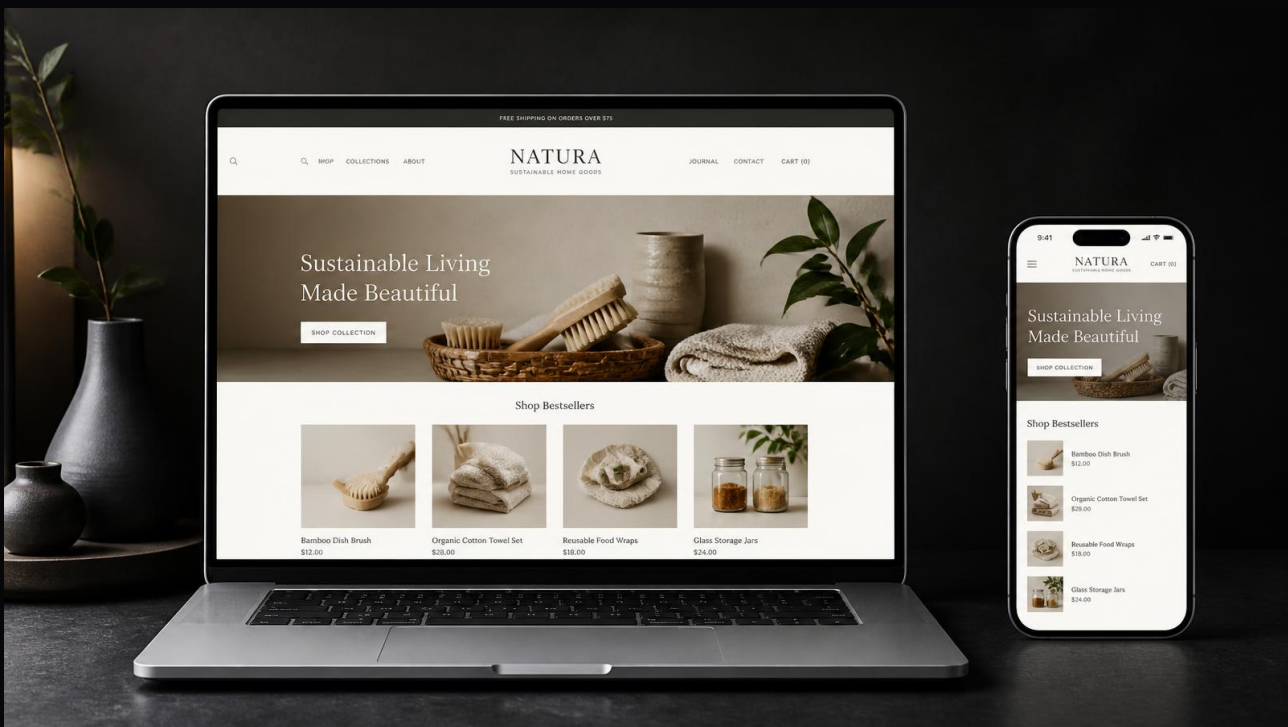


DEZMOLAB · CASE STUDY

Verdano — Headless Commerce Platform

A slow, plugin-heavy storefront rebuilt as a headless platform that loads in under a second on a mid-range phone.



Verdano · Sustainable Home Goods / DTC
Web Development · 14 weeks · Jan — Apr 2025

Overview

CLIENT

Verdano

INDUSTRY

Sustainable Home Goods / DTC

ROLE

Engineering partner

DURATION

14 weeks · Jan — Apr 2025

SERVICES

Front-end architecture, Headless commerce, Performance, CI/CD

TECHNOLOGY

React, TypeScript, Tailwind CSS, Shopify Storefront API, Cloudflare, Playwright

The client challenge

Verdano's legacy storefront carried 27 plugins and a 3.8 second LCP on mobile, where 71% of their traffic lived. Every merchandising change needed a developer, and peak-season traffic had twice taken the site down during paid campaigns.

Discovery & Audit

We started with measurement rather than opinion: real-user data, not lab scores.

- Field data analysis across 90 days of Core Web Vitals by device class
- Dependency audit — 27 plugins reduced to 4 required integrations
- Merchandising workflow shadowing with the content team
- Load testing against last Black Friday's traffic curve

Architecture Plan

Headless front-end, commerce engine untouched, everything editorial moved into a model the marketing team owns.

- Edge-rendered pages with incremental revalidation on product changes
- Strict performance budget enforced per pull request
- Content model designed around campaigns, not pages
- Phased migration by traffic slice to keep revenue risk near zero

Interface Work

We carried Verdano's existing brand forward and spent the design effort where it converts.

- Product detail page rebuilt around fit, materials and delivery certainty
- Bundle builder with real-time pricing and stock awareness
- Cart drawer with persistent state across sessions and devices
- Full keyboard and screen-reader coverage on the purchase path

Development

Typed end to end, tested on every merge, deployed at the edge.

- React + TypeScript, Tailwind CSS, server-rendered with edge caching
- Image pipeline: AVIF with responsive sources, cutting media weight 68%
- Playwright suite covering 22 critical purchase and account journeys
- Structured data, canonical handling and clean migration of 4,100 URLs

Final Showcase

The platform launched ahead of the spring campaign and absorbed peak traffic without an incident.

- Desktop: full merchandising and editorial surfaces
- Tablet and mobile: the same experience, budgeted for slower networks
- Admin: campaign pages built and published without engineering

Deliverables

- Headless storefront with 38 reusable components
- Checkout, subscription and bundle flows
- Editor-owned content model with live preview
- Automated performance and accessibility budgets in CI

Results

94

Lighthouse performance (mobile)

3.8s → 0.9s

Largest contentful paint

+62%

Mobile conversion rate

2.4×

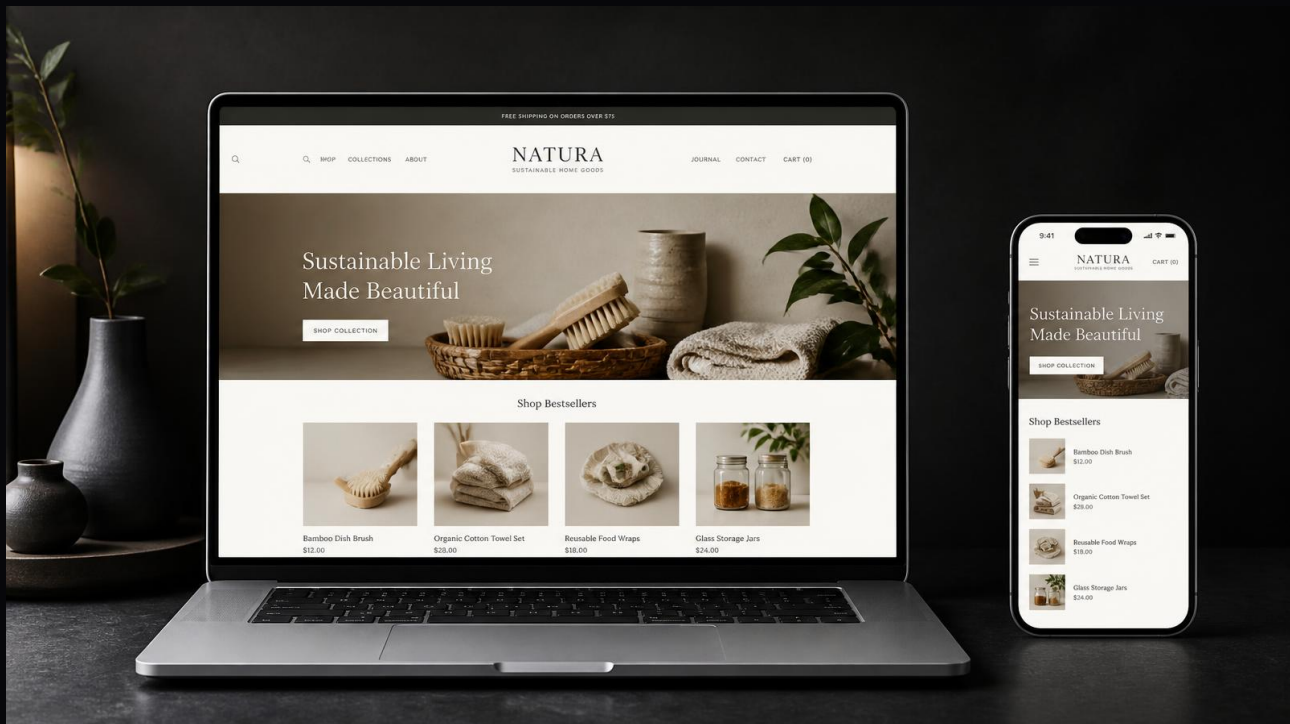
Revenue per session

Client testimonial

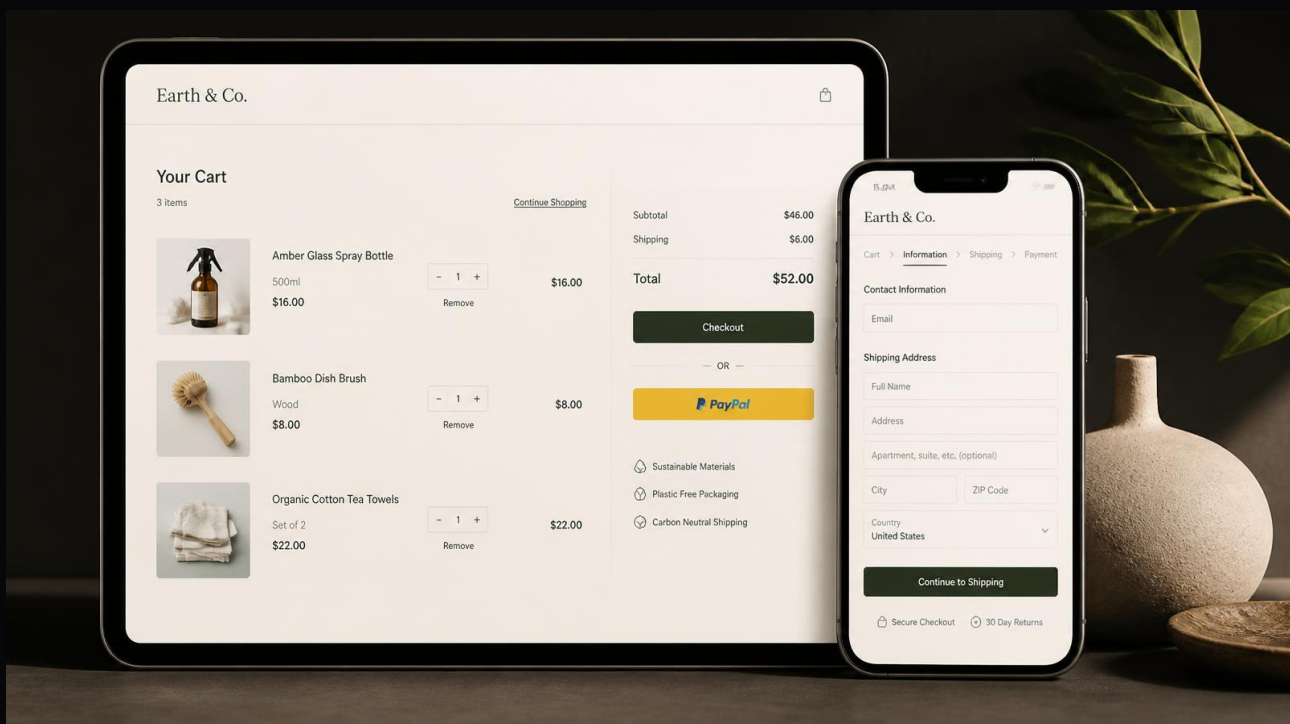
“Same products, same ad spend, considerably more revenue. And the marketing team stopped filing tickets to change a banner.”

Priya Raghunathan — Head of Ecommerce, Verdano

Gallery



Storefront and product detail experience



Cart, bundles and checkout flow

Conclusion

Verdano came to DEZMOLAB with a business problem, not a design brief. We diagnosed it, shipped against it and measured the outcome — and the work is still running in production today.

Work with DEZMOLAB

We design, build and grow digital products for startups, businesses and enterprises. If you have a problem shaped like this one, we should talk.

hello@dezmolab.com

dezmolab.com