



Typography and Diversity

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Immersive Typography & Information Graphic: A Series of New Learning Tools for *Tai Chi* practice

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Abstract

This project aims at providing a comprehensive learning environment to Tai Chi learners with the use of the combination of Typography and communication design. Tai Chi practicing & learning is deeply more sophisticated than most would expect observing as an outsider. However, many materials that are available seems to vary or even contradict from one another, most likely to be caused by the fact that many of the people who documented them were, while experts in the practice, not typically the group of people who professionally or academically dealt with communication design. Such condition results in difficulties in the current generations to learn about this ancient art form and sport, as well as developing it into the next level or into something new. Given such situation of Tai Chi practice learning, our research team have re-studied the practice in a systematic method from a communication design point of view, in order to seek opportunity for developing a more standardized, effective, and efficient system for Tai Chi documentation, analysis, learning, and more. Secondly, designed and provided a user friendly leaflet as a new reading and learning method for practitioner / learner easy memory. Through our series of research projects, we attempts to develop and examine a series of new typography design approach which could solve the above *Tai Chi* learning difficulties. Most importantly, this new design knowledge could help to prevent some hidden accident. As a result, this series of research projects will hopefully make the spot of Tai Chi exercise more accessible to interested parties, in order to develop a useful and easy to be memorized visual structure for elderly people (including new learners and experienced players) to learn the traditional Tai Chi not through memorize the steps but through the combination of Typography and design.

Introduction:

As a experienced Tai Chi player, the Principle investigator attempted to study if the integration of the typography and communication design element could help for effective learning for the elderly people mentally and physically. The research team has already completed two other projects that are Tai Chi related.

i) The first one involves the provision of visual aids to enable Tai Chi practitioners to more easily memorise different moves with the use of custom-made and innovative information graphics & the system of typography composition.

ii) The second project has explored the typographic possibilities of creating a custom glyph collection to embody the examined concept , on order to provide a series of creative learning tool - for simplify the complicity - helping to memorize complex Tai Chi steps and combinations through typography.

Our research team illustrated a new matrix layout system that is believed to be potentially the basis of an improved visual system to document Tai Chi practice. Furthermore, we have developed a series of new Chinese character combination which enhance the potential of forging unique Chinese characters to identify each act of Tai Chi movement. After interim reviews and discussions, the team revisited the possibility of communicating Tai Chi acts through visual representations, seeking a possibility of incorporating said systems and information frameworks. As the earlier stages were focused a lot more on illustration of the physical practice of the acts, the second part of this attempt focused on the possibilities of applying typography. The team developed a series of trial Chinese character designs that showed potential of forging unique Chinese characters to identify each act.

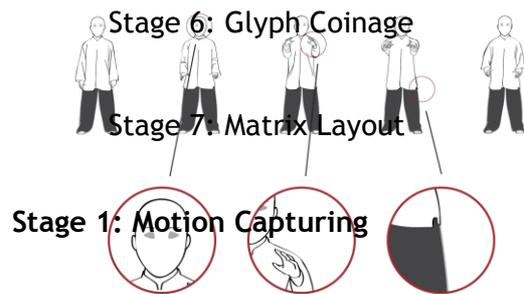
Stage 1: Motion Capturing

Stage 2: Illustration and Style Exploration

Stage 3: Spatial Representation

Stage 4: Indexing and Grouping

Stage 5: Reading Flow



The motion documentation was expected to provide a detailed reference for the researchers during the study, as well as to visualize the entire practicing sequence in a two-dimensional format along with corresponding numerical data.

Stage 2: Illustration and Style Exploration

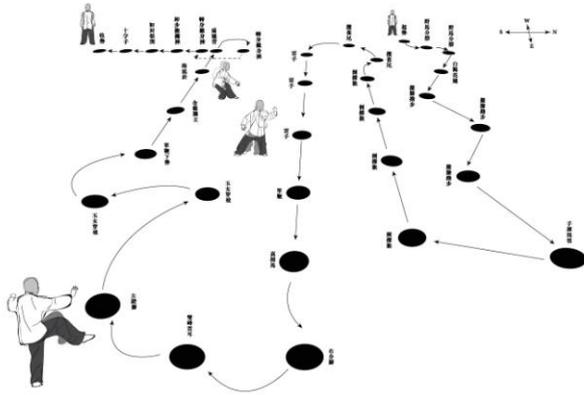
In order to facilitate the readers to form a coherent understanding of the motion sequence of each act, the research team decided to firstly select the keyframes on which the illustration would be based. In collaboration with a professional illustrator, the crew also hopes to develop a contemporary

illustration style. The result of the exploration are expected to make learning the moves through two-dimensional representation a more comprehensible experience, as well as making the illustration appeal to a wider age range, expanding from the current user profile to younger generations.

Stage 3: Spatial Representation

It was learned that direction and positions were much regarded in literary studies of Tai Chi. [img 5] Inspired by such feature, the research team decided to explore how compass system and graphical perspective could be used to visualise the movements of Tai Chi in a spatial context in addition to

the body gestures. The resulting graphics are expected to effectively illustrate where the next step should be through out the practice.



Stage 4: Indexing and Grouping

In order to seek solutions in the arrangement of the textual information of the suite, the team planned to index the titles of each act in sequence, and analyse the content through grouping and deconstructing the titles into

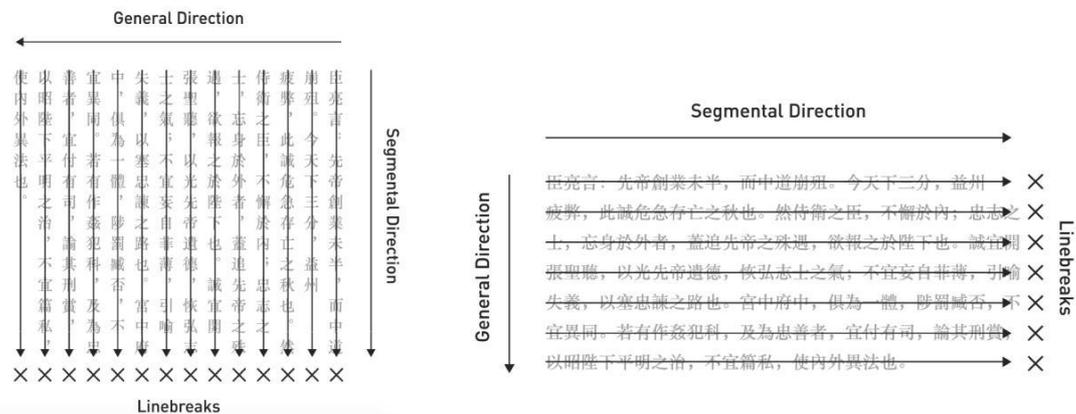
components. Through grouping and coding the acts into sets, it was expected that the sequence would become easier for the users to memorise and re-enact.

Stage 5: Reading Flow

One of the special features of Chinese typesetting is the possibility of setting the text both horizontally and vertically for lengthy reading, resulting in at least two reading directions that are still commonly in use today. However, it is not yet known whether one arrangement presents the information more

effectively than the other in the context of this project. In order to determine whether there is a difference in the two layout methods in terms of organising and presenting all 85 acts in

the suite, or if there are yet other ways that may streamline the learning curve of Tai Chi learners, the researchers planned to try laying out the contents in the two said ways, and take note on their similarities and differences.



Stage 6: Glyph Coinage

To architect a matrix system as mentioned in the last stage, each of the act would need a uniquely identifiable visual cue so that there would not be a secondary reading orientation to distract the readers as in previous layout trials. This stage requires the researchers to identify possible and appropriate solutions to

generating such visual cues. During secondary research for imagery references, members on the research team collected quite a lot of recent Chinese typographic projects in which the designers attempt to coinage new Chinese characters by merging multiple existing characters. The team was hence reminded that characters or glyphs

themselves could act as symbols, and hence possible solutions to the challenge faced by the team. Therefore, researchers on the team decided to focus on testing how to differentiate each act by forging a new Chinese character (with components of existing characters from the tile of the act) that would specifically

hint on the act. The researchers expected such typographic treatment to be an effective way for the readers to identify each act in short term, as well as to memorise the entire sequence in long term.



Stage 7: Matrix Layout

The researchers are required to determine whether symbols generated in the previous stage would be a prominent solution as suspected when arranged in a matrix layout system. As 85 is only perfectly dividable by 5 and 17, it was impossible to divide the suite evenly into lines that would result in a matrix with similar width and height. However, by keeping lines that would contain 17 symbols, it might not be as well differentiated from the original linear layouts in terms of lengths. Therefore a layout that has shorter length

and number of lines is in need. Inspired by traditional Chinese typesetting and printmaking, the team proposed to try scaling down the grouped acts, so that the repeated characters collectively take up one block as how one ungrouped act would.

A matrix layout that can accommodate the 85 acts in the suite is expected to be developed to effectively streamlines the way practitioners refer to and memorise the sequence of the acts.

Significant progress

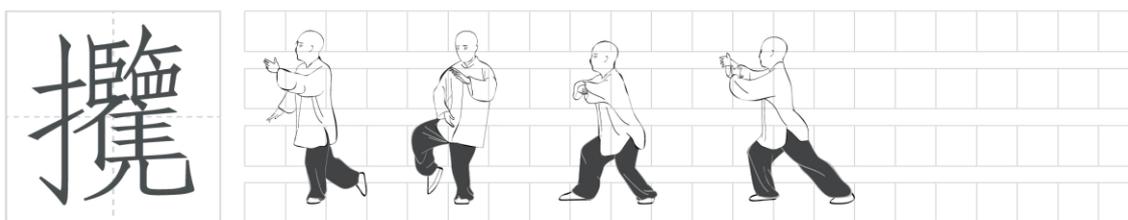
The sets that were grouped in the fourth stage of the research were firstly scaled down to fit in one block on the matrix as just one unit, which fits the entire suite onto a 9 by 6 table. Substituting characters were used in place of characters that had not been created in the coinage process. In

order to further highlight the differentiation of each set, colour coding was applied as a second layer of visual cue.

第三式



第三式



攬雀尾

此動作有象形之意。將對方向我擊來之手臂比喻為鳥雀的尾巴，把自己的手臂比喻為繩索，隨著對方手臂的屈伸、上下、左右的動向而纏繞不使其逃脫的意思。

Evaluation

The combination of the forged characters and the matrix layout successfully constructed a new reading experience that was expected by the research team. The approach turned out to be a working, fresh format for representing an instructive timeline for physical exercises, that uniquely fits into the context of Tai Chi and Chinese language.

Next Steps

Having learned that the approach has promising potential in creating a innovative learning experience for Tai Chi beginners, the team had decided to move back in to the character coinage stage, and explore the typographic possibilities of creating a custom glyph collection to embody the examined concept. The team will need to further recruit personnels that are are firmly based in Chinese type design, such as type designers, lettering artists or calligraphers, to work out suitable character forging solutions, visual styles, typographic features, production methods as well as implementing.

Conclusion

In conclusion, the seven stages that this project was operated through touched on a wide range of aspects of Tai Chi from the perspective of communication design. The stages allowed the team to explore the scope of information re-architecting, visual representation, and so on, and hence formed an all-around view of the subject that acts as a map for the research team to conduct any further research.

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