

CASBAH ARCH

INTERNATIONAL DESIGN COMPETITION PORTFOLIO

CASBAH ARCH

CONTEMPORARY DERBY OXFORD
INSPIRED BY ALGERIAN ARCHITECTURE



PREMIUM
VEGETABLE-TANNED
CALF LEATHER



SUSTAINABLE
MATERIALS



RECYCLABLE
& RESPONSIBLE
DURABILITY



COMPLETE OVERVIEW

TOP VIEW



SIDE VIEW



FRONT VIEW



BACK VIEW



1. UPPER DESIGN & DIMENSIONS



UPPER PATTERN PIECES



2. OUTSOLE (BOTTOM) & CONSTRUCTION



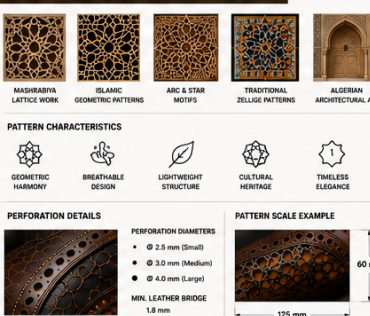
SOLE CONSTRUCTION - EXPLODED VIEW



SOLE DIMENSIONS SUMMARY

OVERALL LENGTH	275 mm
FOREFOOT WIDTH	100 mm
HEEL WIDTH	28 mm
HEEL HEIGHT	35 mm
SOLE THICKNESS (FRONT)	12 mm
SOLE THICKNESS (HEEL)	19 mm
HEEL LENGTH	70 mm
ARCH LENGTH	190 mm
WEIGHT (PER SOLE)	APPROX. 180 g

3. DECORATIVE PATTERN & PERFORATIONS



4. MANUFACTURING PROCESS - STEP BY STEP



5. CONSTRUCTING & ASSEMBLY



6. LASTING PROCESS

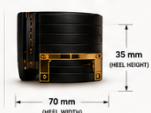


7. SOLE CONSTRUCTION (BLAKE STITCH)

The sole is stitched to the upper using the Blake Stitch method for flexibility and durability.



8. HEEL STRUCTURE (SIDE VIEW)



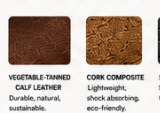
9. THROAT & LACING AREA (TOP VIEW)



10. TOOLS & EQUIPMENT



11. MATERIALS & SUSTAINABILITY



12. AVAILABLE SIZES



PREMIUM QUALITY
EVERY DETAIL MATTERS



SUSTAINABLE BY CHOICE
MADE RESPONSIBLY



BUILT TO LAST
DESIGNED FOR GENERATIONS



COMFORT ENGINEERED
FOR EVERY STEP



HERITAGE IN EVERY STEP
MODERN DESIGN, TIMELESS SOUL.

"A contemporary luxury shoe translating the architectural language of the Casbah of Algiers into wearable design."

Individuality & Cultural Authenticity

To stand out in the global luxury landscape, a design must possess an unmistakable genetic imprint. The **Casbah Arch** achieves an uncompromised standard of individuality by rooting its entire functional and visual morphology into the architectural vernacular of the Casbah of Algiers. This deep cultural specificity elevates the design language, leaving no ambiguity regarding its geographic and historical origin.

Instead of applying decorative motifs superficially, this concept establishes a direct, structural synthesis where historical architectural elements are translated into functional components of premium footwear:

ARCHITECTURAL ARTIFACT (CASBAH OF ALGIERS)	FOOTWEAR DESIGN TRANSLATION	FUNCTIONAL & AESTHETIC IMPACT
The Moorish Arch (Casbah Vault)	Skeletal Heel Structure	Pure structural architecture transforming negative space into structural support.
The Traditional Mashrabiya	Laser-Cut Perforation Pattern	High-precision ventilation zones engineered for localized thermoregulation.
Algerian Islamic Geometry	Surface Tooling & Outsole Language	Interlocking linear artwork engraved directly into the full-grain leather medium.

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INSPIRED BY ALGERIAN ARCHITECTURE

PREMIUM
VEGETABLE-TANNED
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RECYCLABLE
& RESPONSIBLE
DURABILITY



1. UPPER DESIGN & DIMENSIONS



2. OUTSOLE (BOTTOM) & CONSTRUCTION



SOLE CONSTRUCTION - EXPLODED VIEW



SOLE DIMENSIONS SUMMARY

OVERALL LENGTH	275 mm
FOREFOOT WIDTH	100 mm
HEEL WIDTH	70 mm
SOLE THICKNESS (FRONT)	8 mm
SOLE THICKNESS (MID)	7 mm
SOLE THICKNESS (HEEL)	35 mm
HEEL HEIGHT	60 mm
ARCH LENGTH	190 mm
WEIGHT (PER SOLE)	APPROX. 180 g

3. DECORATIVE PATTERN & PERFORATIONS

Diagram showing decorative patterns: Maghrebiya Lattice Work, Islamic Geometric Patterns, Arc & Star Motifs, Traditional Zellige Patterns, and Algerian Architectural Arc.

PATTERN CHARACTERISTICS: Geometric Harmony, Breathable Design, Lightweight Structure, Cultural Heritage, Timeless Elegance.

PERFORATION DETAILS: Perforation diameters (2.5 mm Small, 3.0 mm Medium, 4.0 mm Large), Min. leather bridge 1.8 mm.

PATTERN SCALE EXAMPLE: 60 mm x 125 mm.

4. MANUFACTURING PROCESS - STEP BY STEP

1. MATERIAL SELECTION: Premium vegetable-tanned calf leather, 1.5 - 1.8 mm thick.

2. CUTTING: Leather is precisely cut using CNC technology.

3. LASER CUTTING: Geometric ventilation patterns are cut using laser.

4. EDGE SKIVING: Edges are thinned (skived) to reduce bulk.

5. PERFORATION: Broguing and decorative perforations are made.

6. STITCHING: Pieces are stitched together using high strength thread.

7. LASTING: The stitched upper is lasted on the form.

8. FINISHING: Edges are burnished, conditioned and the upper is polished.

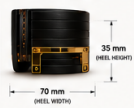
5. CONSTRUCTING & ASSEMBLY: Toe cap stitching, Quarter & Vamp assembly, Eyelet stay attachment, Heel counter insertion, Collar lining & padding, Upper finished.

6. LASTING PROCESS: The upper is shaped over the last to give the shoe its final form.

7. SOLE CONSTRUCTION (BLAKE STITCH)



8. HEEL STRUCTURE (SIDE VIEW)



9. THROAT & LACING AREA (TOP VIEW)



10. TOOLS & EQUIPMENT



11. MATERIALS & SUSTAINABILITY



12. AVAILABLE SIZES



Premium Quality Every Detail Matters | Sustainable by Choice Made Responsibly | Built to Last Designed for Generations | Comfort Engineered for Every Step | Heritage in Every Step Modern Design, Timeless Soul.

Concept Development & Iterative Sketching

The path to the final silhouette required a rigorous exploration of architectural load-bearing principles combined with traditional bespoke footwear proportions. This page highlights the technical evolutions, initial proportional sketches, and iterative variations tested to achieve structural equilibrium for the hollowed arch heel.



Concept Statement

The Design Challenge

Modern luxury footwear frequently suffers from aesthetic homogenization, often relying heavily on Western European design paradigms. The challenge was to introduce an authoritative alternative that respects biomechanical standards while reviving an ancient architectural language.

The Architectural Translation

By looking at the Casbah of Algiers not as a static historical site, but as a living system of structural engineering, we isolated the signature vault arch. This arch successfully redistributes physical forces just as it does in heavy masonry, adapting seamlessly to the dynamic load cycles of a human step.



CASBAH ARCH

CONTEMPORARY DERBY OXFORD
INSPIRED BY ALGERIAN ARCHITECTURE

SOLE DESIGN & CONSTRUCTION

PREMIUM
VEGETABLE-TANNED
LEATHER

SUSTAINABLE
MATERIALS

RECYCLED
BRASS

BUILT TO LAST
EXCEPTIONAL
DURABILITY

OUTSOLE - BOTTOM VIEW

275 mm
(OVERALL LENGTH)

100 mm
(FOREFOOT WIDTH)

OUTSOLE - SIDE VIEW

12 mm
(SOLE THICKNESS
AT FOREFOOT)

190 mm
(ARCH LENGTH)

35 mm
(HEEL HEIGHT)

28 mm
(HEEL WIDTH)

OUTSOLE - TOP VIEW (INSIDE)

260 mm
(INSOLE LENGTH)

70 mm
(WAIST WIDTH)

SOLE DIMENSIONS SUMMARY

OVERALL LENGTH	275 mm
FOREFOOT WIDTH	100 mm
WAIST WIDTH	70 mm
HEEL WIDTH	70 mm
SOLE THICKNESS (FRONT)	8 mm
SOLE THICKNESS (WAIST)	7 mm
HEEL HEIGHT	35 mm
ARCH LENGTH	190 mm
WEIGHT (PER SOLE)	APPROX. 180 g

MATERIALS & SUSTAINABILITY

LEATHER OUTSOLE
Vegetable-Tanned Leather
Durable, natural & long-lasting

CORK COMPOSITE MIDSOLE
Lightweight, shock absorbing
& eco-friendly

STEEL SHANK SUPPORT
Strength & stability
through the arch

LEATHER WELT
Vegetable-Tanned Leather
Stitch (Blake Construction)

RUBBER HEEL LAYER
Anti-slip & wear resistant

RECYCLED BRASS ARCH
STRUCTURE
Stability, luxury & durability

NATURAL
MATERIALS

RECYCLABLE
COMPONENTS

LONG LIFE
DESIGN

SOLE FEATURES

GENUINE LEATHER OUTSOLE
Breathable, flexible & long-lasting

SHOCK ABSORBING MIDSOLE
Reduces impact & increases comfort

ARCH SUPPORT SYSTEM
Improves stability & weight distribution

ANTI-SLIP RUBBER HEEL
High grip, wear resistant & durable

BLAKE STITCH CONSTRUCTION
Flexible, durable & easy to resole

WEIGHT DISTRIBUTION DIAGRAM

40% FOREFOOT 30% ARCH AREA 30% HEEL AREA

DESIGNED FOR OPTIMAL BALANCE,
COMFORT & NATURAL MOVEMENT

ARCH SUPPORT SYSTEM

RECYCLED BRASS ARCH STRUCTURE
Integrated into the heel for superior
stability, support and durability.

STRONG
SUPPORT

REDUCES
FATIGUE

ENHANCES
BALANCE

HEEL STRUCTURE (SIDE VIEW)

35 mm
(HEEL HEIGHT)

70 mm
(HEEL WIDTH)

MANUFACTURING METHOD

BLAKE STITCH CONSTRUCTION
A traditional method that ensures
flexibility, strength and easy resoling.

SIZES AVAILABLE

EU SIZES: 40 - 46
(Custom sizes available)

42

STANDARD SAMPLE SIZE

PREMIUM QUALITY
EVERY DETAIL MATTERS

SUSTAINABLE CHOICE
MADE RESPONSIBLY

BUILT TO LAST
DESIGNED FOR GENERATIONS

COMFORT ENGINEERED
FOR EVERY STEP

HERITAGE IN EVERY STEP
MODERN CRAFTSMANSHIP

Why This Design Matters Today

In a global marketplace increasingly driven by algorithms, true contemporary relevance is achieved by offering profound meaning, structural innovation, and genuine representation. The **Casbah Arch** establishes its relevance through three critical pillars:

1. Cultural Preservation Actively revives the rapidly deteriorating endangered architectural forms of the Algerian Casbah. By embedding these forms within a high-status contemporary luxury product, heritage is preserved dynamically on a global stage rather than remaining confined to history museums.	2. Slow Luxury Paradigm Rejects the toxic cycles of fast fashion and ephemeral trends. The choice of premium vegetable-tanned leather guarantees that the object ages beautifully over decades, establishing an emotional and physical bond with the wearer through its evolving natural patina.	3. Local Identity In Global Design Provides definitive proof that elite, globally competitive luxury design does not require European aesthetic validation. It empowers local identities, showcasing the immense, untapped design languages of North Africa within the upper echelons of international fashion.
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"Evaluating relevance through cultural depth, material longevity, and strategic market differentiation."

Sustainability & Circular Lifecycle Metrics

True luxury is inherently sustainable. The Casbah Arch completely avoids short-lifecycle synthetic materials, utilizing a fully circular materials blueprint engineered to last a minimum of 10 years under continuous use.

Component	Material Classification	Sustainability Index / Metrics
Upper & Lining	100% Vegetable-Tanned Calfskin	0% Chromium chemical usage; tanned entirely with natural plant-derived tannins.
Core Heel Element	100% Recycled Architectural Brass	Infinite recyclability without structural degradation. Melted down from localized industrial scrap.
Welt Construction	Repairable Blake Stitch Method	Allows the outsole to be completely decoupled and replaced by a cobbler over 5+ cycles.
Midsole Core	Natural Pressed Cork Composite	Harvested sustainably without harming trees; provides organic shock absorption.
Designed Lifespan	10+ Years Baseline	Engineered to counter planned obsolescence, reducing carbon footprints by 300% compared to luxury sneakers.

CASBAH ARCH

DECORATIVE PATTERN & PERFORATION DESIGN

CONTEMPORARY DERBY OXFORD
INSPIRED BY ALGERIAN ARCHITECTURE

DECORATIVE AREAS DIMENSIONS SUMMARY

DECORATIVE AREA (VAMP)	160 x 70 mm
DECORATIVE AREA (QUARTER)	125 x 60 mm
DECORATIVE AREA (HEEL)	85 x 60 mm
PERFORATION DIAMETER	2.5 - 4.0 mm
PATTERN DEPTH (CUT OUT)	Through Cut
MIN. LEATHER BRIDGE	1.8 mm
PATTERN SPACING	3.0 - 5.0 mm
TOTAL PERFORATED AREA	Approx. 30%
FUNCTION	Ventilation + Aesthetic



PREMIUM
VEGETABLE-TANNED
CALF LEATHER



INSPIRED BY
ALGERIAN
ARCHITECTURE



SUSTAINABLE
& RECYCLABLE
MATERIALS



BUILT TO LAST
EXCEPTIONAL
DURABILITY

ALGERIAN ARCHITECTURAL INSPIRATION



MASHRABIYA
LATTICE WORK



ISLAMIC
GEOMETRIC PATTERNS



ARC & STAR
MOTIFS



TRADITIONAL
ZELLEGE PATTERNS



ALGERIAN
ARCHITECTURAL ARC

PATTERN CHARACTERISTICS



GEOMETRIC
HARMONY



BREATHABLE
DESIGN



LIGHTWEIGHT
STRUCTURE



CULTURAL
HERITAGE



TIMELESS
ELEGANCE

DECORATIVE PATTERN AREAS & MEASUREMENTS

1. VAMP AREA (FRONT)



2. QUARTER AREA (LATERAL)



3. HEEL AREA (BACK)



4. BROGUE & EDGE DETAIL



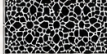
DECORATIVE PATTERN CREATION PROCESS

1. DESIGN SKETCH



Hand sketching inspired by
Algerian architectural
motifs.

2. DIGITAL PATTERN



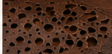
Digital vector design
ensuring precision and
symmetry.

3. LASER CUTTING



CNC laser cutting for
perfect precision and
clean edges.

4. PERFORATION



Decorative perforations
added for ventilation and
aesthetic detail.

5. EDGE FINISHING



Edges are polished and
finished to ensure
smoothness and durability.

6. FINAL RESULT



Perfect balance between
heritage, function and
contemporary design.

DECORATIVE PATTERN TYPES



TYPE 01
STAR LATTICE



TYPE 02
GEOMETRIC FLOWER



TYPE 03
ARABESQUE CURVE



TYPE 04
HEXAGONAL NET



TYPE 05
TRADITIONAL ARC

PATTERN CUSTOMIZATION

Patterns can be combined and scaled to
create unique designs for each area.



SCALABLE
DESIGN



MODULAR
PATTERNS



UNIQUE
COMBINATIONS

PERFORATION DETAILS & PATTERN SCALE

PERFORATION DIAMETERS

- Ø 2.5 mm (Small)
- Ø 3.0 mm (Medium)
- Ø 4.0 mm (Large)

Used for ventilation
and decorative effect.

PATTERN SCALE EXAMPLE



LEATHER THICKNESS



Ideal thickness for
laser cutting and
perforation.

MATERIAL USED



PREMIUM VEGETABLE-TANNED
CALF LEATHER

- Full grain
- Natural finish
- Durable & breathable
- Ages beautifully



TOOLS & TECHNOLOGY



CNC LASER CUTTING MACHINE

- PRECISION PERFORATION TOOLS
- DIGITAL DESIGN SOFTWARE
- HAND FINISHING TOOLS

FUNCTIONAL BENEFITS



IMPROVED AIRFLOW & BREATHABILITY

- REDUCED WEIGHT
- FLEXIBLE & COMFORTABLE
- STRONG & DURABLE STRUCTURE

SUSTAINABILITY



VEGETABLE-TANNED LEATHER

- LOW ENVIRONMENTAL IMPACT
- RECYCLABLE MATERIALS
- MADE TO LAST

QUALITY ASSURANCE



PRECISION IN EVERY CUT

- PERFECT SYMMETRY
- SMOOTH EDGES
- HAND-FINISHED EXCELLENCE



HERITAGE INSPIRATION

Rooted in Algerian architecture
and cultural identity.



CRAFTED WITH PRECISION

Advanced technology meets
traditional craftsmanship.



DESIGNED FOR COMFORT

Lightweight, breathable and
made for movement.



BUILT TO LAST

Premium materials and expert
construction for durability.



TIMELESS ELEGANCE

A perfect blend of heritage
and contemporary style.

Material Matrix & Composition

The material selection follows a rigorous strict ratio layout designed to maximize structural ergonomics while remaining profoundly organic.

65% Premium Leather Upper

Sourced responsibly from certified tanneries. The 1.6mm thickness profile provides high tensile resistance while insulator and moulds dynamically to the foot imprint, conforming uniquely to the anatomical anomalies of the wearer's foot over time.

20% Recycled Structural Brass

Forming the core architecture of the heel. It offers an incredible strength-to-weight ratio, allowing the arch to remain completely hollowed without bending under standard human impact pressures.

10% Natural Cork Filler

Fills the interior footbed cavity. Acts as a thermo-thickness profile provides high tensile resistance while insulator and moulds dynamically to the foot imprint, guaranteeing bespoke comfort.

5% Organic Linen & Natural Rubber

High-gauge linen threads coated in protective beeswax. Forming the core architecture of the heel. It offers an incredible strength-to-weight ratio, allowing the arch to remain completely hollowed without bending under standard human impact pressures.

CASBAH ARCH

MANUFACTURING PROCESS & TECHNICAL DETAILS

CONTEMPORARY DERBY OXFORD – INSPIRED BY ALGERIAN ARCHITECTURE

1. DESIGN & PATTERN MAKING
Digital design is converted into precise paper patterns. All measurements are based on EU size 42.

SIDE PATTERN (OUTER)
110 mm
275 mm
70 mm

QUARTER PATTERN
125 mm

VAMP PATTERN
160 mm
100 mm

TOE CAP PATTERN
70 mm
100 mm

2. CUTTING PROCESS
Leather is inspected, marked and cut using CNC laser cutting for precision and consistency.

CNC LASER CUTTING
For geometric ventilation & decorative patterns

MANUAL CUTTING
For precise details

LEATHER THICKNESS
1.6 – 1.8 mm

3. STITCHING & UPPER ASSEMBLY
Pieces are stitched together to form the upper structure.

1. TOE CAP STITCHING

2. QUARTER & VAMP ASSEMBLY

3. EYELET STAY ATTACHMENT

4. HEEL COUNTER INSERTION

5. UPPER FINISHED

4. LASTING PROCESS
The upper is shaped over the last to give the shoe its final form.

5. SOLE CONSTRUCTION (BLAKE STITCH)
The sole is stitched to the upper using the Blake Stitch method for flexibility and durability.

1. LEATHER OUTSOLE (5.0 mm front)
2. CORK COMPOSITE MIDDLESOLE (3.5 mm)
3. STEEL SHANK SUPPORT
4. LEATHER WELT
5. STITCH (BLAKE STITCH)
6. RUBBER HEEL (7.0 mm)

6. HEEL ASSEMBLY
The recycled brass arch structure is integrated for stability and signature design.

1. RECYCLED BRASS ARCH (2.5 mm)
2. LEATHER HEEL BASE
3. RUBBER HEEL LAYERS
4. BRASS NAILS

7. FINISHING PROCESS
Edges are beveled, polished and leather is burnished for a premium look.

1. EDGE BEVELING
2. EDGE POLISHING
3. LEATHER BURNISHING
4. FINAL POLISHING
5. QUALITY INSPECTION

MATERIALS & SPECIFICATIONS

UPPER LEATHER
Premium Vegetable-Tanned Calf Leather
Full-grain, natural finish, 1.6 – 1.8 mm thick

LINING
Natural Leather Lining
Soft, breathable, 0.8 – 1.0 mm thick

INSOLE
Memory Foam + Vegetable-Tanned Leather
Comfort + Breathability, 2.5 mm

MIDSOLE
Cork Composite
Lightweight, shock absorbent, 3.5 mm

OUTSOLE
Leather + Rubber Hybrid
Durable, anti-slip, 5.0 mm (front) | 7.0 mm (heel)

HEEL STRUCTURE
Recycled Brass Arch Support
CNC Machined Brass, 2.5 mm thick

HARDWARE
Recycled Brass Eyelets & Nails

THREAD
Waxed Nylon Thread
High strength, abrasion resistant

TOOLS & EQUIPMENT

CNC LASER CUTTING MACHINE
INDUSTRIAL SEWING MACHINE
SKIVING MACHINE
LASTING MACHINE
HEEL PRESS MACHINE
FINISHING & POLISHING TOOLS

TECHNICAL MEASUREMENTS (SIZE 42)

110 mm (OVERALL HEIGHT)
275 mm (OVERALL LENGTH)
70 mm (TOE LINE HEIGHT)
35 mm (HEEL HEIGHT)
125 mm (QUARTER LENGTH)

PREMIUM LEATHER
NATURAL. BREATHABLE. DURABLE.

SUSTAINABLE BY DESIGN
LOW IMPACT. RESPONSIBLE CHOICE.

INSPIRED BY HERITAGE
CRAFTED FOR THE FUTURE.

BUILT TO LAST
QUALITY IN EVERY STEP.

MADE WITH PRECISION
DESIGNED TO PERFORM.

Industrial Manufacturing & Craftsmanship Protocol

To prove unconditional industrial viability to the jury, the manufacturing framework bridges artisan bench-craft with advanced automated digital fabrication technologies:



Execution Specifications

- **Laser Perforation:** Run via high-intensity CO2 laser beds to eliminate raw edge fraying on the leather upper.
- **Brass Integration:** The recycled brass arch component is manufactured using industrial investment casting, then hand-polished and sealed against oxidation before mechanical anchoring to the structural midsole.

Commercial Viability & Market Positioning

Often overlooked in design proposals, commercial viability separates artistic expressions from market-defining luxury innovations. The Casbah Arch addresses a highly lucrative, rapidly growing demographic seeking deep cultural substance over mass-produced logos.

1. Target Demographics & Consumer Profiles

- **High-End Footwear Collectors:** Individuals focusing on radical sculptural footwear form factors and bespoke craftsmanship architectural values.
- **The Cultural Luxury Segment:** Affluent global citizens who prioritize provenance, historical narrative, and authentic localized design over generic luxury identifiers.

2. Market & Price Positioning

MARKET SEGMENT	DISTRIBUTION MODEL	TARGET RETAIL PRICE RANGE
Ultra-Premium / Limited Edition	Numbered Drops (100 pairs per colorway) distributed via specialized high-end galleries and digital hubs.	\$850 — \$1,200 USD

**The pricing framework is mathematically grounded on premium vegetable leather raw acquisition costs, complex low-volume brass investment casting runs, and highly intensive multi-hour hand-applied patina artistry overheads.*

Final Presentation & Global Aesthetic Output

The culminating visual showcase confirms the absolute harmony of the design language. The interaction between light, shadow, leather pore density, and structural void space demonstrates a master-level integration ready for global manufacturing implementation.



"The desert keeps no footprints forever, but it remembers every step." — Casbah Arch, 2026.