



UNIVERSITY OF
ARABIC CALLIGRAPHY

Proportions and Measurements

Handbook

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Academic Documents

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Introduction

Arabic calligraphy is built upon precise proportions and mathematical harmony, ensuring every letter and composition adheres to the traditional guidelines passed down by master calligraphers. This handbook is designed for students, calligraphers, and enthusiasts seeking to refine their skills by mastering the proportions and measurements that define Arabic calligraphy.

Purpose

To provide a comprehensive understanding of the proportional rules and geometric principles governing the structure and balance of Arabic calligraphy scripts.

Why Proportions Matter

Proportions ensure:

1. **Visual Harmony:** Letters and words appear balanced and pleasing to the eye.
2. **Script Integrity:** Traditional styles like Naskh, Thuluth, and Ruqaa retain their distinct identities.
3. **Precision:** Every letter aligns with centuries-old rules, preserving the authenticity of the script.

Understanding Proportions in Arabic Calligraphy

1. The Dot System (Nuqta):

The dot, or "nuqta," is the basic unit of measurement in Arabic calligraphy. Derived from the width of the pen nib used to write, the dot determines the size, width, and spacing of letters.

- **Height and Width of Letters:**
Each script has specific proportions for how many dots high or wide a letter should be. For example:
 - In Naskh:
 - Alef = 7 dots high.
 - Meem = 3 dots wide.
 - In Thuluth:
 - Alef = 7-9 dots high.
 - Waw = 4 dots wide.
- **Spacing Between Letters:**
The space between two letters is typically 1–2 dots, depending on the script.
- **Dot Placement:**
The placement of dots within and around letters determines diacritical accuracy.

2. Letter Anatomy and Proportions

Every Arabic letter has unique proportions based on its components.

- **Vertical Letters (e.g., Alef, Laam):**
These letters emphasize height and must follow strict vertical alignment.
 - Alef in Naskh: 7 dots high and 1 dot wide.
 - Alef in Thuluth: 9 dots high and 1.5 dots wide.
- **Circular Letters (e.g., Meem, Waw):**
Circular letters rely on consistent curves and ratios.
 - Meem in Naskh: 3 dots wide and 3 dots high.
 - Waw in Diwani: 2.5 dots wide and slightly more curved.
- **Complex Letters (e.g., Ain, Ghain):**
These letters involve curves and transitions, requiring precise dot-based measurements for balance.

3. Stroke Thickness and Angles

The thickness and angle of the pen stroke directly affect proportions:

- **Stroke Thickness:**
Determined by the width of the pen nib. For example, a thick reed pen (Qalam) creates bolder letters suitable for Thuluth, while a finer nib is ideal for Naskh.
- **Stroke Angles:**
Letters have standard angles, such as the Alef's tilt in Diwani, which is slightly slanted to 60 degrees.

4. Geometric Frameworks

Many Arabic calligraphy scripts are built on geometric shapes like circles, triangles, and rectangles.

- **Circular Proportions:**
Scripts like Thuluth and Kufi heavily use circular guides to ensure smooth curves and consistency.
- **Grid Systems:**
Grids based on the dot system help align letters and maintain spacing in compositions.

Proportions for Major Scripts

1. Naskh

- Known for its simplicity and readability.
- Proportions:
 - Alef: 7 dots high.
 - Meem: 3 dots wide and 3 dots high.
 - Space between words: 1-1/2 dot.

2. Thuluth

- Known for its elegance and larger, decorative forms.
- Proportions:
 - Alef: 7-9 dots high.
 - Laam: 7 dots high with a slight curve.
 - Meem: 4 dots wide and 4 dots high.

3. Ruqaa

- A practical and modern script used for everyday writing.
- Proportions:
 - Alef: 3 dots high.
 - Meem: 2 dots wide and 2 dots high.
 - Space between letters: 1 dot.

4. Diwani

- Known for its ornate and curved letters.
- Proportions:
 - Alef: 6 dots high.
 - Waw: 2.5 dots wide and curved into a circular shape.

5. Kufi

- Characterized by its angular and geometric style.
- Proportions:
 - Alef: 6 dots high.
 - Letters are often built into rectangular frameworks.

Common Proportion Mistakes to Avoid

1. **Inconsistent Dot Measurements:** Using varying nib sizes can disrupt proportions.
2. **Irregular Curves:** Circular letters must maintain smooth, proportional arcs.
3. **Spacing Errors:** Uneven spaces between letters or words can distort the composition.
4. **Over-stretching Letters:** Extending letters beyond their proportional limits affects balance.

Practical Tips for Mastering Proportions

1. **Use a Grid:** Practice using dot-based grid systems to align letters and maintain proportions.
2. **Replicate Masterpieces:** Study and replicate the works of master calligraphers to understand their proportional techniques.
3. **Practice with Consistent Tools:** Use the same pen nib size and ink to achieve uniformity.
4. **Seek Feedback:** Share your work with experienced calligraphers to identify proportional errors.

Exercises for Students

1. **Dot Practice:**
 - Create rows of evenly spaced dots.
 - Practice forming Alef, Meem, and Waw within the dot system.
2. **Script-Specific Practice:**
 - Write each letter of a specific script using its proportional rules.
 - Gradually increase the complexity by combining letters into words.
3. **Geometric Shapes Exercise:**
 - Use a compass or templates to draw circles and build calligraphic letters within them.
4. **Composition Building:**
 - Arrange a sentence or phrase within a geometric framework, ensuring all letters follow proportional rules.

Conclusion

Mastering proportions is the cornerstone of Arabic calligraphy. By understanding the dot system, letter anatomy, and geometric principles, calligraphers can achieve compositions that are both authentic and visually stunning.

Additional Resources

- **UAC Workshops:** Enroll in workshops to learn proportions under the guidance of expert calligraphers.
- **Practice Sheets:** Download free proportional grid sheets from www.uacalligraphy.ac.
- **Contact Us:** For queries or feedback, email info@uacalligraphy.ac.