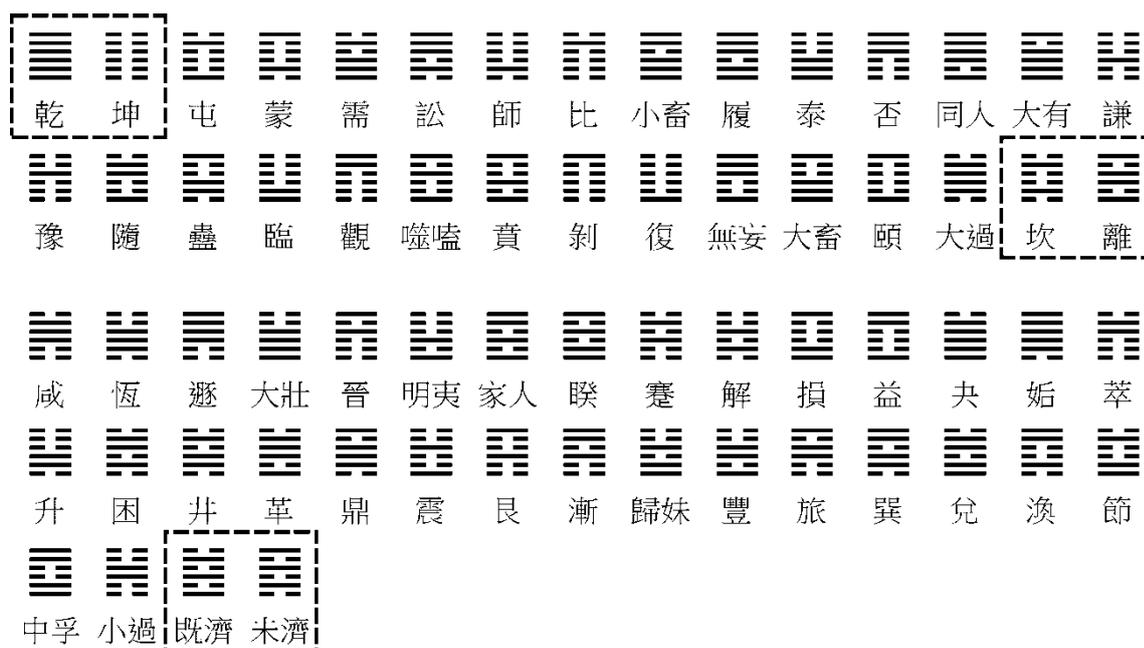
The Received (King Wen) Sequence

Figure 1. The King Wen sequence

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The Hexagram Arrangements in the Zhou Yi Tushi Dadian

A comprehensive collection of the *Zhou Yi* diagrams, the *Zhou Yi Tushi Dadian* 周易图释大典 (subsequently referred to as ZhTD), contains more than 1200 diagrams and their explanations, from works on the *Zhou Yi* 周易, and from the period of the Tang 唐 (618-907 C.E.) to the Qing 清 (1644-1911 C.E.) dynasties.

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Among them, there are 151 complete lists of the hexagrams, arranged in different forms. It is worthy of observation that in most cases, the old scholars divided the hexagrams into categories according to definite rules. In their diagrams, these groups are clearly shown: They form different rows or columns in the arrays or sections of consecutive hexagrams in the sequences. For example, there are eight groups in Jing Fang's array and seven groups in Zhu Xi's diagrams; the Fu Xi sequence has a single rule for the composition of each hexagram, so it is a regular group in itself. In addition, the sequence in the Mawangdui *Yi jing* manuscript apparently has eight separate sections, though it was found in linear form, similar to the received sequence.

The features above come from common everyday life: If one wants to put numerous objects in order, whether colored pebbles, coat buttons, or items in a stamp collection, one starts by distributing them into groups according to their specific features (color, size, motif, etc.).

Comparison of the Received Sequence with the Other Arrangements

The diagrams of the received sequence radically differ from all the others in the ZhTD. According to tradition, King Wen *arranged* the sixty-four hexagrams into a sequence, that is, he put them in a specific order. However, there are no distinguishable groups either in the linear or in the two-dimensional forms. This distinctive feature may be ascribed to the fact that this sequence was canonized in the *Yi jing*, and the series of the hexagrams has come down to posterity in that single linear version.

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Thinking logically, we must not unconditionally accept the opinion that before the received sequence, no other arrangements existed. Theoretically, there might have been a preceding form, in which the hexagrams were arranged in the more usual, columnar way (but differently from the known, later diagrams), and there the original system (if there was any system) or its traces could be identified. Looking for the structure of this assumed predecessor, I found in a work of Jiao Xun 焦循 a great help.

The Sequence of Jiao Xun

Jiao Xun was a famous mathematician and expert in the *Yi jing*. In the first chapter of his book *Yi tu lüe* 税与权, he addresses the *pangtong gua*s 旁通卦, namely, the relationships between two laterally linked (complementary) hexagrams. There, he enumerates the sixty-four hexagrams, arranged in thirty-two complementary pairs. This unique pairing system can be put in close relation with the KWS: The latter has twenty-eight inverse opposite pairs and four complementary ones.[1] Besides, Jiao's sequence begins with the *Qian* 乾 and *Kun* 坤 and ends with the two hexagrams of Completion, *Ji ji* 既濟 and *Wei ji* 未濟, in the same way that they are positioned in the KWS. In Jiao's sequence, however, an additional regularity applies in the succession of the hexagrams: It can be divided into eleven distinct sections. Figure 4 shows the sequence with the sections numbered in the order of their succession.

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[1] Here and in the following text, I use the following terms for the opposing hexagrams:
 – inverse opposite: The hexagram is turned upside down (*fangua* 反卦, *qiangua* 潛卦, etc.),
 – complementary opposite: Each line is changed to its opposite (*cuogua* 錯卦, *pangtonggua* 旁通卦),
 – permutated opposite: The two trigram components have exchanged places (*liangxiangyi* 兩象易, or *jiaogua* 交卦).

Figure 4. Jiao Xun's sequence with the eleven sections

In the sections (or groups) the hexagrams belong together according to the next rules: Four of the groups (sections 4, 5, 6, and 7) have four complementary pairs, and all hexagrams in the group are the opposites of each other. Taking the first hexagram in the section as the basis of the group,[2] the four pairs are as follows:

- The basic hexagram and its complementary hexagram,
- The permutated opposite of the first pair,
- The inverse opposite of the first pair,
- The inverse opposite of the permutated opposite pair.

The same rules apply to the other four groups, but there the inverse opposites would be identical with the complementary or permutated opposites; thus, these groups (sections 2, 3, 8, and 10) have only two pairs.

Moreover, there are two groups in which the hexagrams belong together according to their composing trigrams:

- The eight doubled trigrams (*chonggua* 重卦) in section 1.

- The eight hexagrams of the complementary trigrams. This group is the union of sections 9 and 11. (It was Jiao's specific intention to place the pair *Ji ji–Wei ji* separately at the end of the sequence.)

Figure 5 shows the ten groups in detail. Their designations (J-1, J-2, etc.) refer to the corresponding sections of the sequence except for J-9, which is the joined set of the hexagrams in sections 9 and 11.

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[2] The basic hexagram does not have any distinct role. If any other hexagram would be chosen, the contents of the group will be the same.

Jiao groups	Groups of opposite hexagrams							
	Basic	compl.	permut. + compl.	permut.	inverse + compl.	inverse	inverse + permut.	inverse + permut. + compl.
J-2	13	7	8	14				
J-3	17	18	53	54				
J-4	3	50	37	40	49	4	39	38
J-5	9	16	24	44	15	10	43	23
J-6	60	56	22	47	55	59	48	21
J-7	19	33	26	45	34	20	46	25
J-8	5	35	36	6				
J-10	61	62	27	28				
	The hexagrams of the doubled and the complementary trigrams							
J-1	1	2	51	57	29	30	52	58
J-9	11	12	41	31	32	42	63	64

Figure 5. The ten groups in Jiao Xun's sequence

The arrangement of the hexagrams indicates that Jiao Xun not only attached significance to the pairs of the complementary hexagrams but also considered the inverse and permutated opposites in placing them next to each other in the sequence. One can say that in this way, Jiao gave expression to the concept of the unity of opposites.

In Daoist philosophy, the 'unity of opposites' (*duilitongyi* 對立統一) is a dominant concept. The theory of *yin* and *yang* does not address the conflict of opposite forces but rather describes how these forces interrelate and cooperate with each other in the world. The *yin-yang* duality was mentioned for the first time in the Fifth Wing (*Xi Ci I* 繫辭上) of the *Yi jing*, and the harmony of these two is the main idea of the book. In the Eighth Wing (*Shuo Gua* 說卦), the cooperation of the opposite trigrams of the Primal Heaven is enumerated, and the

balance and harmony of the dual forces are clearly expressed. Richard Wilhelm (and many others) regarded opposition and fellowship as the essential ideas of the *Yi jing*.

Transformations of the King Wen Sequence

After reviewing the pairing system in the sequence of Jiao Xun, it seemed worthwhile to create a new variant of the KWS.

The Columnar KWS

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After a number of experiments, I designed the schema of a hypothetical predecessor. According to my conception, the early structure of the hexagrams was similar to the known rectangular diagrams but here were evenly ten hexagrams in six columns and four in the seventh. It is known that the number ten played an important role in the everyday life of Chinese people in the past.

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This construction was a simple columnar variant of the linear sequence, thus it can be called the Columnar KWS (Fig. 7). Here, in the cells, both members of the pairs are shown together with their ordinal numbers.

1 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 64
#1–2	#11–12	#21–22	#31–32	#41–42	#51–52	#61–62
#3–4	#13–14	#23–24	#33–34	#43–44	#53–54	#63–64
#5–6	#15–16	#25–26	#35–36	#45–46	#55–56	
#7–8	#17–18	#27–28	#37–38	#47–48	#57–58	
#9–10	#19–20	#29–30	#39–40	#49–50	#59–60	

Figure 7. The Columnar KWS

In the Columnar KWS, in contrast to the received sequence, even a brief examination reveals three regular regions (A, B, and C) in which the hexagrams are closely connected with each other. The three regions are shown in Figure 8.
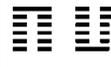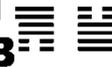

Figure 8. Three groups in the Columnar KWS

In each row, three of the four pairs of the hexagrams belong together in content: They are the elements of well-known sequences or groups. In fact, the three original groups might have been made up of four pairs each, but here, one pair is missing and has been replaced by an unrelated pair. These alien pairs are marked with an asterisk (*).

The first row in the table contains three pairs of a group in which the hexagrams are composed of two complementary trigrams. The same trigram pairs are shown in the diagram of the Primal Heaven at the endpoints of the four diagonals.
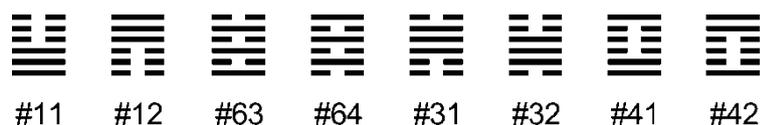

Figure 9. The hexagrams of the Primal Heaven (of the complementary opposite trigrams)

The group in region A is not complete: The two hexagrams of Completion (#63–64) are missing and are replaced by an alien pair (#21–22).

In the second row (region B), the elements of a widely known sequence are found. The whole sequence contains twelve hexagrams; they are the so-called 'waxing and waning' hexagrams (*xiaoxigua* 消息卦) or, in other words, the sovereign hexagrams (*bigua* 辟卦). The complete sequence is shown in Figure 10.
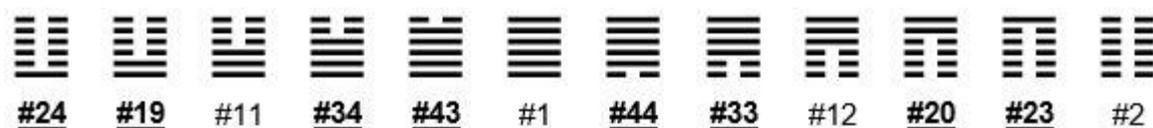
Figure 10. The twelve sovereign hexagrams

The two cardinal hexagrams, the *Qian* and *Kun*, are positioned in the first cell in the Columnar KWS. The hexagrams *Tai* (泰, #11) and *Pi* (否, #12) belong to the group of the Primal Heaven and have a cell in region A. The remaining eight hexagrams (with underlined numbers in Fig. 10) form a second group in region B. As in region A, one pair is missing (#19–20), and there is an alien pair (#13–14).

The third row is apparently the place of the permutated opposites of the eight sovereign hexagrams in region B (Fig. 11). In region C, pair #9–10 is replaced by the alien hexagrams #35–36.
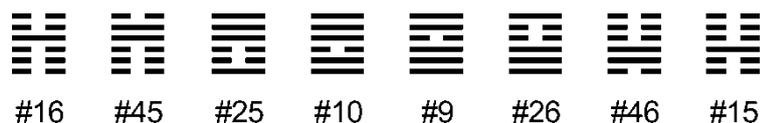

Figure 11. The permutated opposites of the eight sovereign hexagrams

It can be observed that these groups are present in the Jiao sequence as well, in the same or almost the same form.

The hexagrams of the Primal Heaven agree with those in the ninth Jiao group (J-9). In region A, the missing fourth pair (#63–64) is at the end of the received sequence, as it is the last pair in the Jiao sequence as well.[3]

If the two alien pairs (#13–14 and #35–36) are replaced with the correct ones (#19–20 and #9–10, respectively), the hexagrams in regions B and C will be the same as those in groups J-5 and J-7, but they are separated in two different ways. In the Columnar KWS, the groups give expression to their symbolic contents; thus, these hexagrams are divided as sovereign hexagrams (region B) and their permutated opposites (region C). The two Jiao groups, however, adhere to the general principle, and the logically related opposites are united in each of them.

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[3] Though the members of the inverse opposite pairs are separated, and they are in pairs with their complementary opposites, still remain in the same group.

In summary, it can be supposed that the presence of the three groups in the Columnar KWS, their (quasi-)regular positions in the table, and the connections with Jiao Xun's sequence (that is, with the concept of the unity of opposites) are significant qualities to be regarded as indications of some kind of order in the whole composition. Based on these features, the Columnar KWS leads us one step closer to the hypothetical regular arrangement of the distant past.

The Next Predecessor

As shown above, the Columnar KWS disclosed some regular groups in the hexagrams that were not visible in the received sequence. That means the columnar variant must have preceded the linear arrangement. Here, an important question occurs: Was the received sequence directly derived from the Columnar KWS, or did some unknown changes occur in the linear variant before its canonization in the *Yi jing*? Naturally, this question cannot be definitively answered, but there are indications of a purposeful design during this critical period.

It can be seen that three cardinal pairs have dominant positions in the received sequence (see Fig. 1, the three hexagram pairs framed by broken lines).

– The first section begins with the *Qian* and *Kun* (#1–2).

– The pair *Kan–Li* (坎 and 離, #29–30) closes the first section.

– The sequence ends with the pair *Ji ji–Wei ji* (#63–64).

In comparison with the sequence, the Columnar KWS is a two-dimensional composition. In this diagram, only two dominant positions can be found:

– The top of the first column is of equal importance to the first place in the KWS. Also, the pair *Qian–Kun* is correctly located there.

– The other meaningful position is at the top of the last column. In the Columnar KWS, however, a less significant pair (*Zhong fu–Xiao guo,* 中孚 and 小過, #61– 62) is there. The pair *Kan–Li*, worthy of that place, is at the bottom of the third column, in an inferior position.

It is possible that in the previous columnar arrangement, the functionally correct place of the pair *Ji ji–Wei ji* (#63–64) was in cell 21–22, among the other hexagrams of the Primal Heaven. After the linear transformation, it might have been necessary to close the whole

sequence with a meaningful pair. For this reason, these two signs were moved to the end, swapping places with the less important pair *Shi he–Bi* (大過 and 賁, #21–22) there.

A similar changeover might have occurred in cells 61–62 and 29–30. The *Kan* and *Li* might have been placed at the top of the last column, in cell 61–62. In this way, the two pairs, *Qian–Kun* and *Kan–Li*, would have framed the entire structure. Later, this idea was transferred to the sequence, and the *Kan–Li* pair moved to end of the first section, to cell 29–30. Thus, the pairs *Kan–Li* and *Zhong fu–Xiao gu* swapped places and received the current ordinal numbers #29–30 and #61–62, respectively.

Based on the reasoning above, a possible predecessor to the received sequence might have been similar to the arrangement shown in Figure 12. Here, the hexagram pairs #1–2 and #29–30 are in the two dominant positions (in cells 1–2 and 61–62), and pair #63–64 is in its correct place in the Primal Heaven group (in cell 21–22). Additionally, the less significant pairs #61–62 and #21–22 are shown in their earlier cells (29–30 and 63–64).

1 - 10	11 - 20	21 - 30	31 - 40	41 - 50	51 - 60	61 - 64
#1–2	#11–12	#63–64	#31–32	#41–42	#51–52	#29–30
#3–4	#13–14	#23–24	#33–34	#43–44	#53–54	#21–22
#5–6	#15–16	#25–26	#35–36	#45–46	#55–56	
#7–8	#17–18	#27–28	#37–38	#47–48	#57–58	
#9–10	#19–20	#61–62	#39–40	#49–50	#59–60	

Figure 12. The Next Predecessor

It is difficult to associate a name with the formation of the hexagrams in the table. One could say it is the last columnar arrangement from which a linear sequence was formed. In other words, it might be defined as One of the Possible Close Predecessors of the received sequence. For the sake of simplicity, it will be called the Next Predecessor.

The Reconstruction of an Early Regular Arrangement

Regarding the Next Predecessor as an arrangement that existed in the past, we must look for regularities here, not in the received sequence. The presence of the alien hexagrams in regions B and C of the Next Predecessor makes it probable that some changes occurred (by intention or by mistake) in the arrangement of the hexagrams between the time of the original creator and the canonization of the sequence. That is, we must go back in time to a consciously designed, regular structure.

Regular Groups in the Next Predecessor

As explained in the previous section, the Next Predecessor displays three definite hexagram groups and their regular placement in a columnar structure. If one could find similar groups in the other parts of the arrangement, that would be a strong argument for its conscious design. For this purpose, Jiao Xun's sequence provides a good basis because the comparison of the Jiao groups with the regions in the Next Predecessor reveals a very close relationship between the two arrangements. For the sake of visibility, I have integrated them in the same table (Fig. 13). Here, the groups are shown beside the hexagrams where the hexagrams belong to Jiao Xun's sequence.
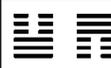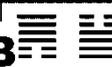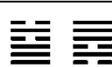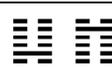

Figure 13. The Jiao groups in the Next Predecessor

As was shown above, groups A, B, and C of the Columnar KWS were closely connected to three others in the Jiao sequence. Here, in the Next Predecessor, region A contains all four pairs of the hexagrams of the Primal Heaven (group J-9). In region B and region C (J-7 plus J-5), the alien hexagrams are still present.

Still, there are three regions in the table that can be regarded as the locations of other regular groups. They are marked with dotted lines.

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As shown, two-thirds of the hexagrams (twenty-two pairs) belong to the six groups defined above (from A to F). These groups are regularly placed in six regions where only four pairs are misplaced (not counting pair #1–2, which holds its place for a special purpose). In Figure 13, the alien pairs are marked with a cross and the missing correct pairs with a circle.

The Early Predecessor

To get closer to the supposed original arrangement, one must replace the alien hexagrams with the missing pairs of the given groups and find the correct places for the aliens. *****

As a result, four new regular groups in four new regions take shape. They are marked by the capital letters G, H, J, and K in Figure 14. This table shows the final, fully reconstructed arrangement of the hexagrams. It is supposed to be an early, regular variant of the Next Predecessor and will be called the Early Predecessor.

Figure 14. The Early Predecessor

The preceding reasoning perhaps was lengthy, but the results can be briefly recapitulated in three sentences.

In the Next Predecessor (the closest variant of the received sequence), altogether, four mutual changes was made to go back to a more regular arrangement:

- In regions B, C, D, and F, the four alien pairs were replaced by the proper ones.
- The four alien pairs were joined to their corresponding (opposite) counterparts in regions G, H, J, and K.

In this manner ten regular groups were achieved.

The Classification of the Hexagrams – The King Wen Groups

Based on the structure of the Early Predecessor, one can define the rules for the distribution of the hexagrams in the ten groups.

There are two groups in which the trigram components are the determining elements. These are

1. The eight doubled trigrams (Region F) and
2. The eight hexagrams of the complementary trigrams (Region A).

In eight groups, the general rule, the unity of opposites, applies. A basic hexagram is grouped together with the three opposite hexagrams and, if they exist, with the four combinations of the opposites.

In two groups of the eight, the general rule applies, but in the final structure, the hexagrams are separated based on their worldly meaning:

3. The eight sovereign hexagrams (Region B) and
4. The eight permutated opposites of the sovereign hexagrams (Region C).

The next six groups clearly correspond to the general rule:

5. The four hexagrams of Region G,
6. The four hexagrams of Region H,
7. The four hexagrams of Region J,
8. The four hexagrams of Region E,
9. The eight hexagrams of Region D, and
10. The eight hexagrams of Region K.

These groups can be called King Wen Groups because they apparently preceded the received "King Wen" sequence and rightly can be considered its predecessor. Figure 15a shows them in a tabular form.
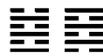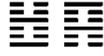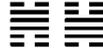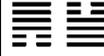
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
#1–2	#11–12	#19–20	#15–16	#35–36	#7–8	#17–18	#27–28	#37–38	#55–56
#29–30	#63–64	#23–24	#25–26	#5–6	#13–14	#53–54	#61–62	#39–40	#47–48
#51–52	#31–32	#33–34	#9–10					#3–4	#59–60
#57–58	#41–42	#43–44	#45–46					#49–50	#21–22
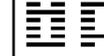
Figure 15a. The ten King Wen Groups of the hexagrams

Figure 15b shows the same arrangement in the style of the old Chinese documents.

十	九	八	七	六	五	四	三	二	一
豐	家人	頤	隨	師	晉	謙	臨	泰	乾
旅	睽	大過	蠱	比	明夷	豫	觀	否	坤
困	蹇	中孚	漸	同人	需	無妄	剝	既濟	坎
井	解	小過	歸妹	大有	訟	大畜	復	未濟	離
渙	屯					小畜	遯	咸	震
節	蒙					履	大壯	恆	艮
噬嗑	革					履	夬	損	巽
賁	鼎					升	姤	益	兌

Figure 15b. The old style of the ten King Wen Groups

A simpler arrangement can also be designed in which the groups have eight hexagrams each. The hexagrams in groups 5 and 6, in one respect, belong together: One of their trigrams is *Qian* or *Kun*, and the other is *Kan* or *Li*. That is, all these hexagrams are combinations of the four cardinal trigrams. In addition, they are next to each other (in regions G and H) in the Early Predecessor. The hexagrams of groups 6 and 7 also have common

features: They are in complementary opposition, and their regions are adjacent (J and E).
Thus, these hexagrams can be correctly considered two groups of eight.

The next table shows the eight groups (Fig. 16).

1.	2.	3.	4.	5.	6.	7.	8.
#1–2	#11–12	#19–20	#15–16	#35–36	#17–18	#37–38	#55–56
#29–30	#63–64	#23–24	#25–26	#5–6	#53–54	#39–40	#47–48
#51–52	#31–32	#33–34	#9–10	#7–8	#27–28	#3–4	#59–60
#57–58	#41–42	#43–44	#45–46	#13–14	#61–62	#49–50	#21–22

Figure 16. Distribution of the hexagrams in eight groups

At the end of this section, three features of the previous arrangements must be emphasized.

The first is the constancy of the pairs. The hexagrams of the pairs always remained together in the different arrangements and in the course of the accidental or methodical changes.

There is a negative feature: The hexagram pairs do not show any apparent order in the individual groups.

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Additionally, we do not know of any explanation of the arrangement of the groups in the rectangular form (in the Early Predecessor), though its structure seems to be rather consciously designed.

Conclusion – The philosophical ground is: the idea of the unity of opposites

The purpose of my hypothesis on the origin of the received sequence was to argue for the conscious design of a preceding arrangement and its gradual changes until the sequential form. The results exclude the possibility that the hexagrams were originally arranged in the known sequence, consciously or by chance. In the article, I described a process of how the received sequence might have gradually emerged from a preceding arrangement and the

earlier variants back to some regular groups. Here, the same process will be summarized according to the real course of time.

The most essential deduction in my work was that the sixty-four hexagrams were arranged in ten or eight separate groups sometime in the past, before the composition of the *Yi jing*. The basic concept of the classification apparently was the unity of opposites. This might have been the very first action in the evolution of the received sequence. Figures 15 and 16 show the two possible outcomes of this type of grouping.

Later, these groups might have been laid out in the plane for demonstration or other appropriate purpose. In these layouts, the groups were regarded as structural elements of two or four pairs, arranged in lines and in square forms. The Early Predecessor might have been one of these arrangements (Fig. 14).

Over the course of time, the contents of several groups were changed, probably due to mistakes. Altogether, four pairs were removed from their original groups and four others were substituted for them. The Next Predecessor (Fig. 12) shows the hexagrams in this corrupted form.

At the time of listing the hexagrams, the Next Predecessor was certainly read according to the rules of vertical writing: by column and from top to bottom. In this way, the horizontal and square groups were decomposed, and their elements (the hexagram pairs) were distributed all along the sequence. Thus, the original groups became unrecognizable. Then or later, two more changes were purposely made: The cardinal hexagram pairs, *Kan–Li* and *Ji ji–Wei ji*, were moved to the distinguished places at the ends of the first and the second parts of the sequence, respectively.

The columnar variant of the received sequence (Fig. 7) clearly demonstrates the group-like origin of this arrangement.

The events outlined above represent the main stages of a supposed but rational process between the first groups of the hexagrams and the received sequence. This process might indicate the way in which the 'King Wen' sequence was developed.

The most essential point that lends credibility to this hypothesis is the harmonious relation of the opposite elements, that is, the *idea of the unity of opposites* in the classification of the hexagrams. This means that the arrangement of the hexagrams originally had a true *philosophical ground* which corresponds to the culture and mentality of the Zhou era and has remained an important principle in Chinese philosophy until the present day.