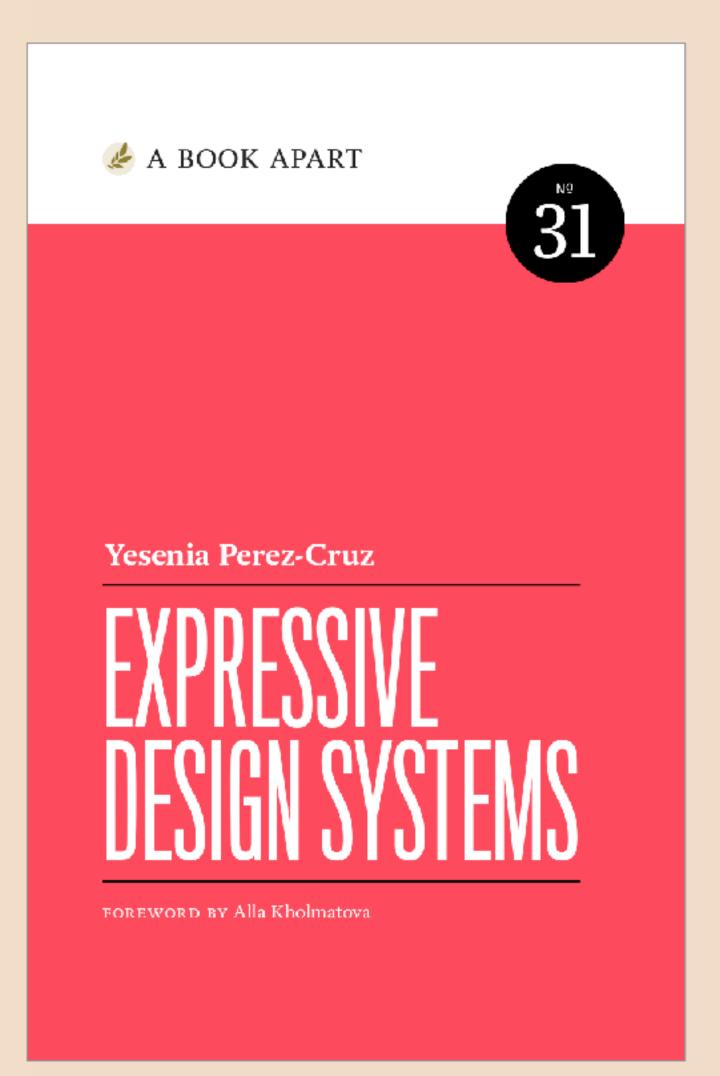


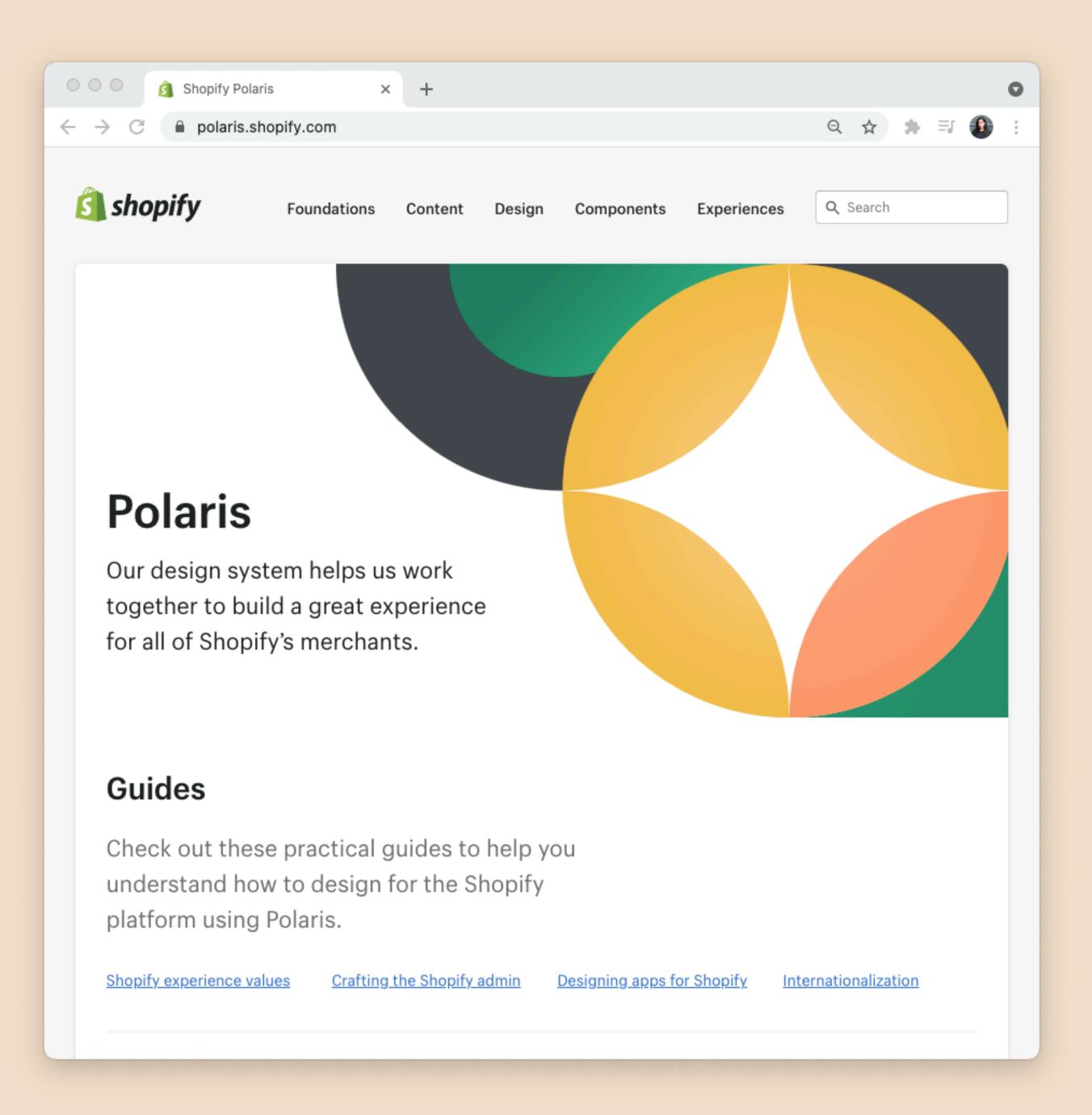
Resilient Design Systems



DesignMatters'21

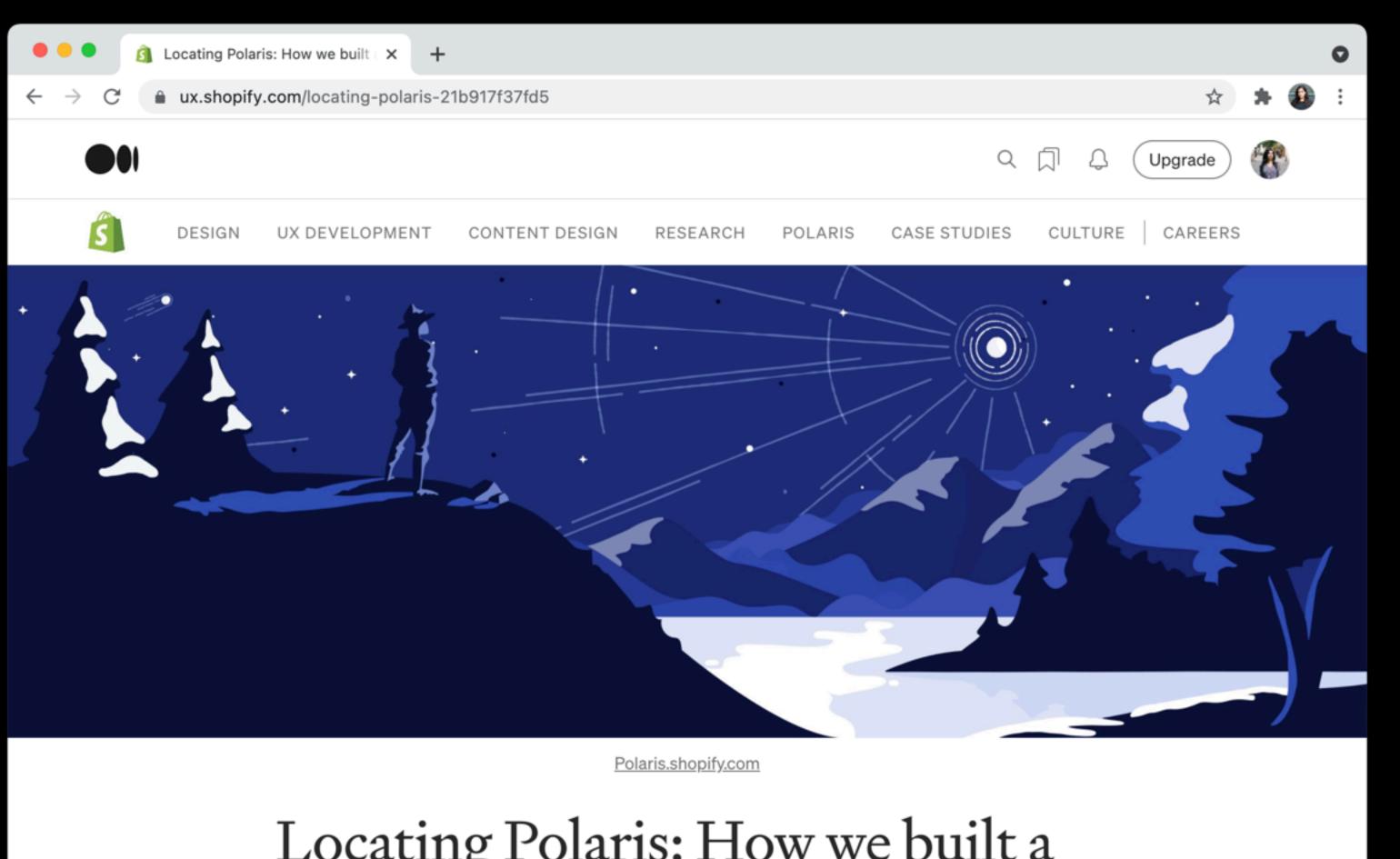
Yesenia Perez-Cruz





Faster builds Better products Improved scaleability Stronger focus

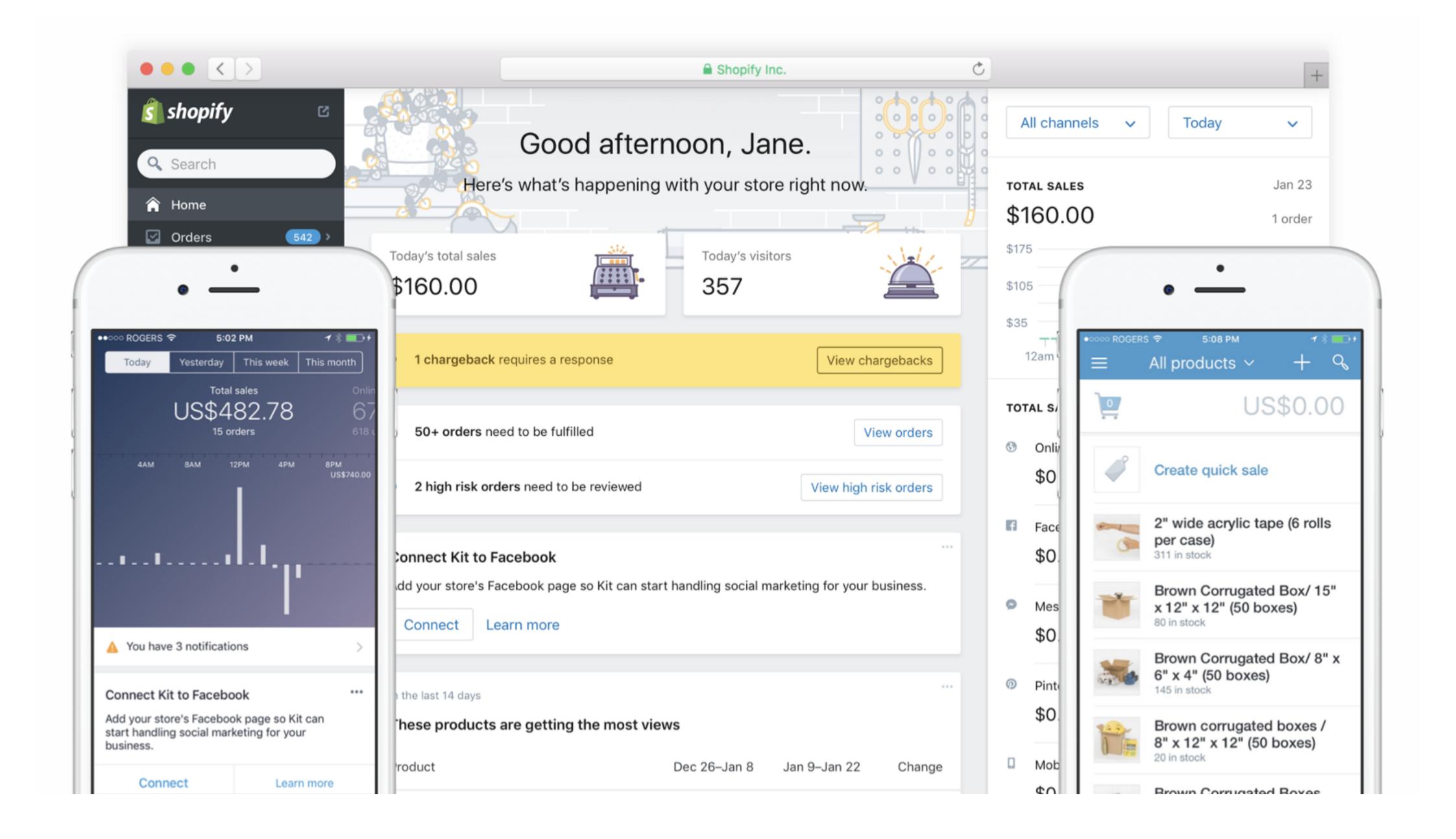
Rigid Monotonous Stifling Complicated

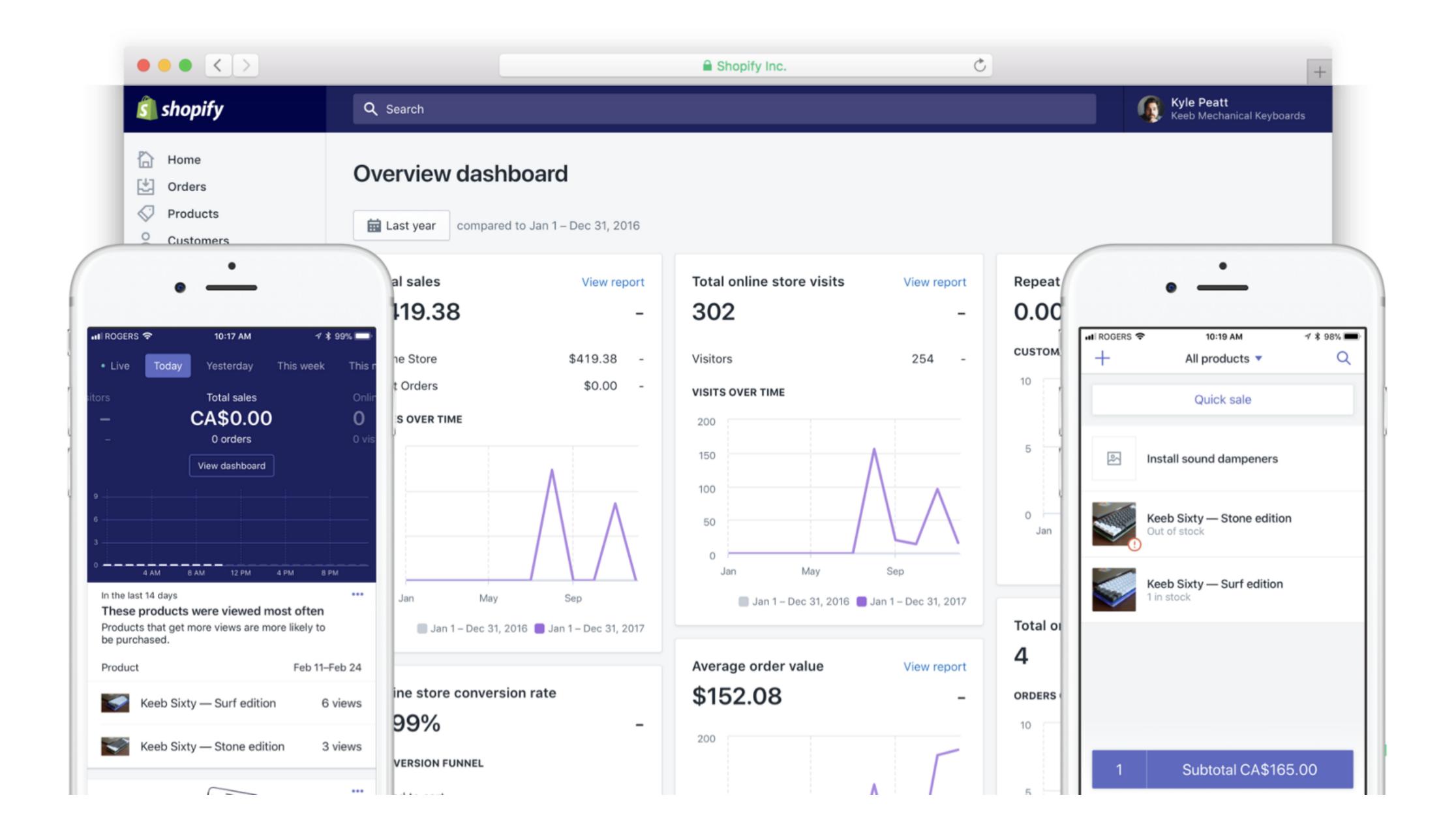


Locating Polaris: How we built a style guide for our design system

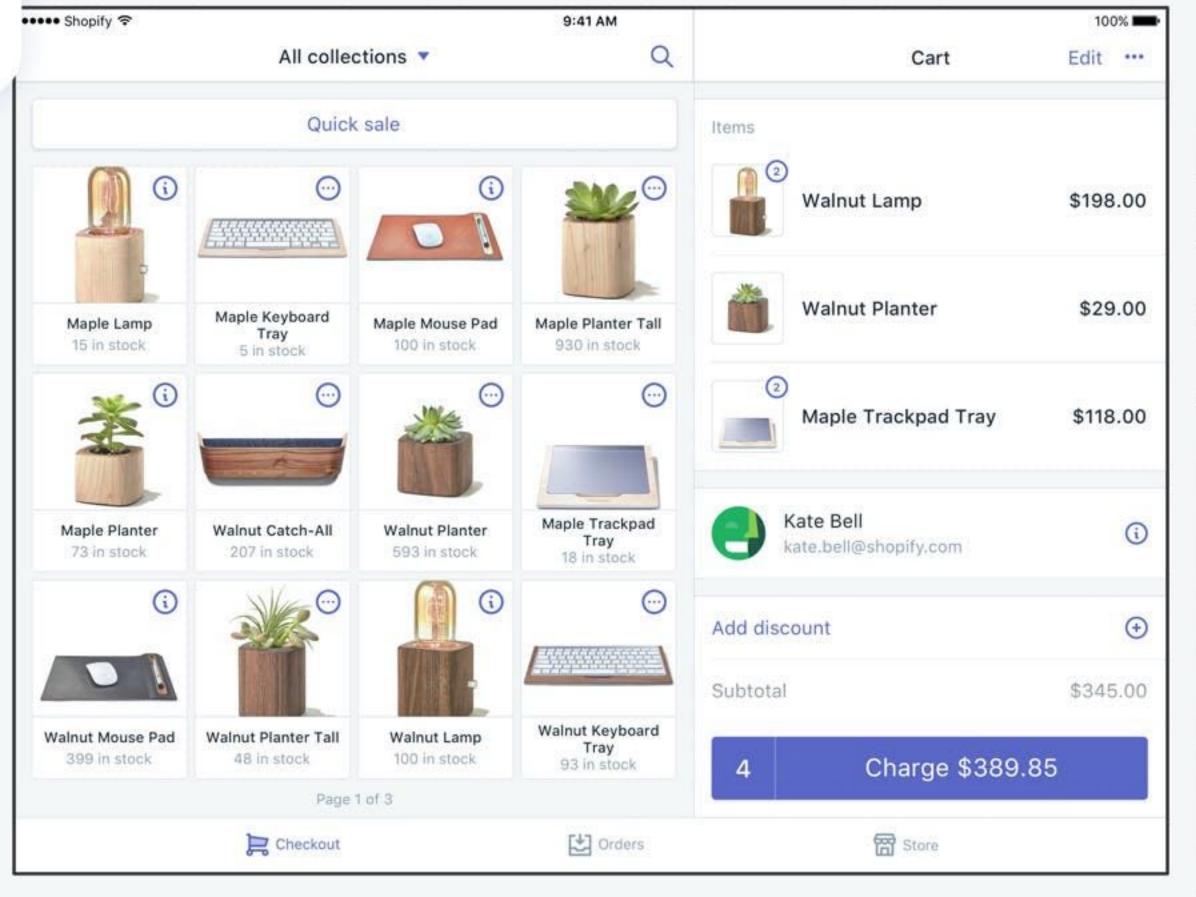


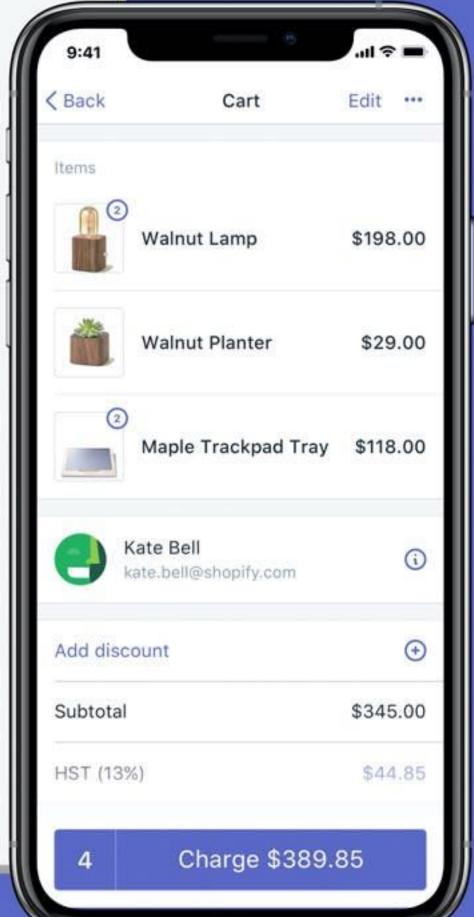














Help businesses adapt to COVID-19. Enter the Shopify App Challenge: Learn more ♂ ×



Q ≡

CONCEPTS

Introduction to Shopify

WAYS TO BUILD

Building apps

Building themes

Building channels

Custom development work

USING SHOPIFY APIS

Authentication

Versioning ~

Rate limits

Search syntax

Response status codes

API Terms of Service ₹

TRUST AND SECURITY

GDPR requirements for developers

SHOPIFY APP STORE

Visibility in the Shopify App Store

Getting your app approved ~

Success in the Shopify App Store 🗸

Shopify App Store ads 🗸

Developing on Shopify

More than 1,000,000 merchants use Shopify to run their businesses. They come in all sizes, from all around the world, and each one is different. Shopify solves many of their hardest commerce problems out of the box—but every business has unique needs.

That's where you come in.

Make Shopify better for everyone

Shopify's mission is to make commerce better for everyone. But Shopify can't be all things to all people. Instead, we empower third-party developers, known as Shopify Partners, to create apps, themes, and other integrations that build on Shopify's platform. That way, merchants can tailor their experience however they need, and developers can build their own businesses supporting those entrepreneurs. This virtuous circle creates new business opportunities and benefits merchants, partners, and Shopify.

Shopify's <u>suite of APIs</u> and our open-source templating language, <u>Liquid</u>, enable you to make Shopify work the way your clients demand. And our robust developer platform lets you use the business model that works for you.

On this page

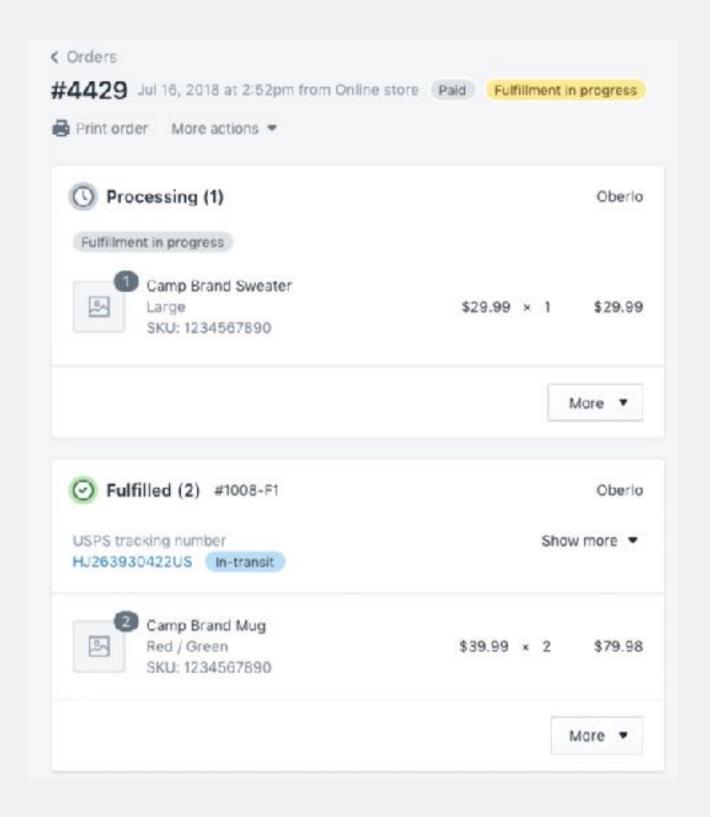
C

Make Shopify better for everyone

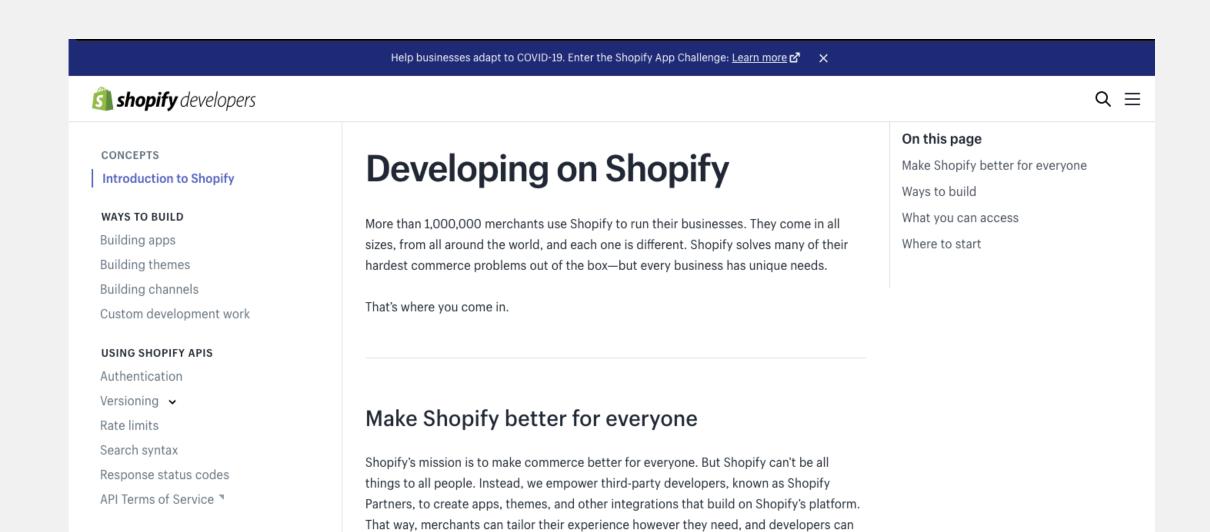
Ways to build

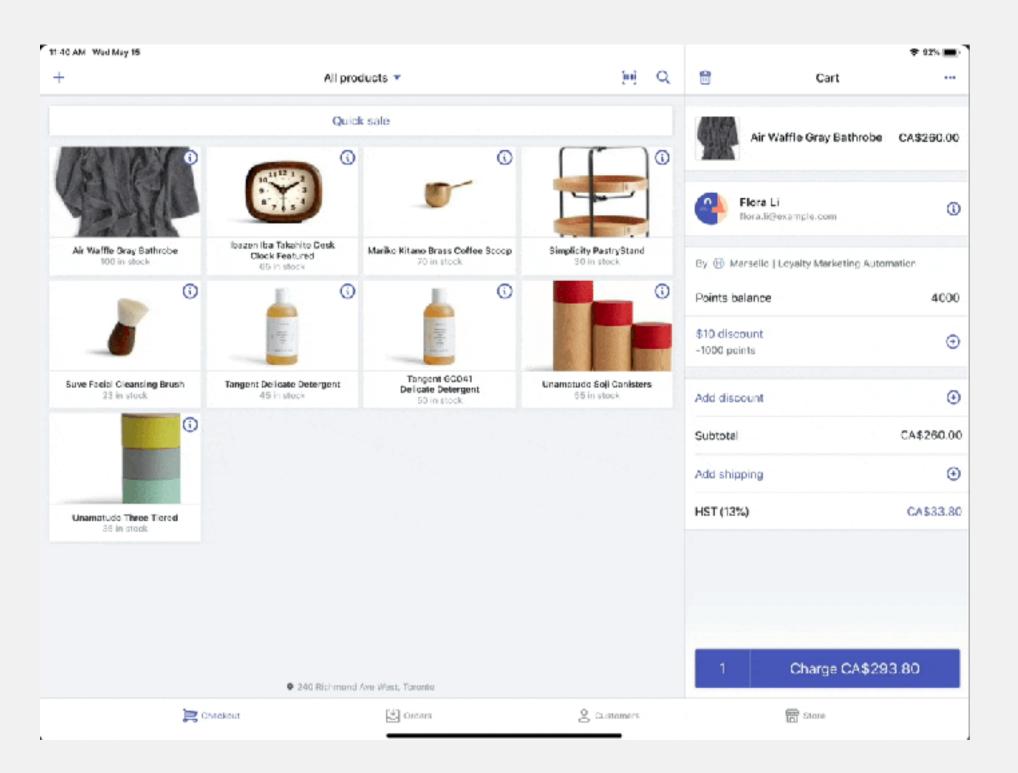
What you can access

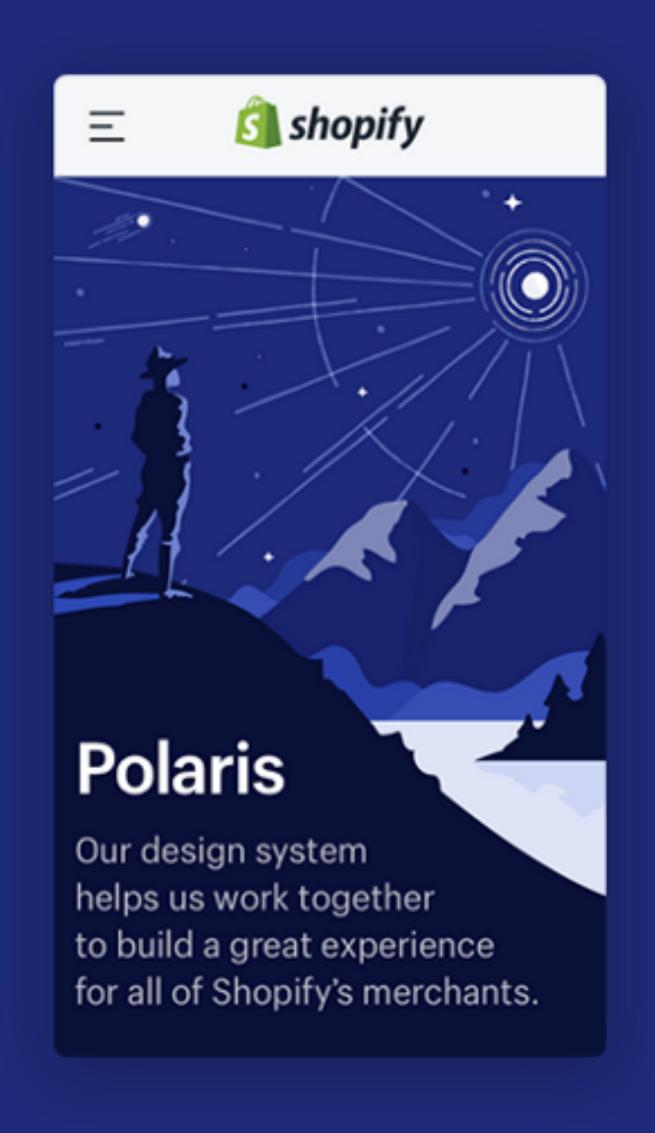
Where to start



Everything felt too similar







"Sure, the baseline quality definitely increased.

But it felt like our teams creativity was decreasing in equal measure. Kyle Peatt

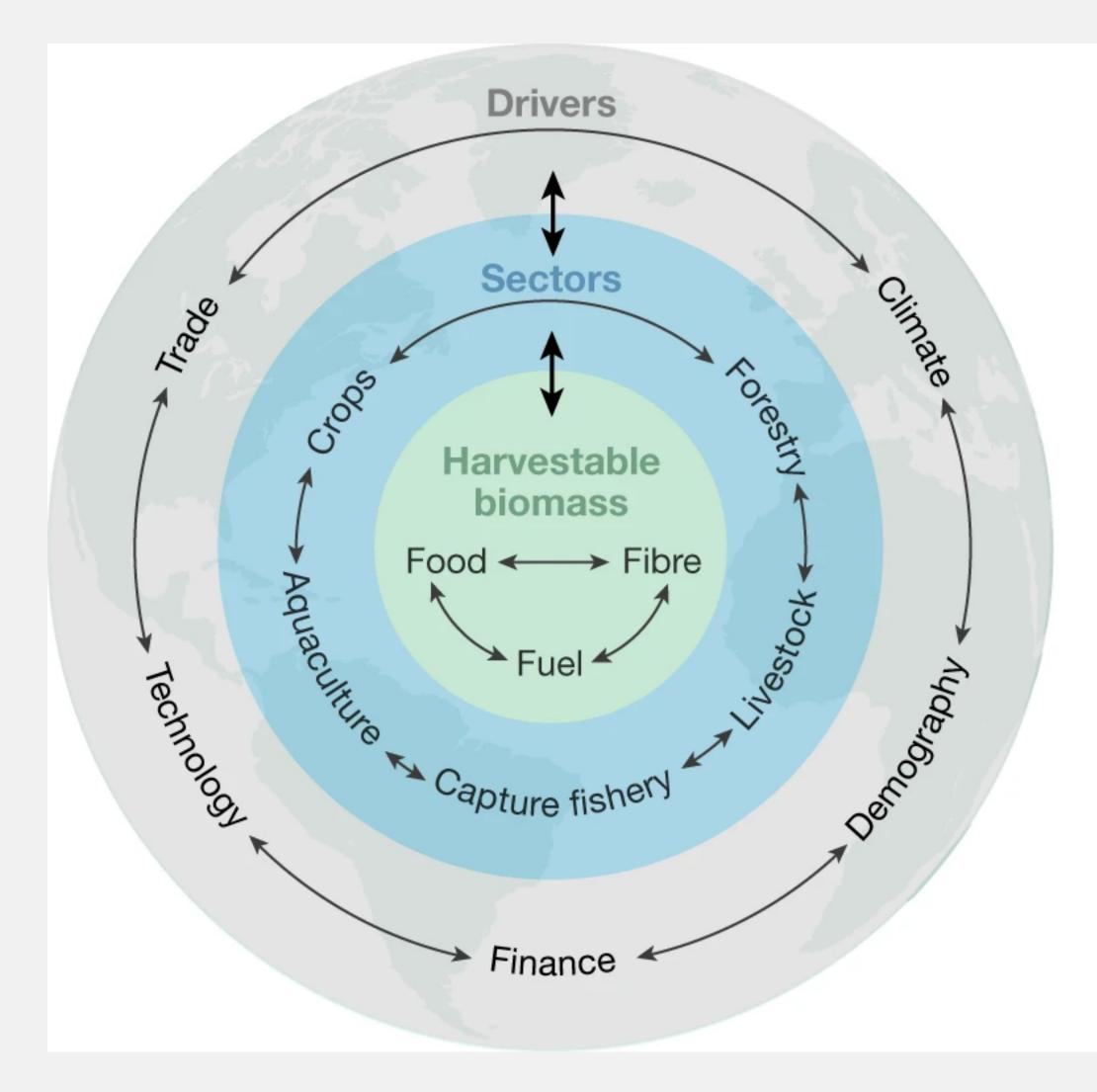




This bridge was built to last.

Then the river changed course.





Connectivity: the breakdown of isolation



- Climate connections
- International trade
- Output-as-input relationships
- Transnational corporations

Diversity: more becomes less



- Biotic homogenization
- Habitat simplification



- Standardized food supply
- Industry consolidation

Feedback: decoupling in a hyperconnected world

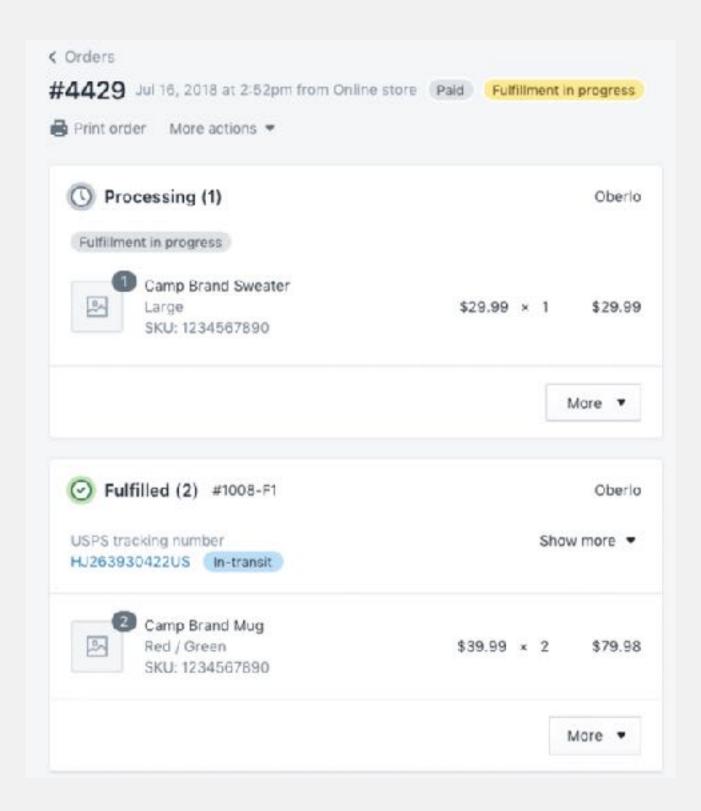


- Intensification
- Supply substitution
- Virtual trade
- Financialization

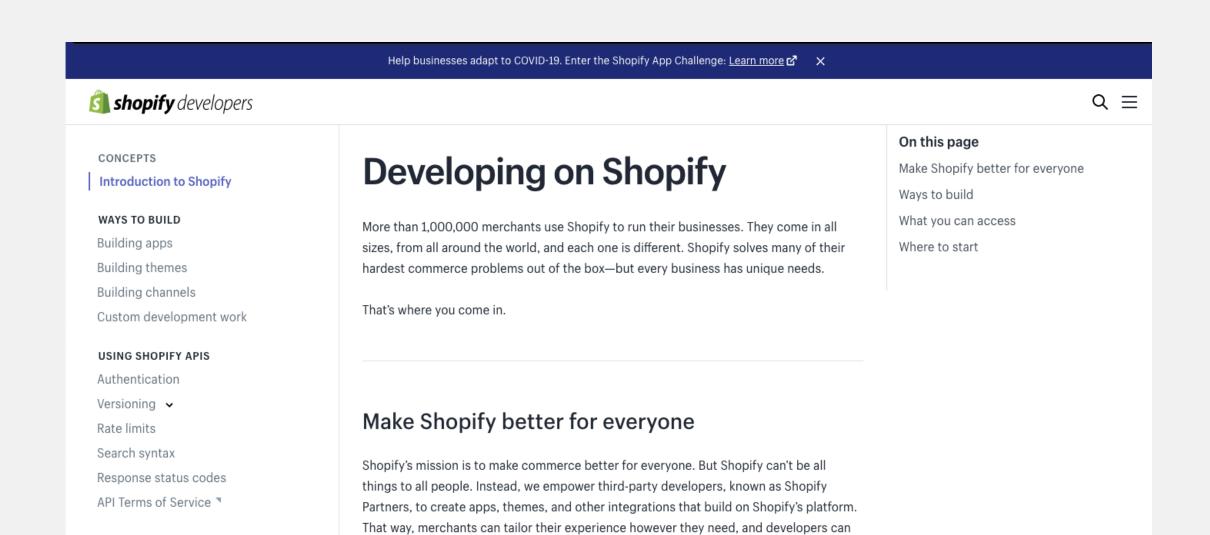


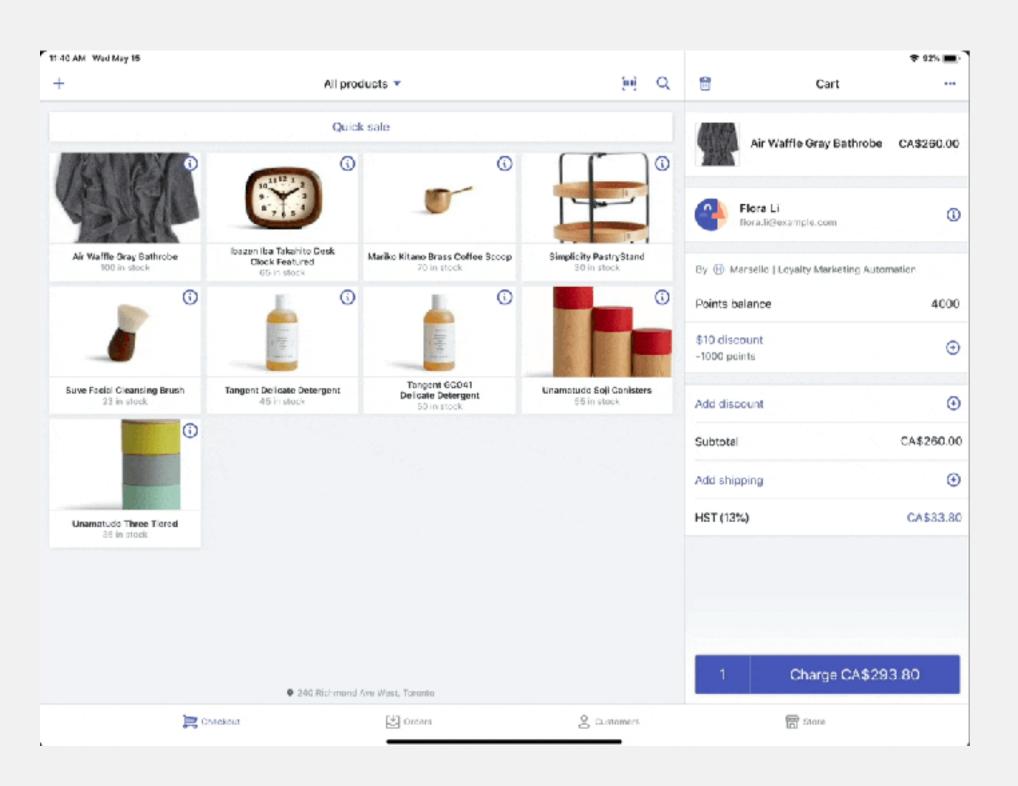


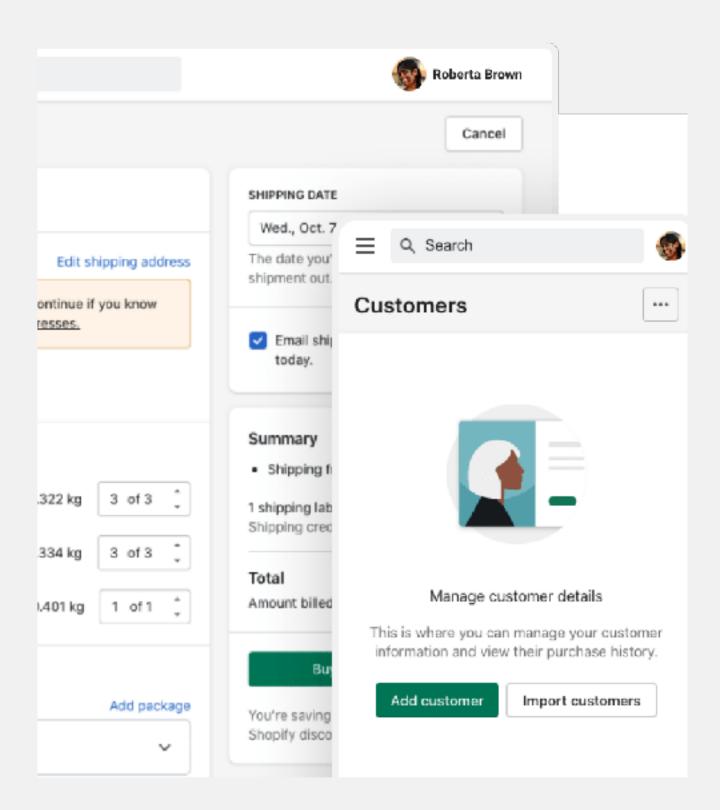




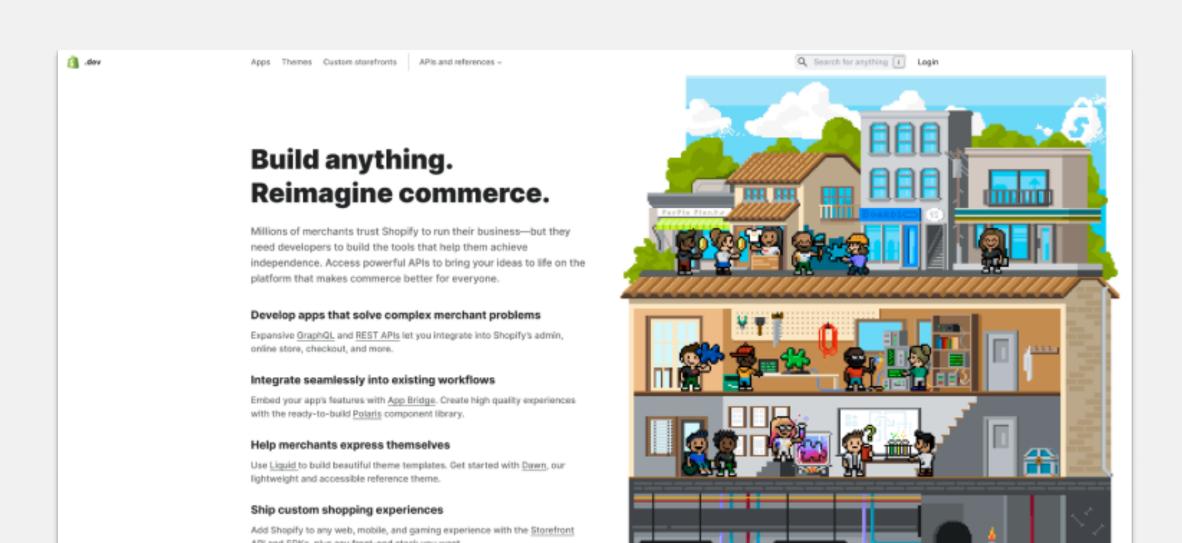
Too similar

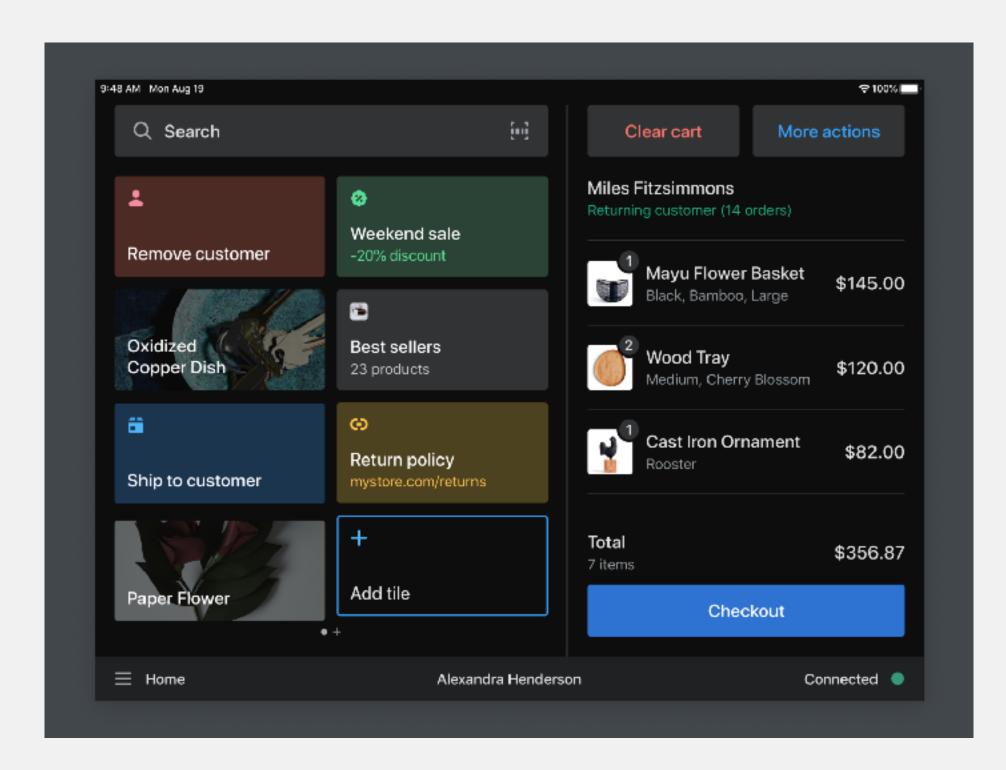






Purposeful range







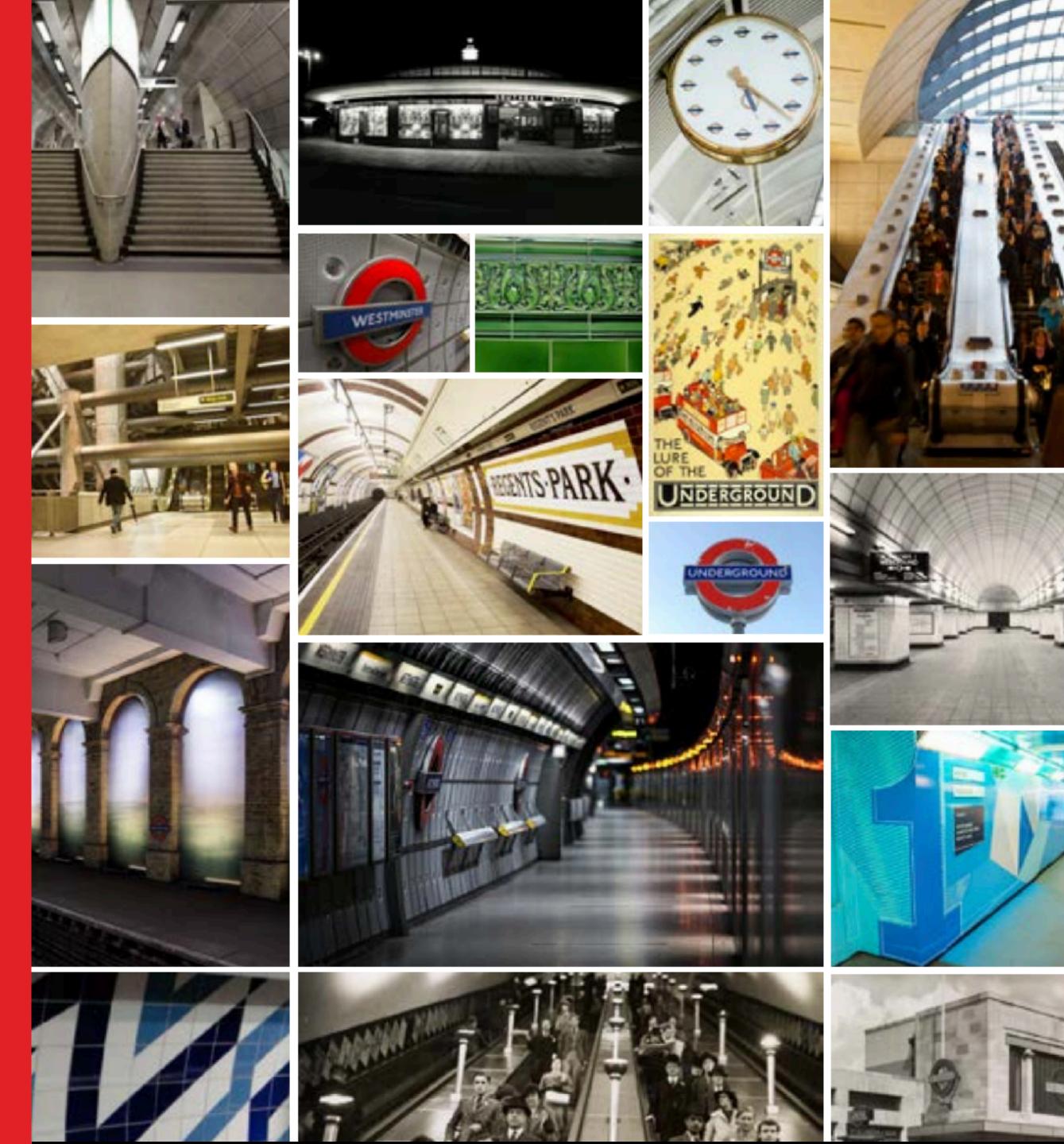




Unintentional divergence Intentional, but unnecessary divergence Intentional, meaningful divergence

Unintentional divergence Intentional, but unnecessary divergence Intentional, meaningful divergence

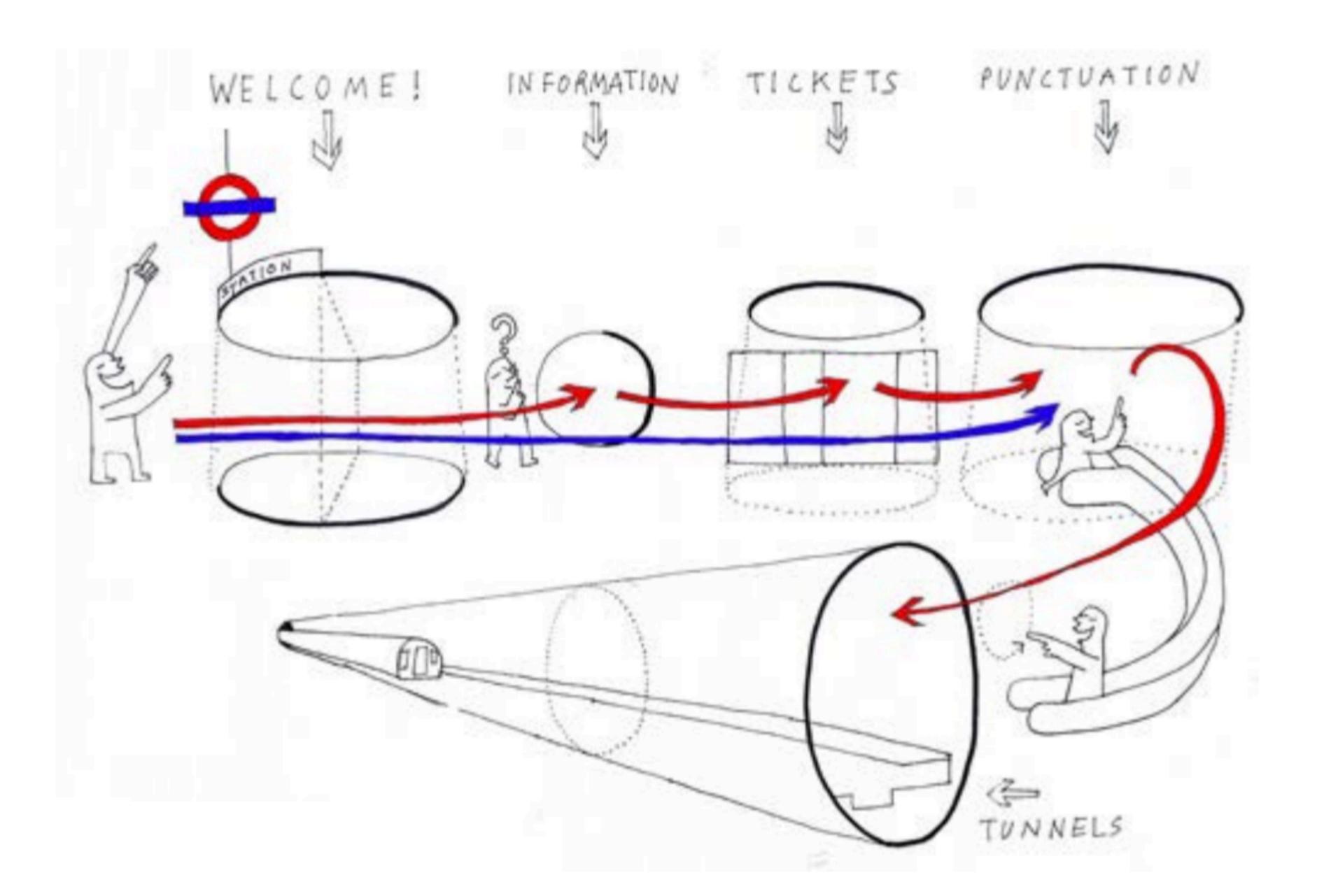




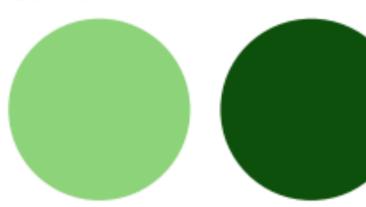




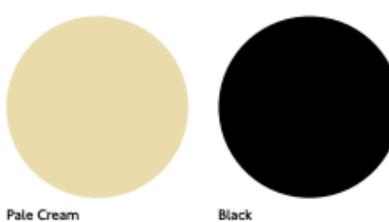




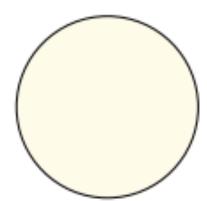
Colour



Light Green NCS-S 3040-G40Y Dark Green NCS-S 6030-G10Y



NCS-S 9000-N



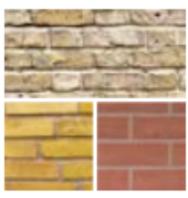
NCS-S 1030-Y10R

White NCS 0502-Y



Trim colour Bronze finished brushed stainless steel

Materiality



London stock/yellow/red



Roof tiles



Painted cills/window frames/ external architrave



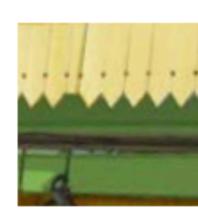
Floor tiles/pavers Grey granite/terrazzo (int) Mid grey concrete pavers (ext)



Cast iron Canopy supports (plat)



Canopy supports (plat)

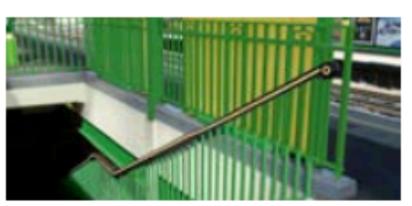


Timber Painted valance (plat)

Special features



Roof trusses and framework (Ealing Broadway)



Balustrade, railings and steel beams (Ravenscourt Park)

Globe pendants

(Notting Hill Gate)



Brick construction Flemish bond / English bond (station specific)



Polychromatic arched entrance (East Putney)

Examples stations



North Ealing exterior



Turnham Green painted timber platform screens.



Ravenscourt Park exterior



Ravenscourt Park Painted timber platform canopies



Notting Hill Gate Cast iron painted arch and glazed roof

Colour



Ribbon blue NCS-S 2030-B10G



Black

Light oak

Varnished timber

NCS-S 9000-N

White NCS-S 0500-N

Materiality



Ceramic White/cream Wall details/panels



Brick Red



Portland stone



Pantile roof Brown



Floor tiles/pavers Terrazzo (int/ext) Checkerboard (int) Concrete flagstones (ext)



Painted valance (plat) (Colindale)

Special features



Neo-Georgian columns, bronze balcony hand rails and lettering (Hendon Central)



Platform self-winding clock (Colindale)

Cross)

Decorative timber work

Door (Brent Cross)



Platform bench with London Underground 'tomb stone sign' (Colindale and Burnt Oak)

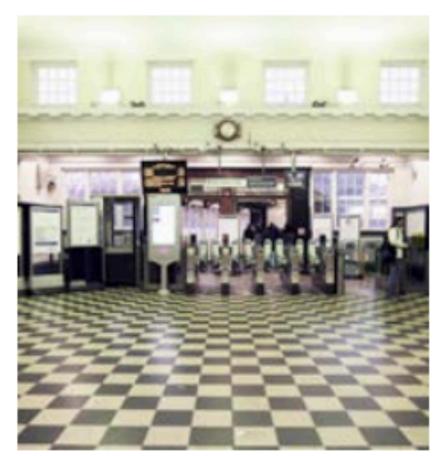


Platform canopy detail Checkerboard floor (Brent (Colindale)



Decorative iron work (Brent Cross)

Examples stations



Hendon Central ticket hall



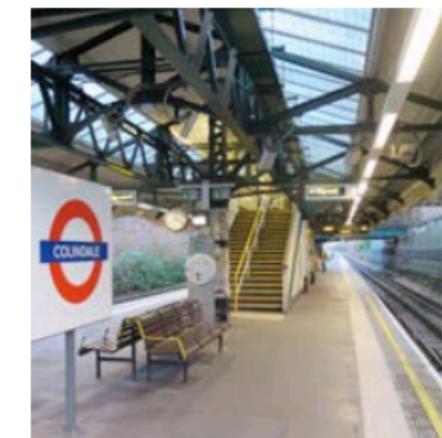
Hendon Central exterior



Brent Cross exterior



Brent Cross ticket hall



Colindale platform

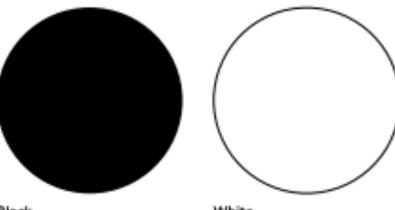


Trim colour Bronze finished brushed stainless steel

Colour



Corporate blue Corporate light grey NCS-S 4550-R80B NCS-S 4005-R80B

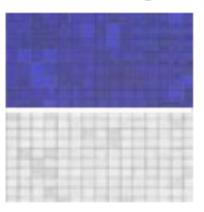


Black White NCS-S 9000-N NCS-S 0500-N

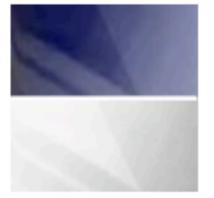


Trim colour Bronze finished brushed stainless steel

Materiality



Mosaic Glazed ceramic Blue/white Blue/white



Back painted glass Corrugated and coated Blue/white stainless Blue/bronze



Coated stainless Blue/bronze

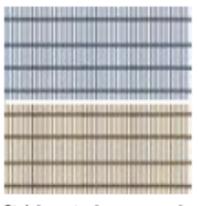


Travertine stone



Concrete In situ/precast/

managed the site and



Stainless steel woven mesh Blue/bronze

Special features



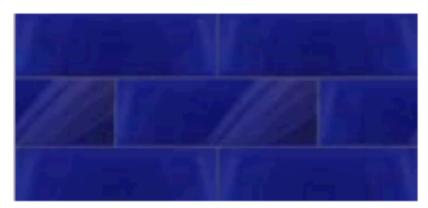
Textured cast concrete



Cast concrete



Stainless steel woven mesh ceiling



Varied glaze weight ceramic

Examples stations



Routeways



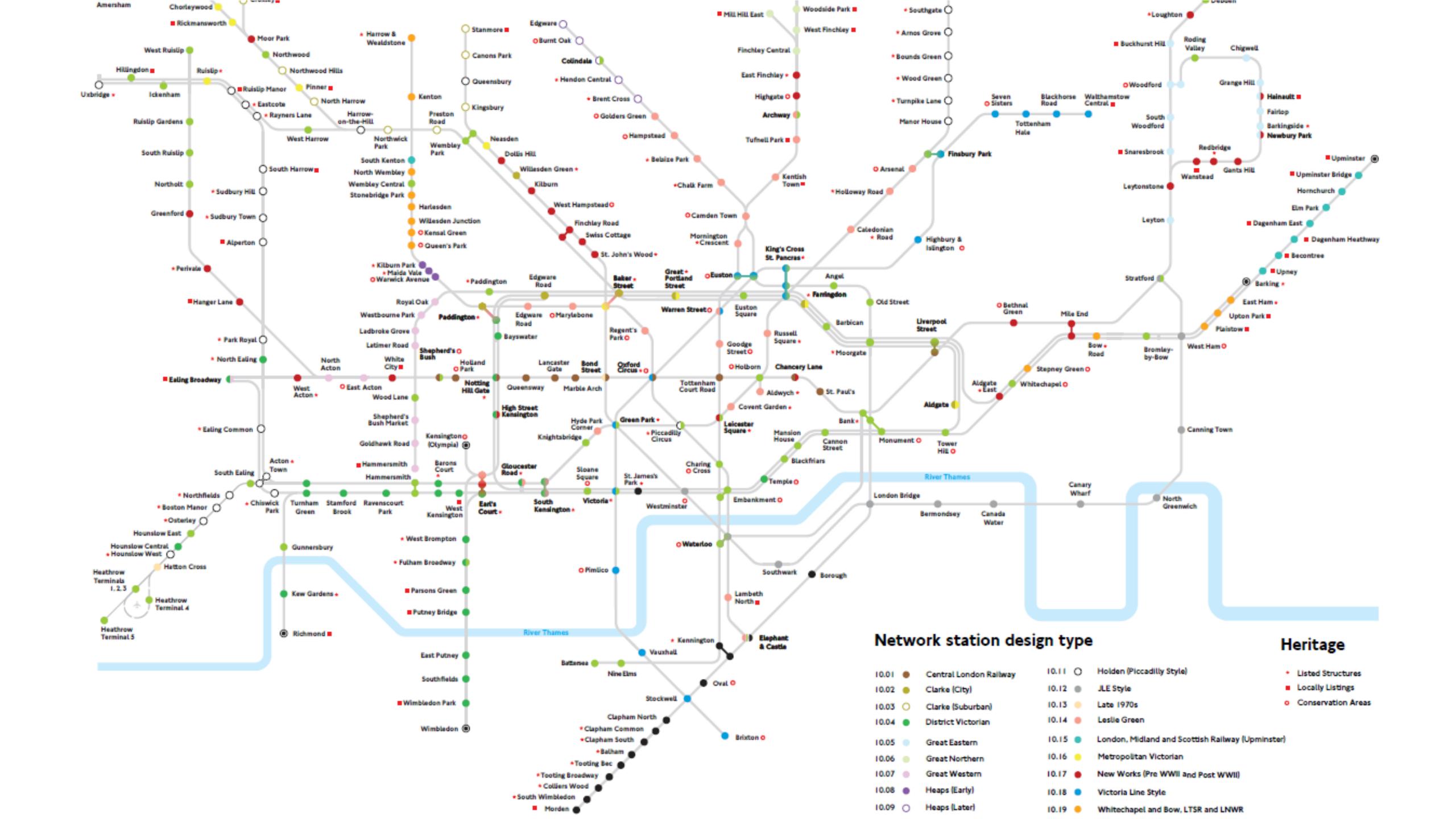
Escalator routeways



Platform



Ticket hall

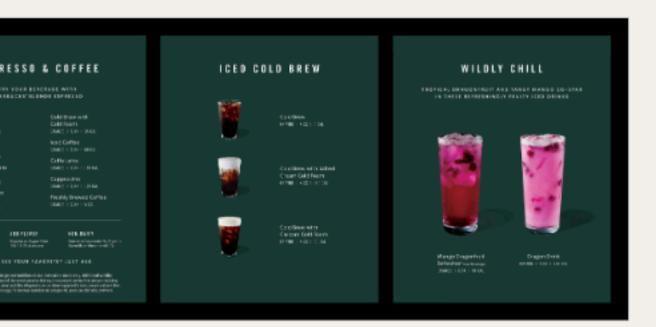


Network consistency vs Local flexibility

Shared foundation



Room for variation







Order











creative.starbucks.com





















"First, the design prioritizes legibility and conveying information as clearly as possible.

-Mark Wilson



"The other half is about expressivity, emotion, and all the other intangibles Starbucks wants to spark in the consumer.

-Mark Wilson





al store has Nitro Cold Brew infused. Naturally sweet. Creamy head Messages

Order











creative.starbucks.c om







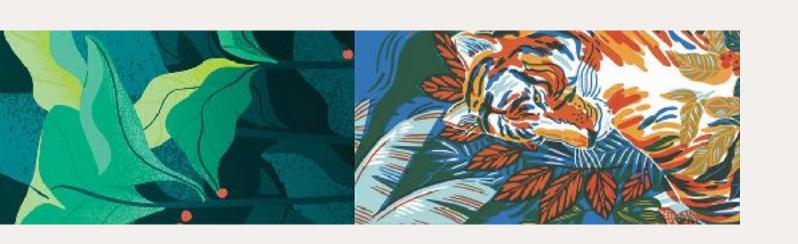




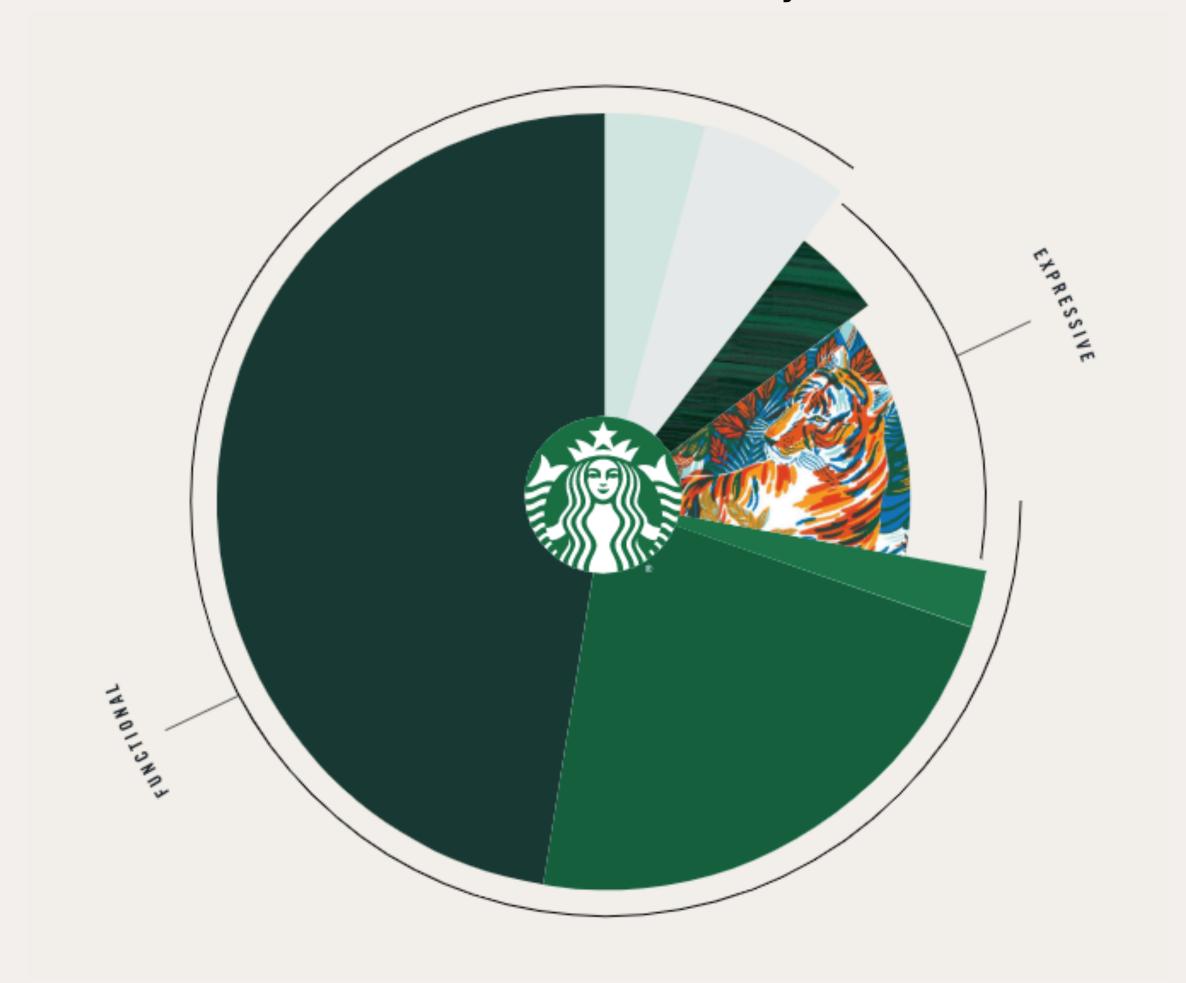




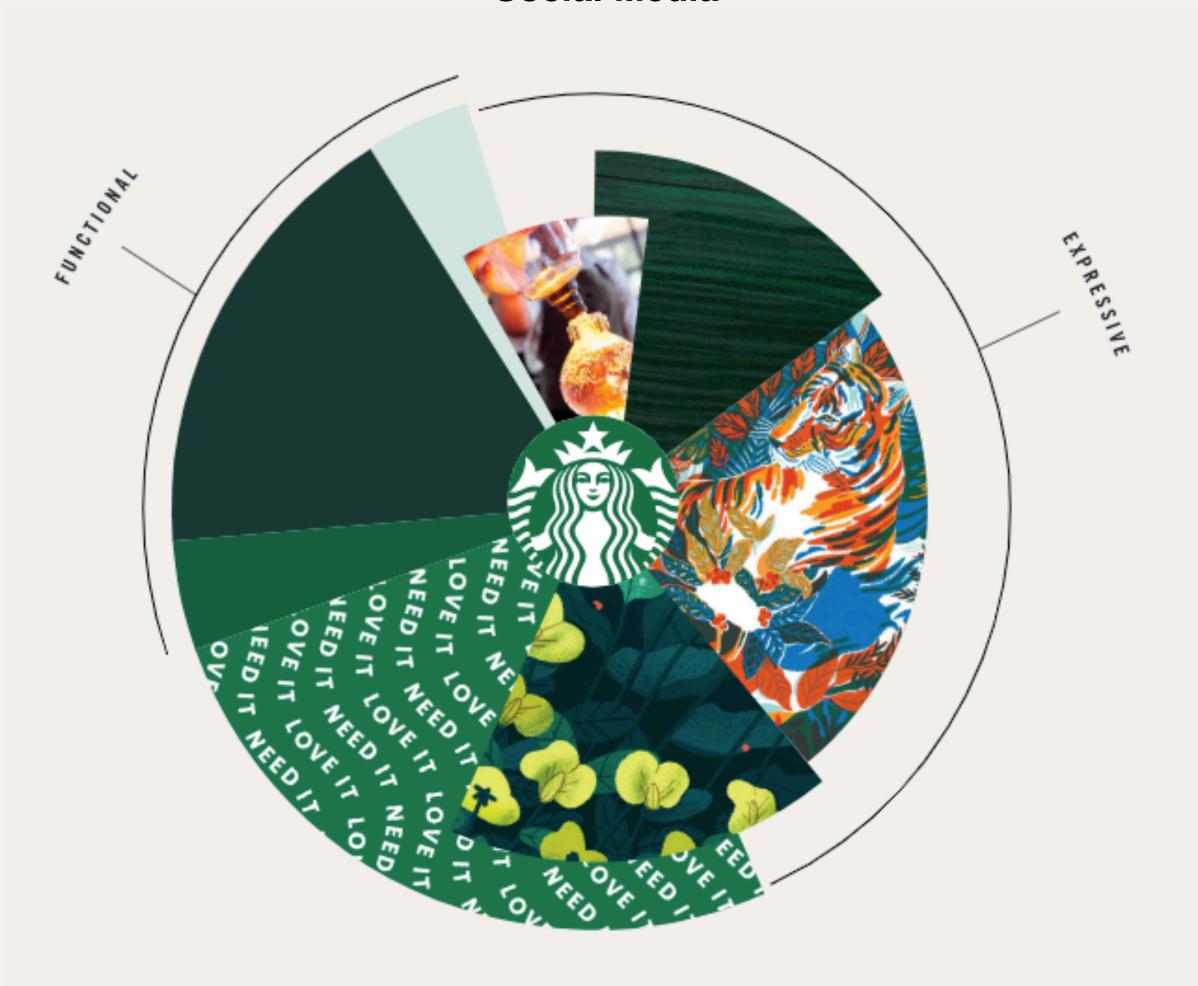




Mobile Order & Pay



Social Media

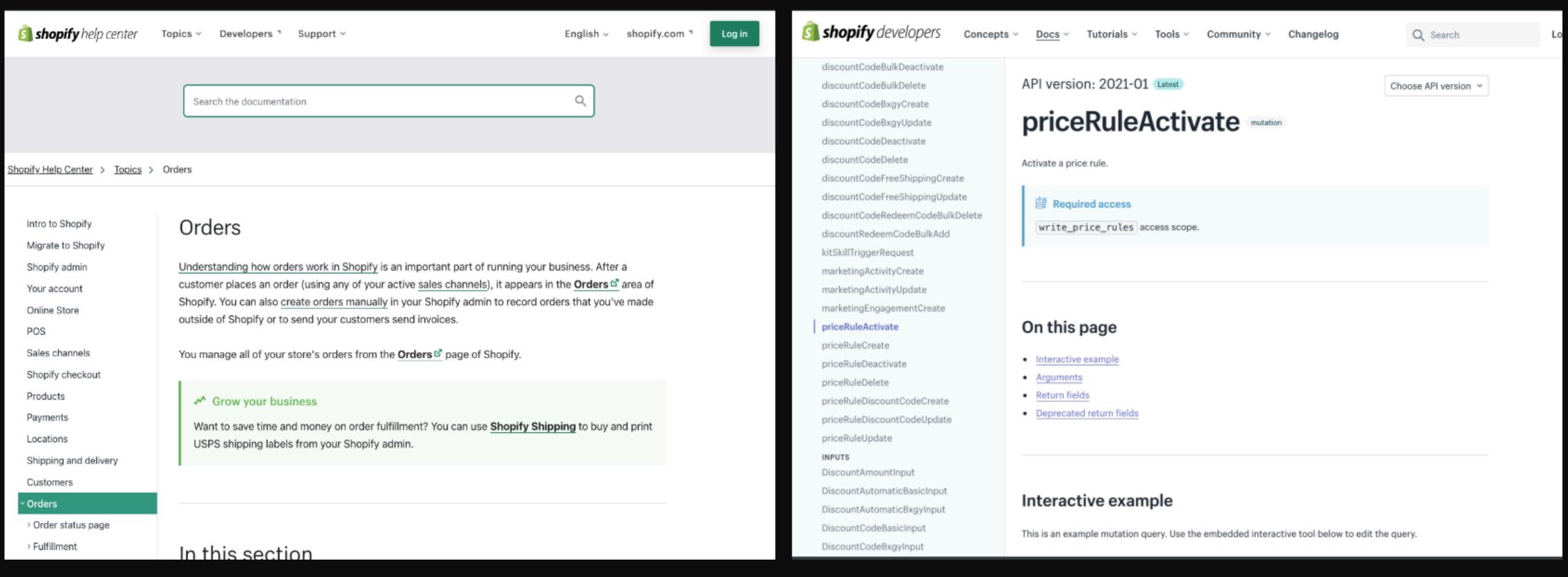


Case study:

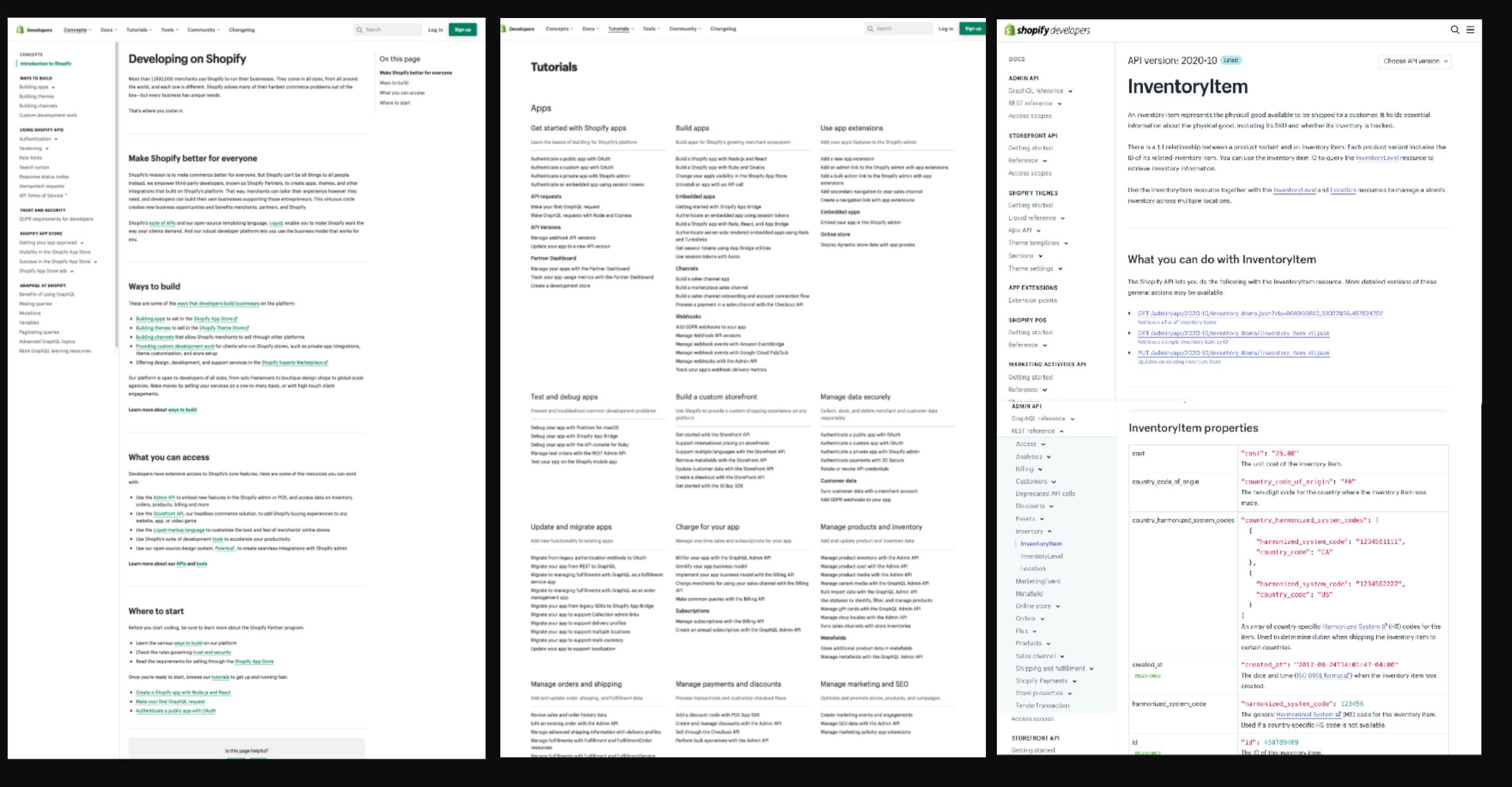
Developer design language

Merchant Help Docs

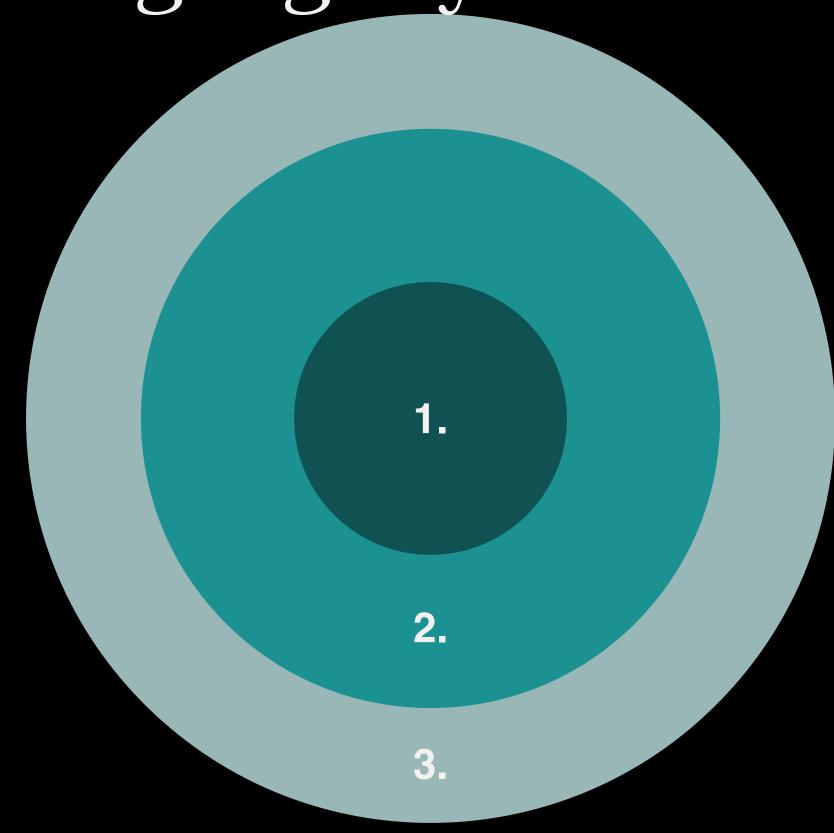
Developer Docs



Home Landing Reference



What makes an effective design language system?



- 1. An intentional baseline
- 2. Memorable moments
- 3. Purposeful range

1. An intentional baseline

Big Levers



Small Dials

Levers:

Broad, sweeping decisions about how our experiences should feel

Dials:

Small, detailed choices that enable the levers

Size

Small Large

Scale

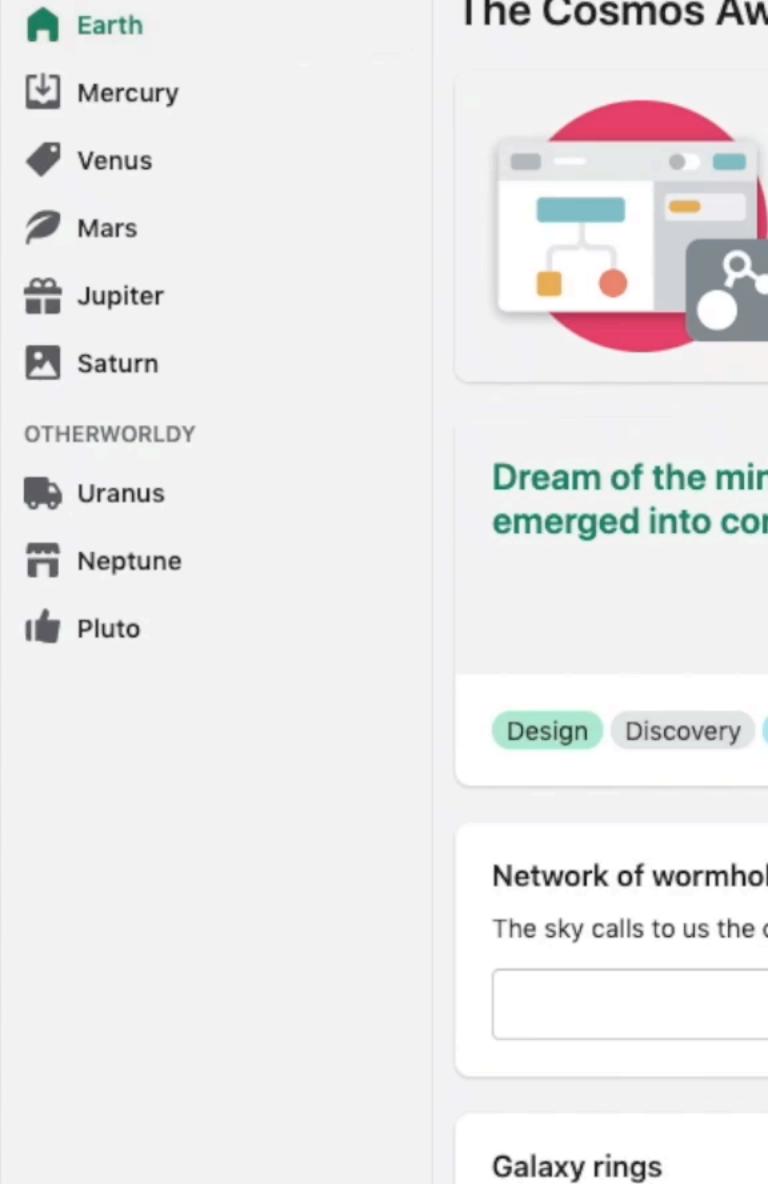
Low size _____ High size contrast

Density

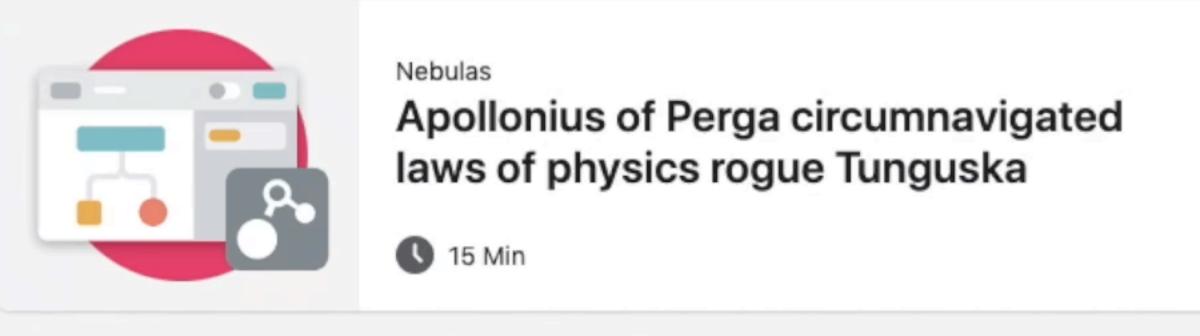
Compact Airy

Weight 19

Light — Heavy



The Cosmos Awaits



Hearts of the stars Dream of the mind's eye inconspicuous motes of rock emerged into consciousness and gas

Design Code Design Discovery Code

Network of wormholes

The sky calls to us the only home we've ever known invent the universe cosmic ocean

Sign up

Citizens of distant epochs birth astonishment hearts of the stars trillion ship of the imagination. The sky calls to us rich in heavy atoms bits of moving fluff at the edge of forever the only home we've ever known rich in mystery?

Something incredible is waiting to be something incredible is waiting to be known vastness is bearable only through love take root and flourish dispassionate extraterrestrial observer as a patch of light and billions upon billions upon billions upon billions upon billions upon

```
Density
Color Palette
        Purple Dark
Green
Iconography
         Outline Emoji
Filled
Shape
Depth
Visual assets
Illustration Photo Ascii
Logo
        Shop Mono
Admin
Layout

▼ Topbar

■ Icon navigation
■ Show symbols
Choose a preset
        Shop
                Mono
Admin
Theme overrides
"pageNav": {
  "color": "textMuted",
  "link": {
    "&.active": {
      "fill": "currentColor",
     "color": "primary"
    "&.active:before": {
      "position": "absolute",
      "left": -4,
     "content": "\" \"",
      "backgroundColor": "primary",
     "width": "llpx",
```

How to define levers

User	Task	Environment	Device

User

Task

What type of work are developers doing?

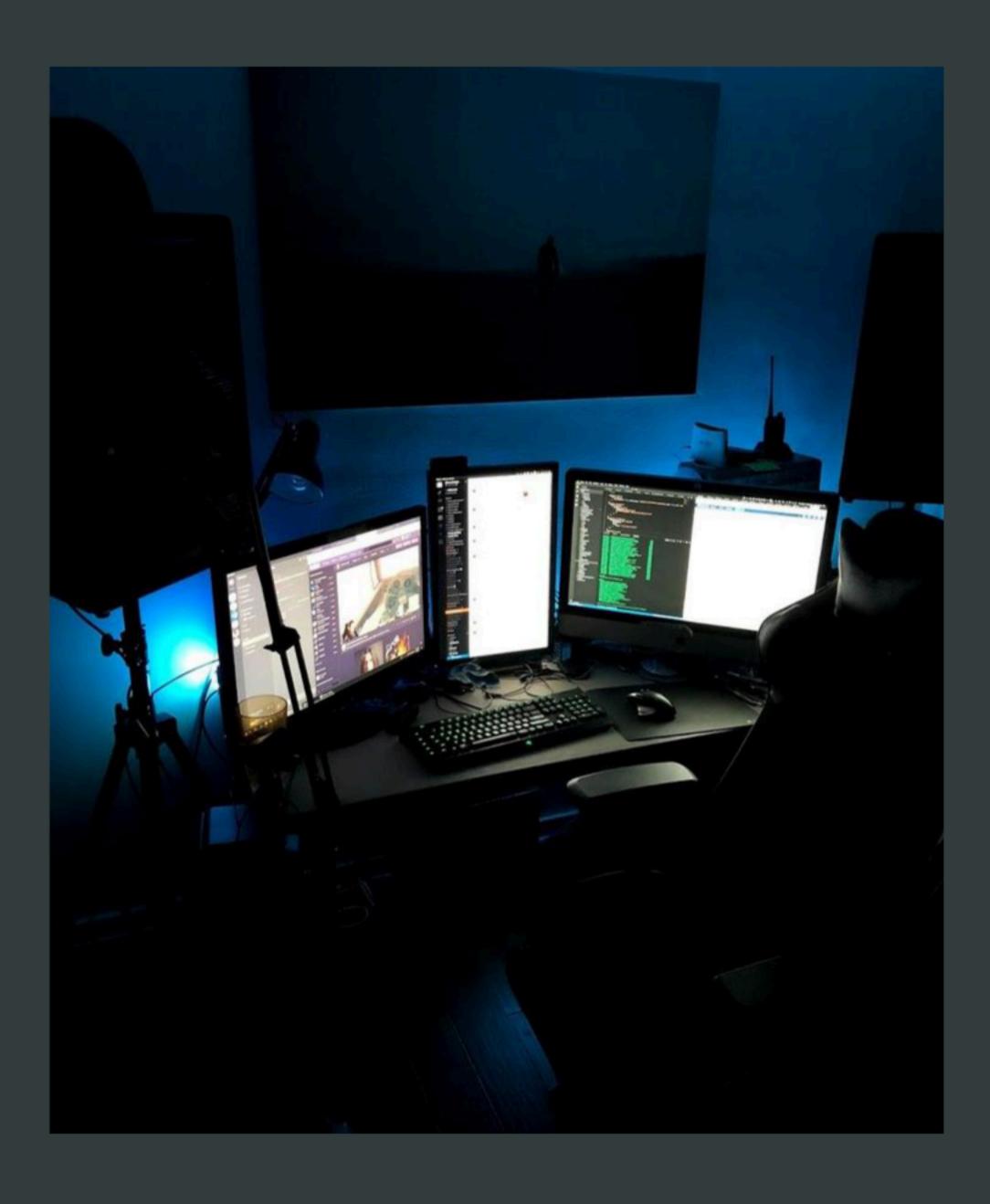
Environment

Device

How are they doing that work?

```
₩ 🖽 …
                         ProductDetails.client.jsx M X
(L)
       App.server.jsx
       src > components > 🎡 ProductDetails.client.jsx > 😭 Snowboard3D
               511
       103
       104
       105
       106
       107
             function Snowboard3D(params) {
       108
               const { media } = useProductProvider();
       109
       110
               const model = media.slice().non():
                                         Model3D({ model, options, children, className }: Props):
       111
                                         JSX.Element
       112
               return (
                Model3D model={model} /
       113
       114
       115
                                                                                        ▶ node + ∨ ∧ ×
       PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
       5:58:40 p.m. [vite] hmr update /src/index.css?direct
```





Environment Task User Developers Variable lighting Side-by-side experience with code editor

Device

Large screens

Typescale

Density

Typestyle

Heading Jumbo

Heading 1

Heading 2

Heading 3

Heading 4

HEADING 5

Paragraph (major)

Paragraph



Concepts v

Docs v

Tutorials V Tools V

API version: 2021-01 Latest

Community >

Q Search

Choose API version ~

Log in

Sign up

DOCS

ADMIN API

Getting started

GraphQL reference v

REST reference ^

Access 🕶

Analytics v

Billing ~

Customers v

Deprecated API calls

Discounts ^

DiscountCode

PriceRule

Events 🕶

Inventory v

MarketingEvent

Metafield

Online store •

Orders ~

Plus 🕶

Products ~

Sales channel -

Shipping and fulfillment .

Shopify Payments 🕶

Store properties .

TenderTransaction

PriceRule

You can use the PriceRule resource to create discounts using conditions. You can then associate the conditions with a discount code by using the DiscountCode resource. Merchants can distribute the discount codes to their customers.

Using the PriceRule resource, you can create discounts that specify a discount as a percentage, a fixed amount, or free shipping. You use entitlements and prerequisites to dynamically build these discounts.

To learn about how to associate a price rule with a discount code, see the DiscountCode resource.

Create a price rule

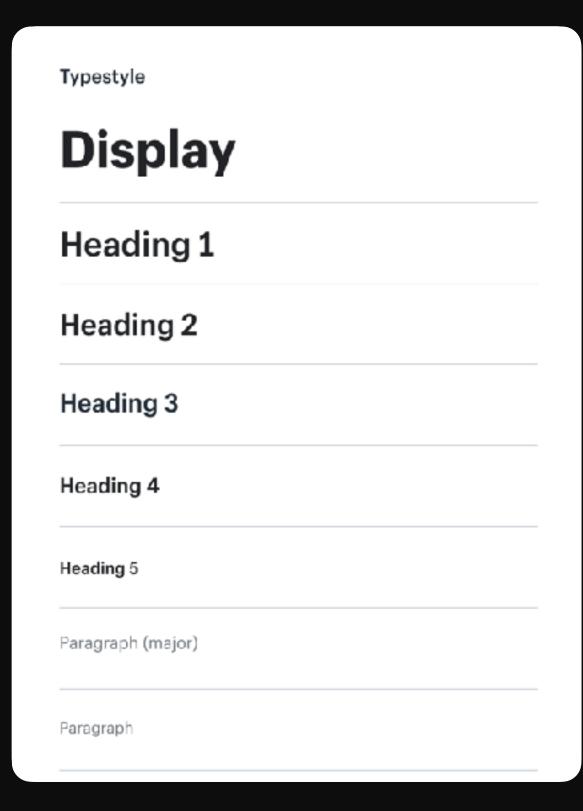
You can create price rules with entitlements and prerequisites. Entitlements describe the designated resources that a discount applies to, such as specific products, variants, or collections. Prerequisites describe the requirements that must be met in order for the discount to apply to the entitled resources. For example, you might want a discount to apply only to a certain shipping price range, or a certain subtotal range.

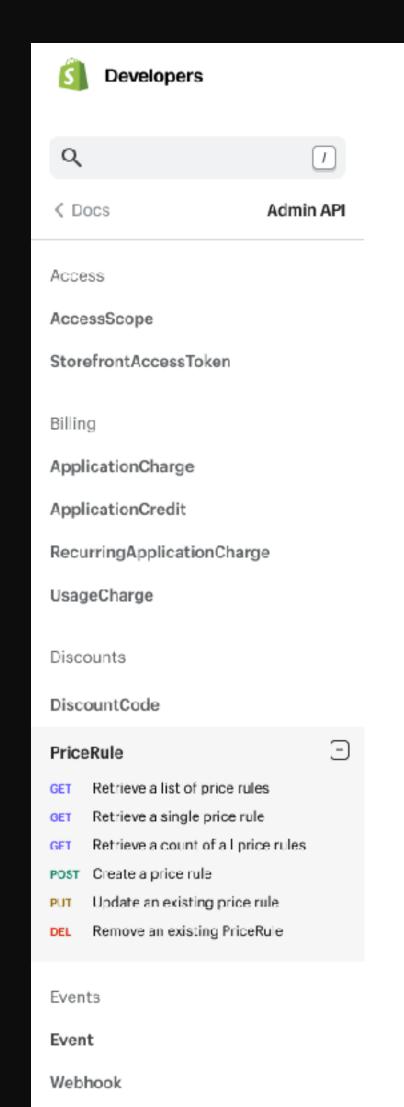
You can use entitlements, prereqisites, and other conditions to create discounts, such as the following examples:

- \$10 off the buyer's order if the total exceeds \$40
- 15% off certain collections
- free shipping on orders over \$100.00 for Canadian buyers, redeemable up to 20 times

Typescale

Density





Discover Design Develop Distribute

API version: 2021-01 Latest

Choose API version ▼

PriceRule

You can use the PriceRule resource to create discounts using conditions.

You can then associate the conditions with a discount code by using the DiscountCode resource. Merchants can distribute the discount codes to their customers.

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For examples of how to create price rules, see the POST method.

The PriceRule object

Properties

allocation_method string required

The allocation method of the price rule. Valid values:

- each: The discount is applied to each of the entitled items. For example, for a price rule that takes \$15 off, each entitled line item in a checkout will be discounted by \$15.
- across: The calculated discount amount will be applied across the entitled items. For example, for a price rule that takes \$15 of*, the discount will be

When the value of target_type is shipping_line, then this value

End Points

```
OET /admin/api/2020-07/price_rules.json
Retrieves a list of price rules

GET /admin/api/2021-01/price_rules/{price_rule_id}.json
Retrieves a single price rule

GET /admin/api/2021-01/price_rules/count.json
Retrieves a count of all pricerules

PCST /admin/api/2020-07/price_rules.json
Creates a price rule

PUT /admin/api/2021-01/price_rules/{price_rule_id}.json
Updates an existing pricerule

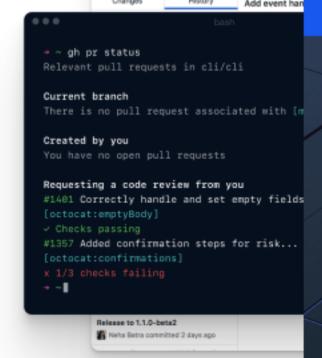
DELETE /admin/api/2021-01/price_rules/{price_rule_id}.json
Remove an existing PriceRule
```

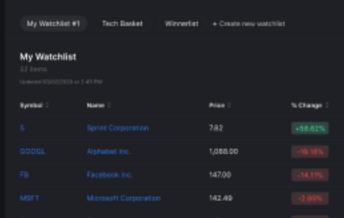
Login

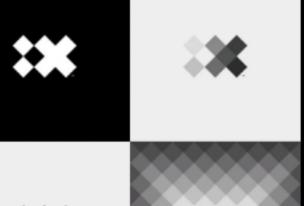
Create Account

2. Memorable moments







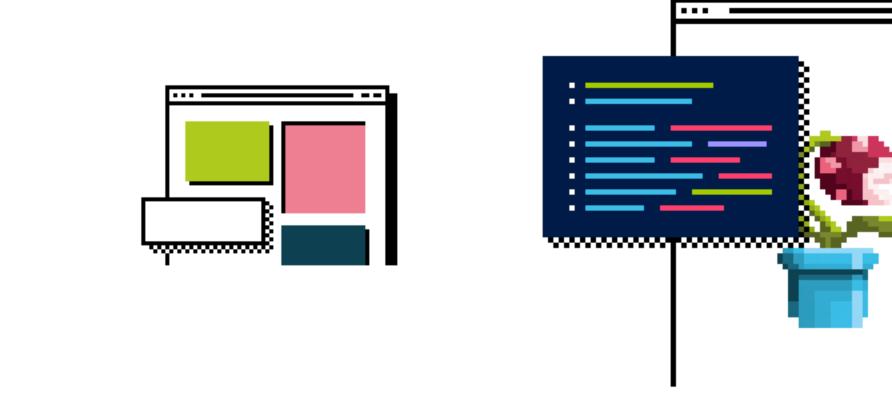


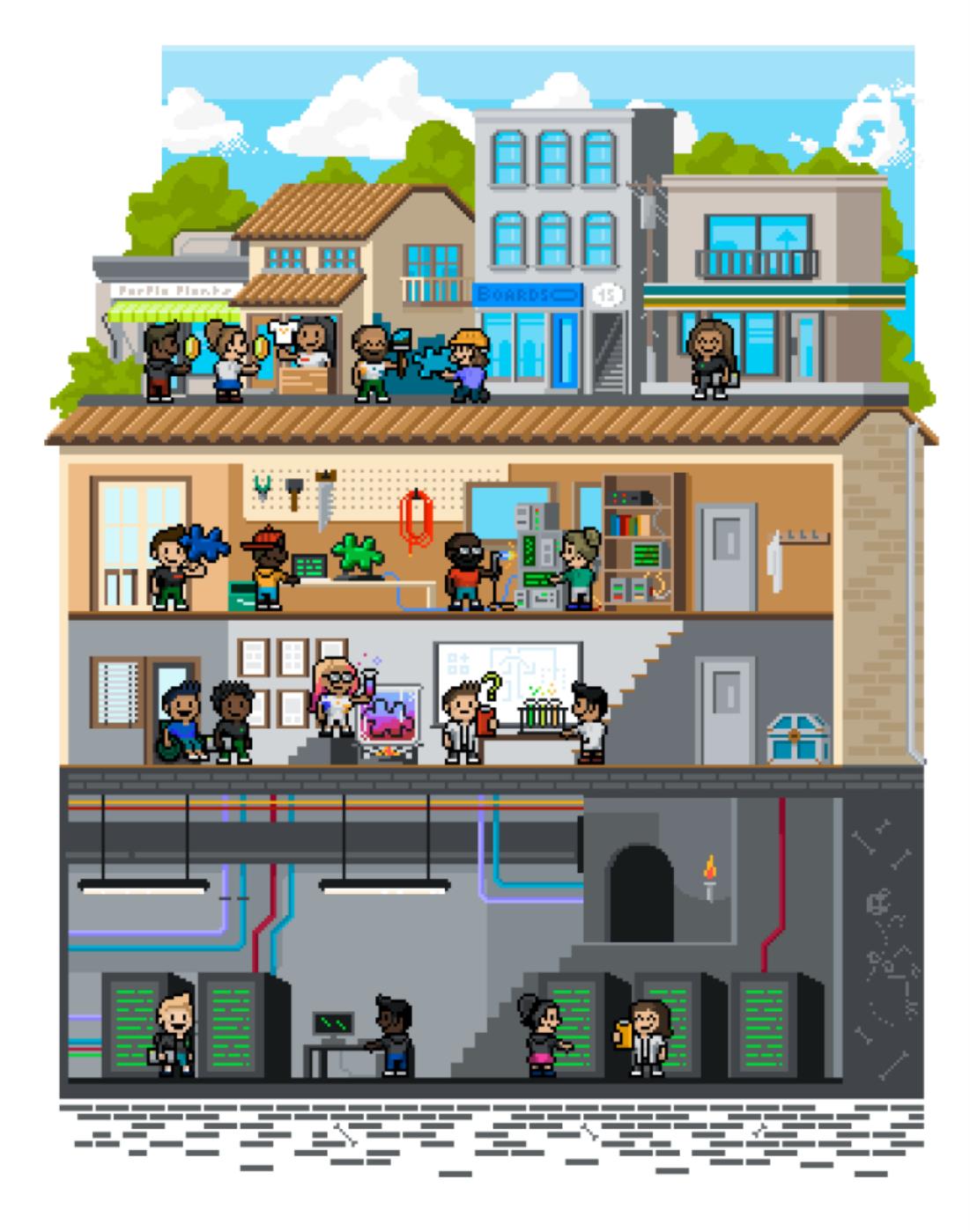






Release to 1.1.0-beta2





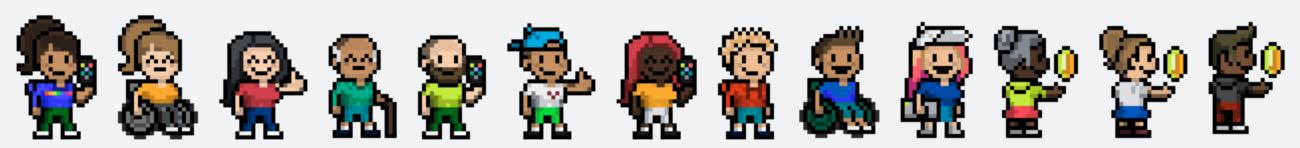
PATER



Randomize

- ← Backdrop 5 →
- ← Body 1 →
- ← Face 2 →
- ← Hair 6 →
- ← Chin 3 →

Folks and Merchants of CommerceTown



Developers and crafters of CommerceTown



Shopifolk of CommerceTown



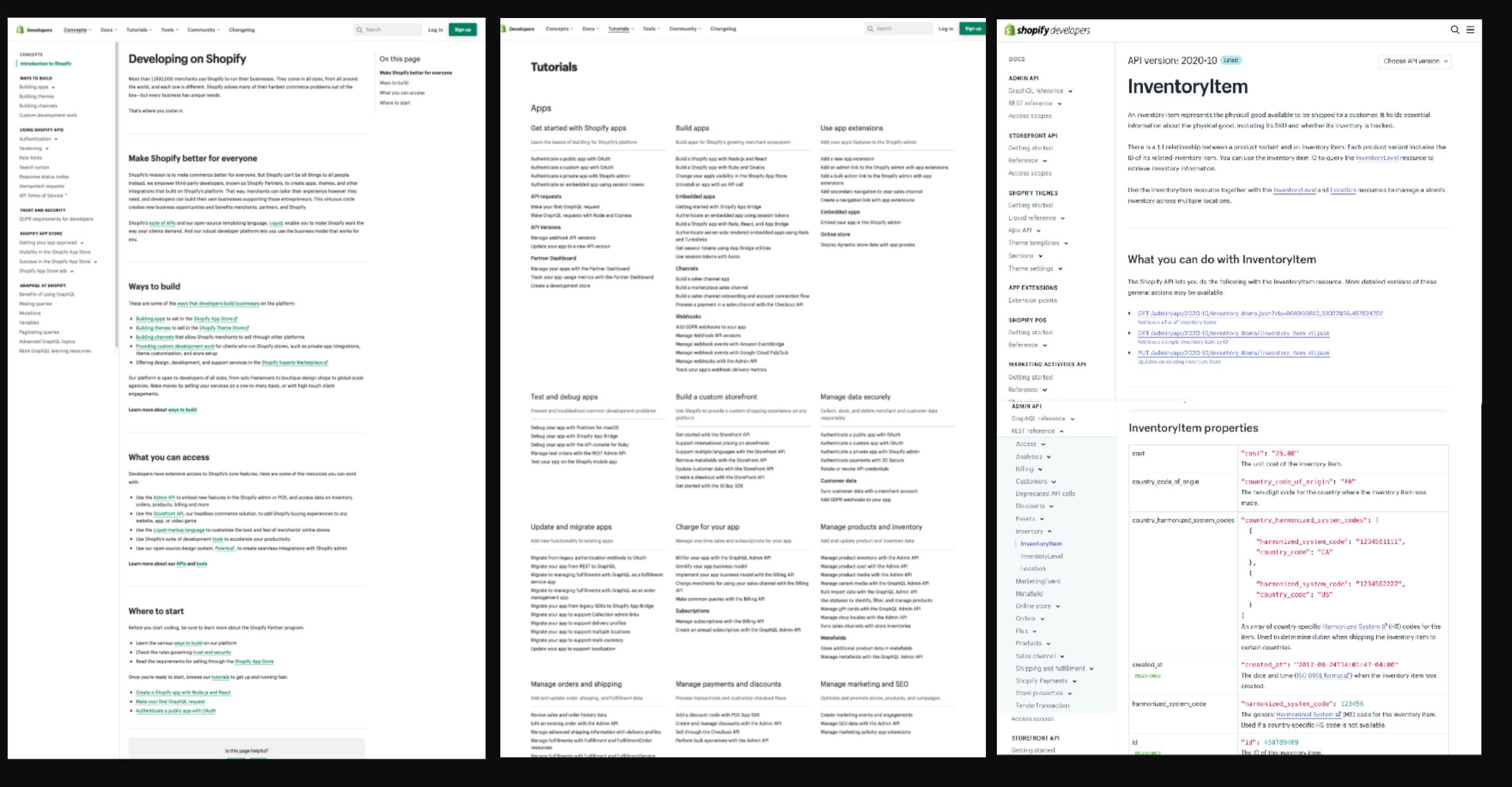
Walking developers

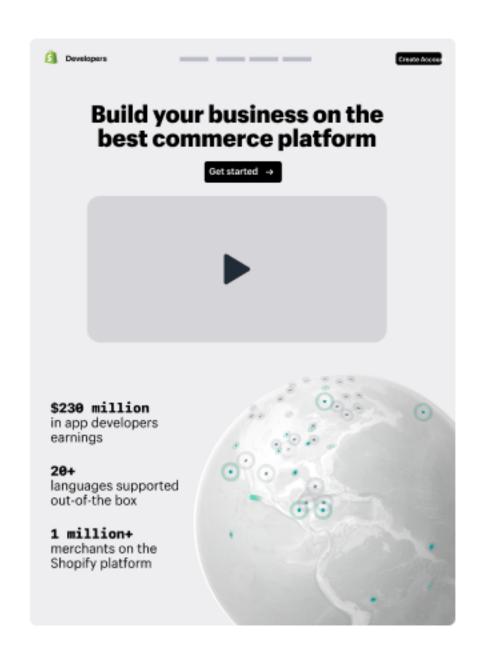




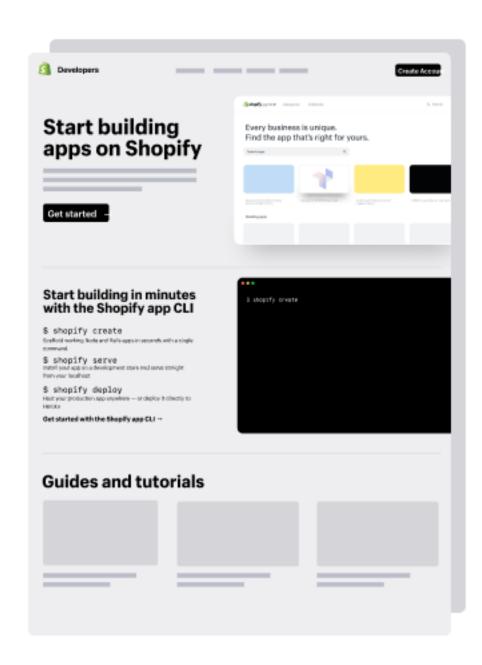
3. Purposeful range

Home Landing Reference

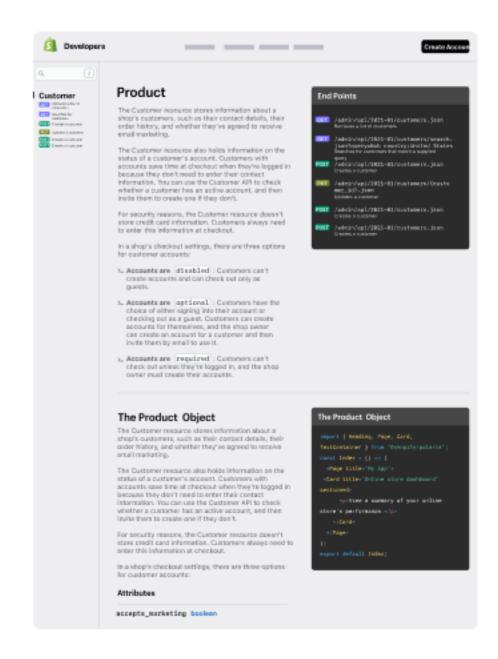




Sell me on the opportunity



Teach me how to build



Help me solve a problem

4

ASPIRATIONAL UTILITARIAN

Build anything. Reimagine commerce.

Millions of merchants trust Shopify to run their business-but they need developers to build the tools that help them achieve independence. Access powerful APIs to bring your ideas to life on the platform that makes commerce better for everyone.

Develop apps that solve complex merchant problems

Expansive GraphQL and REST APIs let you integrate into Shopify's admin, online store, checkout, and more.

Integrate seamlessly into existing workflows

Embed your app's features with App Bridge. Create high quality experiences with the ready-to-build Polaris component library.

Help merchants express themselves

Use $\underline{\text{Liquid}}$ to build beautiful theme templates. Get started with $\underline{\text{Dawn}}$, our biazingly fast, accessible reference theme.

Ship custom shopping experiences

Add Shopily to any web, mobile, and gaming experience with the Storefront API and SDKs, plus any front-end stack you want.

Start building:











Launch your app or theme to millions of merchants

App Store

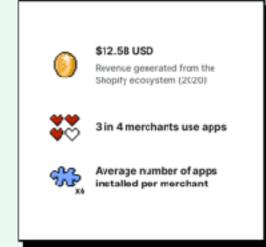
Get your app in front of the right merchants. With personalized recommendations and multiple billing options, the Shopify App Store is where merchants go to find the apps their business needs most.

Theme Store



Open for new submissions July 15

Sell your theme to merchants building their brands on the Shopify Therre Store, which offers flexible pricing and targeted merchandising.





Developer Changelog →

The latest Shopify ecosystem updates



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Developer forums →

ShopifyDevs Youtube channel →

Tips and insights in dev and design

Q&A and advice from Shopify community experts Shopify employees



#development on Slack → Collaboration and connection with





ShopifyDevs Twitch channel → Tests and demo streams



Requires [write_orders] access scope.

Updates an order.

Lorem ipsum dolor sit amet consectetur, adipisicing elit. Dicta magni accusamus illo dolor tenetur, unde placeat ullam non deserunt delectus qui veniam. Maiores, expedita! Molestiae in consectetur dicta adipisci tenetur.

Nulla volutpat nibh vitae mi venenatis, sed venenatis nisi posuere. Nulla tempus purus at lacus euismod facilisis. Nam ipsum risus, blandit at ipsum a, commodo imperdiet urna. Nam quis odio ut velit sollicitudin pretium. Vestibulum eu mattis ante. Fusce imperdiet blandit orci, at tristique ipsum tincidunt at. Mauris at auctor nunc. Proin ac aliquam velit. Aenean consectetur egestas augue, nec pellentesque lacus tempor vel.

Arguments

orderUpdate(input:OrderInput!) - OrderInput required

The input for the mutation.

OrderInput fields

OrderInput.id . ID! required

The ID of the order to update.

OrderInput.customAttributes - [AttributeInput!]

Custom information to add to the order, represented as a key value pair. Also referred to as note attributes.

+ Show AttributeInput fields

OrderInput.email - String

The email address associated with the order.

DrderInput.localizationExtensions = [LocalizationExtensionInput!]

The localization extensions attached to the order. For example, Tax IDs.

+ Show LocalizationExtensionInput fields

OrderInput.metafields - [MetafieldInput!]

The metafields to associate with this order.

Show MetafieldInput fields

OrderInput.note - String

The order note.

OrderInput.shippingAddress • MailingAddressInput

The shipping address associated with the order

+ Show MailingAddressInput fields

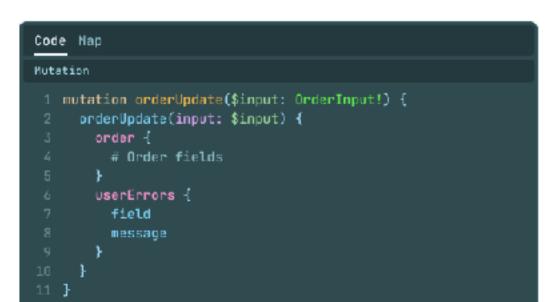
OrderInput.tags · [String!]

A comma separated list of tags that have been added to the order.

Return

Onder. * - Onder





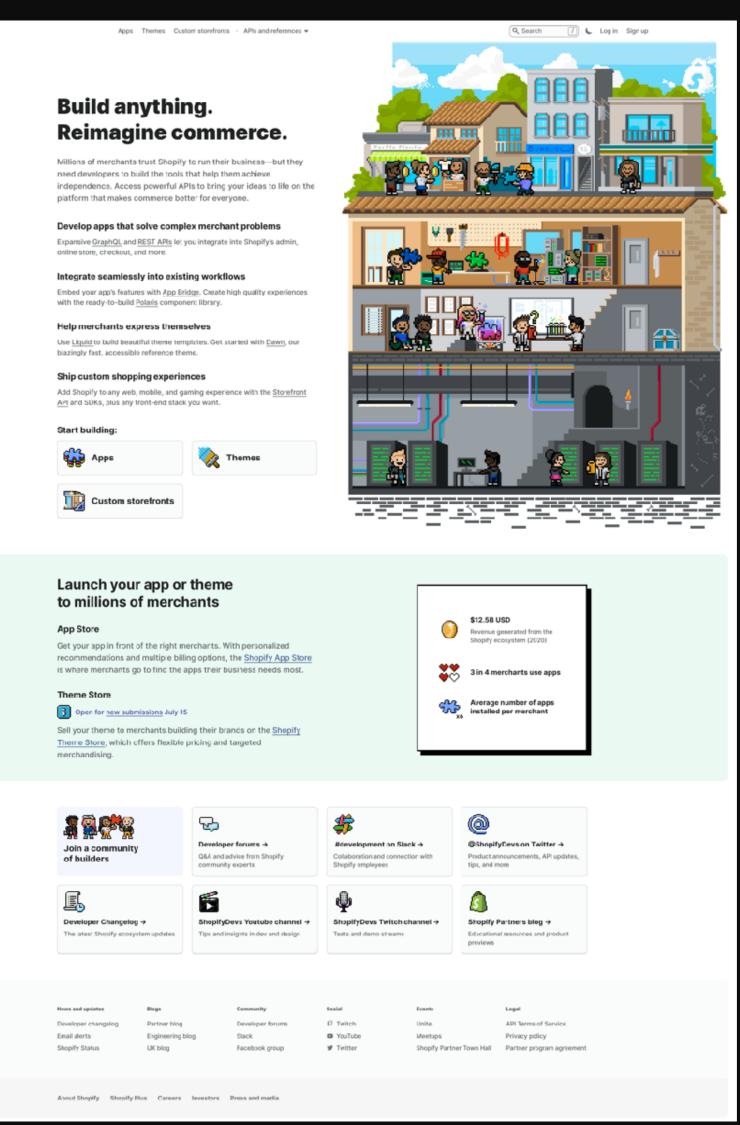
Variables Schema "input": { "id": "gid://shopify/Order/0", "customAttributes": [🔂], "email": "", "localizationExtensions": [1], "metafields": [⊞],

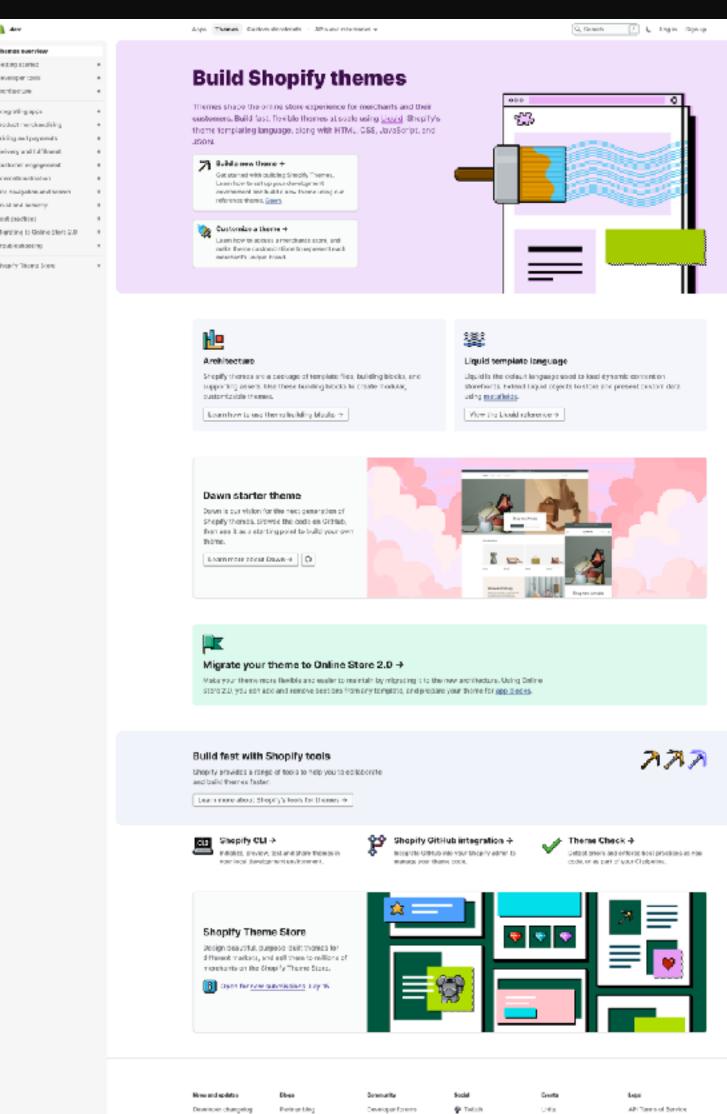
"note": "",

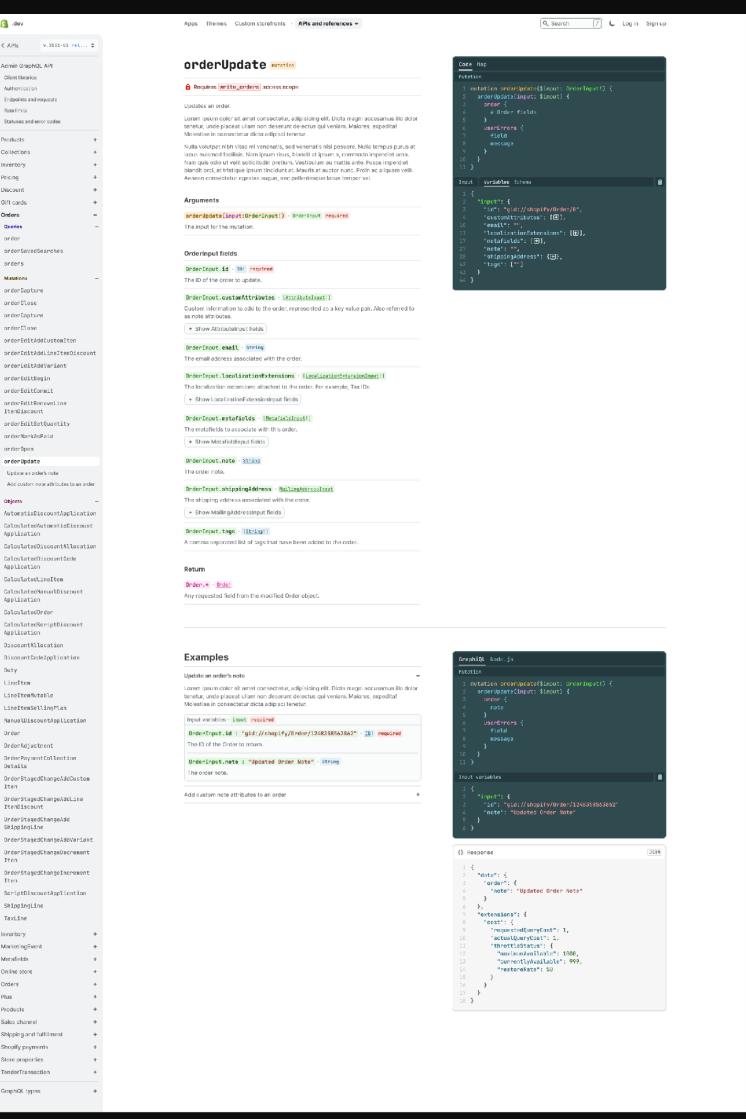
"tags": [""]

"shippingAddress": {⊞},

Home Landing





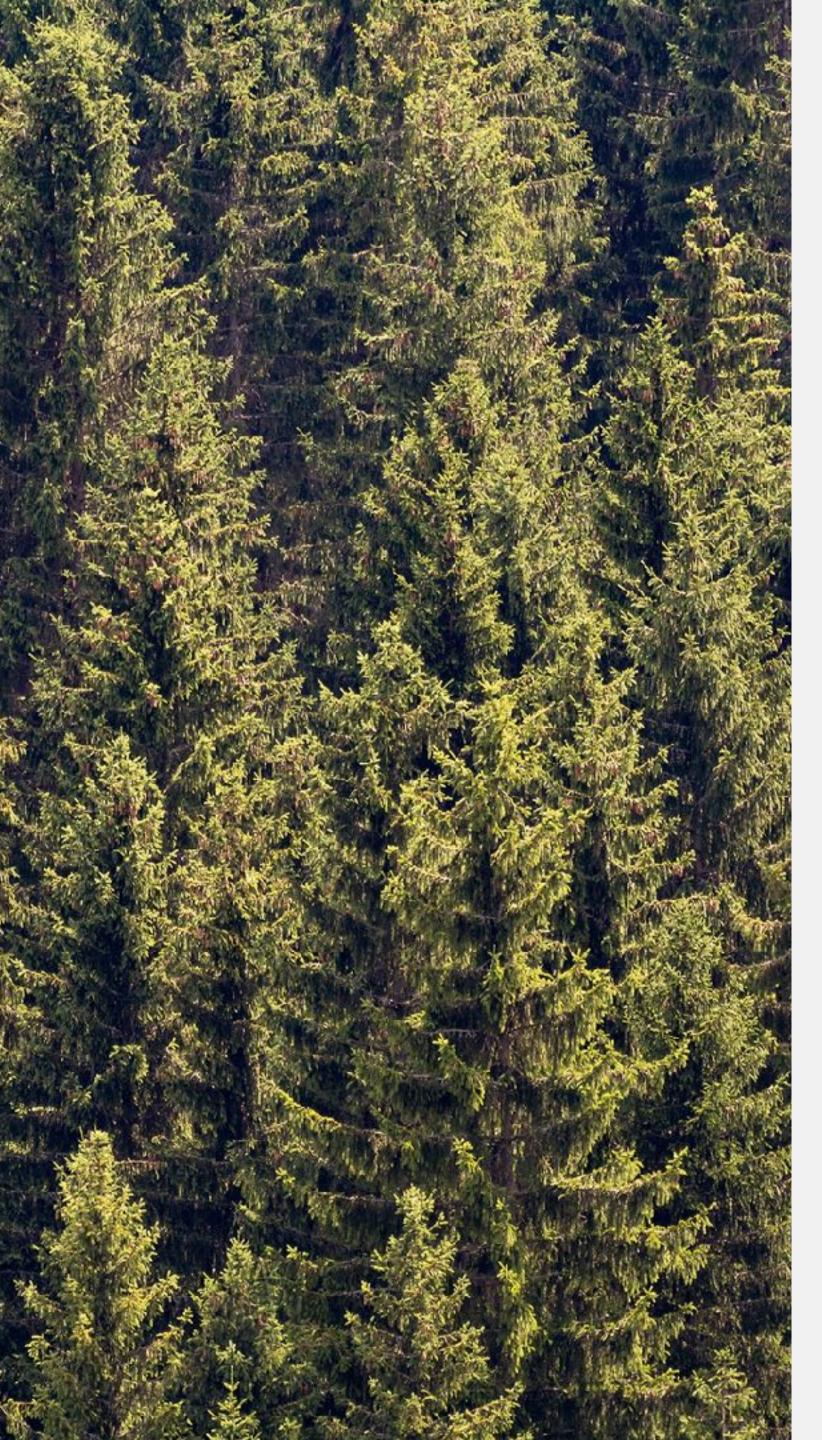


Reference

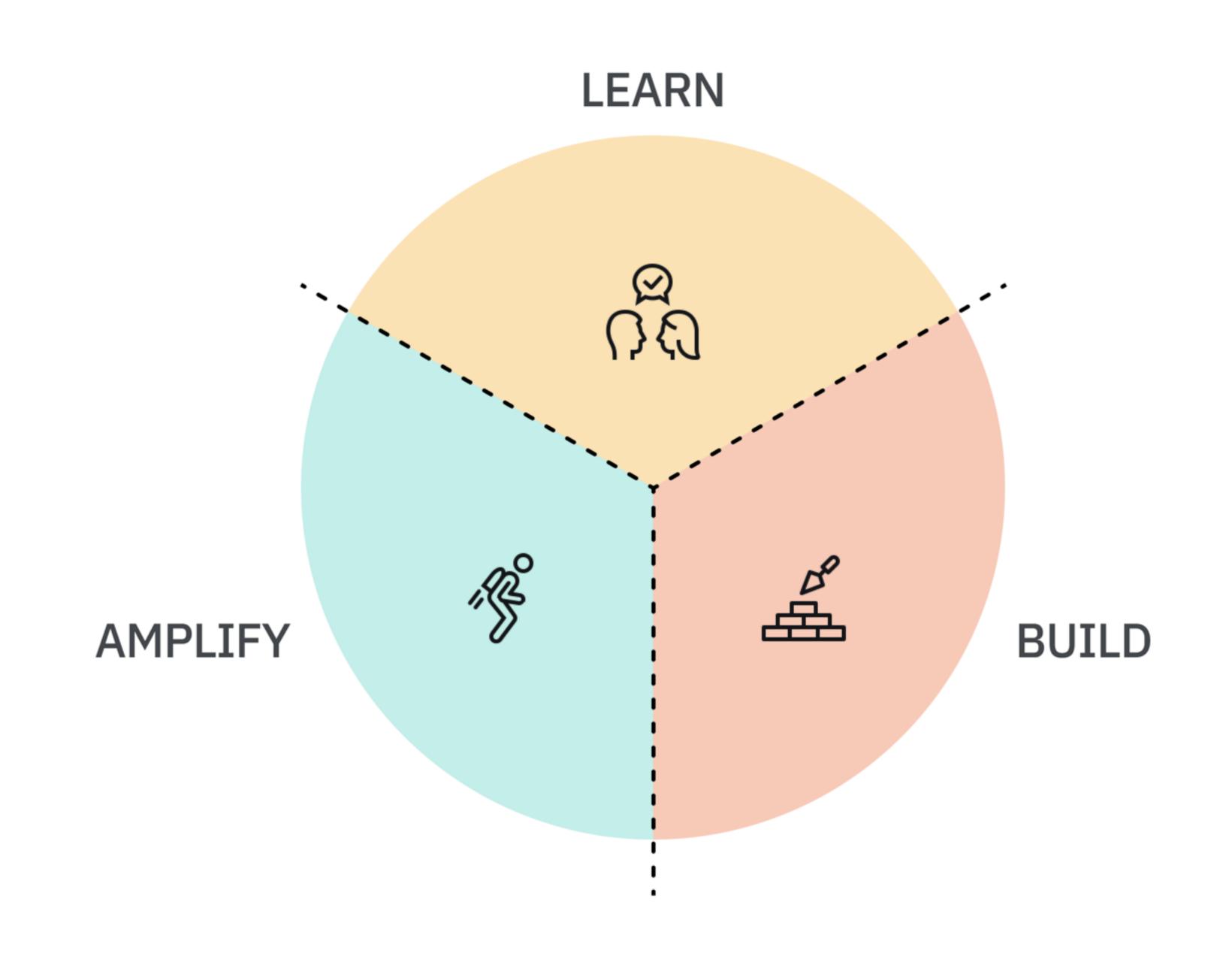


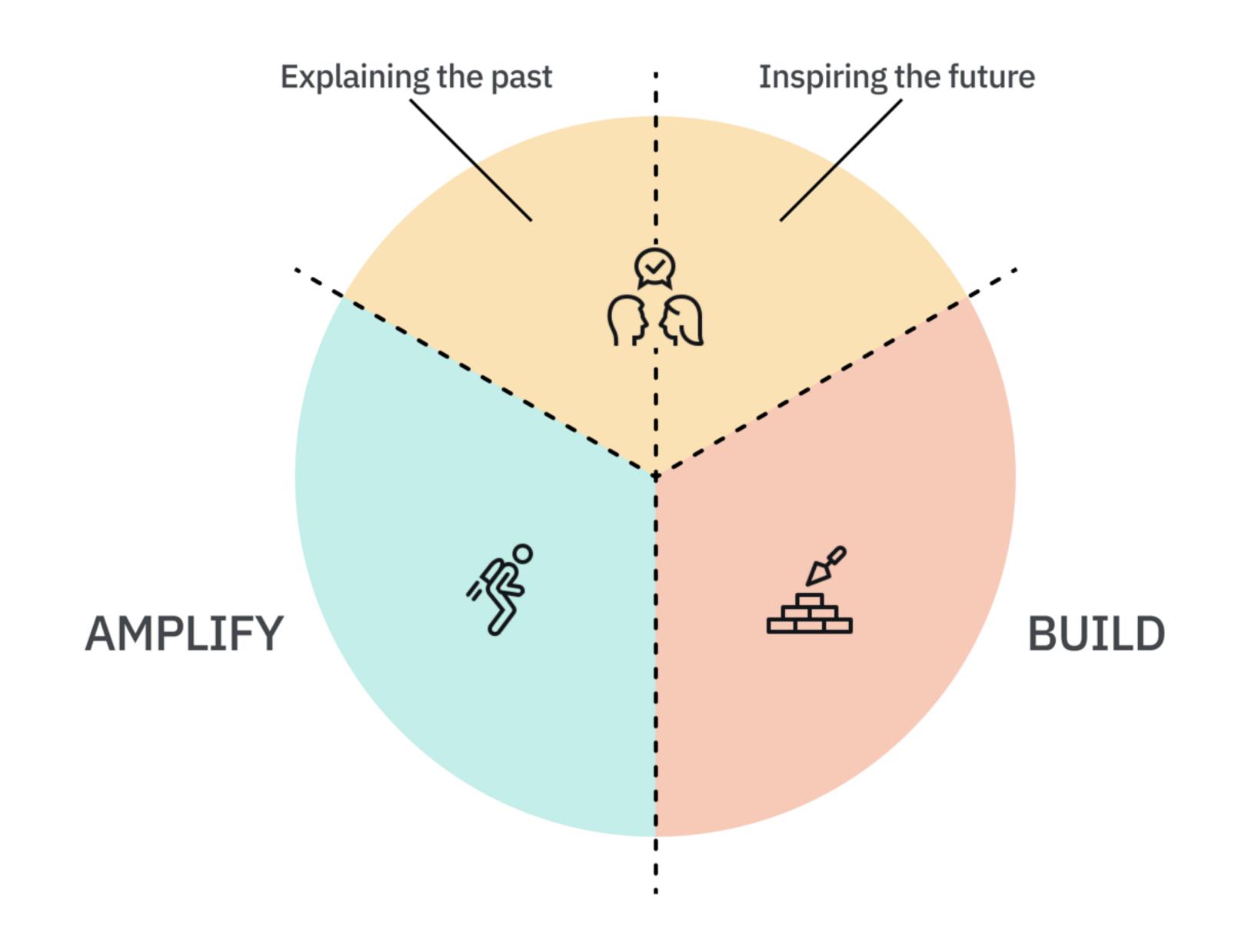






"In nature you've got continuous very-smallfeedback-loop adaptation going on, which is why things get to be harmonious. Christopher Alexander







"A cook knows what to do to create an enjoyable dish, then they use that knowledge and repeat what works to create a consistent experience.

A chef not only knows what to do, but why it's done. Stephanie Poce

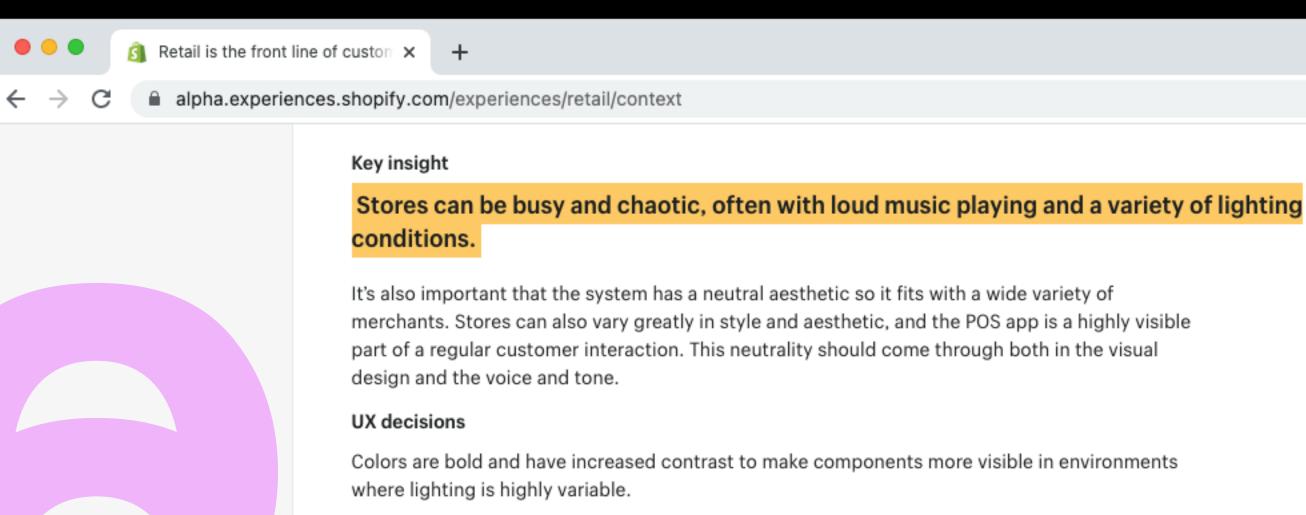
ShopifyUX Think like a chef: how to use a design system

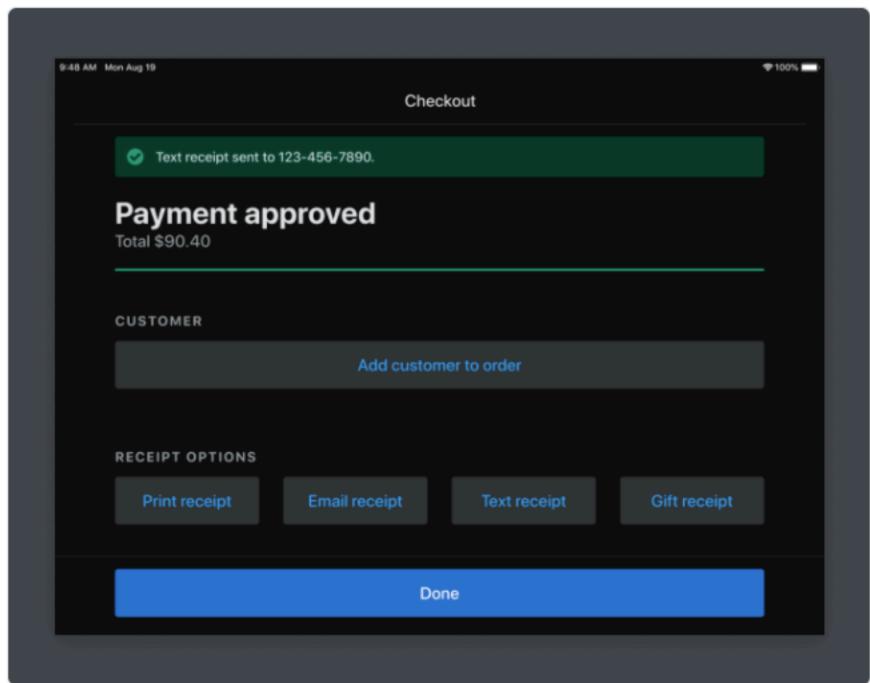
1. Decisions have a shelf-life.

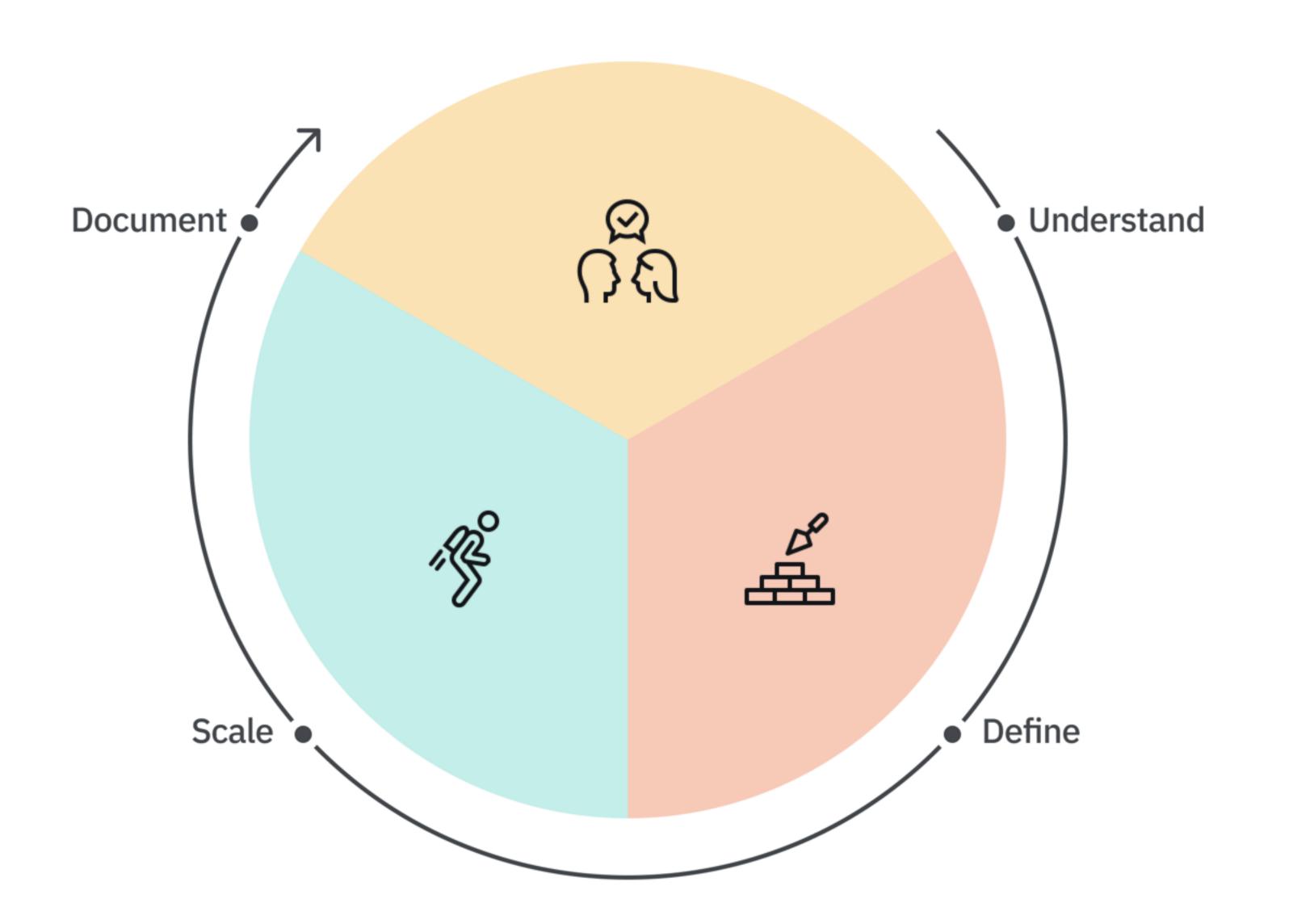
2. Decisions can be unclear.

3. Decisions without clear rationale can feel limiting.

What if instead of just scaling decisions, we could also scale the rationale that led to those decisions?







	SYSTEMS TEAM	PRODUCT TEAMS
A LEARN	Gather and make it easy to consume	Digest & cultivate
BUILD	Define scalable foundations	Build & augment
AMPLIFY	Build tools & share best practises	Adopt & expand

Uplifts the system & their users.

Uses the system and gives back to it.

You are the expert of the product. We are experts of scalable design.

We own decision-making in our respective areas of expertise, but we must collaborate, trust and continuously push each other, to make each other better.

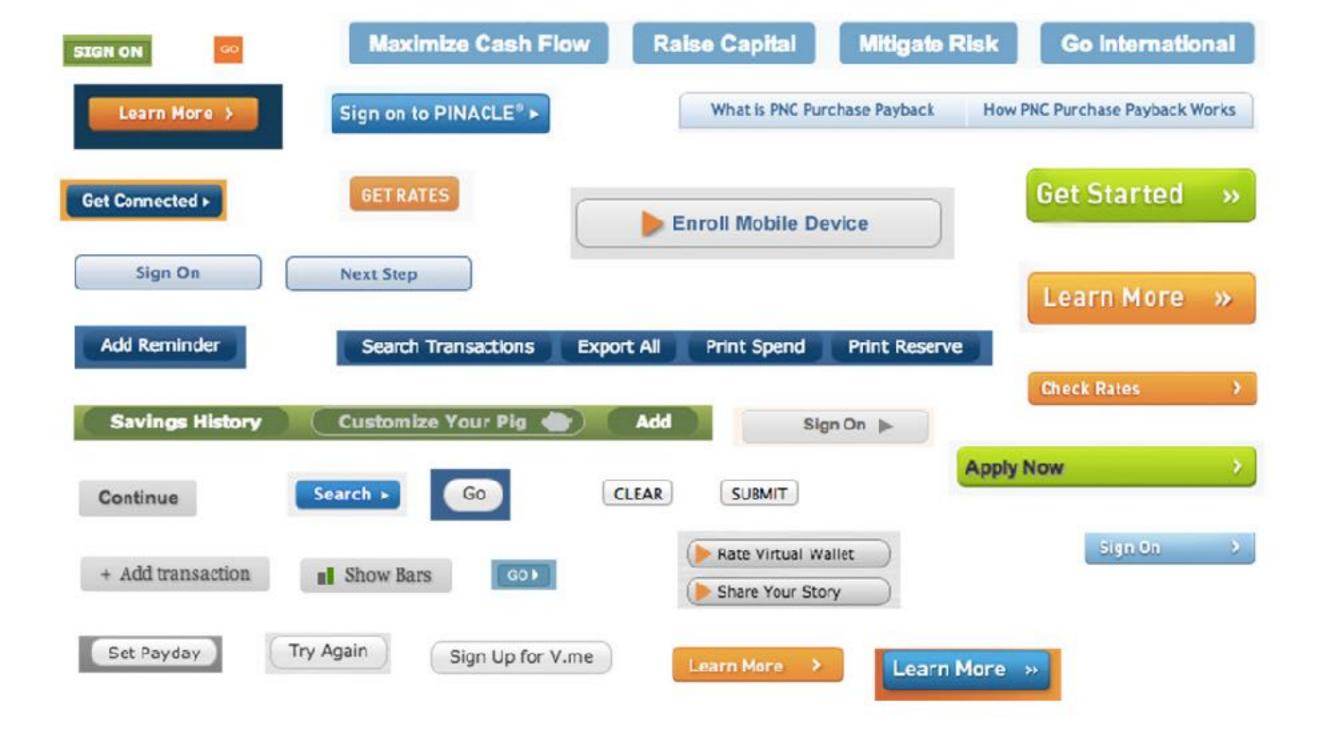




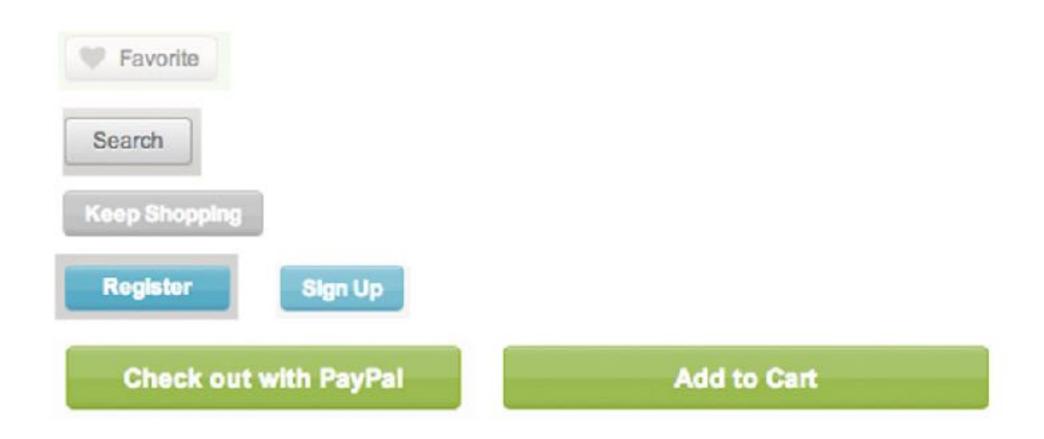


Expansion Consolidation

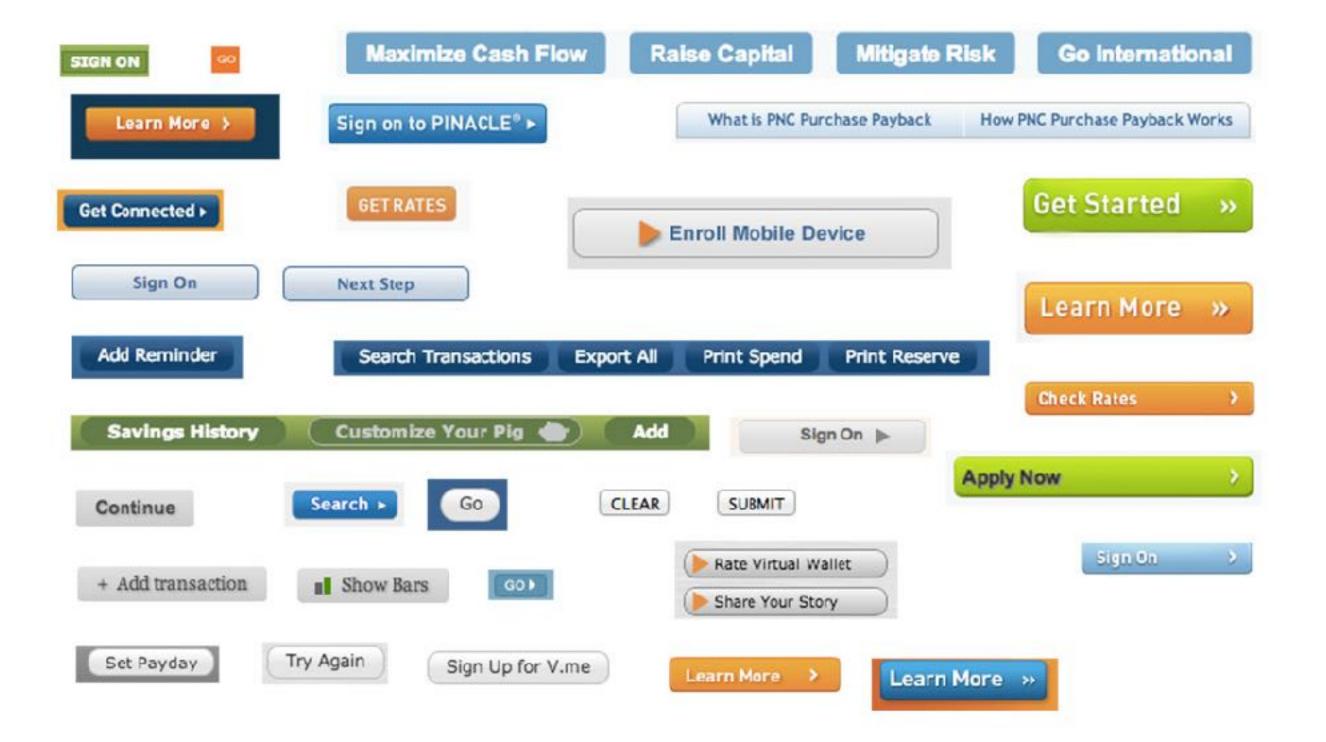
Expansion



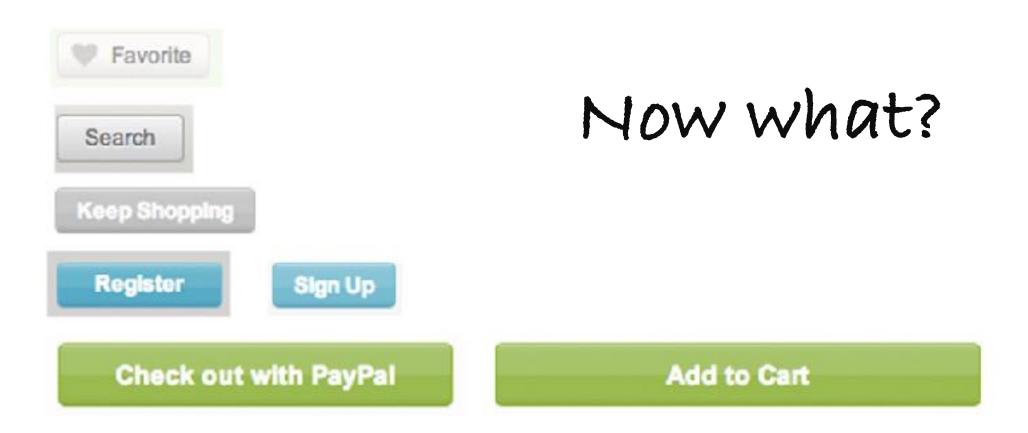
Consolidation



Expansion



Consolidation



Alternate between periods of consolidation and expansion

Consolidation

Expansion

Discourage snowflakes

Teach people to trust system

Encourage snowflakes

Teach people to question system



COLORS

Guidelines

Color Palette

Color Combinations

Color Usage

Accessibility

Resources



TYPOGRAPHY



ILLUSTRATIONS



DATA VISUALIZATIONS

Submit feedback or feature requests on the Polaris GitHub page.

Color Palette

Our color palette is built with our core principles and guidelines as its foundation.

HEX SCSS

Lighter	#F9FAFB
Light	#F4F6F8
Sky	#DFE4E8
Dark	#C4CDD5

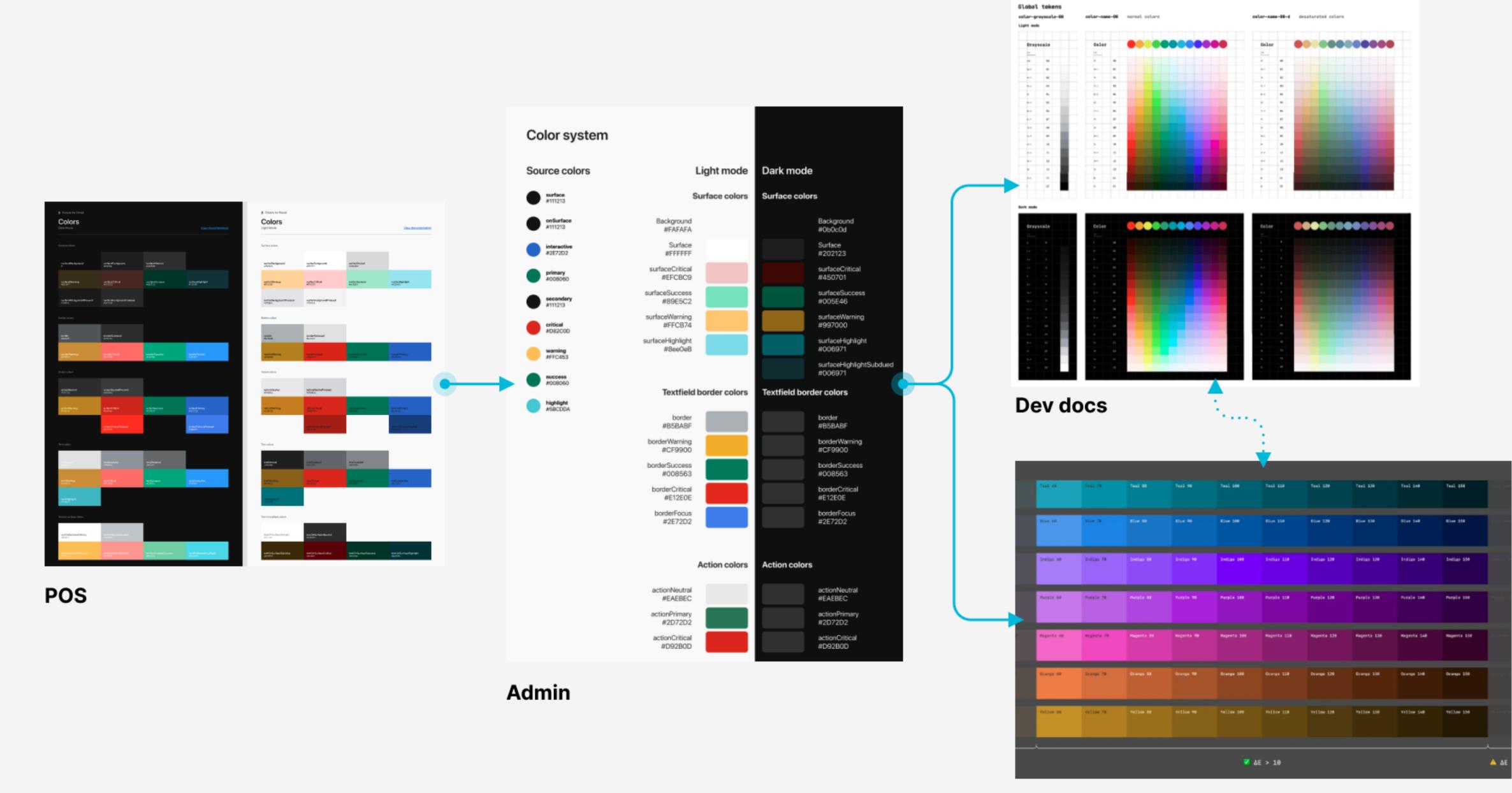
Lightest	#919EAB
Lighter	#637381
Light	#454F5B
Ink	#212B35

Light	#B3B5CB
Title bar	#43467F
Dark	#1C2260
Darker	#00044C

Lighter	#F6F0FD
Light	#E3D0FF
Purple	#9C6ADE
Dark	#50248F
Darker	#230051
Text	#50495a

Lighter	#F4F5FA
Light	#B3BCF5
Indigo	#5C6AC4
Dark	#202E78
Darker	#000639
Text	#3e4155

Lighter	#EBF5FA
Light	#B4E1FA
Blue	#007ACE
Dark	#084E8A
Darker	#001429
Text	#3e4e57



Analytics

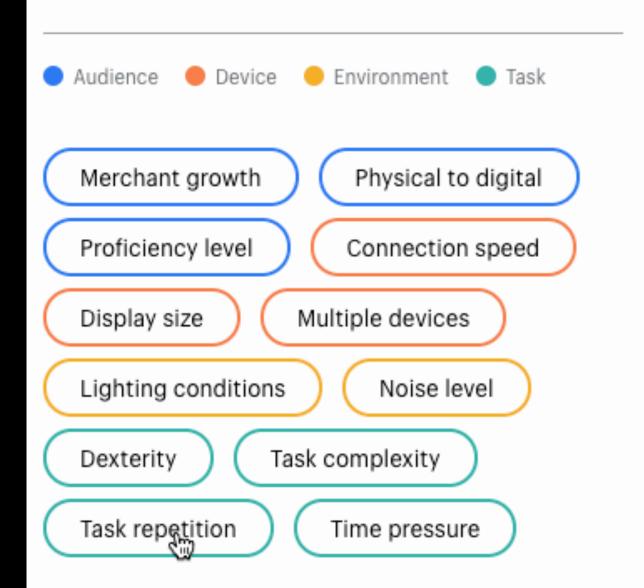
Color

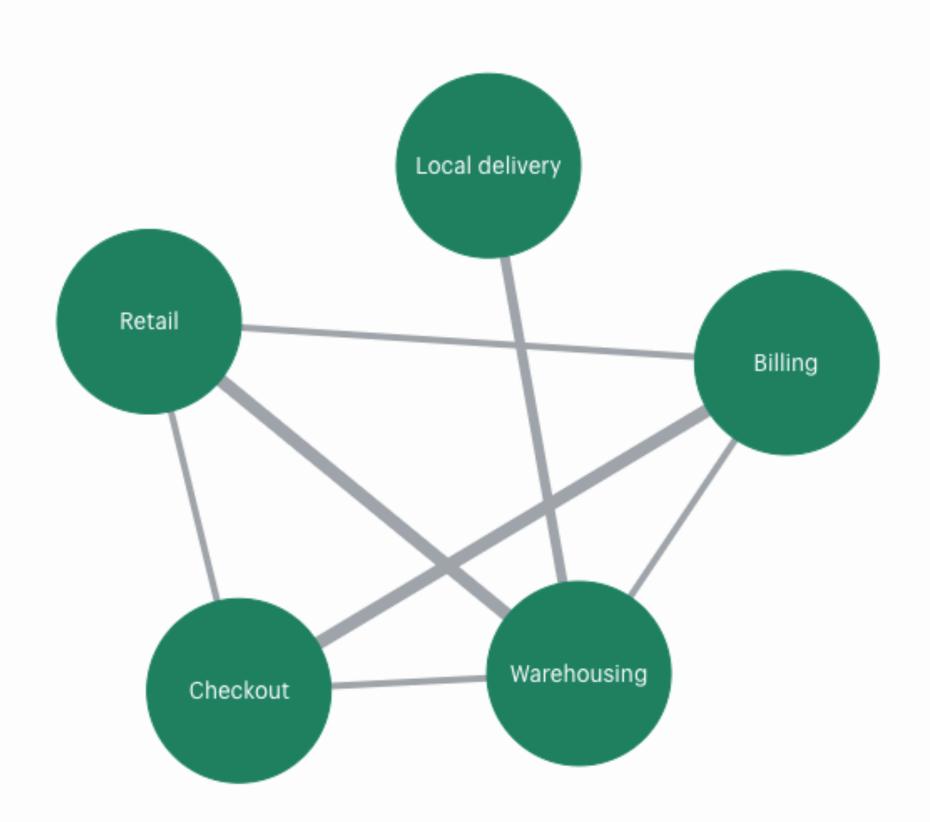
Bringing teams together

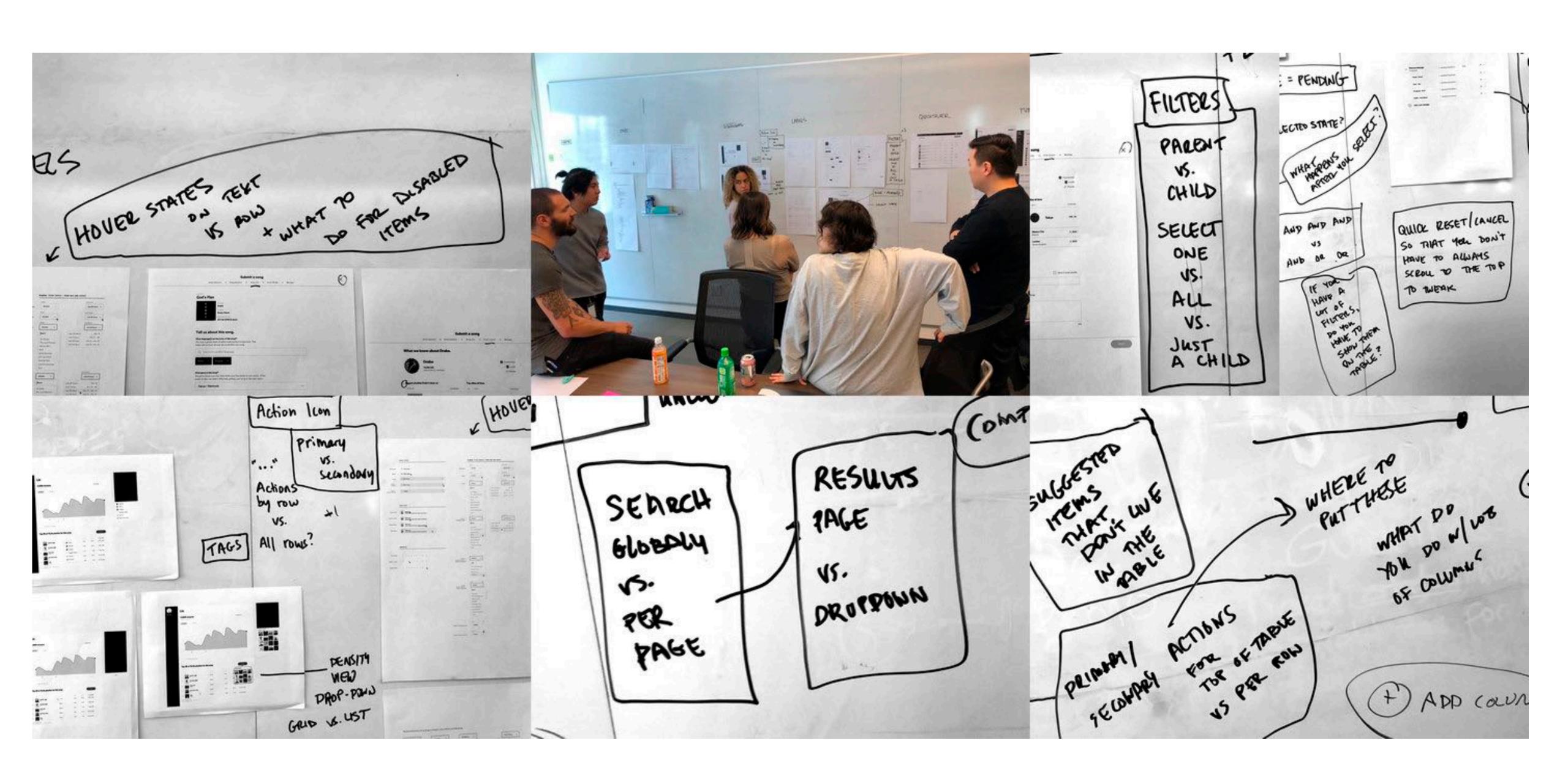
Explore

Experiences

Explore the common factors between experiences







Spotify.Design The Paradox of Design Systems



"We want to tap into a designer's inherent desire to evolve or even completely rethink parts of our system.

Josh Mateo and Brendon Manwaring



"We want to create a paradigm shift wherein our designers no longer view themselves as users of the system, but instead see their role as core contributor and co-author of a shared system - one that they have ownership of. Josh Mateo and Brendon Manwaring

Gardens, not buildings





"I find that teams can grow much more complex entities in four months than they can build.

-Fred Brooks

No Silver Bullet — Essence and Accidents of Software Engineering







