Visual Design for the Web: S09E12

Creating a Consistent Visual System

Creating a Consistent Visual System

```
{
  "theme": "dark",
  "variables": {
    "--primary-color": "#ffc107",
    "--secondary-color": "#0d6efd",
    "font-family": "monospace"
  }
}
root {
  --spacing-unit: 8px;
  --border-radius: 4px;
}
```

```
if (viewport.width > 768) {
  .container {
    display: flex;
  }
}
```

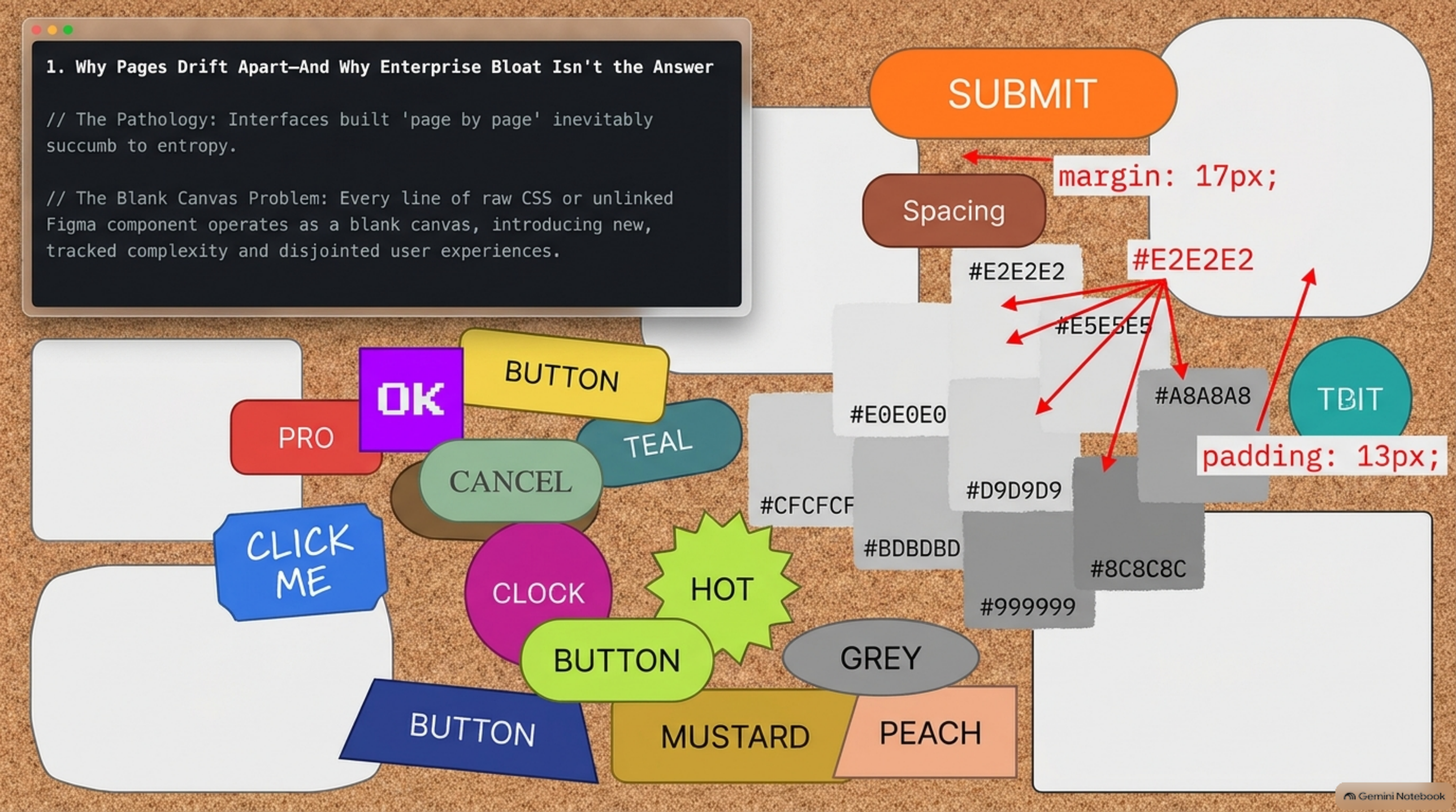
```
const designSystem = {
  typography: 'fluid',
  spacing: 'dynamic',
  spacing: 'dynamic'
};
```

Node

Figma

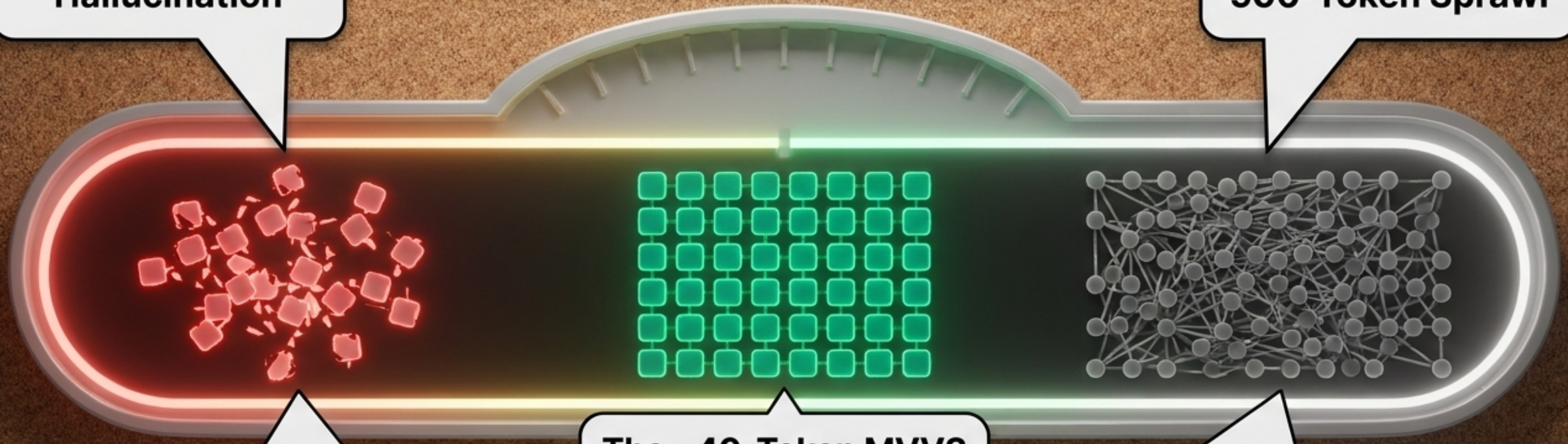
> [RECAP]: Previously in S09E11, we established that true responsive and accessible design relies on fluid typography, dynamic viewports, and structural semantics rather than fixed breakpoints and rigid containers.

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1. Why Pages Drift Apart—And Why Enterprise Bloat Isn't the Answer
// The Pathology: Interfaces built 'page by page' inevitably succumb to entropy.
// The Blank Canvas Problem: Every line of raw CSS or unlinked Figma component operates as a blank canvas, introducing new, tracked complexity and disjointed user experiences.
SUBMIT
margin: 17px;
Spacing
#E2E2E2
#E2E2E2
#E5E5E5
#E0E0E0
#A8A8A8
TBIT
padding: 13px;
#CFCFCF
#D9D9D9
#BDBDBD
#8C8C8C
#999999
BUTTON
OK
PRO
TEAL
CANCEL
CLICK ME
CLOCK
HOT
BUTTON
GREY
BUTTON
MUSTARD
PEACH
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The Goldilocks Scale

Chaotic Hallucination



Bureaucratic 500-Token Sprawl

Raw hexes, unlinked components, endless drift

The ~40-Token MVVS
Nimble, memorable, fits within working memory

Enterprise bloat, developer fatigue, reversion to hardcoding

Key Takeaway: A functional system must be small enough for a developer to memorize. Enterprise **bloat** creates fatigue; constraints create **consistency**.

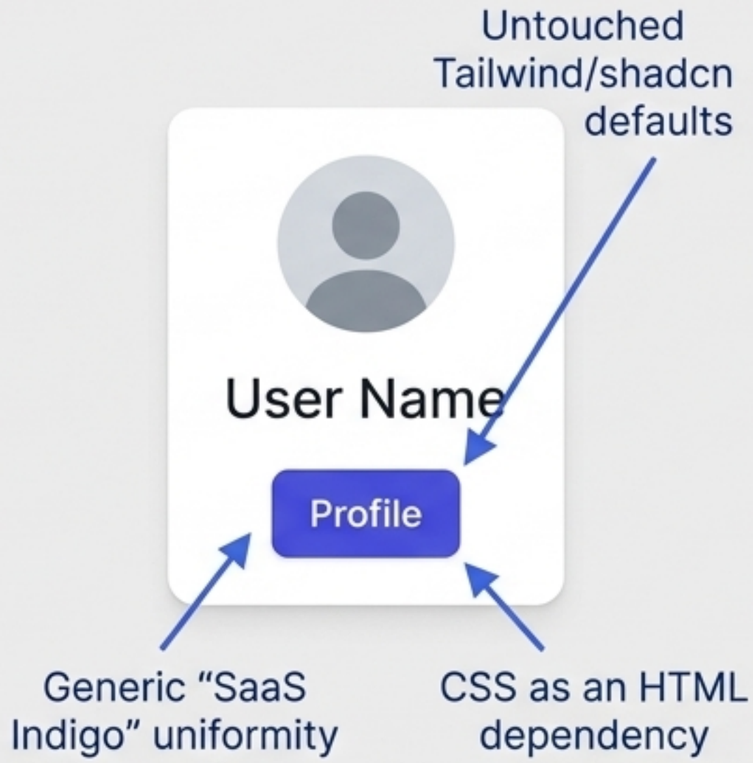
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2. Annotated Comparison — 9-Grey Entropy vs. Default-Framework Slop vs. Semantic Cohesion

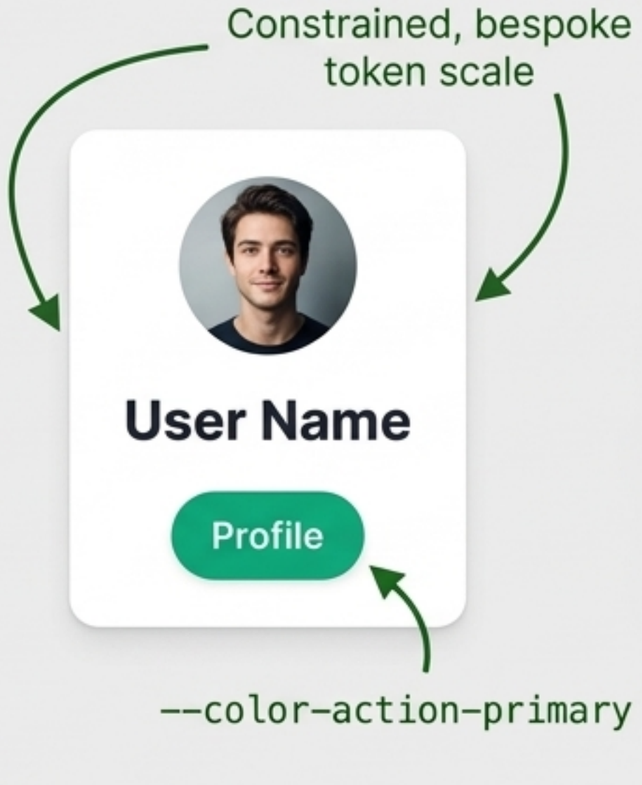
9-Grey Entropy



Default-Framework Slop



Semantic Cohesion



Takeaway: True design systems move past chaotic drift and generic framework defaults by establishing **bespoke, semantic intent.**

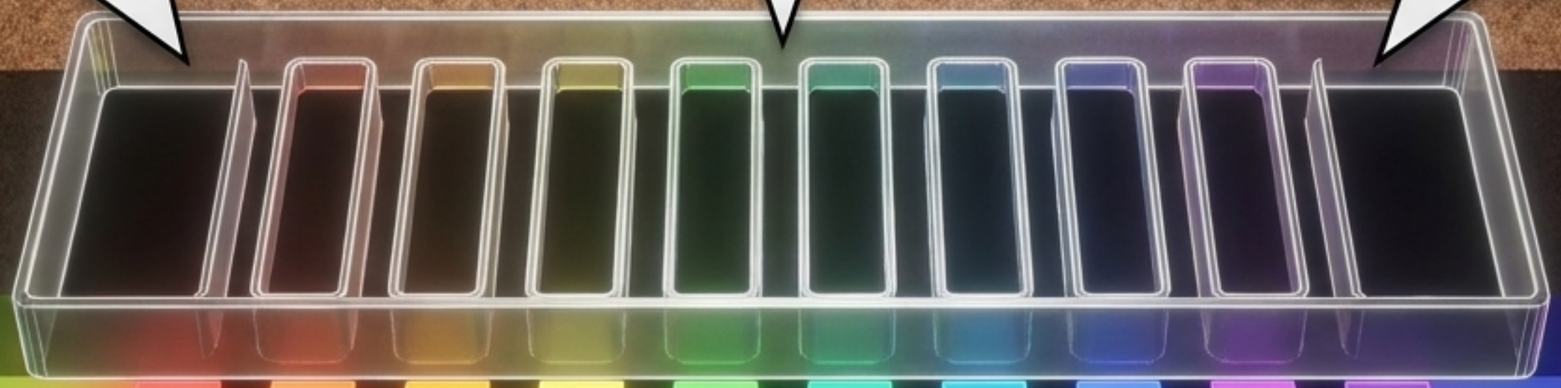
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The “Cookie-Cutter” of Design Tokens: Constraining the Infinite

Tokens **force choices** from a curated, constrained list.

Every line of raw CSS is an opportunity for new complexity.

Consistency is engineered by **removing** the **blank canvas** entirely.

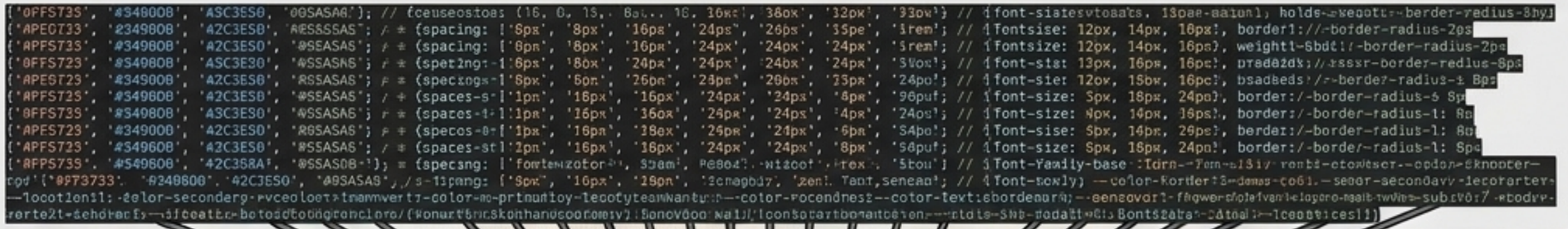


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3. The 3-Tier Design Token Architecture (W3C DTCG)

Tier 1: Primitives

(Hundreds of raw static values)



Tier 2: Semantic Role Aliases

(The ~40 Token MVVS)

--color-primary	--color-secondary	--color-success	--color-error	--color-warning	--color-background	--color-text-primary	--color-text-secondary
--color-border	--color-text	--color-border	--color-warning	--color-text-primary	--color-text	--color-text	--color-border
--spacing-xs	--spacing-s	--spacing-m	--spacing-l	--spacing-xl	--spacing-xl	--border-radius-s	--border-radius-s
--font-family-base	--font-size-xs	--font-size-s	--font-size-m	--font-size-l	--font-size-l	--border-radius-m	--border-radius-m
--font-size-xs	--font-size-s	--font-size-m	--font-size-l	--font-weight-regular	--font-weight-bold	--border-radius-l	--border-radius-l

Tier 3: Component Tokens

(Highly specific overrides)

Button

--button-primary-background: --color-primary
--button-primary-text: --color-text-on-primary
--button-spacing: --spacing-m

Card

--card-background: --color-surface
--card-border-radius: --border-radius-m
--card-padding: --spacing-l

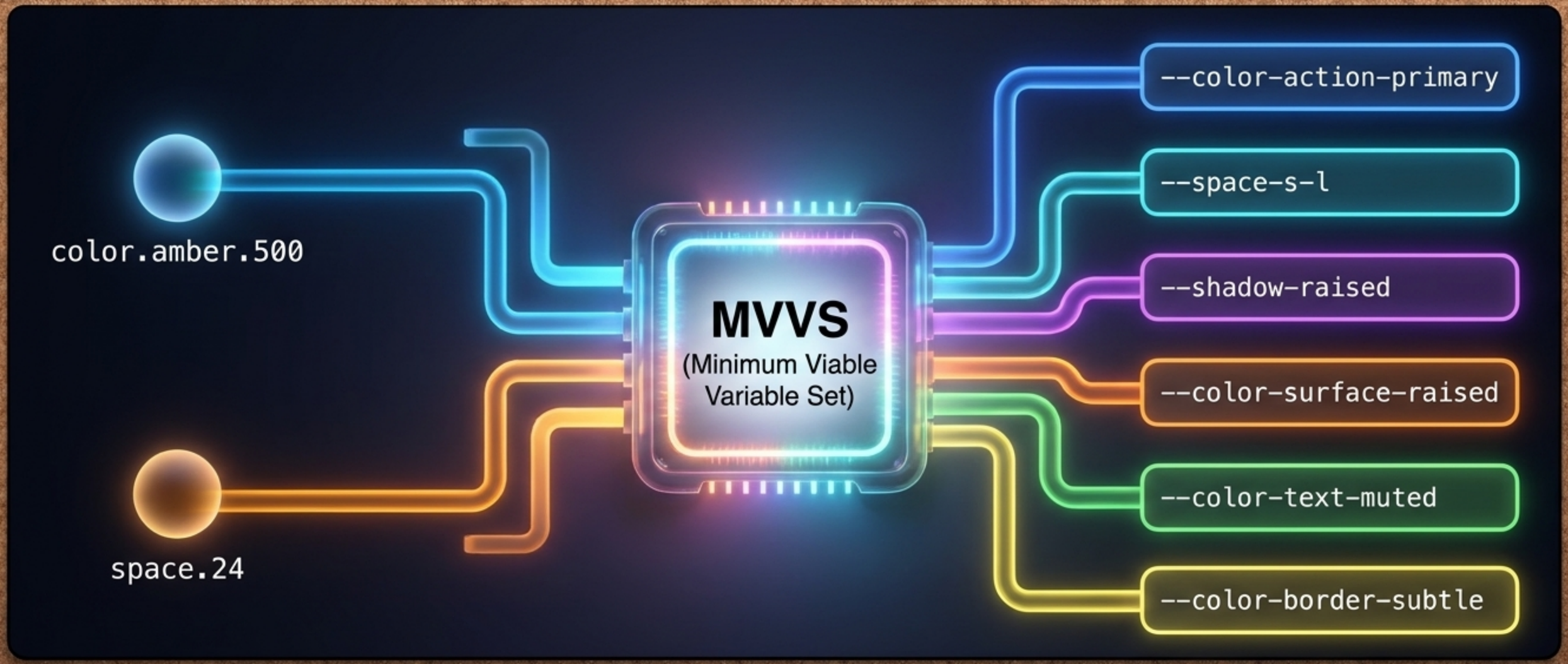
Input Field

--input-border: --color-border-input
--input-padding: --spacing-s
--input-text: --color-text-input

Architectural Rule: Never reference raw values in components. By pointing elements at semantic abstractions, you enable **systemic theming and mode swapping** without ever touching HTML markup.

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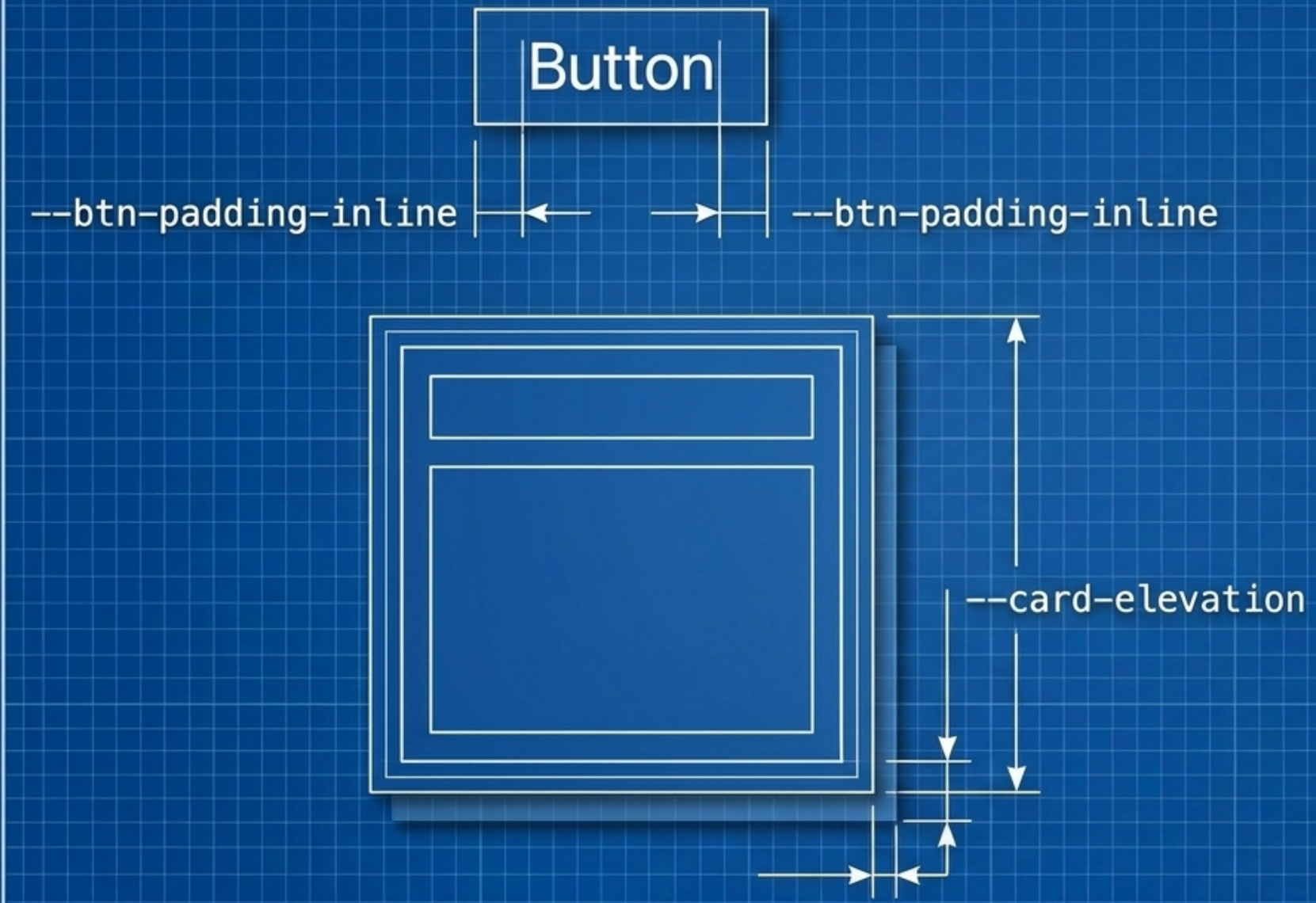
7. The Switchboard: MVVS as the Intent Abstraction Layer



Naming Intent: Tokens must name the intent (the role it plays in the UI), not the appearance (the hex code).

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Component Tokens: Governance Rules



- **Rule of Thumb:** Rely on Semantic Tokens for global cohesion.
- **Exception:** Use Component Tokens only when highly specific overrides are required to isolate a complex component from global shifts.

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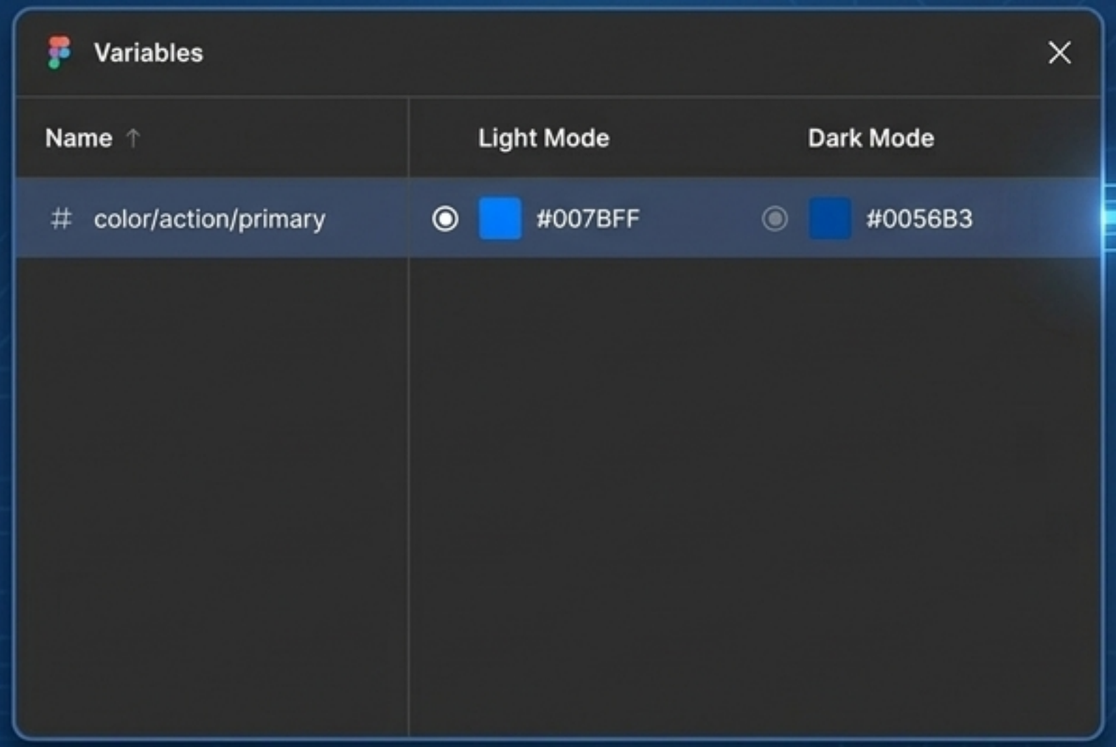
4. Synchronizing Tokens Across Figma, Website Builders & Modern CSS



Style Dictionary acts as the machine-readable hub. It translates standard JSON schemas into platform-specific variables, ensuring that a color change in the core repository perfectly propagates to every design tool and codebase simultaneously.

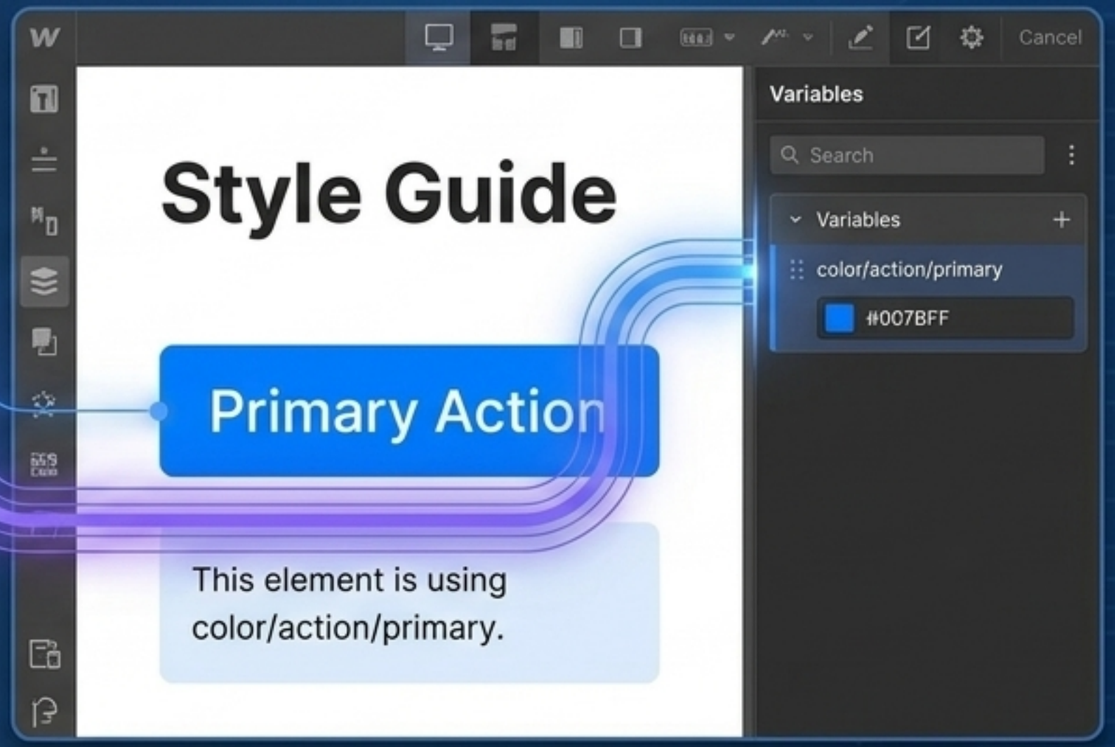
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Figma Variables



Modes: Light / Dark

Webflow Variables



Live Preview

The **Mapping Rule**: A variable in Figma must share the exact naming convention and structure as Webflow. This 1:1 mapping is what transforms a static mockup into a deployable system.

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Native CSS Architecture

```
@layer reset, tokens, base, components, utilities;
```

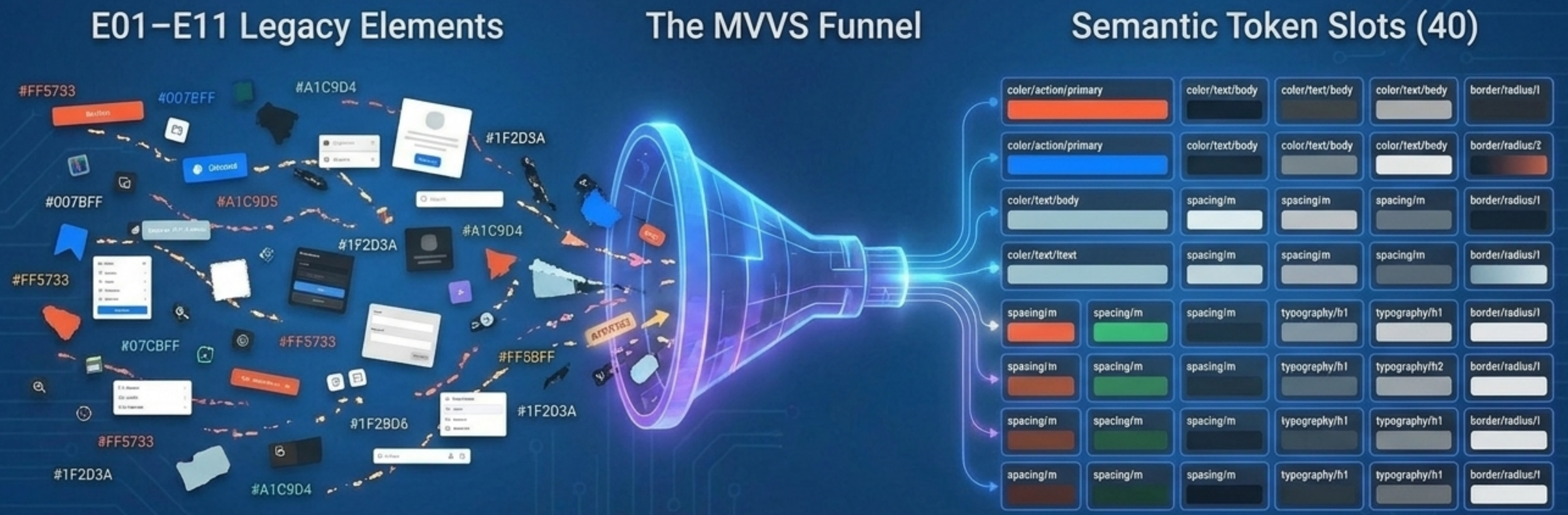
Tailwind v4 Configuration

```
@theme {
  ...
}
```

Disabling Slop: By importing custom semantic tokens into Tailwind's new `@theme` directive and utilizing strict CSS layers, we override default generic slop and govern all Custom Properties securely.

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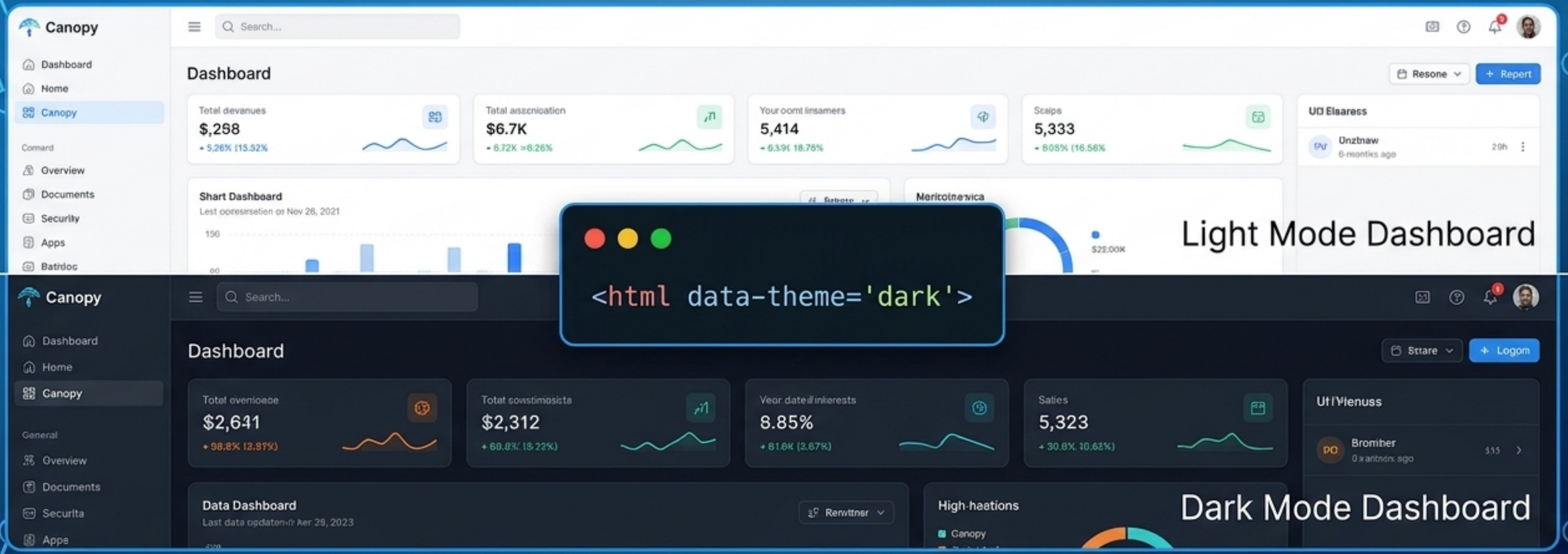
5. Live System Extraction & [data-theme] Mode Swap on Canopy



Extraction Process: Legacy design decisions must be audited and forcefully consolidated into strict semantic roles, eliminating 'one-off' anomalies to build a scalable foundation.

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Architectural Magic: Semantic Tokens & [data-theme] Attribute



Architectural Magic: Semantic tokens (Tier 2) seamlessly remap to different primitives (Tier 1) via the [data-theme] attribute. This requires zero HTML markup edits and inherently preserves WCAG 2.2 contrast ratios automatically.

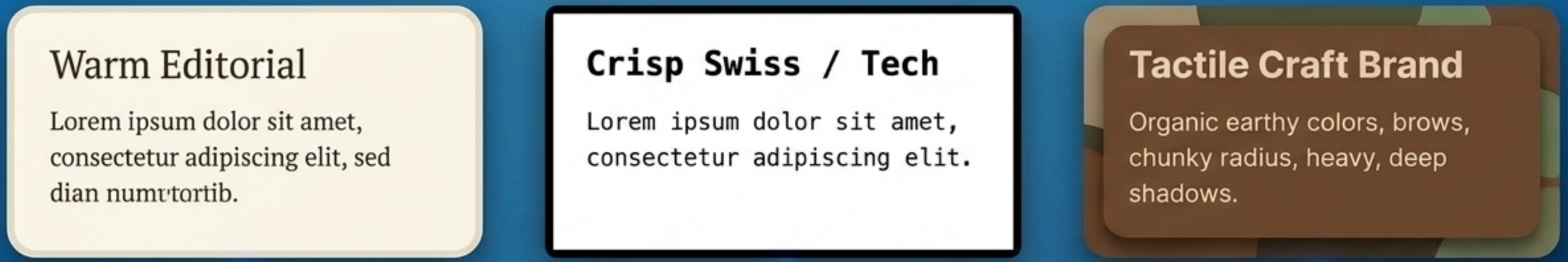
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6. Three Contrasting Visual Archetypes & DESIGN.md Guardrails

Warm Editorial

Crisp Swiss / Tech

Tactile Craft Brand




```
<div class='card'>
  <h2 class='title'>Card Title</h2>
  <p class='content'>Card content.</p>
</div>
```

Semantic Power: Radical brand shifts are achieved entirely through variable overrides, proving that structural semantics liberate visual design rather than restricting it.

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7. AI Assistant Guardrails & Strict Semantic Enforcement

AGENTS.md / DESIGN.md

AI assistants will hallucinate raw hexes and generic UI clichés without strict guardrails:

1. NEVER output raw hex/RGB values; mandate `--color-*` vars.
2. NEVER use arbitrary pixel margins; mandate `--space-*` vars.
3. NEVER invent new utility classes.
4. Adhere strictly to the provided 40-token MVVS budget list.
5. Maintain 3-tier elevation rules (flat, raised, floating).
6. Ensure semantic HTML mapping.
7. Default to explicit token inheritance.

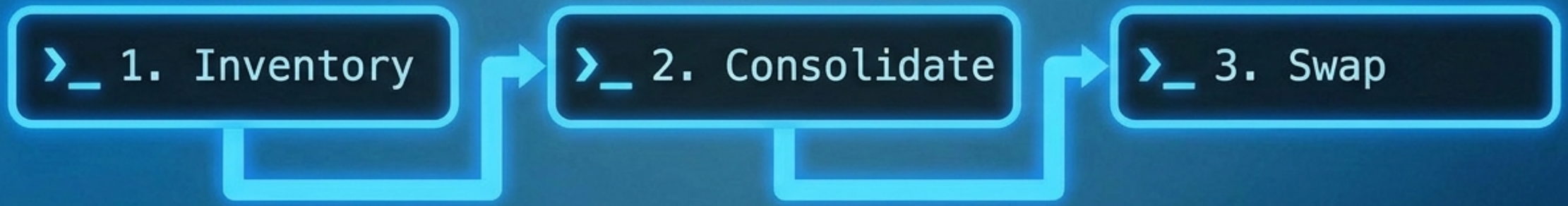
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The Token Budget

8 Color Roles:	Background, Surface, Border, Text-Main, Text-Muted, Action-Primary, Action-Hover, Critical
6–7 Type Steps:	xs, sm, base, lg, xl, 2xl, 3xl
8–9 Spacing Tokens:	2, 4, 8, 12, 16, 24, 32, 48, 64
3 Elevation Tiers:	flat, raised, floating
3 Concentric Radius Pairs: sm, md, lg	

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15-Minute Exercise

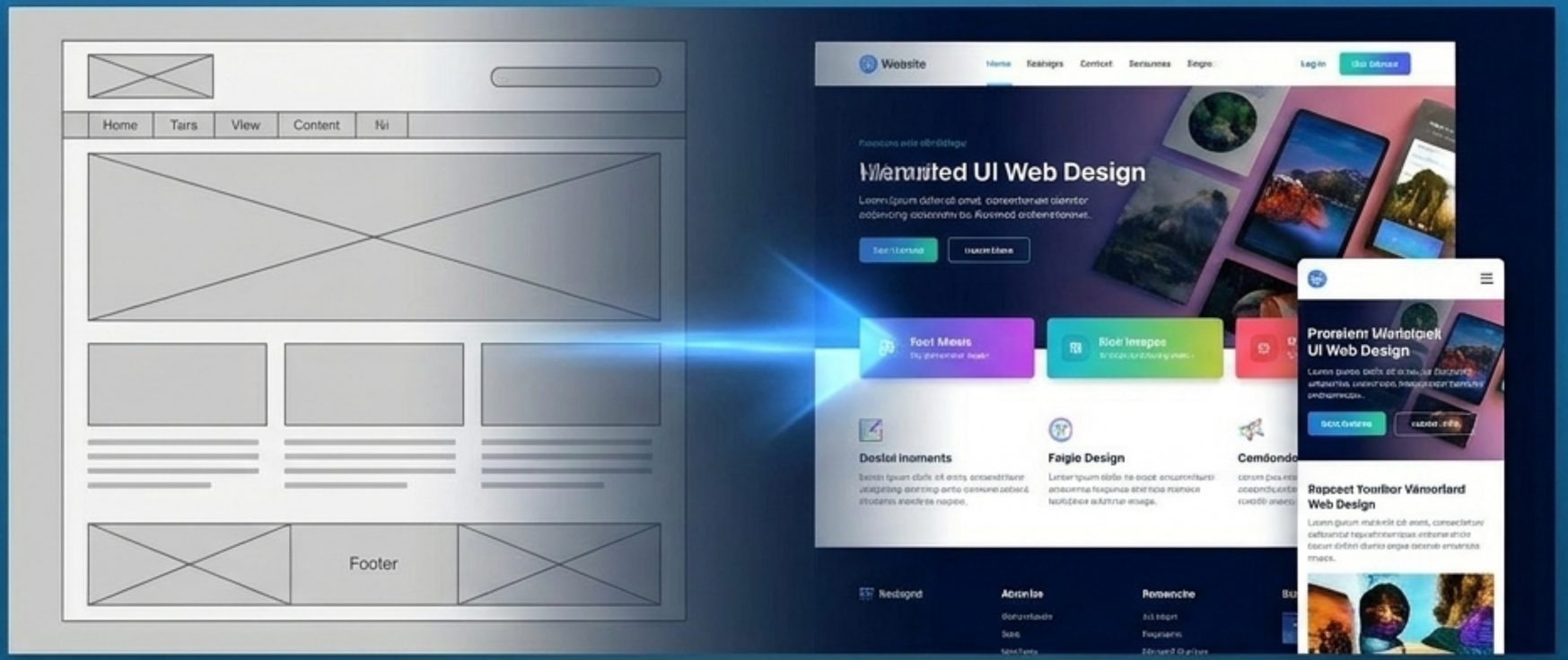


10-Min UI Inventory. Screenshot 5 different buttons/inputs from a current active project.

Map their raw, chaotic values directly into the ~35-token MVVS budget table.

Mode-Swap. Remap those values for a dark mode state without touching the underlying HTML.

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Next Up: Series Finale

S09E13: A Complete Website Redesign

The Culmination: We will take the fluid typography, responsive layout techniques, and the 40-token MVVS we built today, and deploy them to redesign a live website from the ground up.

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