

students, regardless of the period, learned to form the constitutive strokes of most of their letters in almost the same way. An examination of the individual letters will make this clear.⁷²

A: was formed in three movements when the model addressed the needs of real beginners or intended to show the features of a formal style. Often, however, the movements were made in two sequences and very rarely in one. The direction of the strokes was always the same.



B: was formed in four movements, which could become three and rarely two. The sequence and direction of the strokes was always basically the same.



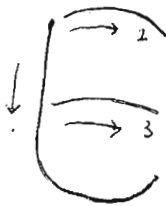
Γ: was drawn in two movements, but the direction of the strokes is not always clear.



Δ: was formed in three movements, which could become two.



E: was usually formed in three separate movements that could be made in two sequences, but even when⁷³ the teacher's hand in the model combines the first two movements, the student's copy shows unmistakably that the letter was taught in three separate movements at the very beginning.



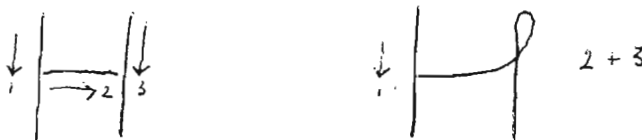
⁷²In considering the single letters I will point to their basic shape and show how the stroke-sequence changed with the passing of time, taking into limited account those individual features dictated by different scripts and styles.

⁷³See, e.g., 383.

Z: was drawn in three movements, generally made separately.



H: was formed either in three separate strokes or by combining the last two movements.



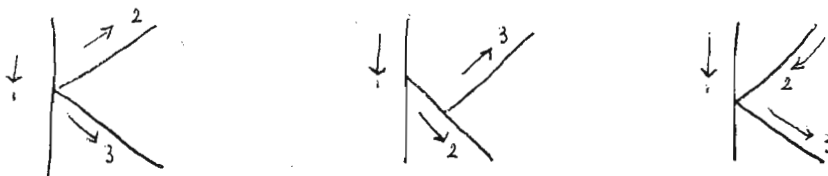
Θ: was formed in three separate strokes. At times teachers' hands combine the first two movements so well that they are hardly distinguishable, but students' work shows that the letter was taught in this way.



I: was drawn in one stroke, from top to bottom.



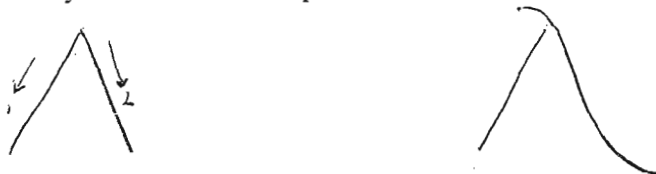
K: was formed in three strokes, the first of which always went from top to bottom. It is more difficult to determine the sequence and direction of the last two strokes. In every period the last two strokes of *κ* usually started from the middle of the vertical stroke departing in opposite directions, toward the top and then toward the bottom. Students, however, seem at times to have followed a different sequence: a downward second stroke followed by the upward one.⁷⁴ Sometimes one even has the impression that the second stroke may be drawn from top to bottom.⁷⁵



⁷⁴See, e.g., 142, and in 391 the student's copy. In the models the letter is clearly made in three movements, but it is impossible to ascertain the stroke-sequence.

⁷⁵See e.g., the last line of the student's copy in 320. It is impossible to determine the stroke-sequence followed in the model.

A: was always formed in two separate movements.



M: was drawn in three movements. Although it is often difficult to ascertain the direction of the first stroke, one has the impression that it was usually drawn from the bottom toward the top, especially when the first stroke is joined in a loop to the second.⁷⁶



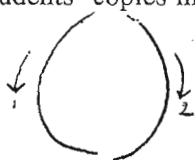
N: was always formed in a three-stroke sequence. It seems that the last stroke was drawn from top to bottom, at least in the work of beginners. When students had become more familiar with writing, they sometimes joined the last two strokes into a loop so that the final stroke proceeded toward the top.⁷⁷ It is practically impossible to tell the direction of the last stroke.



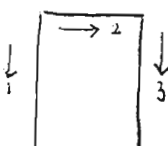
E: was drawn in several strokes, as many as five.



O: As with θ , the letter *o* was always drawn in a two-stroke sequence that began on the top.⁷⁸ Sometimes, especially in the formal models, the point of juncture of the two half-circles is hardly visible, but the students' copies make it very clear that the letter was taught that way.



II: The letter was taught in a three-stroke sequence.



⁷⁶See e.g., the student's copy of 333 and the model 92.

⁷⁷See, e.g., 136.

⁷⁸On this, see the observations in Schubart 1925, 13–14.

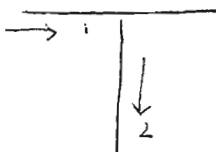
P: The letter was formed in two strokes, first the vertical stroke and then the semicircle. Starting from the Byzantine period, however, the half circle was drawn first and ligatured to the previous letter.



Є: was drawn in two movements, which are less evident in the formal models.



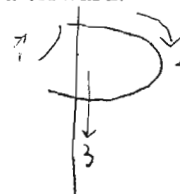
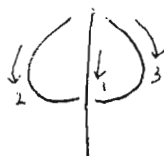
T: was usually formed in two movements, first the horizontal and then the vertical. One cannot be absolutely certain, however, that this order was always followed.



Ѳ: the three constitutive movements of this letter could be drawn either separately, in a two-stroke sequence or in one sequence. It is not always easy to determine the direction of the strokes. The sketches below represent what were the most usual ways to draw this letter.



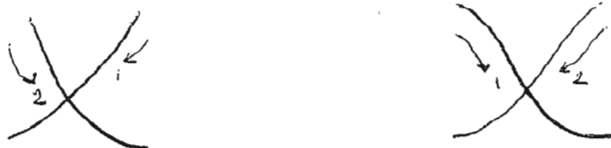
Φ: was drawn in three movements. In the Roman period it is clear that the vertical stroke was drawn first and then the two semicircles were arranged around that. Later on it seems that teachers preferred to draw the two semicircles first and the vertical line afterward.



X: was drawn in two movements, but it is not always clear which stroke was made first. It seems that sometimes a first stroke was traced from top right to bottom left,⁷⁹ but that espe-

⁷⁹See, e.g., 390.

cially in the Byzantine period it was more usual to start the stroke from the top left toward the bottom right, so that the letter could be ligatured to the previous one.⁸⁰



Ψ: was formed in two movements, but it is difficult to be sure about the stroke-sequence that was taught to students, since this letter does not appear very often, and there are also some ambiguous indications. At times, and especially when the letter was drawn rapidly and ligatured to the previous one, the horizontal stroke was made first.⁸¹ Beginners, who made the letter slowly, sometimes made the vertical stroke first.⁸²



Ω: was usually drawn in two movements, rarely in three.⁸³ The first semicircle was always smaller than the second that came up all the way, but in the formal models the two strokes were fused in such a way that this was hardly noticeable.



It is not a problem to determine the number of strokes forming a letter: in any period students learned to form letter shapes with a specific and predetermined number of strokes. For some letters, however—especially κ, μ, ν, χ, and ψ—it is uncertain what sequence and direction of strokes was followed. Perhaps there was no real systematic approach to the problem, but the stroke-sequence depended on the style of writing the teacher himself had been taught and on his degree of professionalism.

Typology of School Hands

The distinctive characteristics school hands exhibit with respect to experience in writing permit one to isolate four definite types.⁸⁴ Although all the four types are represented in the school exercises, "the evolving hand" appears more frequently than the first two types. The first two hands did not last for long: hand 1 is so temporary that to find it is almost a miracle, and hand 2 was also quickly superseded, if the student continued to attend school. Hand 3, however, persisted for years and changed into hand 4 only after much practice and longer education.

⁸⁰See, e.g., 124 and 321.

⁸¹See, e.g., 294 and 321.

⁸²See 79.

⁸³See, e.g., 313.

⁸⁴See above p. 33.